GROW TOGETHER

Annual Report 2016

HEIDELBERGCEMENT

Financial highlights

Figures in €m	2010	2011	2012	2013	2014	2015	2016
Number of employees as at 31 December	53,437	52,526	51,966	45,169	44,909	45,453	**60,424**
Sales volumes							
Cement and clinker (million tonnes)	78.4	87.8	89	78.1	81.8	81.1	**103.8**
Aggregates (million tonnes)	239.7	254.1	243	230.6	243.6	249.2	**272.0**
Ready-mixed concrete (million cubic metres)	35	39.1	39.1	34.9	36.6	36.7	**42.5**
Asphalt (million tonnes)	9.1	9.5	8.6	8.4	9.3	9.1	**9.4**
Income statement							
Total Group revenue	11,762	12,902	14,020	12,128	12,614	13,465	**15,166**
Result from current operations before depreciation and amortisation (RCOBD [1])	2,239	2,321	2,477	2,224	2,288	2,613	**2,939**
Result from current operations (RCO [2])	1,430	1,474	1,604	1,519	1,595	1,846	**1,984**
Profit for the financial year	511	534	529	933	687	983	**896**
Group share of profit	343	348	285	736	486	800	**706**
Dividend per share in €	0.25	0.35	0.47	0.6	0.75	1.30	**1.60**[3]
Earnings per share in €	1.83	1.86	1.52	3.93	2.59	4.26	**3.66**
Investments							
Investments in intangible assets and PP&E	734	874	831	861	941	908	**1,040**
Investments in financial assets	138	85	35	379	184	94	**2,999**
Total investments	872	959	866	1,240	1,125	1,002	**4,039**
Depreciation and amortisation	809	847	873	704	693	767	**955**
Free cash flow							
Cash flow from operating activities	1,144	1,332	1,513	1,167	1,480	1,449	**1,874**
Cash flow from investing activities	-648	-758	-582	-1,037	-973	493	**-2,321**
Balance sheet							
Equity (incl. non-controlling interests)	12,884	13,569	13,708	12,514	14,245	15,976	**17,873**
Balance sheet total	27,377	29,020	28,008	26,276	28,133	28,374	**37,154**
Net debt	8,242	7,868	7,092	7,352	6,957	5,286	**8,999**
Ratios							
RCOBD [1] margin	19.0 %	18.0 %	17.7 %	18.3 %	18.1 %	19.4 %	**19.4 %**
RCO [2] margin	12.2 %	11.4 %	11.4 %	12.5 %	12.6 %	13.7 %	**13.1 %**
Net debt/equity (gearing)	64.0 %	58.0 %	51.7 %	58.7 %	48.8 %	33.1 %	**50.4 %**
Net debt/RCOBD	3.68x	3.39x	2.86x	3.31x	3.04x	2.02x	**3.06x**

1) RCOBD = Result from current operations before depreciation and amortisation
2) RCO = Result from current operations
3) The Managing Board and Supervisory Board will propose to the Annual General Meeting on 10 May 2017 the distribution of a cash dividend of €1.60.

Overview of Group areas

Figures in €m	2015	2016
Western and Southern Europe		
Revenue	3,225	**3,928**
Result from current operations before depreciation and amortisation	511	**536**
Investments in property, plant, and equipment	204	**297**
Employees as at 31 December	9,560	**15,781**
Northern and Eastern Europe-Central Asia		
Revenue	2,124	**2,425**
Result from current operations before depreciation and amortisation	382	**445**
Investments in property, plant, and equipment	140	**124**
Employees as at 31 December	12,598	**13,107**
North America		
Revenue	3,746	**4,027**
Result from current operations before depreciation and amortisation	829	**996**
Investments in property, plant, and equipment	263	**301**
Employees as at 31 December	7,658	**8,444**
Asia-Pacific		
Revenue	2,775	**2,907**
Result from current operations before depreciation and amortisation	719	**704**
Investments in property, plant, and equipment	247	**215**
Employees as at 31 December	13,029	**14,956**
Africa-Eastern Mediterranean Basin		
Revenue	952	**1,314**
Result from current operations before depreciation and amortisation	262	**350**
Investments in property, plant, and equipment	54	**102**
Employees as at 31 December	2,527	**7,602**
Group Services		
Revenue	1,060	**1,078**
Result from current operations before depreciation and amortisation	25	**23**
Investments in property, plant, and equipment		**1**
Employees as at 31 December	81	**534**

Financial highlights | Overview of Group areas →

GROW TOGETHER

On 1st July 2016, two companies that complement one another almost perfectly were brought together, when the former Italcementi Group became part of HeidelbergCement. Through the integration of Italcementi, HeidelbergCement has gained strong positions in the markets of North America, Southern Europe, North Africa, and Asia, and now operates in around 60 countries worldwide. By coming together, we have further solidified our status as a leading global producer of building materials. In our core aggregates, cement, and ready-mixed concrete business lines, we rank number 1, 2, and 3 globally.

The merger brings with it great potential for further profitable growth. And, in order to realise this potential, the two companies must unite to form a strong team. This is why, immediately following announcement of the upcoming acquisition in the second half of 2015, the project "Grow Together" was launched, to ensure rapid integration and identification of best practices on both sides. As with any integration, there are naturally cultural differences between the two companies. But, we view this as an opportunity to learn from one another and assert our particular strengths to create a mutual company culture in the spirit of fairness, openness and respect. Together, we are in an outstanding position to generate value for our shareholders and sustain our growth as a company.

Hamama Elmahdi, cashier at Safi cement plant, Morocco
Left: Employees at Helwan cement plant, Egypt
Right: Employees at Pukrang cement plant, Thailand

WORK TOGETHER

An open company culture, equal opportunity, and a team working towards common goals – these are the basis of our success in the roughly 60 countries where we operate.

GROW TOGETHER

Akhilesh Gupta, Director Global Heidelberg Technology Center
Left: Górazdze cement plant, Poland
Right: Calusco d'Adda cement plant, Italy

IMPROVE TOGETHER

Efficiency is in the DNA of HeidelbergCement. We maintain a culture of continuous improvement, through constant dialogue, consistent employee development, and close global cooperation.

GROW TOGETHER

Dr. Claudia Capone, Team Leader Global Product
Innovation Department in Bergamo, Italy
Left: Heidelberg Technology Center in Leimen, Germany
Right: i.lab in Bergamo, Italy

INNOVATE TOGETHER

Our researchers work in concert to create a better future. At our research centers in Leimen and Bergamo, we are developing ways to reduce the CO_2 intensity of our production processes, along with innovative products for sustainable construction.

GROW TOGETHER

Tina Gölzer, Senior Ecologist at the Heidelberg Technology Center in Leimen, Germany
Left: Quarry Life Award project at the Burglengenfeld quarry, Germany
Right: Noor Solar Power Plant , Morocco

PROTECT TOGETHER

We take seriously our responsibilities to future generations. Our raw materials are obtained with minimal environmental impact, and we are committed to restoration and sustainable after-use of our operation sites. HeidelbergCement has also consistently increased the use of alternative energies, fuels, and raw materials, to conserve the resources of our planet.

GROW TOGETHER

Christoph Wolfbeisz, Marketing Coordinator at
Heidelberg Headquaters, Germany

GROW TOGETHER

HeidelbergCement and Italcementi fit ideally together – both geographically and technologically. Our integration brings together the strengths of two companies with long, proud traditions – and lays the foundation for profitable growth into the future.

GROW TOGETHER

Review 2016

Q1

Research into new technologies for CO_2 capture
In the Lixhe cement plant in Belgium, an innovative testing facility for the capture of CO_2 is tested. The project sponsor is the LEILAC (Low Emissions Intensity Lime And Cement) consortium. The five-year project is supported by the European Union.

Strengthening of the financing structure
HeidelbergCement successfully issues debt certificates of €645 million with a term ending in January 2022 and places a Eurobond of €1 billion with a term ending in March 2023. The issue proceeds are primarily used to finance the acquisition of Italcementi.

Q2

Market entry in Mozambique
Purchase of a cement grinding plant with an annual capacity of 0.35 million tonnes in the town of Dondo in central Mozambique. The capacity of the plant, which was constructed in 2014, can be doubled to 0.7 million tonnes. The annual cement consumption in Mozambique amounts to around 2.3 million tonnes.

Refinancing of the acquisition of Italcementi largely completed
HeidelbergCement places an eight-year Eurobond of €750 million. The issue proceeds of the bond, which is several times oversubscribed, are mainly used to finance the acquisition of Italcementi.

Q3

Acquisition of 45% share in Italcementi and transfer of control
Following the approval of the relevant competition authorities, all conditions for the conclusion of the transaction are fulfilled. On 1 July 2016, HeidelbergCement assumes control of the company by acquiring the share package for €1.67 billion and against the assignment of 10.5 million new HeidelbergCement shares.

Q4

Official opening of the new production line in Citeureup, Indonesia
The state-of-the-art production line has an annual cement capacity of 4.4 million tonnes. This is the largest production line constructed by HeidelbergCement to date. The Citeureup production site thus increases its total annual capacity to approximately 25 million tonnes.

Conclusion of the Italcementi takeover
Following the successful tender offer to the Italcementi shareholders and the acquisition of the remaining shares, HeidelbergCement holds 100 % of the share capital. Italcementi is delisted from the stock exchange.

Rating agencies grant investment grade rating
Upgrade of the credit rating of HeidelbergCement to investment grade by S&P Global Ratings, Moody's, and Fitch on account of the strengthened corporate profile following the purchase of Italcementi and the improved creditworthiness. The subsequent placing of an eight-year Eurobond of €1 billion is carried out at the most favourable conditions that HeidelbergCement has ever achieved in this maturity segment.

Quarry Life Award presented for the third time
The third round of the Quarry Life Award competition is a great success with over 450 projects submitted in 21 countries for the preservation and enhancement of biodiversity in quarrying sites. The winner of the main international prize is a project from Spain.

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1) Part of the combined management report of HeidelbergCement Group and HeidelbergCement AG

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To our shareholders

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Dear Shareholders,
Dear Employees and Friends of
HeidelbergCement,

2016 was a special year for HeidelbergCement for two reasons:

- With the successful takeover of Italcementi, a leading international cement company, we significantly strengthened our market positions in North America, Europe, Africa, and Asia. This has provided HeidelbergCement with an excellent strategic positioning. In our core business lines aggregates, cement, and ready-mixed concrete, we are number one, two and three globally.

- The compelling logic of this acquisition and the positive development of HeidelbergCement in recent years have also convinced the rating agencies. S&P Global Ratings, Moody's Investors Service, and Fitch Ratings each awarded HeidelbergCement an investment grade rating shortly after the result of the third quarter was announced. With this investment grade classification, we have achieved another important milestone. Thanks to this rating, our financing conditions on the capital market have improved considerably. We therefore expect to reduce annual interest payments by around €200 million in the next three years.

The global economy developed only moderately in the past financial year. Growth in the emerging countries remained at a low level.

The ongoing conflict between Russia and Ukraine, the military conflicts and political instability in the Middle East, the unexpected Brexit vote in the United Kingdom, and the surprising outcome of the presidential election in the USA have led to high volatility, nervousness, and ambivalence in the currency, financial, and raw materials markets. The political and macroeconomic risks continued to increase in 2016.

Poor weather conditions at the end of the year in Europe and the USA adversely affected economic growth, especially in the second half of the year. Moreover, the significantly rising energy prices had a negative impact from the middle of the year.

For the capital markets, 2016 was certainly a volatile but successful year overall. The HeidelbergCement share performed very positively, and at €88.63 at the end of December 2016 was 17 % higher than the closing price of 2015. We clearly outperformed the German benchmark index DAX (7 % above the 2015 closing price) for the third time in succession. Following the publication of our results of the third quarter in November, the share price rose to above €92, thereby reaching its highest level since the end of the financial crisis.

It is also pleasing to note that the stability of the shareholder structure has further improved. At the same time, the proportion of long-term US shareholders in the company has increased.

Adjusted profit for the financial year markedly increased – premium on cost of capital earned
As announced, HeidelbergCement's growth has accelerated with the takeover of Italcementi. Due to the consolidation of the business activities of Italcementi from 1 July 2016, the sales volumes, revenue, and result from current operations have increased considerably.

Dr. Bernd Scheifele, Chairman of the Managing Board

To measure operational performance, we look at the business figures on a comparable pro forma basis. This means that we take into account the full contribution of Italcementi for 2015 and 2016, but adjust these figures for currency and consolidation effects as well as for the sale of CO_2 rights by Italcementi. On this basis, a robust operational business development is evident: Sales volumes of the core products cement and ready-mixed concrete rose slightly and deliveries of aggregates reached the level of the previous year. Despite price increases in key markets such as the USA, we realised lower sales prices due to the intensified competition in emerging countries. As a consequence, revenue fell slightly. Nonetheless, as announced we were able to achieve a moderate rise in the result from current operations and improve the operating margins in our core business lines cement, aggregates, and ready-mixed concrete. This was particularly owing to lower energy costs, our successful margin improvement programmes, and the realisation of initial synergies following the Italcementi takeover.

The additional ordinary result shows a shortfall of €324 million. This primarily reflects non-recurring expenses resulting from the integration of Italcementi. Furthermore, we have recorded extraordinary depreciation and/or made risk provisions in the politically unstable countries of Ukraine, Kazakhstan, and DR Congo. The financial result improved by €56 million to €-494 million, essentially on account of lower interest expenses.

The adjusted Group share of profit for the financial year amounts to €1,031 million, thereby noticeably exceeding the previous year by 29 %. In addition, we earned again a premium on our cost of capital in 2016. This shows that we continued our profitable growth with the acquisition of Italcementi and achieved a higher return for our shareholders.

In view of the positive development of our business, the Managing Board and Supervisory Board will propose to the Annual General Meeting on 10 May 2017 an increase in the dividend from €1.30 per share to €1.60 per share, corresponding to a rise of 23.1 %. With this proposal, we are continuing our progressive dividend policy of the past few years. Furthermore, we reaffirm the goal we communicated to the capital market of achieving a payout ratio of 40 % to 45 % by the 2019 financial year.

Responsibility for employees and the environment
In 2016, our efforts for a sustainable business development once again focused on the topics of occupational health and safety as well as environmental protection.

The tightening of our Group guideline and the introduction of mandatory basic rules have had an impact in the field of occupational health and safety. Without taking account of Italcementi, the accident frequency rate as well as the number of deaths have dropped substantially. To prevent accidents on a permanent basis, however, we must further intensify our efforts in the area of occupational safety, as well as implement the standards of HeidelbergCement at the production sites of the former Italcementi Group.

In 2016, particular focus was on climate protection. We have considerably intensified our commitment to develop technologies for the storage or utilisation of CO_2 as a raw material and retain the leading position in this respect in our industry sector. New projects cover, among other things, the transformation of CO_2 into biofuels. Thanks to our performance in the area of climate protection and reporting, the Carbon Disclosure Project (CDP) named us one of the best companies in the energy and raw materials sector in the Germany, Austria, and Switzerland region for the second year running in 2016.

For our company, which extracts raw materials from nature, the protection and promotion of biodiversity play a special role. In order to generate ideas for this important topic and raise public awareness, we launched the Quarry Life Award six years ago. We concluded the third edition of the competition in 2016. Of the 494 project proposals that were submitted, 94 took part in the competition. The best projects won awards on national and international level.

Innovation
Aside from sustainability, innovations also are a key part of our Group strategy. We continually expand our research and development activities so that we can offer tailored solutions to our customers worldwide. On 26 October 2016, we opened our new global research center in Leimen, Germany, where our researchers work, for example, on the development of technologies to increase energy efficiency or to noticeably reduce CO_2 emissions. The focal topics include the development of new types of clinker with lower energy consumption and CO_2 emissions, as well as the reduction of the clinker proportion in cement and concrete.

In our state-of-the-art development center i.lab in Bergamo, Italy, we have concentrated our research activities since summer 2016 on innovative building products. Our employees at i.lab work with leading architects and construction companies worldwide on individual solutions for building projects. An example of this are very modern facade elements made from concrete that are self-cleaning and reduce nitrogen oxide emissions.

HeidelbergCement 4.0
Digitisation will affect many areas of HeidelbergCement even more than before. We therefore consistently work on the targeted expansion of digital structures and technologies. At the end of 2016, we combined our digitisation activities in one Managing Board responsibility. We will establish a Digital Transformation Office that will work in close consultation with the business units and specialist departments to assess the potential throughout our value chain, including disruptive developments, and create a roadmap for digital transformation.

Digitisation will impact the way in which we work online with our suppliers and customers in the future, how we manage our transport logistics through the seamless digital networking of vehicles, and how we control our around 2,700 production sites worldwide. At the same time, the digital development opens up new business options for us. We see digitisation as an opportunity for the company and for our employees. For us, it is clear that we want to be one of the best in our sector when it comes to Industry 4.0.

Thanks to our employees
Companies that are successful over the long term have to be able to adapt rapidly to changing requirements. For employees, this means embracing new structures and procedures and actively bringing them to life. In 2016, these skills were very much in demand at HeidelbergCement because of the acquisition of Italcementi and the associated relocation of headquarters from Bergamo, Paris, and Brussels to Heidelberg.

On behalf of the entire Managing Board, I would therefore like to take this opportunity to thank the employees of HeidelbergCement for their outstanding personal dedication and unconditional loyalty to our Group.

The same goes for the employee representatives, who in line with the HeidelbergCement philosophy cooperated very closely, openly, and trustingly with the Managing Board for the benefit of our Group.

Rejuvenation in the Managing Board
As in previous years, I would like to personally thank and express my utmost appreciation to our managers in the operating units as well as the staff functions. This applies, in particular, to the newly added managers of Italcementi. Without them, the good performance during an eventful year 2016 would not have been possible.

HeidelbergCement's success is primarily based on the achievements of a strong global management team. The emphasis is on two aspects:

- A very distinct corporate culture that is characterised by customer and employee orientation, as well as a focus on performance and results combined with comprehensive cost management and great implementation strength.

- A very international composition of our management team in line with the principle "all business is local" with its different competences and cultural backgrounds that mirror our global presence and our core business lines.

These two factors enable us to respond to global challenges and local market changes with great speed and flexibility. Our common aspiration remains the same: we want to be the best-managed company in our industry. This is what we work on every day in all the countries in which we operate.

Excellently managed companies stand out especially on account of their timely and well-prepared succession planning. At HeidelbergCement, the generation change commenced in 2016. On 30 June 2016, long-term and highly respected Managing Board members Daniel Gauthier and Andreas Kern left the Managing Board. I would like to offer my sincere thanks to both colleagues for their excellent and very successful cooperation over the last eleven years.

With Kevin Gluskie, Hakan Gurdal, and Jon Morrish, a younger generation has joined the Managing Board. They add new core competences and a different scope of cultural experience. Diversity in the Managing Board has increased noticeably. The global market position of HeidelbergCement is even better represented with these three new colleagues in the Managing Board.

Strategic priorities remain unchanged
The strategic priorities defined in 2015 still apply:

- Shareholder returns
- Continuous growth

In the course of implementation, the focus is on the steady increase in free cash flow, the continuous growth of our company, and the generation of an attractive return for our shareholders.

The achievement of these goals requires strict investment discipline, a solid investment grade rating, and a progressive dividend policy. In our day-to-day operating activities, we focus on five areas: increasing customer satisfaction, high operating leverage, cost leadership, vertical integration, and an optimised geographical positioning.

The success of HeidelbergCement in recent years impressively confirms that we create long-term shareholder returns through continuous growth with sound judgement. It is precisely for this reason that we seized the opportunity to acquire Italcementi in summer 2015. The annual synergies from the integration of Italcementi amount to over €450 million. In the 2016 financial year, we have already realised around €200 million. This shows that we are working relentlessly to create sustainable value for our shareholders with this acquisition.

Outlook for 2017
We are cautiously optimistic concerning 2017. While the overall outlook for the global economy is positive, the major macroeconomic and particularly geopolitical risks have increased at the same time. An escalation of the conflicts in the Middle East or Ukraine could have a major negative impact on the business environment. The same applies to the outcome of the elections in major European countries, such as in the Netherlands, France, Germany, and Italy. Added to this are the uncertain consequences of the Brexit negotiations between the United Kingdom and the EU starting in spring 2017.

The economic development in China has to be closely monitored too. The future economic policy of the new US administration is still unclear. Moreover, a rapid interest rate hike in the USA could lead to significant devaluations of the currencies in emerging countries.

HeidelbergCement will benefit from the good and stable economic development in the industrial countries, above all in the USA, Canada, the United Kingdom, Germany, in the northern European countries, and Australia. These countries generate approximately 60 % of our revenue.

In the growth countries such as Egypt, Indonesia, Thailand, India, and Morocco, as well as in Western and Eastern Africa, we anticipate an ongoing economic recovery. The same applies to the countries of Eastern Europe and to Russia and Kazakhstan.

We expect increasing sales volumes of our core products cement, aggregates, and ready-mixed concrete.

With regard to costs, we estimate a noticeable increase in energy and raw material prices, particularly in Europe and Asia. In contrast, the personnel costs within the Group will only increase moderately.

Our global programmes to optimise costs and processes as well as to increase margins will once again be consistently pursued in 2017. These include, above all, the Continuous Improvement Programmes for the aggregates (“Aggregates CI”) and cement (“CIP”) business lines, as well as “FOX” for purchasing. The efficiency improvement programme for the ready-mixed concrete area has been recently added. We expect these four programmes to make substantial contributions to the improvement in result.

On the basis of these assumptions, the Managing Board has set the goal of moderately increasing revenue and result from current operations before exchange rate and consolidation effects. In 2017, we will consistently develop our strength: operational excellence.

With the acquisition of Italcementi and its rapid integration, we have impressively demonstrated our high business potential and strong momentum. From a global perspective, we are well positioned to achieve our strategic goals – continuous growth and sustainable value creation for our shareholders.

Yours sincerely,

Bernd Scheifele

Dr. Bernd Scheifele
Chairman of the Managing Board

Heidelberg, 16 March 2017

Report of the Supervisory Board

Ladies and Gentlemen,

The 2016 financial year developed very positively. HeidelbergCement continued to benefit from the good economic development in the industrial countries, above all in the USA, Germany, Northern Europe, and Australia. In the emerging countries of Africa and Asia, however, growth weakened and competition increased, as expected. HeidelbergCement has successfully further improved its margins and operating efficiency, and has responded to market changes on a timely basis. The lower energy costs, compared with the previous year, also positively affected the cost side. The consolidation of Italcementi from 1 July 2016 had a considerable impact on the development of results. On a comparable pro forma basis, i.e. taking into account the results of Italcementi for 2015 and 2016 and excluding exchange rate and consolidation effects, as well as proceeds from the sale of CO_2 emission rights, result from current operations increased and the operating margin improved according to the forecast.

The takeover of Italcementi was successfully concluded in October. The first attempt to acquire the outstanding shares as part of a mandatory tender offer was successful and Italcementi was delisted from the stock exchange. Moreover, HeidelbergCement was able to achieve better prices than originally anticipated for the sale of the production sites, which was required by the antitrust authorities in Europe and the USA. The measures to integrate Italcementi and leverage synergies, which started immediately after taking over control on 1 July, progressed very well and offer significant potential for the future development of results.

Last, but not least, the successful acquisition of Italcementi has expanded and strengthened HeidelbergCement's corporate profile to such an extent that the rating agencies upgraded the credit rating of the company to investment grade in November, thereby achieving one of the central strategic goals defined by the management for the company. With the acquisition, HeidelbergCement has made use of a unique opportunity to accelerate its growth and is now on course to further increase shareholder returns.

Consultation and monitoring

The Supervisory Board firmly supported the aforementioned development and discussed it with the Managing Board at the ordinary and extraordinary meetings of the plenary session and its committees as well as through contact outside the scheduled meetings. Additionally, it received regular and detailed reports, both in writing and verbally, about the intended business policies, fundamental issues regarding financial, investment, and personnel planning, the progress of business, and the profitability of the Group. All deviations of the actual business development from the plans were explained in detail by the Managing Board. In particular, the Managing Board agreed the Group's strategy with the Supervisory Board. The Supervisory Board was directly involved in all decisions of fundamental importance to the Group. Investment projects and financing matters requiring authorisation were presented by the Managing Board and discussed before decisions were made. The Supervisory Board is satisfied that the Managing Board has installed an effective risk management system capable of recognising at an early stage any developments that could jeopardise the survival of the Group. The Supervisory Board has also had this certified by the auditor. Furthermore, it is satisfied as to the expansion and effectiveness of the compliance programme, which guarantees Group-wide compliance with the law and with internal guidelines. In the relevant meetings, the responsible line managers of the Group below Managing Board level

Fritz-Jürgen Heckmann, Chairman of the Supervisory Board

were available together with members of the Managing Board to provide information to the Audit Committee and to answer questions. Outside the scheduled meetings and without the participation of the Managing Board, the Chairman of the Supervisory Board and the Chairman of the Audit Committee discussed topics relating to the audit in detail with the auditor. The Chairman of the Supervisory Board was also in regular contact with the Chairman of the Managing Board outside the scheduled meetings. In summary, it is evident that the Supervisory Board has duly fulfilled the duties incumbent upon it under the law, the Articles of Association, the Rules of Procedure, and the Corporate Governance Code.

Topics of discussion in the meetings of the Supervisory Board and its committees

The plenary session of the Supervisory Board convened at five ordinary meetings and one extraordinary meeting. The Audit Committee met twice. The Personnel Committee held two ordinary and two extraordinary meetings. The Nomination Committee and the Arbitration Committee, formed in accordance with § 27, section 3 of the German Codetermination Law, did not need to meet. In addition, the Audit Committee held three conference calls to discuss the relevant quarterly reports in detail prior to their publication. In June 2016, the Audit Committee finalised by means of an exceptional telephone meeting the capital increase in kind agreed for the acquisition of the Italcementi shares through the utilisation of the Authorised Capital II. The results of the committees' meetings were reported at the subsequent plenary sessions. Members of the Supervisory Board and its committees are listed in the Corporate Governance chapter on page 164 f.

There was an attendance rate of 97.2% at the six plenary sessions in February, March, May, September (two meetings), and November; the average attendance at the committees' meetings held in the reporting year was even 100%. The sessions in the first half of 2016 dealt, amongst other things, with the adoption of the 2015 annual financial statements and consolidated financial statements, the approval of the 2016 operating plan, and preparations for the 2016 Annual General Meeting, in addition to regular reporting on the business trends and status of net debt, as well as resolutions on Corporate Governance issues, including decisions on the variable elements of the Managing Board remuneration.

As in 2015, all meetings during the reporting year related to corporate development focused on consultation and resolution in connection with the acquisition of a 45% share in the international building materials company Italcementi, based in Italy, from Italmobiliare S.p.A. The Supervisory Board has closely monitored the progress of the acquisition, which was announced in July 2015 and completed on 1 July 2016 following approval by the antitrust authorities, and it gave its prior approval to the issue of 10,500,000 new HeidelbergCement shares as part of the consideration agreed with the seller. With the acquisition of the Italcementi shares against cash and new HeidelbergCement shares, a balanced financing has been put in place. Following a successful tender offer in Italy in September and the subsequent squeeze-out of non-controlling shareholders for an appropriate cash equivalent, HeidelbergCement was able to increase its shareholding in Italcementi to 100% and terminate the stock exchange listing of the Italcementi shares. HeidelbergCement has thus met all legal conditions to implement the measures required for the realisation of the synergy goals.

Furthermore, the Supervisory Board has received ongoing reports on the achievement of these synergy goals and the progress made in the integration of the Italcementi activities. With the new appointment of almost all management positions, the start of the implementation of established HeidelbergCement programmes, and measures to improve productivity and reduce costs, the Supervisory Board is convinced that the Managing Board has undertaken all necessary actions to achieve positive profit margins as early as possible in all business lines of Italcementi.

Both the Supervisory Board and its Audit Committee once again addressed financing decisions during the reporting year. These included the aforementioned capital increase in return for contributions in kind associated with the Italcementi acquisition on the equity side and the borrowing of funds. In this connection, the Supervisory Board has also approved financing measures as part of the "Germany Cement Master Plan". In the next few years, considerable investments will be made in the modernisation, efficiency improvement, and environmental protection of the German cement plants.

Moreover, the Supervisory Board has renewed its approval of the Euro Medium Term Note programme, which was set up in the mid-1990s and under which the company can issue bonds on the capital market. The prospectus that underpins the framework programme was comprehensively amended and updated due to the acquisition of the Italcementi Group in November 2016.

Following the upgrading of HeidelbergCement's credit quality by the rating agencies S&P Global Ratings, Moody's, and Fitch to the premium standard investment grade at the start of November 2016, the company was able to successfully place an eight-year €1 billion Eurobond at a historically low fixed interest rate of 1.5% p.a. on the capital market. With this upgrade, the rating agencies recognised the successful measures taken by the Managing Board and Supervisory Board for the consistent reduction of net debt and improvement in financial result. Furthermore, the Supervisory Board acknowledged that the maturity profile of the liabilities has regained its usual balanced structure and that the company also earned a premium on invested capital (ROIC) immediately after the Italcementi acquisition. It encouraged the Managing Board in its efforts to keep the dynamic gearing ratio in the investment grade target range and steadily reduce it in the future.

In its extraordinary strategy meeting in September of the reporting year, the Supervisory Board dealt intensively with the development and outlook for the Africa-Eastern Mediterranean Basin, Asia-Pacific, and North America Group areas, which have been managed by new Management Board members since April 2016. Kevin Gluskie, Hakan Gurdal, and Jon Morrish, who were newly appointed to the Managing Board in February 2016, each presented their 100-day plans to the Supervisory Board.

In its meetings, the Audit Committee dealt with the 2015 annual financial statements and consolidated financial statements as well as the points of focus for the audit, the status quo reports regarding internal audit, risk management, and compliance, the quarterly and half-yearly reports for the 2016 financial year, the preparation of the Supervisory Board's proposal to the 2016 Annual General Meeting for the appointment of the auditor and Group auditor, and – after the Annual General Meeting followed this proposal – the award of the contract to the audit firm Ernst & Young for the auditing of the annual financial statements and consolidated financial statements for the 2016 financial year. In this context, it defined the points of focus for the audit. The auditors responsible for the consolidated financial statements are Stefan Viering and Karen Somes.

The Managing Board reported to the Audit Committee in detail on the issue and conditions of the seven-year €1 billion Eurobond placed on the capital market in March and the eight-year €750 million Eurobond issued in June 2016 to pre-finance the acquisition of Italcementi shares. As mentioned above, it dealt with the creation of 10,500,000 new shares from the capital increase in return for contributions in kind for the financing of part of the Italcementi transaction and other financial matters of the company and, where necessary, passed appropriate preparatory resolutions for subsequent treatment in the plenary session of the Supervisory Board.

In its meetings in September and November, the Audit Committee also dealt with the impact of the implementation of the German Audit Reform Act on future audit selection and award procedures, the improvement in the quality of the audit, and the future commissioning of non-audit services from the auditor. In the course of implementing an authorisation in the Rules of Procedure for the Supervisory Board, it adopted a guideline for the pre-approval of the non-audit services of the auditor, which defines the type and scope of the non-audit services of the auditor that can be approved in the future, and sets up payment limits as a proportion of the audit fee in order to protect auditor independence. Furthermore, the Audit Committee will devote attention to the environmental topics of the company and thus offer advisory support for the intensified compliance activities of the company with regard to environmental legislation.

The ordinary meetings of the Personnel Committee covered, amongst other things, the preliminary discussion and recommendation to the Supervisory Board regarding the determination of the variable Managing Board remuneration for the 2015 financial year, as well as the definition of parameters for the variable Managing Board remuneration for 2016 and 2016–2018/19, respectively. In its extraordinary meeting of 4 May, the Personnel Committee dealt with the amendment of one

Managing Board agreement in connection with the change in Managing Board responsibility. In another extraordinary meeting on 28 November 2016, the Personnel Committee resolved to recommend to the Supervisory Board that the Managing Board agreements of members of the Managing Board Dr. Dominik von Achten and Dr. Albert Scheuer are extended and amended accordingly. Finally, the Personnel Committee assured itself that all members of the Managing Board have carried out the required individual investment in HeidelbergCement shares as part of the Managing Board remuneration system.

There were no conflicts of interest of any Supervisory Board member when dealing with topics within the Supervisory Board. There were no consulting or other contracts for services or work between any member of the Supervisory Board and the Group in the 2016 reporting year.

Corporate Governance
The statement of compliance in the reporting year was submitted by the Managing Board on 15 February 2016 and by the Supervisory Board on 16 February 2016. The statement of compliance for the current year was submitted by the Managing Board on 13 February 2017 and by the Supervisory Board on 14 February 2017. The complete text can be found in the section Statement of compliance in accordance with § 161 of the German Stock Company Act in the Corporate Governance chapter on page 142. The statements are made permanently available to the shareholders on the Group's website.

In the reporting year, the Supervisory Board examined the guideline for the composition of the Supervisory Board that was adopted from EU law and incorporated in the German Stock Company Act and ascertained that its members and those of its Audit Committee are all familiar with the sector in which the company operates.

With regard to its composition and that of the Managing Board, the Supervisory Board will thoroughly comply with the guidelines of the German Corporate Governance Code regarding the principles of diversity when appointing committees and leadership positions within the Group. Regarding its own composition, it implements the diversity goals stated in the Code with the following specific objectives: The composition of the Supervisory Board is an appropriate reflection of the national and international alignment of HeidelbergCement as a leading building materials manufacturer. The Supervisory Board comprises at least three members who have been elected by the shareholders and who are independent members in line with point 5.4.2 of the Code. The Supervisory Board shall comprise at least two women. The standard retirement age for members of the Supervisory Board is 75 years. This age also constitutes the regular limit of length of membership of the Supervisory Board. With these goals, the Supervisory Board aims to make a wide range of expertise available to the Group and to have the broadest possible pool of candidates at its disposal for the election of future Supervisory Board members.

After reconsideration, the Supervisory Board resolved already on 14 September 2015 to maintain the current proportion of women in the Managing Board and to set the target figure for the proportion of women in the Managing Board by 30 June 2017 to 0 %, although this specification explicitly states that the Supervisory Board is committed, as was previously the case, to take diversity into account when making personnel decisions.

The Supervisory Board welcomes and supports the Managing Board's goal of bringing the proportion of women in management positions in the first and second leadership level below the Managing Board in line with the proportion of women employed in Germany by 2017. The goal is to double the proportion of women in management positions in Germany from 7 % in 2011 to 14 % in the first leadership level and 15 % in the second leadership level below the Managing Board.

As regards the remuneration structure for the members of the Managing Board for the 2016 financial year, details on remuneration of the Managing Board are included in the Corporate Governance Report on page 147 f. to avoid repetition. They describe the Managing Board remuneration system that came into force on 1 January 2011 and was adjusted on 1 January 2014. The Supervisory Board considers the remuneration as appropriate, if it reflects adequately the management performance and value creation for the company. Basis for an appropriate remuneration is a well-structured and transparent remuneration system. HeidelbergCement's remuneration system was developed by taking into account the interests of the company itself and of its owners and by consulting external remuneration experts. In our view, it guarantees an appropriate remuneration of the Managing Board. In addition, according to the recommendations of the German Corporate Governance Code, a payment cap has been introduced in 2011. For the management component 2014–2016, targets of earnings before interest and taxes (EBIT) and return on invested capital (ROIC) were significantly surpassed. The cap for the calculation of variable remuneration became effective. Regarding the capital market component, the development of our share price clearly beat the DAX and MSCI World Construction Materials Index performance over the four-year period of the long-term bonus plan 2013–2015/16. The cap also applies to the achievement in relation to the above indices. Adjusted for reinvested dividend payments and changes to the capital, the HeidelbergCement share price more than doubled over the four-year period but stayed below the defined cap.

The Supervisory Board last conducted the regular efficiency review of its activities, as required by the German Corporate Governance Code, in autumn 2015. Following a further recommendation of the Code, an internal training event was organised as in the past for the Supervisory Board in September 2016. At this event, the members of the Supervisory Board were informed in detail about the amended provisions of German Securities Trading Law in the context of European legislation, their information and reporting obligations under the new European Market Abuse Directive, and the amended German Securities Trading Law for transactions with HeidelbergCement securities. Additional regular training sessions are planned. The Supervisory Board has thus reaffirmed its commitment to effective Corporate Governance in the Group.

Auditing and approval of annual financial statements and consolidated financial statements
Before the contract for the auditing of the annual financial statements of the Company and the consolidated financial statements of the Group was awarded, the points of focus for the audit, the content of the audit, and the costs were discussed in detail with the auditors, Ernst & Young GmbH, Wirtschaftsprüfungsgesellschaft, Stuttgart. In February 2017, the Managing Board informed the Supervisory Board about the preliminary, unaudited key figures for the 2016 financial year and provided a status report on the financial statements work. The annual financial statements of HeidelbergCement AG, the consolidated financial statements as of 31 December 2016, and the combined management report for the Company and the Group, as prepared by the Managing Board, were examined by the independent auditors. The auditors gave the statements the unqualified audit opinion. The financial statements documents and auditors' reports were sent to the members of the Supervisory Board. At first, the Audit Committee dealt intensively with the financial statements in the presence of the auditors. The auditors reported on the main results of their audit. Then, the Supervisory Board discussed the financial statements in detail, once again in the presence of the auditors. The Supervisory Board approved the audit results. It examined the annual financial statements and consolidated financial statements, the combined management report, and the Managing Board's proposal for the use of net profit shown in the balance sheet. The results of the pre-audit conducted by the Audit Committee and the results of its own audit correspond fully to the results of the official auditor. The Supervisory Board raised no objections to the final results of this examination. The Supervisory Board has therefore approved the annual financial statements and the consolidated financial statements. The annual financial statements have thus been adopted.

The Supervisory Board approved the Managing Board's proposal for the use of net profit, including the payout of a dividend of €1.60 per share (previous year: €1.30 per share).

Personnel matters and a note of thanks

In the 2016 reporting year, there was one change to the personnel in the Supervisory Board. The representative of the senior managers, Hans-Georg Kraut, left the Supervisory Board on 31 July 2016 to enter retirement. The Supervisory Board is especially grateful to Hans-Georg Kraut for his twelve years of very committed membership in the Supervisory Board and the Personnel Committee. He was succeeded on 1 August 2016 by the plant manager at the cement plant in Schelklingen, Stephan Wehning, who was elected by employees as a deputy member of the Supervisory Board. Since 12 September 2016, Stephan Wehning has also continued Mr Kraut's membership in the Personnel Committee.

There were also key changes to the personnel in the Managing Board during the reporting year. As reported in this section in the previous year, Daniel Gauthier and Andreas Kern left the Managing Board on 30 June 2016 due to age. In their place, Kevin Gluskie, Hakan Gurdal, and Jon Morrish – three already long-serving and very successful, internationally experienced top managers of the Group – were appointed to the Managing Board on 1 February 2016. Since 1 April 2016, Kevin Gluskie has been responsible for the Asia-Pacific Group area, Hakan Gurdal for the Africa-Eastern Mediterranean Basin Group area, and Jon Morrish for North America. In May 2016, the Supervisory Board appointed Dr. von Achten, Deputy Chairman of the Managing Board and, within the Western and Southern Europe Group area, the member of the Managing Board responsible for business activities in Germany, as Personnel Director in accordance with § 33 of the German Codetermination Law. Dr. Dominik von Achten took over this mandate from Andreas Kern, who, as already mentioned, left the Managing Board on 30 June 2016.

On 28 November 2016, the Supervisory Board extended the terms of office of members of the Managing Board Dr. Dominik von Achten (51 years) by five years and Dr. Albert Scheuer (59 years) by two years and amended their Managing Board agreements. With these extensions, the Supervisory Board recognised their successful work for the Group in recent years both in Germany and abroad, thus setting the course for the continuation of their tasks in the Managing Board in line with business requirements.

In conclusion, the Supervisory Board would like to thank all employees of the Group once again for their high level of commitment and their performance for the Group in the 2016 financial year.

Heidelberg, 15 March 2017

For the Supervisory Board

Yours sincerely,

Fritz-Jürgen Heckmann
Chairman

Managing Board

DR. BERND SCHEIFELE
Born in Freiburg (Germany), aged 58 years. Studies in law at the universities of Freiburg, Dijon (France), and the University of Illinois (USA). Since 2005, Chairman of the Managing Board; in charge of Strategy & Development, Communication & Investor Relations, Human Resources, Legal, Compliance, and Internal Audit.

DR. DOMINIK VON ACHTEN
Born in Munich (Germany), aged 51 years. Studies in law and economics at the German universities of Freiburg and Munich. Member of the Managing Board since 2007 and Deputy Chairman of the Managing Board since 1 February 2015; in charge of the Western and Southern Europe Group area, the Competence Center Materials, as well as Industry 4.0 / Digital Transformation HeidelbergCement.

KEVIN GLUSKIE
Born in Hobart (Australia), aged 49 years. Studies in civil engineering at the University of Tasmania (Australia) and MBA of the University of Sydney. He joined Pioneer (acquired by Hanson in 2000) in 1990. Member of the Managing Board since 2016 and in charge of the Asia-Pacific Group area, the Competence Center Readymix, Market Intelligence & Sales Processes, as well as Product Marketing.

HAKAN GURDAL
Born in Istanbul (Turkey), aged 49 years. Studies in mechanical engineering at the Yildiz Technical University in Istanbul and MBA International Management of the University of Istanbul. He joined Çanakkale Çimento (today part of the joint venture Akçansa) in 1992. Member of the Managing Board since 2016; in charge of the Africa-Eastern Mediterranean Basin Group area and Purchasing.

From left:
Dr. Albert Scheuer
Dr. Dominik von Achten
Hakan Gurdal
Dr. Bernd Scheifele
Kevin Gluskie
Dr. Lorenz Näger
Jon Morrish

JON MORRISH

Born in Shrewsbury (United Kingdom), aged 46 years. Studies in biochemistry at the University of Leeds (UK) and MBA of the Cranfield School of Management. He joined Hanson in 1999. Member of the Managing Board since 2016; in charge of the North America Group area and the Group-wide coordination of secondary cementitious materials.

DR. LORENZ NÄGER

Born in Ravensburg (Germany), aged 56 years. Studies in business administration at the German universities of Regensburg and Mannheim and in Swansea (United Kingdom). Since 2004, member of the Managing Board; in charge of Finance, Group Accounting, Controlling, Taxes, Treasury, Insurance & Risk Management, IT, Shared Service Center, and Logistics.

DR. ALBERT SCHEUER

Born in Alsfeld (Germany), aged 59 years. Studies in mechanical engineering/process technology at the Clausthal University of Technology (Germany). Since 1992 at HeidelbergCement. Member of the Managing Board since 2007; in charge of the Northern and Eastern Europe-Central Asia Group area, the worldwide coordination of the Heidelberg Technology Center, Research & Development/Product Innovation, as well as Environmental Sustainability.

HeidelbergCement in the capital market

Overview

In Germany, the HeidelbergCement share is listed for trading on the Prime Standard segment of the Frankfurt Stock Exchange and on the Regulated Market of the Stuttgart, Düsseldorf, and Munich stock exchanges. The HeidelbergCement share is listed in the German benchmark index DAX, making HeidelbergCement the only company in the construction and building materials industry to be recognised as one of the 30 largest listed companies in Germany.

Our share ranks among the most important building materials shares in Europe. Besides the DAX, it is also included in other indices, such as the FTSEurofirst 300 Economic Sector Index, the S&P Global 1200 Index, and the Dow Jones Construction & Materials Titans 30 Index, which comprises the 30 largest construction shares and second-tier construction shares in the world.

Development of the HeidelbergCement share

After closing at €75.62 at the end of 2015, the HeidelbergCement share recorded its annual low of €60.12 on 9 February 2016. The HeidelbergCement share, as well as the DAX and the MSCI World Construction Materials Index (MSCI), correlated strongly with a negative trend in January and February. This was essentially due to concerns about the economic situation in China, fears about the economic development in the USA in the fourth quarter of 2015, and geopolitical tensions in the Middle East.

Since March, the price of the HeidelbergCement share has recovered in line with the MSCI due to the positive development of the global construction industry. Moreover, the share price was supported by our good results in the first quarter, the raised dividend, and the positive outlook for 2016. The share achieved its six-month high on 28 April. From May onwards, the stock market climate worsened due to fears about an increase in interest rates by the US Federal Reserve and the exit of the United Kingdom from the EU.

From the middle of the year, the construction industry recorded an accelerating upward trend, especially in the USA, Europe, and Asia. Moreover, the successful conclusion of the Italcementi acquisition and good results in the second quarter favoured the development of the HeidelbergCement share price.

Following the election of Donald Trump as president of the USA, our share achieved its annual peak at €92.13 on 9 November, owing to his promise of massive infrastructure investments. The MSCI also rose significantly. The HeidelbergCement share closed at €88.63 at the end of the year. This represented an increase of 17.2 % in 2016. Over the same period, the MSCI grew by 20.6 % as a result of the revaluation of the US dollar and the strong increase in share prices of some US American building materials producers. At 6.9 %, the DAX recorded markedly lower growth in comparison. At the end of 2016, HeidelbergCement's market capitalisation amounted to €17.6 billion, thereby significantly exceeding the previous year's value of €14.2 billion.

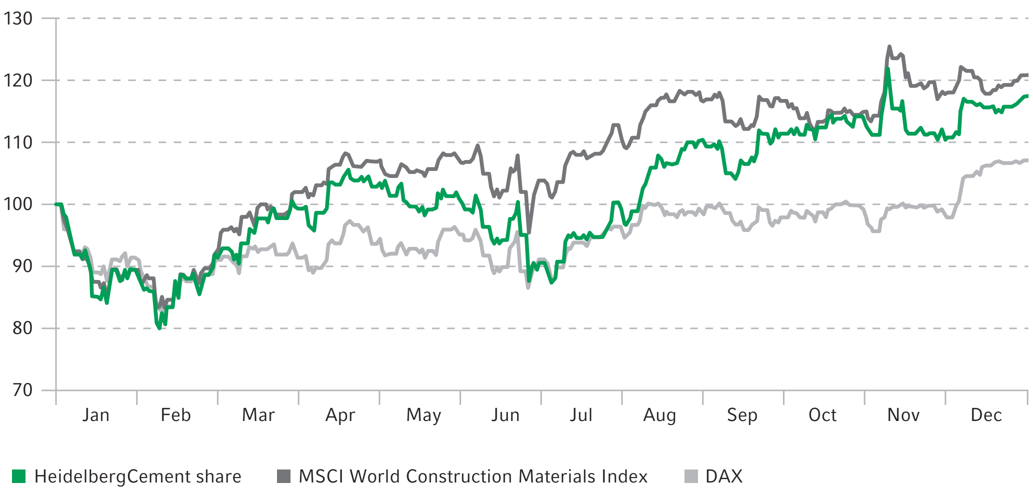
Development of the HeidelbergCement share (ISIN DE0006047004, WKN 604700)

€	2016
Year-end share price 2015	75.62
Highest share price	92.13
Lowest share price	60.12
Year-end share price 2016	88.63
Equity per share on 31 Dec. 2016	90.08
Market value on 31 Dec. 2016 (€ '000s)	17,585,652
Change compared with 31 Dec. 2015	
HeidelbergCement share	+17.2 %
DAX	+6.9 %
MSCI World Construction Materials Index	+20.6 %

Performance of the HeidelbergCement share in 2016

Development of the HeidelbergCement share compared to MSCI World Construction Materials Index and DAX in 2016

Index (Base: 31 December 2015 = 100)



Earnings per share

Earnings per share in accordance with IAS 33 for the 2016 financial year were €3.66 (previous year: 4.26). For continuing operations, earnings per share amount to €3.67 (previous year: 4.45).

The calculation of the earnings per share in accordance with IAS 33 is shown in the following table. To determine the average number of shares, additions are weighted in proportion to time. Further comments are provided in the Notes under Note 14.

Earnings per share according to IAS 33

	2015	2016
Group share of profit in €m	800.1	**706.2**
Number of shares in '000s (weighted average)	187,916	**193,023**
Earnings per share in €	4.26	**3.66**
Net income from continuing operations in €m – attributable to the parent entity	835.8	**709.4**
Earnings per share in € – continuing operations	4.45	**3.67**
Net income/loss from discontinued operations in €m – attributable to the parent entity	-35.7	**-3.2**
Earnings per share in € – discontinued operations	-0.19	**-0.02**

Dividend

In view of the overall positive business development, the Managing Board and Supervisory Board will propose to the Annual General Meeting on 10 May 2017 the distribution of a dividend of €1.60 per HeidelbergCement share.

Dividend key figures

	2012	2013	2014	2015	2016
Dividend per share in €	0.47	0.60	0.75	1.30	**1.60**[1]
Dividend yield[2] in %	0.8	1.0	1.0	1.7	**1.8**
Group share of profit in €m	284.7	736.0	485.7	800.1	**706.2**
Total dividend amount in €m	88.1	112.5	140.9	244.3	**317.5**
Payout ratio in %	30.9	15.3	29.0	30.5	**45.0**

1) To be proposed to the Annual General Meeting on 10 May 2017

2) Dividend per share/share price on the day of the Annual General Meeting; for the 2016 financial year: dividend per share/share price at the end of the financial year

Shareholder structure and trading volume

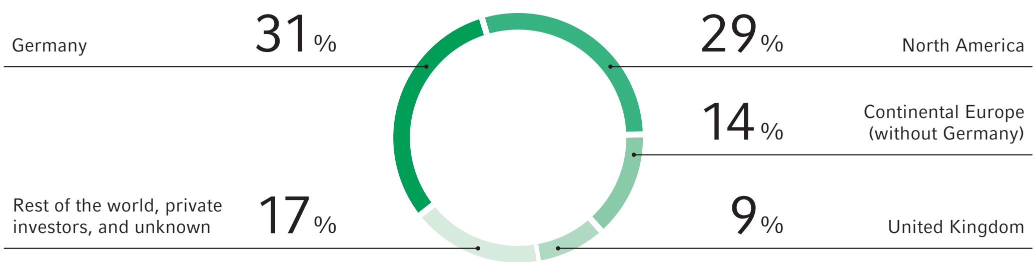
A study conducted in December 2016 showed a further stabilisation of the shareholder structure of HeidelbergCement in comparison with the last study from November 2015. As in previous years, we have worked to further improve our relations with investors. We were pleased that we could increase the proportion of institutional investors from the USA and Italy. In contrast, the share of other European investors declined. The proportion of hedge funds in 2016 was 2 %.

In October 2016, investors from Germany formed the largest investor group at 31 %, followed by investors from North America at 29 %, continental Europe excluding Germany at 14 %, and the United Kingdom at 9 %.

As at 31 December 2016, the free float amounted to 74.48 %. According to notifications available to us, Ludwig Merckle holds 25.52 % of the voting rights in the company via Vemos 2 Holding GmbH, a company under his control.

On average, around 607,000 HeidelbergCement shares were traded per day in Xetra trading on the Frankfurt Stock Exchange in 2016. In the Equity Indices Ranking published by Deutsche Börse, our share was in place 22 at the end of 2016 for the market capitalisation criterion and in place 25 for order book turnover.

Geographical distribution of shareholders (as of October 2016)



Shareholder structure

	31 Dec. 2016
Vemos 2 Holding GmbH, Zossen/Germany[1] (30 September 2016) Vemos 2 Holding GmbH is controlled by Ludwig Merckle.	**25.52 %**
The Capital Group Companies, Inc., Los Angeles/USA[1] (1 November 2016) (29 September 2016: EuroPacific Growth Fund, Boston/USA: 5.07 %)	**10.01 %**
Stephen A. Schwarzman/USA[1] and Maximilian Management LLC, Wilmington, Delaware/USA[1] (via First Eagle Investment Management, LLC, New York/USA[1]) (1 December 2015)	**7.34 %**[2]
BlackRock, Inc., Wilmington, Delaware/USA (2 November 2016) (thereof 4.49 % pursuant to sec. 22 WpHG and 0.50 % pursuant to sec. 25 para. 1 no 1 and 2 WpHG)	**4.995 %**
Société Générale S.A., Paris/France (13 August 2015) (thereof 3.77 % pursuant to sec. 25a WpHG and 0.07 % pursuant to sec. 25 WpHG)	**3.84 %**[2]

1) Attribution in accordance with § 22 of the German Securities Trading Law (Wertpapierhandelsgesetz - WpHG)
2) Percentage figures are based on the total number of voting rights of 187,916,477 valid prior to the capital increase on 7 July 2016. The shares of the other companies are based on the current number of total voting rights of 198,416,477.
In brackets: date on which percentage exceeded or fell below a reporting threshold

HeidelbergCement AG share capital

	Share capital € '000s	Number of shares
1 January 2016	563,749	187,916,477
31 December 2016	**595,249**	**198,416,477**

Bonds and credit ratings

In the 2016 financial year, HeidelbergCement raised capital on the capital market at very favourable conditions by issuing three bonds under the €10 billion EMTN programme. In March, we issued a €1 billion bond with a seven-year term at a yield to maturity of 2.31 %. The second bond of €750 million, which we issued in June, has an eight-year term and a yield to maturity of 2.394 %. The third issue took place in December with a volume of €1 billion and an eight-year term at a yield to maturity of 1.694 %. The bonds are unsecured and rank pari passu with all other capital market debt of HeidelbergCement. Further information on our corporate bonds can be found in the Group financial management section on page 80 f.

Since November 2016, the credit rating of HeidelbergCement has again been classified as investment grade by the rating agencies. The ratings are Baa3/P-3/Outlook Stable from Moody's Investors Service, BBB-/A-3/Outlook Stable from S&P Global Ratings, and BBB-/F3/Outlook Stable from Fitch Ratings. The positive assessment of our creditworthiness was mainly due to the stronger company profile following the acquisition of the Italcementi Group and its rapid integration. Further information on HeidelbergCement's rating can be found in the Group financial management section on page 83 f.

Investor Relations

Aside from fostering existing investor relations and attracting new, long-term investors, our investor relations work in 2016 mainly focused on preparing and executing the communication of strategic, financial, and country-specific information about the enlarged Group including Italcementi. This information was made public as part of the publication of the financial results for the third quarter on 9 November 2016 and at a Capital Markets Day in London on 10 November 2016. Around 80 analysts and investors accepted the invitation to attend presentations and panel discussions. During this event, the Chairman of the Managing Board, the Chief Financial Officer, and the member of the Managing Board in charge of the Western and Southern Europe Group area and the integration of Italcementi presented details about the Group's positioning, the development of the key financial ratios following the acquisition of Italcementi, and the status of the integration. The strategic priorities and medium-term goals were confirmed. Furthermore, the three members of the Managing Board who were newly appointed in spring 2016 introduced themselves to the conference participants and provided information about the markets in the Group areas for which they are in charge of. The presentations shown during this event and at other conferences and visits are available on the internet, provided they contain significant changes compared with previous presentations. The Investor Relations team supported reporting on HeidelbergCement by regular discussions with analysts. The number of analysts regularly reporting on HeidelbergCement has – with 39 – remained the same since the publication of the last Annual Report.

As part of the Extel survey in 2016, almost 20,000 investment experts from international banks and investment companies voted on the best IR work in Europe. In the construction sector, HeidelbergCement was awarded first place in all categories, thereby recognising the IR work as a whole, as well as that of the Chairman of the Managing Board and the Chief Financial Officer, as the best in the sector. Additionally, one member of the Investor Relations team at HeidelbergCement was honoured as the best investor relations employee in the sector. The Investor Relations team consistently gathered and evaluated feedback from investors following visits and conferences in order to continually improve the quality and effectiveness of our investor relations work. The results were incorporated into the ongoing development of our investor relations work, with the aim of successfully continuing open dialogue and transparent communication with the capital market and further strengthening trust in our Group and our share.

Contact us

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Combined management report of HeidelbergCement Group and HeidelbergCement AG

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Due to rounding, numbers presented in the Annual Report may not add up precisely to the totals provided.

Fundamentals of the Group

Business model

HeidelbergCement is one of the world's largest building materials companies and operates on five continents. Our products are used for the construction of houses, infrastructure, and commercial and industrial facilities, thus meeting the demands of a growing world population for housing, mobility, and economic development.

Integration of Italcementi
Following the announcement in July 2015 of the acquisition of a 45 % stake in Italcementi from Italmobiliare S.p.A., the purchase was concluded by HeidelbergCement on 1 July 2016. Italcementi has been fully consolidated since this date.

A mandatory tender offer was made in September 2016, followed by the squeeze-out of the remaining shareholders. Since 12 October, HeidelbergCement has held 100 % of the share capital, and the Italcementi share was delisted from the stock exchange on the same day.

Unless expressly indicated otherwise, all figures for 2016 in this Annual Report include the business contribution of Italcementi since 1 July 2016.

Products
Our core activities include the production and distribution of cement and aggregates, the two essential raw materials for the manufacture of concrete. Our product range is substantially complemented by downstream ready-mixed concrete and asphalt activities. Furthermore, HeidelbergCement offers services such as worldwide trading in cement and coal by sea.

Our core products cement and aggregates (sand, gravel, and crushed rock) are generally homogeneous bulk goods. Their product characteristics are standardised in order to ensure the required stability, reliability, and processability in the application.

Cements are classified according to their early and final strength as well as their composition. In addition to cements that consist of 100 % clinker, there are so-called composite cements, in which a portion of the clinker is replaced by alternative raw materials, such as fly ash, ground slag, or limestone. As the production of clinker is energy-intensive and releases large amounts of CO_2, the use of alternative raw materials can conserve natural resources and reduce CO_2 emissions. Cement is used as a binder mainly in concrete production.

Aggregates are classified according to their particle size and consistency. They are the main component in the production of concrete and asphalt, but are also used as base courses in the construction of infrastructure, such as roads.

Concrete is a mixture of aggregates (about 80 %), cement (about 12 %), and water. After water, concrete is the most commonly used substance on our planet. Concrete is usually delivered to the building site by ready-mix trucks and is poured locally into forms. Moreover, concrete is also used for the production of precast concrete parts, such as stairs, ceiling elements, or structural components.

Asphalt is a mixture of aggregates (about 95 %) and bitumen, and is generally used as a top layer in road construction.

In 2016, HeidelbergCement sold 103.8 million tonnes (previous year: 81.1) of cement, 272.0 million tonnes (previous year: 249.2) of aggregates, 42.5 million cubic metres (previous year: 36.7) of ready-mixed concrete, and 9.4 million tonnes (previous year: 9.1) of asphalt.

Locations and sales markets

Due to the heavy weight of cement and aggregates compared with their price, production is usually located in close proximity to the sales markets. The cement transportation radius by road normally does not exceed 200 km. The delivery radius for aggregates and ready-mixed concrete by road is less than 100 km. Consequently, we have local production sites in the around 60 countries in which we offer building materials.

We currently operate 139 cement plants (plus 16 as part of joint ventures), more than 600 quarries and aggregate pits, and well over 1,500 ready-mixed concrete production sites worldwide. In total, the Group employs 60,424 people at around 2,700 locations (of which over 600 come from Italcementi) on five continents. There are also 270 production sites belonging to joint ventures.

Organisational structure

In the context of the generation change in the Managing Board and in light of the acquisition of Italcementi, HeidelbergCement slightly changed the composition of some Group areas at the start of 2016 and integrated the newly added countries of Italcementi. The Group is divided into five geographical Group areas: Western and Southern Europe, Northern and Eastern Europe-Central Asia, North America, Asia-Pacific, and Africa-Eastern Mediterranean Basin (see organisation chart for breakdown of countries). Our global trading activities, especially the trading of cement, clinker, and fuels, are pooled together in the sixth Group area Group Services.

Organisational structure of the Group areas and business lines

HEIDELBERGCEMENT

Western and Southern Europe	Northern and Eastern Europe-Central Asia	North America	Asia-Pacific	Africa-Eastern Mediterranean Basin	Group Services
Belgium, France, Germany, Italy, Netherlands, Spain, United Kingdom	Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Czechia, Denmark, Estonia, Georgia, Greece, Hungary, Iceland, Kazakhstan, Latvia, Lithuania, Norway, Poland, Romania, Russia, Sweden, Slovakia, Ukraine	Canada, USA	Bangladesh, Brunei, China, India, Indonesia, Malaysia, Singapore, Sri Lanka, Thailand, Australia	Benin, Burkina Faso, DR Congo, Egypt, Gambia, Ghana, Liberia, Mauritania, Morocco, Mozambique, Sierra Leone, Tanzania, Togo, Israel, Palestine, Turkey	
- Cement - Aggregates - Ready-mixed concrete-asphalt - Service-joint ventures-other	- Cement - Aggregates - Ready-mixed concrete-asphalt - Service-joint ventures-other	- Cement - Aggregates - Ready-mixed concrete-asphalt - Service-joint ventures-other	- Cement - Aggregates - Ready-mixed concrete-asphalt - Service-joint ventures-other	- Cement - Aggregates - Ready-mixed concrete-asphalt - Service-joint ventures-other	

Within the geographical Group areas, we have divided our activities into four business lines. In the business lines of cement and aggregates we report on the essential raw materials that are required for the manufacture of downstream ready-mixed concrete and asphalt activities, which are combined in the third business line. The fourth business line, service-joint ventures-other, primarily covers the activities of our joint ventures. It also includes the building products that are still manufactured in a few countries. The acquisition of Italcementi has strengthened our Group in the areas of cement and ready-mixed concrete especially.

Business processes
HeidelbergCement operates as a fully integrated building materials company. Key business processes include the extraction of raw materials, the production of building materials, as well as their marketing and distribution to the customers. Operating activities are supported by central competence centers for technology as well as by shared service centers in individual countries and regions. Operating business processes include the geological exploration of raw material deposits, the purchase or lease of the land where the deposits are located, obtaining mining concessions and environmental certifications, the construction of manufacturing facilities in cooperation with external service providers, as well as the actual production of building materials, including the extraction of raw materials and the maintenance of facilities.

External factors of influence
The most significant external factors influencing the economic development of the HeidelbergCement Group are weather conditions, economic and population growth, as well as the development of the regulatory environment and the competition in the markets in which we operate.

Strategy and targets

The target of HeidelbergCement is to increase the value of the Group in the long term through sustainable and result-oriented growth. We want to continue to provide our customers with superior quality and innovative products at competitive prices, open up prospects for our shareholders, and offer all of our employees safe and attractive jobs. We incorporate economic, ecological, and social targets in our business strategy by the measures we take to protect the climate and biodiversity, as well as the social responsibility we assume at all locations worldwide.

Growth
With the takeover of Italcementi in 2016, HeidelbergCement used a unique opportunity to accelerate the growth of the Group. The valuable portfolio of plants and raw material quarries acquired with Italcementi perfectly complements HeidelbergCement’s own international presence, with strong market positions in France, Italy, the USA, and Canada, among others, as well as in emerging countries with high growth potential, such as India, Egypt, Morocco, and Thailand.

Thanks to the acquisition of Italcementi, HeidelbergCement is even better positioned to exploit growth opportunities in key mature markets and emerging countries. The investments made in many emerging countries in recent years have resulted in modern capacities that can serve the anticipated market growth. In the mature markets, we have reserve capacities and import opportunities to meet the recovering market demand. HeidelbergCement will also use its financial resources for carefully selected growth projects in existing regions and tap into new markets as part of a disciplined M&A strategy.

In addition, HeidelbergCement intends to further strengthen the vertical integration in urban centers as a vital driver for future growth and value creation. To this end, we are combining the production sites of different business lines, such as cement, aggregates, ready-mixed concrete, and asphalt, in one production network. Overlapping processes, for instance logistics, are controlled centrally via standardised IT platforms, thereby optimising the use of resources. Business activities are being integrated, for example through shared sales structures and the provision of complete, cross-business-line solutions and additional services. With these measures, HeidelbergCement intends to make better use of its operational capacity than ever before. At the same time, we aim to further improve customer service and optimise supply capacities. For the future, HeidelbergCement plans to build up and strengthen vertically integrated positions in urban centers around the world.

Cost leadership

In a market with largely standardised products, cost leadership is a key factor for success. In addition to our consistent focus on cost cutting programmes, emphasis is placed on continuous improvement of operational performance at individual production sites. We engage in intensive benchmarking both internally and in relation to competitors, in order to identify optimisation potentials. Following the acquisition of Italcementi, we particularly focus also on the leverage of synergies. When it comes to investment, we also aim to keep costs as low as possible through a combination of HeidelbergCement's engineering competence and low-cost suppliers worldwide for machines, equipment, and services.

Performance culture and local responsibility

An excellent management team and dedicated, qualified employees are the source of our business success. As a company with a focus on performance and results, we greatly value the competence of our employees and management. The focus is on comprehensive efficiency and clear customer-orientation. HeidelbergCement pursues an integrated management approach, the success of which is based on a balance between local operational responsibility, Group-wide standards, and global leadership. Our local operations are key for the success of our business. Local management bears full responsibility for production, market, and management development, with the aim of market and cost leadership. They are supported by nationwide shared service centers, which handle administration for all business lines on the basis of a standardised IT infrastructure. In order to ensure transparency, efficiency, and rapid implementation of measures throughout the Group, HeidelbergCement has standardised all important management processes. Group-wide, uniform key performance indicators (KPIs) facilitate direct comparability and provide a foundation for continuous benchmarking.

Sustainability

We build our long-term success on sustainable business practices. This includes securing access to raw materials reserves with adequate lifetimes and introducing innovative production processes. Alongside the use of alternative fuels and raw materials, and the development of new products, this leads to emission reduction and conservation-oriented handling of our raw materials base. HeidelbergCement is also active in the promotion of biodiversity at its extraction sites, through targeted implementation of biodiversity management plans, partnerships with international and national environmental organisations, as well as organising the international Quarry Life Award competition.

Capital allocation – shareholder returns

Focus of HeidelbergCement in capital allocation is on shareholder returns and disciplined growth. This is based on a steady increase in free cash flow over the next few years and key financial ratios that remain within the investment grade range.

We understand disciplined growth to be the thorough assessment of growth projects in terms of their strategic, financial, and technical attractiveness and with regard to clearly defined investment criteria. In this way we can ensure that growth investments create value for our shareholders. Accordingly, the takeover of Italcementi was carefully examined and meets the requirements of a value-creating investment.

To improve the results for shareholders, HeidelbergCement intends to pursue a progressive dividend policy over the next few years. The payout ratio is expected to increase to 40 %–45 % by 2019. Moreover, the option was introduced for any available cash to be returned to shareholders in the form of share buybacks.

For further information on financial management, its targets and policies, please refer to the section Group financial management on page 80 f.

Internal management control system and indicators

Components and functionality of the control system

The internal management control system at HeidelbergCement is based primarily on annual operational planning, ongoing management accounting and control, quarterly management meetings, central coordination of investment processes, as well as regular Managing Board meetings and reporting to the Supervisory Board.

Annual planning takes the form of top-down/bottom-up planning, under which the Managing Board first defines a top-down budget on the basis of macroeconomic analyses, its assessment of market conditions and cost targets. From this, specific targets are derived for individual operating units, which are used as the basis of detailed planning for the individual units and setting of targets with local management. The individual operational plans created by the operating units are then consolidated centrally to create the Group-wide plan.

Ongoing management accounting and control of the company is carried out using a comprehensive system of standardised reports on the Group's net assets, financial performance, and results of operations. The indicators used for this purpose are determined and presented uniformly throughout the Group. Reports on financial status, selected sales volumes and production overviews are prepared weekly. Reports on results of operations and a detailed cash flow report are prepared monthly in order to monitor cash flow. Detailed reports on the financial situation are submitted at the end of each quarter. Internal quarterly reporting includes a detailed tax reporting. At the quarterly management meetings, the Managing Board and country managers discuss business developments, including target achievement, along with the outlook for the relevant year and any measures that need to be taken.

Central departments in the areas of strategy, finance, and technology follow a formalised process to review and assess all major investments and acquisitions. This ensures comparability between different projects and consistent high quality in investment decision making. Investments in expansion are assessed using a discounted cash flow (DCF) model. The standard is that investment projects must generate at least enough income to cover their weighted average cost of capital (WACC). This long-term approach to investment returns is supported by simulated calculations that show the impact of an investment on the consolidated income statement, statement of cash flows, balance sheet, and taxes over a period of five years.

The financial analysis is complemented by a strategic analysis of the planned investments. Here, the strategic value of an investment is determined taking into account the expected market position, growth potential, synergies with other Group units, and the risk structure. The overall result of these analyses is the criterion by which the Managing Board makes its investment decisions.

Financial targets and management indicators

Earnings, capital expenditure, and return on capital

The most important short-term indicator of the company's earnings strength is result from current operations, which is determined in detail and analysed for all operating units. The decisive indicators at Group level are earnings before interest and taxes (EBIT) and Group share of profit. The financial and assets positions of the operating units are monitored short-term primarily via the amount of working capital and investment. Fixed targets are agreed with all operating units for each indicator.

Strategic management and capital allocation are based on return on invested capital (ROIC). ROIC is defined as: the ratio of the total of result from current operations and result from participations minus income taxes paid to the average invested capital of the past four quarters. (Invested capital is calculated as total of equity and net debt minus liabilities from puttable minorities.) You'll find the calculation of ROIC on page 80. The calculation was adjusted to reduce peaks from non-recurring effects and volatility at cut-off dates.

At operating level, the company uses return on capital employed (ROCE) for capital allocation. ROCE is calculated as the ratio of EBIT to invested capital. Taxes and goodwill are not taken into account for calculation. These are strategic-level indicators, and are therefore taken into account for determination of ROIC.

General target is generation of ROIC at least equivalent to weighted average cost of capital (WACC). HeidelbergCement's weighted WACC totalled 7.0 % in the average of the reporting year. HeidelbergCement has set the medium-term target of increasing ROIC to over 10 % by 2019. Please see page 79 f., for more information on capital efficiency.

Financing structure

HeidelbergCement's objective is to maintain a stable investment grade credit rating to ensure that we retain our high financial stability as a company that is sensitive to business cycles. Furthermore, investment grade rating facilitates access to attractive and cost-effective funding opportunities and makes our share more attractive for an even broader circle of investors. To achieve this goal, we are focussing on the financial indicators most watched by rating agencies. An important indicator is the dynamic gearing ratio, i.e. the ratio of net debt to result from current operations before depreciation and amortisation. On a pro forma basis, i.e. taking into account Italcementi's contribution also to the results of the first half of year 2016 in the amount of € 256 million, we achieved a ratio of 2.8x at the end of 2016, compared with 2.02x at the end of 2015 for HeidelbergCement before the takeover. The increase is a consequence of the acquisition of Italcementi. Our objective is a ratio in the area between 2.5x and 1.5x.

Non-financial targets and sustainable key-performance indicators
Operational health and safety generally plays a major role in the production of building materials and, in addition, emissions in cement production especially. Therefore, essential key-performance indicators include parameters, such as accident frequency rate, accident severity rate, and fatality rate, as well as CO_2 emissions and the use of alternative fuels. Information on these non-financial key-performance indicators is available in the chapters 2016 Economic report on page 57, Occupational health and safety on page 101 f., and Environmental responsibility on page 104 f.

Lead indicators
HeidelbergCement's core business is in standardised mass products that are generally ordered at short notice. For the most part, suppliers of such products are interchangeable from a customer standpoint. Moreover, the volume of construction activity – and thus sales volumes of building materials – are dependent on local weather conditions in the respective markets. Given this market constellation, no reliable lead indicators are definable for business forecasting. However, selected statistical data and industry association forecasts can be utilised to gauge the business outlook at country level. In mature markets, for instance, figures on building permits or infrastructure budgets serve as important sources of information. In emerging markets, data on population growth and GDP growth forecasts are frequently used indicators.

Research and technology

The target of HeidelbergCement's research and development activities (R&D) is to generate added value for customers and the Group through innovative products as well as through process improvements and new formulations, whilst minimising the use of energy, CO_2 emissions, and hence costs.

Our research and development activities
The innovation work at HeidelbergCement can essentially be divided into five areas of focus:

- Products and applications: Our research and development activities are geared strongly towards the market and our customers. The main priority is the development and improvement of binders and concretes with optimised properties and innovative functionalities. However, our work does not end with the product; it also includes providing our customers with competent, professional technical service on the application and optimisation of their products.

- Cement production: In the first half of 2016, the focus lied on the continuous improvement of processes and cost structures in all plants. This includes the cost-efficient replacement of fossil fuels and natural raw materials with alternative fuels and raw materials as well as reducing energy requirements in production. These goals were pursued until the end of 2013 as part of the Group-wide "Operational Excellence" initiative, with opportunities systematically and very successfully exploited in the cement plants. With the "Continuous Improvement Program" (CIP), started in 2014, we intend to not only retain, but further improve upon our achievements. Moreover, in the second half of the year, the focus was on the integration of the newly added plants of Italcementi, with a strong emphasis on costs and operational excellence, consistent with the general policy of HeidelbergCement. The implementation of identified savings opportunities is thus a top priority.

- Aggregates: Since 2011, we have been driving continuous improvement (CI) at our locations, targeting uptime, throughput, and more efficient use of labour and energy. Our efforts have matured from capturing "low-hanging fruit" to basic process changes, and have now turned to digitisation. The integration of operational, commercial, and financial data in one management tool allows for greater transparency and the simplified coordination of production, sales, and quality control. CI goes hand in hand with our training programme, which targets all levels from management to the workers at the plants. The entire CI process is driven by highly committed regional and local line managers and supported by local CI managers.

- Optimisations across all business lines: Vertical integration, especially in urban centers, has been a strong focus of HeidelbergCement. Sustainable financial improvements can be achieved through a tightly coordinated optimisation of product portfolio, production processes, and logistics across the aggregates, ready-mixed concrete, and cement business lines. By utilising our entire raw material portfolio in one market region, we can optimise the material mix in our ready-mixed concrete plants so that our raw material deposits are most efficiently used and the costs in all aforementioned business lines are reduced. At the same time, we guarantee high concrete quality for our customers.

- Development of cements and concretes with improved CO_2 balance: A major area of focus is to further develop composite cements with less clinker – even beyond the limits of today's existing standards. Reducing the proportion of clinker is the most important lever when it comes to minimising energy consumption and CO_2 emissions, and in preserving natural raw materials. Finally, we are also researching entirely new kinds of binder systems that dispense with the use of conventional clinker altogether. These innovative alternative products are still in the early stages of development and it will take some more years until they are ready for the market and for wide deployment.

Organisation and fields of activities in the area of R&D and innovation

Our global competence centers Heidelberg Technology Center (HTC), Competence Center Materials (CCM), the newly founded Competence Center Readymix (CCR), and teams from the two centers for R&D and product innovation – Global R&D (GRD) and Global Product Innovation (GPI) – pool the knowledge in our Group and make it rapidly and comprehensively available to all operating units. Numerous international experts work in all of our competence centers, covering a broad range of expertise in the areas of cement, concrete, and aggregates.

The Group-wide activities in the area of research and technology are divided into the following tasks:

Central R&D and innovation

We have concentrated the Group-wide R&D and innovation activities in the cement, ready-mixed concrete, and aggregates business lines in our two research centers in Leimen, Germany (GRD), and Bergamo, Italy (GPI). While the R&D team in Leimen focuses on the reduction of CO_2 emissions, resource efficiency, and a decrease in production costs, product innovation in Bergamo concentrates on the development of high-end concrete applications and new market opportunities. Individual projects are defined and implemented by the two teams in close coordination with the operating companies. This close collaboration from the very start of the project facilitates the efficient implementation of the development results and a quick market launch.

Technology and innovation

Technical centers support our national companies in each Group area. In the cement business line, these are the Heidelberg Technology Centers (HTC) with three area organisations located in Germany, supporting Europe, the Mediterranean Basin, Africa, and Central Asia, one location in North America, and one in Asia with offices in China, India, and Indonesia. They support our cement plants on all technical issues, from securing raw materials and operational optimisations to process control and quality assurance. With investment projects, HTC locations are involved in project management until a new installation or plant is commissioned or optimisation measures have been completed. Similarly, the Competence Center Materials (CCM) supports the aggregates and asphalt business areas Group-wide. In 2016, a similar organisation was set up for the ready-mixed concrete business line with the Competence Center Readymix (CCR), which focuses on the Group-wide optimisation of raw materials and logistics costs. The close dialogue between HTC, CCM, CCR, and our plants ensures efficient implementation of potential optimisation opportunities and a robust continuous improvement process.

Customer-related development and technical service

Our close proximity to the market requires intensive customer-oriented development and technical service, which is also reflected in our high financial commitment (see the following table). The relevant departments and employees, which are integrated directly into the organisation of the respective national companies, develop and optimise the cements, aggregates, and concretes that are tailored to the local needs, often in close cooperation with the customers.

Expenditure for research and technology

Total expenditure for research and technology amounted to €116.6 million in the reporting year (previous year: 107.8), corresponding to 0.7 % of revenue. Personnel costs accounted for around three quarters of the total expenses. The following table shows a breakdown of expenses for the last five years for each of the three fields of activities mentioned above.

Expenditure for research and technology

€m	2012	2013	2014	2015	2016
Central R&D and innovation [1]	7.3	7.8	8.5	8.9	**13.6**
Technology and innovation	46.4	49.3	48.3	52.6	**55.6**
Customer-related development and technical service	38.1	46.8	42.8	46.2	**47.4**
Total	91.8	103.9	99.6	107.8	**116.6**

1) Including capitalised expenses

The structure of the expenditure for research and technology corresponds to the organisational breakdown: Expenses for the development of basic technologies are allocated to the Central R&D and innovation section, expenses for process innovations can be found in the Technology and innovation section, while the third section of the table contains the expenses for the optimisation of products and applications according to the wishes of our customers.

The development projects that were capitalised as investments include, amongst others, our innovative products CemFlow® and TernoCem® as well as new composite cements. In 2016, capitalised development costs totalled €1.1 million, which corresponds to around 0.9 % of total expenditure for research and technology. Because this figure is low, we have not presented it separately or shown further key figures.

Employees in research and technology

In the 2016 financial year, a total of 1,063 people (previous year: 924) were employed in research and technology. The personnel breakdown and development over the last five years is shown in the following table.

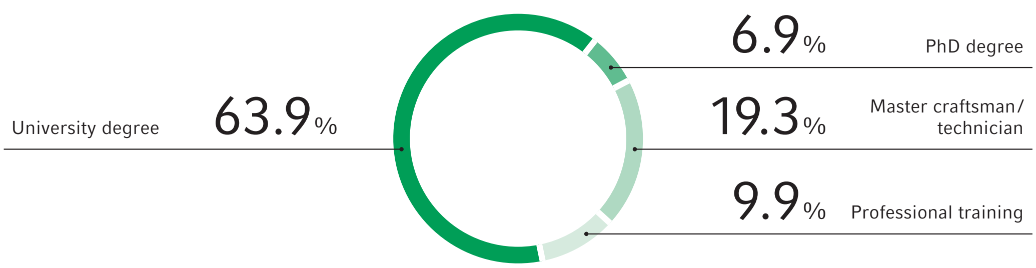
Employees in research and technology

	2012	2013	2014	2015	2016
Central R&D and innovation	54	56	60	59	**97**
Technology and innovation	341	329	325	333	**358**
Customer-related development and technical service	454	550	491	531	**608**
Total	849	935	876	924	**1,063**

The high importance of customer-related development and technical service as well as technology and innovation is reflected not only in the costs but also in the number of employees.

Our employees' high level of expertise in research and technology is a key competitive factor and the qualification requirements are correspondingly high. Around 64 % of the employees in our technical competence centers have a university degree and almost 7 % have a PhD (see the following graph). Intensive on-going training and a systematic exchange of knowledge in expert networks across the Group ensure a high level of qualification.

Qualification profile of our employees in research and technology



Research cooperation

Close cooperation with institutes and universities at both a local and global level complement our own R&D and innovation activities. At a global level, we refer in particular to our participation in Nanocem, the world's most important research network in the cement sector. The network includes cement and admixture companies as well as 25 leading universities in Europe, who all work together to carry out fundamental research, which is supported by public funding.

In terms of product development, we prefer bilateral cooperation with individual universities in order to complement our own expertise in a targeted way. In some cases, cooperative projects with universities are supported by government funding. Compared with total expenditure, the funding ratio is marginal; therefore, we do not record it centrally. Total expenditure for contract research is less than €1 million for the year and is, therefore, not shown separately; these expenses are included in the Central R&D and innovation section in the table on page 48. Aside from research cooperation mentioned above, we did not acquire any research and development expertise in 2016.

Major projects and research and development results

Improving cost efficiency and tied-up capital

Following a successful pilot phase in spring 2014, the Managing Board resolved to implement the new “Continuous Improvement Program” (CIP) in the cement business line. CIP is the consistent continuation of the programmes we have already completed – “Operational Excellence” (OPEX), “Maintenance Improvement”, and “Group Spare Parts” – and focuses on the ongoing exploitation of improvement potential and the anchoring of a new management approach within the Group. In 2016, the CIP roll-out continued and is currently ongoing in 67 plants. In seven countries, our plants have already achieved steady-state phase.

Our new three-year “Aggregates CI” programme in the aggregates business line started in 2016 and is expected to add €120 million of value by the end of 2018. To date, all continuous improvement programmes have been highly effective, always exceeding their targets. In 2016, we more than doubled our CI goals. The increase in cost efficiency and results is even more significant because all the measures taken are sustainable and represent a major competitive advantage in the long term. These programmes, along with precisely tailored training courses, also offer our employees globally good opportunities for further development. The continuous improvement approach of HeidelbergCement is mature and embedded across the Group and will continue to drive results for the years to come.

Cements with lower proportions of clinker

We have made further progress in the development of cements with less clinker, thereby achieving a reduction in both CO_2 emissions and costs. In several countries, the proportion of blast furnace slag, fly ash, and limestone in cement has been increased, thereby reducing the clinker content.

In parallel, we are focusing on the identification and development of alternative cement components. In Africa, for example, we use ground rock from local quarries as an additional component in cement production, thereby replacing imported clinker with local raw materials. The use of biofuel ash obtained from sugar production, for example, may open up further possibilities. In the Netherlands, we are investigating whether the fines from concrete recycling can be used as a cement ingredient in order to fully close the loop in concrete recycling.

Development of alternative clinker

With the discovery of a new reactive clinker phase, we have established the basis for an alternative clinker technology (Ternocem®). Based on an altered chemical composition and low burning temperatures, CO_2 output is 30 % lower in comparison with conventional clinker and energy consumption is reduced by around 15 %. The basic technology is protected by various patent applications. A multi-year research programme was launched in 2015 to develop the technology to market maturity. This programme is substantially supported by the EU-funded “ECO-BINDER” project. With this, we intend to prepare the ground for future product standardisation.

Preservation of resources, recycling, and CO_2 capture
The EU-funded "LEILAC" project, in which HeidelbergCement is one of the main strategic partners, started in January 2016. This project aims to demonstrate the technical and economic feasibility of a process technology for the capture of the released CO_2 in its purest form during the heating of the raw material. As planned, the first milestone was reached on 1 October: the basic design and concept for the innovative calciner was defined and reported to the EU. In 2017, the construction plan is to be prepared in detail and construction of the calciner to begin.

In addition, HeidelbergCement is also researching the use of microalgae in CO_2 recycling for the manufacture of biofuels as well as fish food and other animal feed. Our research and development projects in Sweden, Turkey, and France are very encouraging and make an important contribution to our strategy of making CO_2 useable. In this context, we are also developing a joined large scale pilot project to produce algae for fish food in Morocco together with partners from other industries. HeidelbergCement is recognised as the industry leader in this area both in the EU and internationally – especially following the COP22 global climate conference in Marrakesh.

For other projects for the capture and storage of the CO_2 that is produced during cement production, see the Environmental responsibility chapter on page 104 f.

Innovative concretes
In several countries, we have developed ultra-high-performance concrete (UHPC) for the construction of high-rise buildings, such as the Telus Sky Tower in Calgary, Canada, that requires final concrete strength three to four times higher than conventional concrete. UHPC has also been used for other major building projects in Europe and Southeast Asia. Moreover, UHPC opens up new opportunities in the manufacture of precast concrete parts, such as the production of concrete fences in the Netherlands.

Our product innovation team (GPI) in Bergamo is investigating unconventional new application possibilities for cement-bound building materials. One example is the EU-funded project COBRA, which develops cement compositions for car brake pads. In 2016, the suitability of cement-based brake pads was proven in field trials.

Architectural concrete
In 2016, GPI collaborated on key reference projects in which innovative concrete solutions were first developed in the i.lab research laboratory in Bergamo and then used in building construction. The facade of the new DIESEL branch in New York was constructed using the ultra-high-performance mortar i.design Effix CREA, which was developed specifically for urban design. Subsequently, the facades of other DIESEL branches worldwide have been designed using this material.

Also worthy of mention is the facade of the Dior branch in Miami, which was realised using the i.active BIODYNAMIC cement. The same construction material was also used for the facade of the Italian Pavilion at the EXPO 2015 in Milan. The Italian Pavilion received the prestigious Excellence Award of the American Concrete Institute (ACI) in 2016 for the excellent and innovative use of concrete and was also recognised in the Decorative Concrete category, thereby prevailing over 58 other projects.

In 2016, the facade of the Dior branch in Miami received the silver American Architecture Prize (AAP) in the Commercial Architecture category. This prize is awarded to international architecture.

2016 economic report

Economic environment

General economic conditions

Contrary to the expectations at the beginning of the year, global economic growth did not accelerate in 2016, but declined slightly as the year progressed. This was attributable to various factors: The slowdown in growth in China, the significant drop in the oil price at the start of the year, and the revaluation of the US dollar following the end of the expansionary monetary policy of the US Federal Reserve. While economic growth in the eurozone developed as anticipated, forecasts for the United States and most emerging countries had to be revised downwards during the course of the year. Growth in China continued to weaken and the economic momentum slowed down throughout Asia. Russia and the emerging countries in South America even fell into recession. Gross domestic product in Germany rose by 1.9 % and was slightly above the level of the eurozone. Together with population growth and gross domestic product per capita, economic growth is one of the most important indicators for measuring the development of construction activity and the demand for building materials. The increase in demand for cement in the emerging countries is roughly in line with economic growth. During infrastructure expansion phases, however, it can also be exceeded several times.

Real GDP growth rate in major Group countries

in %	2015	2016[1]	in %	2015	2016[1]
Western and Southern Europe			**North America**		
Belgium	1.4	**1.2**	Canada	0.9	**1.4**
France	1.3	**1.1**	USA	2.6	**1.6**
Germany	1.5	**1.9**	**Asia-Pacific**		
Italy	0.8	**0.9**	Australia	2.4	**2.4**
Netherlands	2.0	**1.7**	China	6.9	**6.7**
Spain	3.2	**3.2**	India	7.6	**6.6**
United Kingdom	2.2	**1.8**	Indonesia	4.8	**5.0**
Northern and Eastern Europe-Central Asia			Malaysia	5.0	**4.2**
Czechia	4.5	**2.5**	Thailand	2.9	**3.2**
Hungary	2.9	**2.0**	**Africa-Eastern Mediterranean Basin**		
Kazakhstan	1.2	**-0.8**	Egypt	4.2	**3.8**
Norway	1.6	**0.8**	Ghana	3.9	**3.7**
Poland	3.6	**3.1**	Morocco	4.5	**1.8**
Romania	3.8	**5.0**	Tanzania	7.0	**7.2**
Russia	-3.7	**-0.2**	Togo	5.4	**5.3**
Sweden	4.2	**3.6**	Israel	2.5	**4.0**
			Turkey	4.0	**2.7**

1) 2016 values are based on estimations and forecasts.
Sources: International Monetary Fund (IMF) and national statistical offices

As expected, the US Federal Reserve slightly increased interest rates in the United States. In contrast, the European Central Bank continued its expansionary policy in 2016. Nevertheless, the disparity between interest rate policies in the United States and Europe initially only had a minor impact on exchange rates. The euro increased in value against numerous currencies due to the weaker economic development in many emerging countries. In the United Kingdom, the positive economic momentum continued despite the Brexit vote, even if it was somewhat weaker than expected over the course of the year. However, the British pound depreciated considerably against the euro following the Brexit decision. The Bank of England has nonetheless kept interest rates low. According to the IMF, the global economy grew by 3.1 % in 2016 compared with 3.2 % in the previous year.

As a result of cuts in production, particularly in North America, and agreements within OPEC, the oil price recovered during the year after reaching its low point at the start of 2016. Average annual energy prices were below the previous year's level. The oil price had nearly doubled by year end though, compared with its low point at the start of the year.

Industry-specific conditions

Besides the country-specific investment climate for residential, commercial, and infrastructure construction, industry-specific conditions also include local weather conditions, developments in the competitive situation, and the regulatory environment. As the production and marketing of building materials is very localised and global trade in building materials only represents a small percentage of the total volume, we focus on the relevant regions and countries instead of considering a global view of the demand trend.

According to the American cement association PCA, construction activity in the USA rose by 2.4 % in 2016. Construction activity grew by 0.9 % in residential construction, 8.8 % in non-residential construction, and fell by 1.0 % in public construction. Cement consumption increased by 2.4 %. In December 2015, the US Congress adopted a new five-year federal programme (FAST – Fixing America's Surface Transportation Act) with a volume of US$305 billion for the expansion of the infrastructure. At the same time, the financing support from the TIFIA (Transport Infrastructure Finance and Innovation Act) programme was cut back. The impact of these changes on 2016 was negligible. For the coming years, a positive effect is expected, which is explained in more detail in the outlook on page 112 f.

According to its projection from November 2016, the European market research network Euroconstruct expects an increase in construction activity in Europe for 2016. Most countries show growth in construction work, if only slight in some cases. The volume of construction investments in Germany is expected to have grown by 3.1 % in 2016. Accordingly, a rise of 2.6 % is anticipated for cement consumption. Growth in the United Kingdom is forecast to have slowed down to 1.6 % following the Brexit vote. However, residential construction and major infrastructural projects are still the key drivers. In Belgium and the Netherlands, pleasing growth in construction activity of 3.1 % and 5.5 %, respectively, is expected. France and Italy are each likely to register an increase of around 1.9 %. In Norway and Sweden, a rise of 6.7 % and 6.9 %, respectively, is anticipated for 2016. Construction activity in the Eastern European countries is forecast to have decreased in 2016, particularly in the Czech Republic by 9.0 %.

In Asia, cement consumption varied greatly by region. The decline continued in China. In Indonesia, cement consumption more or less achieved the previous year's level, due to the considerably delayed start of infrastructure programmes of the new government. Cement demand in Thailand fell slightly owing to weaker construction activity in the public, private, and commercial sectors. The market growth in southern India accelerated in the course of the year.

In Africa, demand for building materials continued to develop positively, with the exception of Ghana, where the lower oil price adversely impacted the investment climate, and Morocco, where the weakness of private residential construction could not be offset by the increase in infrastructure activity. Cement demand in Egypt rose by more than 5 % on account of the strong private residential construction and major infrastructure projects.

The positive demand in recent years has increased the level of global competition in 2016, particularly in the emerging countries of Africa and Asia. Local and regional companies have commissioned new cement capacities. Furthermore, increasing imports put pressure on local prices in some cases.

Weather conditions also play a major role, as construction activities are considerably restricted or even suspended altogether when temperatures fall well below freezing, during snow, or heavy rainfalls. In 2016, sales volumes of building materials in the USA and Canada were adversely impacted by the early onset of winter.

The EU Emissions Trading Scheme (ETS) is just one of the regulatory conditions that exercise an influence on the results of building materials producers. Owing to the persistent weak economic development in Europe, the price of emission rights remained well below €10 per tonne of CO_2. As in 2015, HeidelbergCement decided not to sell its surplus emission rights on account of the low price, but has kept them for future use.

Relevant changes in reporting

With the exception of the changed composition of some Group areas, described in the section Organisational structure on page 41, there were no relevant changes in reporting in 2016. Unless expressly indicated otherwise, all statements and figures in this annual report refer to the continuing operations of HeidelbergCement.

Development of sales volumes

Following the integration of Italcementi since 1 July 2016, sales volumes in the reporting year grew substantially in all business lines. Excluding this and other consolidation effects, sales volumes slightly exceeded the previous year's level and developed differently in the individual Group areas.

In 2016, cement and clinker sales volumes rose by 28.0 % to 103.8 million tonnes (previous year: 81.1). This includes the sales volumes of the recently added markets in Italy, France, Spain, Greece, Bulgaria, Kazakhstan, India, Thailand, Egypt, Morocco, Mauritania, Gambia, and North America. Without taking into account these new markets and the additional consolidation effect arising from our market entry in Mozambique, the increase in cement sales volumes of 1.4 % slightly exceeded the previous year's level. The growth in the two European Group areas and in North America more than offset the slight losses in Asia-Pacific and Africa-Eastern Mediterranean Basin.

In 2016, aggregates sales volumes rose by 9.1 % to 272.0 million tonnes (previous year: 249.2) as a result of consolidation. The sales volumes of the new markets in France, Italy, Spain, Greece, Morocco, Thailand, and North America have been included in this figure. Excluding these new markets and other consolidation effects due to the expansion of our activities in Northern Europe, Poland, and Australia, the aggregates sales volumes were at the level of the previous year. Development in individual Group areas was rather mixed. The most substantial increase in deliveries was recorded in the Africa-Eastern Mediterranean Basin Group area and, to a lesser extent, in Western and Southern Europe as well as in North America. In contrast, we experienced significant losses in the Northern and Eastern Europe-Central Asia Group area, and our deliveries of aggregates also fell in Asia-Pacific in comparison with the previous year.

In 2016, ready-mixed concrete sales volumes were up by 15.9 % year-on-year to 42.5 million cubic metres (previous year: 36.7). This figure includes the sales volumes of our new markets in France, Italy, Spain, Greece, Kazakhstan, Thailand, Egypt, Mauritania, Morocco, and North America. Excluding these markets and consolidation effects from the expansion of our ready-mixed concrete activities in Poland, ready-mixed concrete sales volumes slightly exceeded the level of the previous year. Development of the individual Group areas also varied greatly in this business line. The partly considerable declines in the North America and Asia-Pacific Group areas were offset by rising demand in Western and Southern Europe as well as in the Northern and Eastern Europe-Central Asia Group area. In Africa-Eastern Mediterranean Basin, sales volumes once again reached the level of the previous year.

In 2016, asphalt deliveries rose by 2.7 % to 9.4 million tonnes (previous year: 9.1). No new markets were added to this operating line following the acquisition of Italcementi. Excluding Asia-Pacific, deliveries in the other Group areas rose in comparison with the previous year.

For a more detailed description of the development of sales volumes in the individual Group areas, we refer to the section Business trend in the Group areas on pages 58–74.

Sales volumes

	2015	2016	Change	Excl. consolidation effects
Cement and clinker (million tonnes)	81.1	**103.8**	28.0 %	1.4 %
Aggregates (million tonnes)	249.2	**272.0**	9.1 %	-0.3 %
Ready-mixed concrete (million cubic metres)	36.7	**42.5**	15.9 %	0.3 %
Asphalt (million tonnes)	9.1	**9.4**	2.7 %	2.7 %

Earnings position

Group revenue rose by 12.6 % in comparison with the previous year to €15,166 million (previous year: 13,465). Excluding consolidation and exchange rate effects, it fell slightly by 1.9 %. Changes to the scope of consolidation of €2,280 million, primarily owing to the first-time consolidation of the Italcementi Group, had a positive impact on revenue. Exchange rate effects, however, reduced revenue by €326 million.

In the reporting year, material costs rose by 6.3 % to €5,823 million (previous year: 5,477). This increase is essentially due to the first-time consolidation of Italcementi. Excluding consolidation and exchange rate effects, material costs decreased by 8.4 %. This decline predominantly related to energy costs, raw materials, and goods purchased for resale. The material cost ratio improved considerably from 40.7 % to 38.4 %. The balance of other operating expenses and income was 17.1 % above the previous year's level at €-3,903 million (previous year: -3,334), primarily owing to the first-time consolidation of Italcementi. Excluding currency and consolidation effects, third-party repairs and services as well as rental and leasing expenses only rose slightly. Personnel costs grew by 17.6 % to €2,674 million (previous year: 2,274), largely as a result of the increase in the number of employees. The result from joint ventures rose by 5.0 % to €211 million (previous year: 201). This was mainly on account of the positive business development in China.

The result from current operations before depreciation and amortisation improved substantially by 12.5 % to €2,939 million (previous year: 2,613). The increase of €327 million largely results from the consolidation of Italcementi. The result from current operations rose by 7.5 % to €1,984 million (previous year: 1,846). Excluding consolidation and exchange rate effects, the growth amounted to 2.7 %.

The additional ordinary result of €-324 million (previous year: -12) is heavily influenced by the acquisition of Italcementi and primarily relates to transaction costs for business combinations, restructuring expenses, expenses arising from the disposal of subsidiaries, as well as other non-recurring expenses. Further comments are provided in the Notes on page 214 f.

Results from participations rose by €8 million to €38 million (previous year: 30); earnings before interest and taxes (EBIT) fell by €165 million to €1,698 million (previous year: 1,863).

The financial result improved by €56 million to €-494 million (previous year: -550). Besides the reduction of €18 million in interest expenses, the financial result was positively impacted by the increase of €19 million in currency results and the improvement of €26 million in the other financial result.

Profit before tax from continuing operations fell by €109 million to €1,204 million (previous year: 1,313), essentially due to the increase in non-recurring expenses in the additional ordinary result. The expenses for income taxes slightly exceeded the previous year's level at €305 million (previous year: 295). As a result, net income from continuing operations decreased by €119 million to €899 million (previous year: 1,019).

Net loss from discontinued operations amounts to €-3 million (previous year: -36). This change reflects expenses for operations of the Hanson Group discontinued in previous years of €30 million and income totalling €27 million from the business activities of Italcementi in Belgium and the USA, which were sold in the fourth quarter of 2016 following the decisions of the competition authorities.

Overall, a profit of €896 million (previous year: 983) was recorded for the financial year. The profit attributable to non-controlling interests rose by €7 million to €190 million (previous year: 183). The Group share of profit therefore amounts to €706 million (previous year: 800).

Earnings per share – Group share – in accordance with IAS 33 dropped by €0.60 to €3.66 (previous year: 4.26). Excluding the additional ordinary result amounting to €-324 million, the earnings per share rose to €5.34. For continuing operations, the earnings per share fell to €3.67 (previous year: 4.45).

In view of the overall positive business development, the Managing Board and Supervisory Board will propose to the Annual General Meeting on 10 May 2017 the distribution of a dividend of €1.60 (previous year: 1.30) per share.

Consolidated income statement (short form)			
€m	2015	2016	Change
Revenue	13,465	**15,166**	13 %
Result from current operations before depreciation and amortisation	2,613	**2,939**	13 %
Depreciation and amortisation	-767	**-955**	25 %
Result from current operations	1,846	**1,984**	7 %
Additional ordinary result	-12	**-324**	2525 %
Result from participations	30	**38**	30 %
Earnings before interest and taxes (EBIT)	1,863	**1,698**	-9 %
Financial result	-550	**-494**	-10 %
Profit before tax from continuing operations	1,313	**1,204**	-8 %
Income taxes	-295	**-305**	4 %
Net income from continuing operations	1,019	**899**	-12 %
Net loss from discontinued operations	-36	**-3**	-91 %
Profit for the financial year	983	**896**	-9 %
Group share of profit	800	**706**	-12 %

Non-financial key performance indicators

In the non-financial area we use several key performance indicators for the internal control and monitoring of occupational safety and CO_2 emissions.

The extraction of raw materials and the production of cement and aggregates in itself harbour various dangers, for example with regard to the transportation of raw materials and finished products, working at great heights, with high voltage currents, using heavy technical equipment or regarding rotating parts of kilns, mills, or conveyor belts. Therefore, occupational health and safety has top priority at HeidelbergCement. To gauge the effectiveness of our occupational safety measures, we use the following key performance indicators: accident frequency rate, accident severity rate, and fatality rate. For more information on the definition and development of these non-financial key performance indicators, see the section on occupational health and safety on page 101 f.

The production of cement generates a large amount of CO_2 due to the chemical processes involved in burning clinker and the high temperatures that are required. Climate protection is not only a necessary measure to safeguard the living conditions of future generations, it also has financial benefits. HeidelbergCement is increasingly involved in emission trading systems, which require the additional purchase of emission rights if the assigned amount is exceeded. That is why the continuous reduction of CO_2 emissions is at the heart of our environmental policy. The use of alternative fuels and raw materials and the reduction of the clinker content in concrete are essential levers for reducing CO_2 emissions. In order to control and monitor progress in climate protection, we use the following key performance indicators: specific net CO_2 emissions, alternative fuel rate, and clinker ratio. For more information on the definition and development of these non-financial key performance indicators, see the section on environmental responsibility on page 104 f.

Business trend in the Group areas

Western and Southern Europe

HeidelbergCement operates production sites in seven countries in the Western and Southern Europe Group area. In these mature markets, we manufacture cement, aggregates, ready-mixed concrete, asphalt, and various building products as a fully integrated building materials company. We are among the market leaders in the cement business in almost all of these countries. We also maintain a dense network of quarries for aggregates and production facilities for ready-mixed concrete. The United Kingdom, France, and Germany are the three largest market regions in Western and Southern Europe.

With the first-time consolidation of Italcementi from 1 July 2016, the Western and Southern Europe Group area was extended to include France and Italy and our market position in Spain was expanded. In all three countries, the added activities include cement and ready-mixed concrete, as well as aggregates in France in particular.

According to provisional statistical data, the economic recovery continued in the countries of the Western and Southern Europe Group area in the reporting year. The Spanish economy recorded the strongest growth, at an estimated 3.2 %. In the United Kingdom, the economy remained robust following the Brexit vote. Economic output rose by 1.8 %. In Germany, the gross domestic product increased by 1.9 %, driven by the good state of the domestic economy and the strong labour market. Belgium and the Netherlands recorded a rise in gross domestic product of 1.2 % and 1.7 % respectively. In contrast, the economy only grew by an estimated 0.9 % and 1.1 % in Italy and France respectively.

Construction activity in the countries of the Group area underwent largely positive development in the reporting year. Construction investments in Germany and the Netherlands increased by 3.1 % and 5.5 % respectively in comparison with the previous year, thanks to strong demand from residential construction. Construction activity in Belgium also experienced pleasing growth of 3.1 %, driven mainly by non-residential construction. France and Italy each registered an estimated rise of 1.9 %. Construction activity in both countries suffered from the weak economic development. In the United Kingdom, construction activity is expected to increase by 1.6 % in the reporting year. Uncertainty following the Brexit vote resulted in a decrease in the number of orders awarded in most sectors. However, public infrastructure projects were affected to a lesser extent. Construction activity in Spain fell by 3.1 % compared with the previous year. The positive development in residential construction – for the first time since the begin of the crisis in 2008 – was offset by a further decline in public building projects, which continued to be affected by the national budgetary restrictions and low infrastructure expenditure.

Cement business line

Cement consumption is expected to increase by 2.5 %, 2.0 %, and 2.3 % in the Netherlands, Belgium, and France respectively in 2016, but only by a modest 0.5 % in the United Kingdom and Italy. A rise is also anticipated again for Germany in 2016. In contrast, cement consumption fell by 2.2 % in Spain.

In 2016, the Western and Southern Europe Group area’s cement and clinker sales volumes rose by 42.2 % to 22.4 million tonnes (previous year: 15.7). This strong growth is essentially due to the inclusion of the Italcementi activities in Italy, France, and Spain. Italcementi is the largest cement manufacturer in Italy and the second largest in France. Adjusted for consolidation effects, deliveries in the Group area rose by 3.7 %.

The good development of demand in Germany, primarily in residential construction, led to a pleasing increase in the sales volumes of our plants. The main growth drivers in Belgium and the Netherlands, where cement and clinker deliveries grew substantially in the reporting year, were residential and non-residential construction. In the United Kingdom, production downtimes due to the storms in February and a drop in ground granulated blast furnace slag deliveries, however, resulted in only a slight increase in our sales volumes compared with the previous year. The demand for cement in France and Italy remained weak. Spain lacked an important impetus for growth in cement consumption on account of the shortage of infrastructural projects. Revenue of the cement business line grew by 35.6 % to €1,823 million (previous year: 1,344).

In 2014, an ambitious investment programme for the modernisation and efficiency improvement of our cement plants and environmental protection commenced in Germany. At the start of 2016, the comprehensive conversion and modernisation of the Lengfurt plant was completed. Comparable measures are being planned and implemented in the Burglengenfeld and Schelklingen plants, with commissioning expected in 2018. We have also carried out technical improvements to several plants in the other countries of the Group area, in order to achieve further reductions in dust, nitrogen oxide, and sulphur oxide emissions. In Belgium and the United Kingdom, investments were made in the further development of the IT systems, especially within the framework of our "LEO" logistics project.

Aggregates business line

The aggregates sales volumes of the Group area increased by 22.2 % to 67.4 million tonnes (previous year: 55.1), mainly due to the newly included aggregates activities of Italcementi in France. Adjusted for consolidation effects, deliveries rose by 1.6 %.

A significant growth in sales volumes in Germany compensated for the decrease in volumes in Belgium and the Netherlands. The previous year's level was slightly exceeded in the United Kingdom. Revenue of the aggregates business line rose by 13.4 % to €878 million (previous year: 774).

We continually expand our leading market position in aggregates primarily through the acquisition of smaller local companies and the procurement of new raw material reserves.

Ready-mixed concrete-asphalt business line

This business line covers the ready-mixed concrete and asphalt business. While we have an extensive network of ready-mixed concrete plants in many parts of the Group area, asphalt activities are limited to the United Kingdom.

Ready-mixed concrete sales volumes grew by 34.7 % to 15.0 million cubic metres (previous year: 11.1) in the reporting year. Excluding consolidation effects resulting from the inclusion of Italcementi's ready-mixed concrete activities in France, Italy, and Spain, the increase amounted to 6.8 %.

While we achieved substantial increases in volumes in Germany, Belgium, and the Netherlands, ready-mixed concrete deliveries in the United Kingdom only slightly exceeded the previous year. Notwithstanding the recently added activities, sales volumes in Spain rose as well.

At 3.0 million tonnes (previous year: 3.0), sales volumes of the asphalt operating line in the United Kingdom exceeded the previous year by 1.7 %.

Revenue of the ready-mixed concrete-asphalt business line grew by 18.6 % to €1,577 million (previous year: 1,330).

Service-joint ventures-other business line

Following the sale of the building products business in the United Kingdom and North America, as well as the lime operating line in Germany, the service-joint ventures-other business line includes the remaining building products in the Group area. These are mainly the sand-lime brick, precast concrete parts, and concrete products operating lines in Germany.

At €387 million (previous year: 412), revenue of the business line was 5.9 % below the previous year.

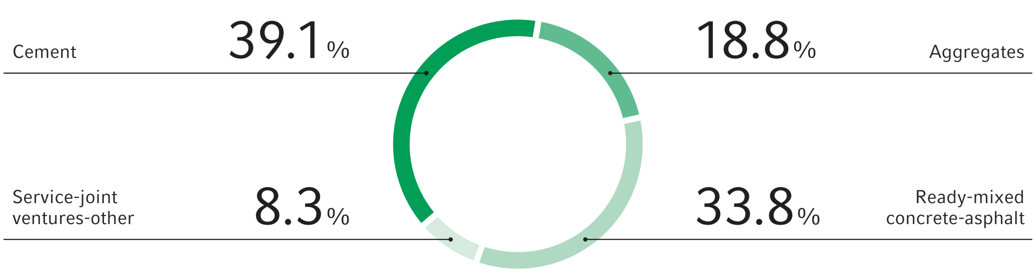
Revenue and results

Revenue of the Western and Southern Europe Group area rose by 21.8 % to €3,928 million (previous year: 3,225). In operational terms, i.e. excluding consolidation and exchange rate effects, the increase amounted to 4.1 %. At €536 million (previous year: 511), result from current operations before depreciation and amortisation was 5.0 % above the level of the previous year; excluding consolidation and exchange rate effects, the growth was 0.6 %. Result from current operations fell by 7.7 % to €292 million (previous year: 317); excluding consolidation and exchange rate effects, it increased by 6.6 %.

Key data Western and Southern Europe

€m	2015	2016	Change
Revenue	3,225	**3,928**	21.8 %
Result from current operations	317	**292**	-7.7 %
Investment in property, plant, and equipment	204	**297**	45.8 %
Cement and clinker sales volumes (Mt)	15.7	**22.4**	42.2 %
Aggregates sales volumes (Mt)	55.1	**67.4**	22.2 %
Ready-mixed concrete sales volumes (Mm³)	11.1	**15.0**	34.7 %
Asphalt sales volumes (Mt)	3.0	**3.0**	1.7 %
Employees as at 31 December	9,560	**15,781**	65.1 %

Revenue Western and Southern Europe 2016: €3,928 million



Northern and Eastern Europe-Central Asia

The countries of Northern Europe were transferred to the newly established Group area Northern and Eastern Europe-Central Asia in the context of the acquisition of the Italian building materials manufacturer Italcementi. Furthermore, important market positions were added in Bulgaria and Greece. We also expanded our market presence in Kazakhstan. Based on the new reporting structure and including the newly acquired activities, HeidelbergCement is active in 21 countries in the Northern and Eastern Europe-Central Asia Group area. In many of these countries, we manufacture cement, aggregates, and ready-mixed concrete as a fully integrated building materials company. We are either the market leader or hold leading positions in the cement business of the countries in which we produce cement.

In 2016, the economic development of the countries in the Northern and Eastern Europe-Central Asia Group area presented a mixed picture: According to the International Monetary Fund (IMF), an increase in the gross domestic product of 3.6 % is expected in Sweden in the reporting year. The economic recovery continued in Poland, Czechia, and Georgia and is likely to achieve increases of 3.1 %, 2.5 %, and 3.4 % respectively in these countries. The IMF anticipates a growth of 3.0 % in our new Group country Bulgaria. The gross domestic product in Romania is expected to register the best development with projected growth of 5.0 %. The conflict in Ukraine again severely impaired the economy in this country, but an increase in gross domestic product of 1.5 % is anticipated despite the crisis. In Norway, the economic momentum weakened due to the deteriorating oil price, and only slight growth of 0.8 % is expected for 2016. Russia and Kazakhstan were also affected by the low oil price and will remain in the moderate minus range according to IMF. Stagnation is forecast in Greece due to the ongoing economic crisis.

In Sweden, construction activity benefited from robust economic development, particularly in residential construction. Demand from residential construction and major infrastructure projects remained high in Norway. In Poland, the construction industry grew mainly as a result of residential construction, but suffered from delays in EU-funded infrastructure measures. The Romanian construction industry reported slight growth, also largely due to the positive development in residential construction. Czechia was negatively affected by the decline in infrastructure investments, in particular. Kazakhstan benefited from the government investment programme “Nurly Zhol” and the hosting of the EXPO 2017 in the capital Astana. Despite the conflict in Ukraine, the construction industry grew in this country. Overall, construction activity in Russia fell in the reporting year, but infrastructure construction in particular benefited from the planned FIFA World Cup in 2018. The construction industry experienced a marked decline in Bulgaria.

Cement business line

In the reporting year, cement and clinker deliveries in the Northern and Eastern Europe-Central Asia Group area rose by 9.4 % to 24.2 million tonnes (previous year: 22.1). The increase in sales volumes is attributable to the first-time inclusion of Italcementi’s cement activities in Bulgaria, Greece, and Kazakhstan, in addition to the overall positive development of cement demand in the Group area. In operational terms, i.e. excluding the newly consolidated activities, the increase amounted to 2.8 %. With the exception of Georgia, Estonia, and Ukraine, which recorded slight decreases in sales volumes, our deliveries surpassed the previous year’s level in all other countries. The strongest growth was achieved in Kazakhstan (primarily on account of new consolidations), Czechia, and Norway, and to a lesser extent in Poland, Romania, and Sweden. Revenue of the cement business line rose by 4.0 % to €1,383 million (previous year: 1,330).

We have invested in improvements to environmental protection in all countries, for instance by installing new filters or increasing the use of alternative fuels. At several locations, measures have also been implemented to raise productivity or modernise production facilities.

In Kazakhstan, we acquired a new cement terminal in the harbour town of Atyrau on the north shore of the Caspian Sea. The extensive modernisation of the production facilities, which had already begun under the previous owners, continued in our newly added cement plant Shymkentcement.

In Georgia, we commenced the full modernisation and conversion from wet to dry processes at the Kaspi cement plant. The investments are expected to be completed by 2018. Extensive investments have also been made in Poland, including the construction of two new cement silos, each with a capacity of 12,000 tonnes.

Aggregates business line

HeidelbergCement's main markets in the aggregates business line are in Norway, Sweden, Czechia, and Poland. We also have aggregates operations in Russia, the Baltic States, Iceland, Romania, Slovakia, Greece, Ukraine, Kazakhstan, and Georgia.

In the aggregates business line, the individual countries experienced varied development of sales volumes in 2016. Deliveries declined significantly in two of our main markets – Czechia and Sweden. We also registered losses in Norway, Romania, Slovakia, and Ukraine. In contrast, Poland, our second largest market, achieved considerable growth. Demand also rose in Russia, Kazakhstan, and Iceland. Our total deliveries of aggregates in the Group area exceeded the previous year by 11.6 % with 37.0 million tonnes (previous year: 33.2). Consolidation effects arose from the full consolidation of the Mibau Group, the first-time inclusion of the aggregates activities in Greece, and the acquisition of two sand and gravel quarries in Poland in October 2015. Excluding these consolidation effects, aggregates sales volumes declined by 7.1 %. Revenue of the aggregates business line rose by 14.8 % to €284 million (previous year: 247).

In the fourth quarter of 2016, HeidelbergCement increased its shareholding in Mibau Holding GmbH from 50 % to 60 % and has included the company in the consolidated financial statements by means of full consolidation since 1 October. The company is shown as a separate unit in the aggregates business line. Mibau operates four quarries in Norway with an annual production volume totalling 10–12 million tonnes of aggregates.

During the reporting year, HeidelbergCement commissioned one new quarry for aggregates in Czechia and Poland, respectively.

Ready-mixed concrete-asphalt business line

We are not active in the asphalt business in the Northern and Eastern Europe-Central Asia Group area, but maintain a dense network of ready-mixed concrete plants in most countries, excluding Russia and Bulgaria. With the exception of Romania and Ukraine, deliveries of ready-mixed concrete grew in all countries in 2016. Total sales volumes rose by 11.3 % to 6.2 million cubic metres (previous year: 5.6). The ready-mixed concrete activities of Italcementi in Greece and Kazakhstan were included for the first time. Furthermore, the seven ready-mixed concrete plants in Poland that were acquired in the previous year largely contributed to the growth in sales volumes. Excluding these consolidation effects, sales volumes grew by 4.8 %. Revenue of the ready-mixed concrete-asphalt business line rose by 7.7 % to €542 million (previous year: 504).

In Denmark, we commissioned two new plants during the reporting year in Copenhagen and Trondheim, one of which replaces an older production site. We strengthened our market position in the southern part of Sweden – an important growth region – by purchasing five plants and in return disposed of several production sites in the east and west of the country. One ready-mixed concrete plant is under construction in Poland and Czechia, respectively, and two in Lithuania.

Service-joint ventures-other business line

This business line includes in Northern and Eastern Europe-Central Asia our joint ventures and the concrete products of Nordic Precast Group, which is active in Norway, Sweden, Denmark, Germany, Poland, and Latvia.

Our main joint ventures are located in Hungary and Bosnia-Herzegovina. Our joint venture Duna-Dráva Cement Kft is the leading building materials manufacturer in Hungary. In Bosnia-Herzegovina, we operate one cement plant and several ready-mixed concrete plants. We also operate other joint ventures – particularly in the ready-mixed concrete business – in Norway, Croatia, Czechia, Poland, and Slovakia. In Bosnia-Herzegovina and to a lesser extent in Hungary, cement sales volumes rose compared with the previous year.

Revenue of the service-joint ventures-other business line rose by 87.5 % to €410 million (previous year: 219).

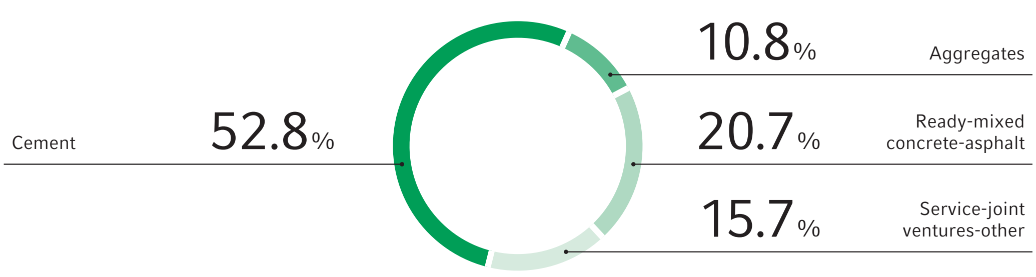
Revenue and results

Revenue of the Northern and Eastern Europe-Central Asia Group area grew by 14.2 % to €2,425 million (previous year: 2,124). After adjustment for exchange rate and consolidation effects, revenue was at the level of the previous year. Result from current operations before depreciation and amortisation improved by 16.5 % to €445 million (previous year: 382). Adjusted for currency and consolidation effects, this translated to an increase of 9.6 %. Result from current operations rose by 19.4 % to €287 million (previous year: 241); adjusted for currency and consolidation effects, this growth amounted to 13.1 %.

Key data Northern and Eastern Europe-Central Asia

€m	2015	2016	Change
Revenue	2,124	**2,425**	14.2 %
Result from current operations	241	**287**	19.4 %
Investment in property, plant, and equipment	140	**124**	-10.9 %
Cement and clinker sales volumes (Mt)	22.1	**24.2**	9.4 %
Aggregates sales volumes (Mt)	33.2	**37.0**	11.6 %
Ready-mixed concrete sales volumes (Mm³)	5.6	**6.2**	11.3 %
Employees as at 31 December	12,598	**13,107**	4.0 %

Revenue Northern and Eastern Europe-Central Asia 2016: €2,425 million



North America

The United States of America and Canada form the North America Group area. In its largest market area, HeidelbergCement is one of the leading manufacturers of cement, aggregates, and ready-mixed concrete. Asphalt is additionally manufactured in a few US states, and concrete pipes are produced and distributed in Canada.

With the acquisition of Italcementi's North American subsidiary Essroc in July 2016, we have considerably expanded our footprint in the Northeast and Midwest of the USA, as well as in the eastern part of Canada. We have added five cement plants (including a joint venture), three aggregates operations, two ground-granulated blast furnace slag (GGBS) grinding plants, and 30 ready-mixed concrete production sites (including a joint venture).

Despite a continued softening in heavy oil sector markets, the US economy continued growing in 2016. The labour market situation also improved further. By the end of 2016, the unemployment rate fell to 4.7 %, compared with 5 % in the previous year. The gross domestic product rose by 1.6 % versus 2.6 % in the previous year. This represents the lowest growth rate since 2011. However, after a weak development during the first six months, the economy underwent significantly stronger growth in the second half of the year, primarily as a result of increased consumer confidence. Construction activity increased by 2.4 % in 2016. The strongest growth of 8.8 % was recorded in non-residential construction, primarily driven by commercial construction and the construction of hotels, schools, and hospitals. High growth rates in multi-family housing caused residential construction to increase by 0.9 % overall. Public construction remained slightly (-1.0 %) below the previous year.

In 2016, the Canadian economy suffered from a decline in investment activities, predominantly in the oil-producing regions. Oilfield activity remained slow through most of 2016 and remained at or even below the previous year's level. Gross domestic product advanced by 1.4 %, a 0.5 percentage points increase from 2015. According to the Winter 2016 Forecast of the Cement Association of Canada (CAC), for the second consecutive year, moderate growth in residential construction (3.5 %) and public construction investment (2.4 %) will be reversed by a steep decline in non-residential construction of around 10.3 %.

Cement business line
Cement consumption in the USA rose by 2.4 % to 94.4 million tonnes in 2016. In Canada, cement consumption decreased by 1.6 % to 8.6 million tonnes in comparison with the previous year.

Cement and clinker sales volumes of our plants, without consideration of our joint ventures Texas Lehigh Cement and Ciment Québec, reached 14.6 million tonnes (previous year: 12.3), an increase of 18.4 %. The addition of the Essroc plants to the North region contributed to the majority of this growth. Excluding this consolidation effect, the growth in sales volumes amounted to 1.9 %. The North and South regions and our two white cement plants recorded the highest rise in volumes. While imports adversely affected the sales volumes of our plants in the West region, Canada suffered as a result of the declining demand from the oil industry. However, we were able to successfully implement price increases in all key markets (with the exception of oil well cement) in both the USA and Canada. Revenue of the cement business line rose by 19.4 % in 2016 to €1,631 million (previous year: 1,366).

We continued execution of several significant investments in 2016: In the North region, we continued work on the new quarry for the Union Bridge plant in Maryland, as well as the civil work of the new limestone crusher and the 6.5 km long conveyor belt system linking the quarry with the plant. The mechanical construction of the entire system is at an advanced stage and should be completed in the fourth quarter of 2017.

At the Tehachapi cement plant in California, we are in the process of increasing the cement grinding capacity. The new grinding plant is scheduled to start operation in the second quarter of 2017.

In the West region, we acquired a floating terminal with a storage capacity of 50,000 tonnes. It will serve to expand our product range in the region.

Aggregates business line
In the USA and Western Canada, HeidelbergCement has a dense network of production sites for sand, gravel, and hard rock. Total sales volumes exceeded the previous year by 1.9 %, with 118.8 million tonnes (previous year: 116.6). Excluding consolidation effects resulting from the inclusion of Essroc, the increase amounted to 1.2 %.

The South region – particularly the southeast and north of Texas – recorded the strongest demand. Volumes in the West region declined slightly due to the timing of the end of life closure of the Carroll Canyon plant in San Diego, California, and the commissioning of the new Vigilante plant there. In Canada, the sales volumes remained almost at the previous year's level as a result of the weak demand from the crude oil industry. Price increases were successfully implemented in all key markets of the USA and Canada. Revenue of the aggregates business line grew by 4.1 % to €1,531 million (previous year: 1,471).

In Texas, we commissioned two rail distribution terminals in Midlothian and Houston in order to better accomodate the increasing demand for aggregates in the Dallas-Fort Worth and Houston markets.

Ready-mixed concrete-asphalt business line
While we have an extensive network of ready-mixed concrete plants throughout the Group area, asphalt production is mainly concentrated on the states of New York, Pennsylvania, and California.

In 2016, ready-mixed concrete deliveries decreased by 1.4 % to 6.3 million cubic metres (previous year: 6.4). Excluding the consolidation effects, the decline amounted to 8.3 %. With the exception of the North region, which benefited from the inclusion of the Essroc plants, demand fell in all other market regions. The main reasons for this decline were the weak demand in the Houston area, combined with impacts of heavy rainfall, and the continued drop in deliveries to the oil industry in the Canadian Prairie provinces.

Asphalt sales volumes increased by 8.6 % to 4.0 million tonnes (previous year: 3.7) in the reporting year. Our production sites in the North and West market regions benefited from increased demand. In the West region, we also acquired an asphalt plant in Central Valley/California in 2016.

In 2016, total revenue of the ready-mixed concrete-asphalt business line declined by 2.6 % to €1,012 million (previous year: 1,039).

Service-joint ventures-other business line
With the acquisition of the Italcementi subsidiary Essroc, we added Ciment Québec in Canada to our portfolio of joint ventures. The vertically integrated company manufactures cement, aggregates, and ready-mixed concrete for the Canadian province of Québec.

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Our joint venture Texas Lehigh Cement Company LP, headquartered in Austin, Texas, is also included in this business line. The company, in which we hold a 50 % stake, operates a cement plant in Buda, Texas. After a double-digit decrease in 2015, cement sales volumes rose by 2.5 % in the reporting year. However, a decline in sales prices reflects a shift away from oil well cement.

Revenue of the business line, which includes the concrete pipes operating line in Canada and associated activities, decreased by 9.7 % to €236 million (previous year: 262).

Revenue and results

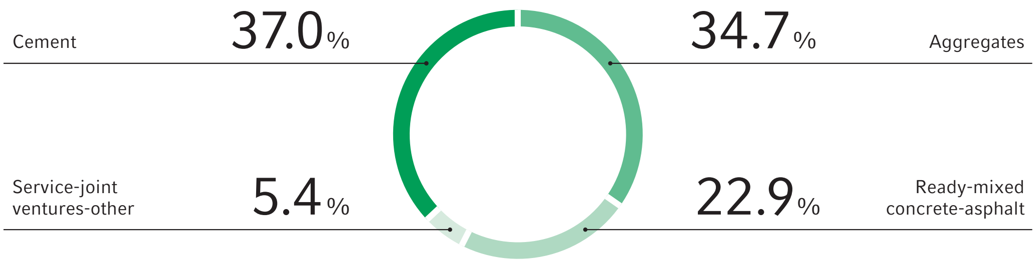
After conversion to euro, total revenue in the North America Group area increased by 7.5 % to €4,027 million (previous year: 3,746). In operational terms, i.e. excluding consolidation and exchange rate effects, revenue rose slightly by 0.5 %.

As a result of the growth in sales volumes, the inclusion of the Italcementi subsidiary Essroc, successfully implemented price increases, and strict cost management, we were able to increase result from current operations before depreciation and amortisation by 20.2 % to €996 million (previous year: 829); excluding currency and consolidation effects, the increase amounted to 14.3 %. Result from current operations rose by 22.8 % to €716 million (previous year: 583); excluding currency and consolidation effects, the growth rate was 19.7 %.

Key data North America

€m	2015	2016	Change
Revenue	3,746	**4,027**	7.5 %
Result from current operations	583	**716**	22.8 %
Investment in property, plant, and equipment	263	**301**	14.4 %
Cement and clinker sales volumes (Mt)	12.3	**14.6**	18.4 %
Aggregates sales volumes (Mt)	116.6	**118.8**	1.9 %
Ready-mixed concrete sales volumes (Mm³)	6.4	**6.3**	-1.4 %
Asphalt sales volumes (Mt)	3.7	**4.0**	8.6 %
Employees as at 31 December	7,658	**8,444**	10.3 %

Revenue North America 2016: €4,027 million



Asia-Pacific

The Asia-Pacific Group area comprises operations across ten countries. With the acquisition of Italcementi in July 2016, the Group area was substantially extended to include activities in India, Sri Lanka, and Thailand. As a result, 12.7 million tonnes of cement capacity were added to the cement business, which is the main focus of most Asian Group countries. HeidelbergCement has strong market positions in aggregates and ready-mixed concrete in Australia, Malaysia, Hong Kong, Indonesia, and Thailand. We also hold a 50 % participation in the largest cement company in Australia.

Despite the restructuring and slowdown of the Chinese economy, the emerging countries of Asia remained on course for growth in 2016. The Chinese economic growth weakened further with an increase of 6.7 % in the gross domestic product, but proved to be more stable than expected thanks to lively consumption. Driven by the land and property market, as well as lower raw material prices, the Indian economy also saw further growth. However, the International Monetary Fund (IMF) substantially reduced its growth forecast from 7.6 % to 6.6 % for the 2016/17 fiscal year following the cash reform. Gross domestic product is expected to grow by 5.0 % in Indonesia. Despite declining investments in the raw materials sector, Australia experienced robust economic development; gross domestic product rose by 2.4 % in 2016. The construction industry benefited from lively residential construction on the east coast.

Cement business line

In the cement business line, HeidelbergCement is represented in Indonesia, India, Thailand, Bangladesh, Brunei, and Sri Lanka. In 2016, total cement and clinker sales volumes of the Asia-Pacific Group area rose by 22.3 % to 28.7 million tonnes (previous year: 23.5). Excluding the recently added activities of Italcementi, sales volumes fell slightly by 1.0 %.

In Indonesia, our largest Asian market, domestic cement consumption remained at the level of the previous year. The lack of growth was mainly due to delays in the government infrastructure programme. However, an increase in demand is anticipated for 2017. While Indocement's domestic sales volumes declined by 3.0 %, exports rose by 83.0 %. Total cement and clinker sales volumes decreased by 1.9 %. The weaker development of Indocement's sales volumes in comparison with the market as a whole resulted from the weak demand in the home markets on the island of Java and the commissioning of new capacities by competitors. Due to the increased competition, average sales prices fell compared with 2015. However, it was possible to limit the decline in margins through a disciplined pricing policy and cost leadership. Indocement also introduced a new cement brand in order to assist in maintaining Indocement's strong market position. At the end of October 2016, we officially opened a new state-of-the-art production line at the Citeureup location, which has enabled us to increase our cement capacity in Indonesia by a further 4.4 million tonnes with substantially improved operating costs.

In India, the cement and clinker deliveries of our central and southern Indian plants rose by 53.4 % in 2016. This increase is mainly due to the first-time inclusion of the cement activities of Italcementi in southern India. Despite the demonetisation of the high denomination currency notes by the government in November, we registered a marked improvement in the development of sales volumes in southern India, thanks in particular to the increased demand from infrastructure projects. In central India, construction activity and cement demand remained restrained due to legal restrictions regarding the mining of sand, adverse weather conditions, liquidity constraints, and a shortage of labour. While we recorded lower sales prices in southern India on account of the intense competitive pressure, they remained largely flat in central India. An installation for power generation from kiln waste heat at the Damoh plant, which was commissioned in the first quarter of 2016, contributed significantly to saving energy costs.

In Thailand, domestic cement consumption fell by 1.1 % in 2016. An oversupply in the domestic market, delays in the commencement of infrastructure projects, and the commissioning of new capacities in export markets led to lower sales prices. Nonetheless, we were able to slightly increase our domestic cement sales volumes by establishing an efficient distribution network.

Thanks to political stability and investor confidence, Bangladesh recorded lively construction activity and a considerable increase in cement consumption. Our cement sales volumes exceeded the previous year's level by 10.5 %. Although sales prices came under some pressure due to the commissioning of new capacities by competitors, cost savings led to an improvement in margins. In the Sultanate of Brunei, our cement sales volumes decreased slightly due to the government's restraint on infrastructure projects' spending.

Revenue of the cement business line rose by 7.2 % to €1,568 million (previous year: 1,463); the increase is essentially attributable to the first-time inclusion of Italcementi.

Aggregates business line

In the aggregates business line, HeidelbergCement is represented in Australia, Malaysia, Indonesia, and Thailand. In 2016, our sales volumes of aggregates increased by 9.2 % to 39.2 million tonnes (previous year: 35.9). Excluding consolidation effects, sales volumes fell by 2.7 %.

In Australia, by far our biggest aggregates market in this Group area, strong demand from residential construction was recorded especially in the metropolitan areas of Melbourne, Sydney, and Brisbane. This more than offset the decrease in volumes in Adelaide and Perth. Overall, we achieved a double-digit increase in sales volumes in Australia in the reporting year. The acquisition of the aggregates company Rocla Quarry Products (RQP) in January 2016 also contributed to this growth. RQP operates eleven large sand pits in the metropolitan regions of Perth, Adelaide, Melbourne, and Sydney with an annual production of approximately 7 million tonnes. In Malaysia, our deliveries of aggregates remained below the previous year's level due to weaker activities in residential and commercial construction and the completion of larger infrastructure projects. Our aggregates activities in Indonesia benefited from a modest rise in sales volumes and slight price increases. Operationally, our performance also improved through various energy cost saving measures. In Thailand, our deliveries grew substantially.

Supported by the positive development in Australia, Indonesia, and Thailand, the revenue of our aggregates business line rose by 9.3 % to €587 million (previous year: 537).

Ready-mixed concrete-asphalt business line

In the ready-mixed concrete business, HeidelbergCement is represented in Australia, Indonesia, Malaysia, and Thailand. We also maintain significant asphalt activities in Malaysia and operate one asphalt plant in Australia.

At 11.0 million cubic metres (previous year: 10.9), sales volumes of ready-mixed concrete exceeded the previous year's level by 0.9 %. Increases in volumes in Australia and the newly included ready-mixed concrete operations in Thailand more than offset the declines in sales volumes in Indonesia and Malaysia. Excluding consolidation effects, sales volumes decreased by 3.6 %. While sales prices rose modestly in Australia, they declined in Indonesia, Malaysia, and Thailand. Due to the decreasing demand from road construction in Malaysia, asphalt sales volumes dropped by 10.0 % to 1.8 million tonnes (previous year: 2.0). Revenue of the ready-mixed concrete-asphalt business line fell by 1.4 % to €1,071 million (previous year: 1,086).

Service-joint ventures-other business line

The service-joint ventures-other business line comprises the cement, aggregates, and ready-mixed concrete activities of our joint ventures in the Chinese provinces of Guangdong and Shaanxi, as well as in Hong Kong, and Cement Australia. In addition, we operate two precast concrete plants in Australia in the Sydney metropolitan area, as well as manage activities for road construction in Malaysia.

In China, we are represented in the cement business with the two joint ventures China Century Cement and Jidong Heidelberg Cement Company in the Guangdong and Shaanxi provinces. Sales volumes of the two companies fell by 11.2 % in 2016 due to the sustained slowdown in infrastructure and residential construction in our markets. However, cement prices recovered considerably in both provinces. In Hong Kong, sales volumes of aggregates and ready-mixed concrete declined as a result of intensified competitive pressure.

In Australia, our joint venture Cement Australia achieved a substantial increase in sales volumes thanks to the high demand on the east coast.

Revenue of the business line, which only includes the two Australian precast concrete plants and the road construction activities in Malaysia, rose by 31.5 % to €43 million (previous year: 33).

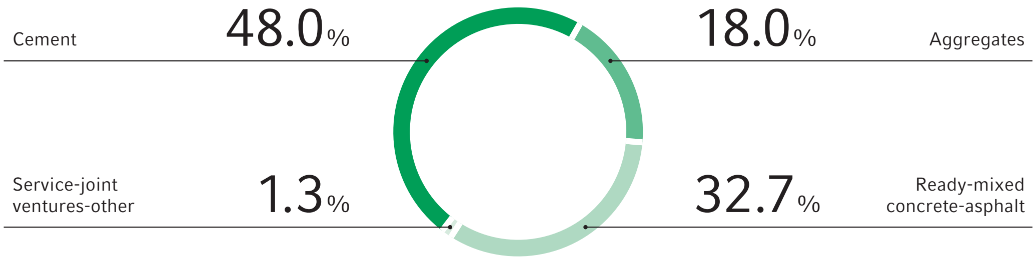
Revenue and results

Revenue of the Asia-Pacific Group area grew by 4.8% to €2,907 million (previous year: 2,775). Excluding consolidation and exchange rate effects, it decreased by 5.9%. Result from current operations before depreciation and amortisation declined by 2.0% to €704 million (previous year: 719) compared with the previous year; excluding consolidation and exchange rate effects, it fell by 8.8%. Result from current operations dropped by 7.8% to €542 million (previous year: 588); excluding consolidation and exchange rate effects, it fell by 11.2%.

Key data Asia-Pacific

€m	2015	2016	Change
Revenue	2,775	**2,907**	4.8 %
Result from current operations	588	**542**	-7.8 %
Investment in property, plant, and equipment	247	**215**	-12.8 %
Cement and clinker sales volumes (Mt)	23.5	**28.7**	22.3 %
Aggregates sales volumes (Mt)	35.9	**39.2**	9.2 %
Ready-mixed concrete sales volumes (Mm^3)	10.9	**11.0**	0.9 %
Asphalt sales volumes (Mt)	2.0	**1.8**	-10.0 %
Employees as at 31 December	13,029	**14,956**	14.8 %

Revenue Asia-Pacific 2016: €2,907 million



Africa-Eastern Mediterranean Basin

With the integration of Italcementi, we have substantially expanded the Africa-Eastern Mediterranean Basin Group area, and now operate in 15 countries. The newly added countries are Egypt, Morocco, and Mauritania in North Africa, as well as Gambia. We are one of the market leaders in the cement business in Egypt and Morocco. We also produce ready-mixed concrete in both countries and aggregates in Morocco. We are also active in ten sub-Saharan countries, including Mozambique, where we entered the market in 2016. We mainly manufacture cement in the African countries south of the Sahara – and in most of them we are the market leader.

Our production sites in the eastern Mediterranean Basin are located in Israel and Turkey. While we mainly produce aggregates and ready-mixed concrete in Israel, our joint venture Akçansa in Turkey is one of the country's leading cement manufacturers and runs ready-mixed concrete and aggregates operations. In 2016, we also founded a company in Palestine in order to establish a local building materials business.

The African countries, especially those south of the Sahara, are continuing to experience robust economic development and lively construction activity. Solid economic growth, a young burgeoning population, a rapidly progressing urbanisation, and the resulting need for infrastructure measures are the main drivers in these countries for an increase in construction activity and demand for cement, aggregates, and ready-mixed concrete. A key indicator for future growth is the per capita consumption of cement, which is still significantly lower in some sub-Saharan countries than in more developed or industrialised countries.

According to the January 2017 forecast of the International Monetary Fund (IMF), the estimated economic growth of 1.6 % in sub-Saharan Africa weakened in 2016 compared with previous years. However, the growth rates differ greatly at a local level and are also influenced by the negative development in Nigeria. Nonetheless, several of the countries in which HeidelbergCement operates continued to report solid economic growth. In 2016, an increase between more than 3 % and 7 % is expected in particular for Ghana, Tanzania, the Democratic Republic of Congo, and Mozambique. For North Africa, macroeconomic indicators point to stabilisation with low growth. According to the IMF, Morocco will achieve a growth rate of 1.8 %, thereby falling considerably short of the last few years. Despite the volatile economic situation due to the devaluation of the local currency, solid growth of 3.8 % is expected for Egypt.

The economy in Turkey was negatively affected by higher import prices following the devaluation of the currency in the second half of 2016. At the same time, this created better conditions for the export of clinker and cement. The construction sector benefited from major infrastructure projects, such as the construction of the third Bosphorus Bridge, the Eurasia tunnel, or the third international airport in Istanbul.

For 2016, Israel anticipates accelerated economic growth of 4.0 % compared with the previous year. New residential construction declined slightly, but remained at a high level. Overall, a 3.4 % growth is expected for the construction sector.

Cement business line

The cement and clinker sales volumes of the Africa-Eastern Mediterranean Basin Group area, which only includes the deliveries from our African subsidiaries, rose by 84.5 % to 13.7 million tonnes (previous year: 7.4). Excluding the newly consolidated activities, sales volumes reached almost the previous year's level. Development in the individual countries differed greatly: in Togo, Tanzania, and Burkina Faso, rising cement consumption and our new production capacities led to an increase in sales volumes. The utilisation of our new clinker plant in Togo benefited from this development, too. Sales volumes were also up in Benin. In contrast, volumes declined in Ghana, our largest market in sub-Saharan Africa, due to intensive competition with domestic manufacturers and growing imports. In the reporting year, sales volumes also dropped in the Democratic Republic of Congo, in Liberia, and Sierra Leone due to imports.

Since their integration on 1 July 2016, the newly included countries (Egypt, Morocco, Mauritania, and Gambia) achieved cement sales volumes of 6.2 million tonnes, thereby making a significant contribution to total sales volumes of the Group area. Revenue of the cement business line rose by 44.7 % to €1,014 million (previous year: 701).

In April 2016, HeidelbergCement acquired 100 % of the shares in the cement manufacturer Austral Cimentos Sofala S.A. (ACS) in Mozambique. ACS operates a cement grinding plant in Dondo, near the port of Beira, with an annual production capacity of around 350,000 tonnes. As a result of the acquisition, HeidelbergCement has expanded its market presence and sales markets in southeastern Africa.

Based on our long-term strategy of further growth in Africa, we will commission additional production sites in 2017. We are currently constructing a cement grinding plant with a capacity of around 250,000 tonnes in the Kara region, located in the north of Togo, which is scheduled for completion in the first half of 2017. Furthermore, we are expanding our cement capacity in Benin with the installation of an additional cement mill at the Cotonou grinding plant. The commissioning of the new mill with a capacity of 250,000 tonnes is also scheduled for the first half of 2017. Both countries are characterised by political and economic stability. Another step towards expansion is the planned market entry in South Africa, in order to tap into additional growth markets and drive forward diversification in Africa. We are also continually evaluating further options for expansion into other African countries.

Aggregates business line
HeidelbergCement is predominantly active in Israel and Morocco in the aggregates business line. A considerable increase in sales volumes from an already high level was achieved in Israel. For Morocco, this business line constitutes the basis for a stronger vertical integration with the cement and ready-mixed concrete business lines. Total aggregates deliveries of the Group area rose in the reporting year by 20.5 % to 10.1 million tonnes (previous year: 8.3); excluding consolidation effects, the increase amounted to 10.4 %. Revenue of the aggregates business line grew by 17.8 % to €90 million (previous year: 76).

Ready-mixed concrete-asphalt business line
Aside from the cement business, the ready-mixed concrete activities in particular were expanded as a result of the Italcementi acquisition. In addition to Israel, we now also have strong market positions in Egypt and Morocco. The asphalt operating line, on the other hand, is only represented in Israel. Deliveries of ready-mixed concrete rose by 38.6 % to 3.7 million cubic metres (previous year: 2.7) in 2016; excluding consolidation effects, they remained at the level of the previous year. The asphalt operating line in Israel achieved a very high increase in sales volumes of 21.6 % to 0.5 million tonnes (previous year: 0.4).

Total revenue of the ready-mixed concrete-asphalt business line rose by 30.7 % to €259 million (previous year: 198).

Service-joint ventures-other business line
The service-joint ventures-other business line essentially includes the cement, aggregates, and ready-mixed concrete activities of our Turkish joint venture Akçansa. In the reporting year, the domestic cement sales volumes of Akçansa again exceeded the previous year, thereby achieving a

new record level. Positive impetus came primarily from the participation in important infrastructure projects, such as the construction of the third Bosphorus Bridge in Istanbul. Cement and clinker exports also rose substantially. In total, Akçansa's cement and clinker sales volumes grew by 3.5 %.

While aggregates deliveries increased, ready-mixed concrete sales volumes fell short of the level of the previous year. This decline, however, was partly offset by price increases.

Further infrastructure projects are anticipated for 2017, which will have a positive impact on the demand for building materials, but competitive pressure is also growing.

At €33 million (previous year: 33), revenue of the business line, which only includes a few smaller non-core activities in the transport and other services divisions in Israel, remained at the level of the previous year.

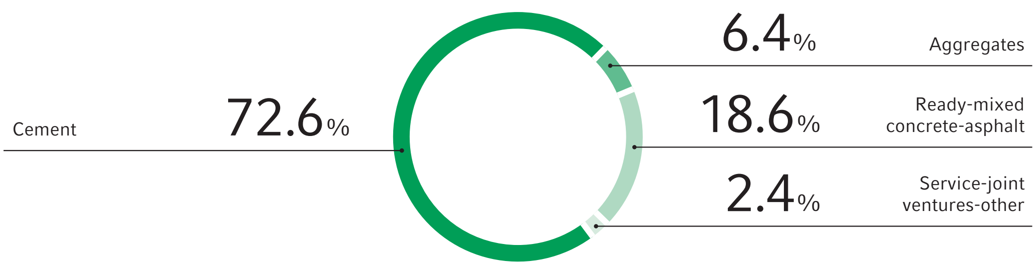
Revenue and results

Revenue of the Africa-Eastern Mediterranean Basin Group area increased by 37.9 % to €1,314 million (previous year: 952). In operational terms, i.e. excluding consolidation and exchange rate effects, revenue fell by 4.5 %. At €350 million (previous year: 262), result from current operations before depreciation and amortisation came in 33.2 % above the previous year; excluding exchange rate effects, it decreased by 14.7 %. Result from current operations increased by 20.0 % to €266 million (previous year: 222); excluding consolidation and exchange rate effects, the decline amounted to 17.2 %.

Key data Africa-Eastern Mediterranean Basin

€m	2015	2016	Change
Revenue	952	**1,314**	37.9 %
Result from current operations	222	**266**	20.0 %
Investment in property, plant, and equipment	54	**102**	88.1 %
Cement and clinker sales volumes (Mt)	7.4	**13.7**	84.5 %
Aggregates sales volumes (Mt)	8.3	**10.1**	20.5 %
Ready-mixed concrete sales volumes (Mm^3)	2.7	**3.7**	38.6 %
Asphalt sales volumes (Mt)	0.4	**0.5**	21.6 %
Employees as at 31 December	2,527	**7,602**	200.8 %

Revenue Africa-Eastern Mediterranean Basin 2016: €1,314 million



Group Services

Group Services comprises the activities of our subsidiary HC Trading, one of the largest international trading companies for cement, clinker, solid fuels, and other building materials.

HC Trading's main task is to optimise the utilisation of our cement plants by helping to match international supply and demand. HC Trading also purchases solid fuels (coal and petroleum coke), which it delivers via sea routes to our own cement plants as well as to other cement companies around the world.

With employees from 30 countries, the trading network of HC Trading consists of 15 locations at key strategic sites worldwide. Following the acquisition of Italcementi, we expanded this network in 2016 by integrating the activities of Interbulk Trading. Thanks to its stronger market presence, HC Trading is now able to further optimise the capacity utilisation of our cement plants and offer even greater flexibility to its customers and suppliers around the globe.

HC Trading increased its trade volume in the reporting year by 10.3 % to 24.0 million tonnes (previous year: 21.7). Without taking into account the trading activities that were added through Interbulk, the growth rate amounted to 1.1 %. Around one-third of all deliveries were within the Group. Two-thirds went to other companies that make use of our competitive, efficient, and global trading network.

Deliveries of cement, clinker, blast furnace slag, and other building materials, such as lime and dry mortar, rose by 13.7 % to 16.5 million tonnes (previous year: 14.6) in 2016. Excluding the newly integrated activities, the increase amounted to 3.3 %. The majority of the deliveries went to Africa and Asia, as well as North America. The key supply countries were China, Turkey, and Spain.

International trading in coal and petroleum coke increased in the reporting year by 3.6 % to 7.4 million tonnes (previous year: 7.2). Excluding the newly added activities, however, shipments declined by 3.3 %. In addition to Group-owned cement plants, HC Trading also supplied the cement industry in Asia, the Middle East, Europe, and Africa.

In 2016, more than 1,100 shipments were conducted via the main sea routes of Asia, the Mediterranean Basin, and Continental Europe to their destinations in Africa, Southeast Asia, and North America. Thanks to the high level of expertise of its in-house shipping department in enhancing logistical capabilities, HC Trading is able to respond quickly to customer requirements even in changing market conditions.

Since the acquisition of Italcementi, Group Services has also comprised several activities in Saudi Arabia and Kuwait. While we operate two ready-mixed concrete plants in Saudi Arabia, we have eight plants in Kuwait, making us one of the major players in the ready-mixed concrete industry in the country. We also operate two cement import terminals in Kuwait.

Revenue and results

Revenue of Group Services was 1.7 % above the previous year at €1,078 million (previous year: 1,060). In operational terms, i.e. excluding the Italcementi activities, revenue fell by 8.7 %. This was due to the falling prices on the international raw materials markets. Result from current operations before depreciation and amortisation declined by 7.6 % to €23 million (previous year: 25). Result from current operations fell by 22.9 % to €19 million (previous year: 25). Without taking into account the newly consolidated activities, result from current operations before depreciation and amortisation decreased by 14.1 % and result from current operations declined by 14.3 %.

Key data Group Services

€m	2015	2016	Change
Revenue	1,060	**1,078**	1.7 %
Result from current operations	25	**19**	-22.9 %
Investment in property, plant, and equipment		**1**	
Cement and clinker sales volumes (Mt)		**0.2**	
Ready-mixed concrete sales volumes (Mm^3)		**0.3**	
Employees as at 31 December	81	**534**	559.3 %

Discontinued operations

The result of €-3 million from discontinued operations includes income totalling €27 million from business activities of Italcementi in Belgium and the USA, which were sold as part of the Italcementi acquisition on 25 October 2016 and 30 November 2016 respectively following the decisions of the competition authorities. This was offset by total expenses of €30 million in connection with damages and environmental obligations for US subsidiaries of the Hanson Group, which was taken over in 2007.

Statement of cash flows

The statement of cash flows in 2016 is essentially characterised by the acquisition of the Italcementi Group on 1 July 2016. The purchase price payment of €2,873 million for shares in Italcementi S.p.A. contributed substantially to the increase of €3,037 million in cash-relevant investments to €4,039 million (previous year: 1,002). The financing requirement for this purpose was essentially covered by the continuing strong cash inflow from operating activities of €1,874 million, the net inflow from ongoing investment activities and the subsequent disposal of discontinued operations of €901 million, and the moderate cash-relevant increase in financial debt of €1,381 million.

The cash inflow from operating activities of continuing operations rose by €392 million to €1,902 million (previous year: 1,511). The main reason was the rise of €283 million in the cash flow before interest and tax payments to €2,905 million (previous year: 2,622), which is attributable both to the positive contribution of the acquired Italcementi Group and the improved operational performance. The increase of €47 million in interest received to €139 million (previous year: 92) is particularly due to special items arising from the settlement of interest rate swaps. Interest paid fell by €54 million to €530 million (previous year: 584) despite the acquisition-related rise in net debt. Income tax payments also declined by €27 million to €326 million (previous year: 353). In contrast, the decrease in provisions rose by €138 million to €383 million (previous year: 244), which is due, among other things, to the funding of external pension providers as well as restructuring measures in the context of the acquisition of Italcementi.

However, the decline in working capital of €97 million (previous year: increase of 22), which is cash-relevant and recognised in the income statement, positively impacted the change in cash and cash equivalents.

Cash outflow from investing activities of continuing operations rose by €2,470 million to €3,222 million (previous year: 752). Cash-relevant investments increased by €3,037 million to €4,039 million (previous year: 1,002). Of this figure, €2,873 million related to the acquisition of shares in Italcementi S.p.A. Investments for sustaining and optimising our capacities amounted to €630 million (previous year: 539) and €3,409 million (previous year: 463) related to capacity expansions (including the purchase price payment for Italcementi S.p.A.). Further details can be found in the Investments section on page 76 f. and in the Business combinations in the reporting year section of the Notes on page 198 f. The other cash inflows from investing activities amounting to €817 million mainly relate to net cash proceeds resulting from the balance of acquired and divested cash and cash equivalents of €632 million and essentially concern the cash and cash equivalents of Italcementi at the time of acquisition.

Financing activities of continuing operations generated a cash inflow of €1,056 million (previous year: cash outflow of 1,822) in the reporting year. The cash inflow arising from the net proceeds from and repayment of bonds and loans of €1,381 million (previous year: cash outflow of 1,436) included in this figure covers the change in non-current and current financial liabilities and essentially comprises the issue of three bonds totalling €2.75 billion, the repayment of two bonds of €971 million, and outflows of €385 million from the repayment of issued commercial papers. This item also includes the repayment of the utilised syndicated credit line, borrowings and payments relating to bank loans and debt certificates, as well as changes to other current financial liabilities with high turnover rate. In the previous year, two bonds of €650 million each were repaid in August and December 2015, respectively. Dividend payments led to a cash outflow of €335 million (previous year: 369), with dividend payments of HeidelbergCement AG making up €244.3 million (previous year: 140.9) of this figure.

Cash flows from operating activities as well as investing and financing activities of discontinued operations relate to the Belgian Italcementi activities, as well as some North American locations of Italcementi, which were resold in the reporting year to meet the requirements of the competition authorities. The corresponding cash inflows and outflows during the previous year relate to the sale in March 2015 of the building products business in North America and the United Kingdom.

In the 2016 financial year, HeidelbergCement was able to meet its payment obligations at all times.

Consolidated statement of cash flows (short form)			
€m	2015	2016	Difference
Cash flow	1,777	**2,188**	411
Changes in working capital	-22	**97**	119
Decrease in provisions through cash payments	-244	**-383**	-138
Cash flow from operating activities – continuing operations	1,511	**1,902**	392
Cash flow from operating activities – discontinued operations	-61	**-28**	33
Cash flow from operating activities	1,449	**1,874**	425
Investments (cash outflow)	-1,002	**-4,039**	-3,037
Other inflows of cash and cash equivalents	249	**817**	567
Cash flow from investing activities – continuing operations	-752	**-3,222**	-2,470
Cash flow from investing activities – discontinued operations	1,245	**901**	-344
Cash flow from investing activities	493	**-2,321**	-2,813
Capital decrease – non-controlling shareholders	-3	**-2**	1
Dividend payments	-369	**-335**	34
Changes in ownership interests in subsidiaries	-15	**12**	26
Net proceeds from/repayment of bonds and loans	-1,436	**1,381**	2,816
Cash flow from financing activities – continuing operations	-1,822	**1,056**	2,878
Cash flow from financing activities – discontinued operations	-5	**0**	5
Cash flow from financing activities	-1,827	**1,056**	2,883
Effect of exchange rate changes	7	**13**	6
Change in cash and cash equivalents	122	**622**	500

Investments

The investments in the 2016 financial year were mainly influenced by the acquisition of Italcementi. Cash-relevant investments rose to €4,039 million (previous year: 1,002). Of this amount, €2,873 million related to the acquisition of shares in Italcementi S.p.A. The other investments amounted to €1,165 million. Excluding the consolidation effect resulting from the inclusion of Italcementi's investment activities in the second half of 2016, other investments amounted to €1,017 million, thereby falling slightly short of the planned figure of €1.1 billion. Strict spending discipline regarding investments continued to form a significant cornerstone of our rigid and consistent cash management in the 2016 financial year. €1,040 million (previous year: 908) was attributed to investments in property, plant, and equipment (including intangible assets). Investments in financial assets and other business units increased to €2,999 million (previous year: 94) due to the acquisition of Italcementi.

Investments in property, plant, and equipment related partly to maintenance, optimisation, and environmental protection measures at our production sites in all Group areas. One point of focus in terms of optimisation and environmental protection is on the projects of the "Germany Cement Master Plan" for modernisation and efficiency improvements as well as environmental protection in our German cement plants. At the start of 2016, the comprehensive conversion and modernisation of the Lengfurt plant was completed. Major capital spending also included the conversion from wet to dry production processes at the Kaspi cement plant in Georgia and the Shymkentcement cement plant in Kazakhstan. Further significant projects were the replacement of a gas turbine for power generation with a more efficient system at the Indonesian Citeureup plant and the continued work on the new quarry for the US cement plant Union Bridge.

In 2016, we also made targeted investments in Asia and Africa in order to lay the foundation for future growth. The largest project in recent years – the capacity expansion at our Citeureup plant in Indonesia – was completed in 2016. The new integrated production line with a cement capacity of 4.4 million tonnes was officially opened at the end of October. Thanks to the considerably reduced production costs, this state-of-the-art production line will substantially improve the competitiveness and further strengthen the cost leadership of Indocement. Additional investment activities related to the expansion of our cement grinding capacities in Togo and Benin.

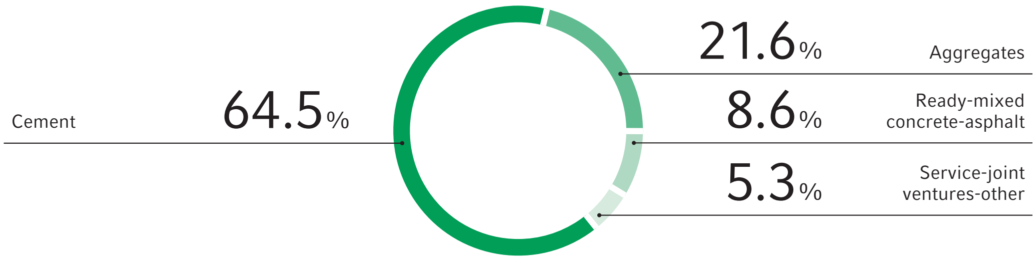
The investments in financial assets and other business units mostly related to the acquisition of Italcementi. Cash-relevant investments totalling €2,873 million were made in connection with the acquisition of 100 % of the share capital in Italcementi S.p.A. For the acquisition of 45.0 % of all shares in Italcementi from Italmobiliare for €1,596 million, which was completed on 1 July 2016, €878 million was paid in cash in addition to the issue of 10.5 million new HeidelbergCement shares. In parallel to the public takeover offer to the Italcementi shareholders, HeidelbergCement also purchased an additional 14.0 million Italcementi shares via the stock exchange, corresponding to a shareholding of around 4.0 %, for €148 million in September. On 7 October, €1,753 million was paid in cash for Italcementi shares acquired as part of the public tender offer, representing a shareholding of approximately 47.3 %. Of this amount, €41 million related to own shares held by Italcementi, which was an intra-Group and therefore non-cash transaction. The outstanding shareholding of approximately 3.6 % in Italcementi following the public tender offer was acquired by HeidelbergCement on 12 October in return for a cash payment of €135 million.

The remaining investments in financial assets and other business units of €126 million essentially relate to the acquisition of the Australian aggregates company Rocla Quarry Products, as well as smaller bolt-on acquisitions of shareholdings.

Investments

€m	2015	2016	Change
Western and Southern Europe	204	**297**	45.8 %
Northern and Eastern Europe-Central Asia	140	**124**	-10.9 %
North America	263	**301**	14.4 %
Asia-Pacific	247	**215**	-12.8 %
Africa-Eastern Mediterranean Basin	54	**102**	88.1 %
Group Services		**1**	
Financial assets and other business units	94	**2,999**	
Total	1,002	**4,039**	303.1 %

Investments in property, plant, and equipment by business lines in 2016



Consolidated balance sheet

The balance sheet total rose by €8,779 million to €37,154 million (previous year: 28,374) as at 31 December 2016. This increase was essentially due to the first-time inclusion of the Italcementi Group, which was acquired on 1 July 2016. In this context, we refer to the explanations on the business combinations in the financial year in the Notes on page 198 f.

Non-current assets increased by €6,778 million to €30,446 million (previous year: 23,668). Aside from the impact of €6,389 million in connection with the acquisition of Italcementi, this was largely influenced by the increase of €309 million in financial investments and negative exchange rate effects of €121 million. The rise in goodwill by €1,648 million to €11,828 million (previous year: 10,181) is mainly related to the inclusion of the provisional goodwill of €1,666 million arising from the acquisition of Italcementi and negative exchange rate effects of €34 million.

The growth of €4,093 million in property, plant, and equipment to €13,965 million (previous year: 9,871) is also essentially owing to €3,941 million associated with Italcementi and negative exchange rate effects of €60 million. Additions of €1,024 million to property, plant, and equipment were offset by depreciation and amortisation of €911 million. The rise of €556 million in financial assets to €2,387 million (previous year: 1,832) relates primarily to the increase of €233 million in investments in associates and €309 million in financial investments. Aside from the effects of €357 million associated with the takeover of Italcementi, this was largely impacted by the deconsolidation of a US subsidiary on account of loss of control as part of voluntary insolvency proceedings in accordance with Chapter 11, Paragraph 524 (g) of the US Bankruptcy Code and its inclusion as a financial investment to the amount of €249 million.

Current assets increased by €1,995 million to €6,701 million (previous year: 4,707). This change was essentially due to the effect of the Italcementi acquisition of €1,915 million. Inventories grew by €639 million to €2,083 million (previous year: 1,444). Adjusted for the impact of the acquisition of Italcementi of €557 million and negative currency effects of €37 million, inventories rose slightly by €119 million. Trade receivables increased by €589 million to €1,804 million (previous year: 1,215), of which €489 million was attributable to the acquisition of Italcementi and €21 million to currency translation. Cash and cash equivalents grew by €622 million to €1,972 (previous year: 1,350), which was essentially due to the issue of new bonds of €2,750 million and debt certificates of €645 million. This was counteracted by the repayment of two bonds of €971 million, commercial papers totalling €207 million, and the syndicated credit line in use of €117 million. The acquisition of Italcementi resulted in the takeover of cash and cash equivalents of €617 million. The change in cash and cash equivalents is explained in more detail in the Statement of cash flows section on page 74 f.

On the equity and liabilities side, equity increased by €1,896 million to €17,873 million (previous year: 15,976). The increase is primarily attributable to changes to the scope of consolidation of €689 million, the issue of new shares totalling €718 million, and the total comprehensive income of €831 million. Dividend payments of €335 million had a diminishing effect. The total comprehensive income is composed of the €896 million profit for the financial year and particularly currency translation differences of €-88 million recognised in other comprehensive income as well as actuarial gains of €35 million.

The rise of €4,339 million in interest-bearing liabilities to €11,051 (previous year: 6,712) is mainly due to the issue of new bonds as well as to liabilities taken over from Italcementi amounting to €2,908 million. Overall, net debt (interest-bearing liabilities less cash and cash equivalents) increased by €3,713 million to €8,999 million (previous year: 5,286), of which €2,167 million was taken over from Italcementi. Provisions increased by €671 million to €3,095 million (previous year: 2,423). Operating liabilities rose by €1,651 million to €4,478 million (previous year: 2,827), of which €1,248 million is primarily attributable to the acquisition of Italcementi.

In the 2016 financial year, the net debt/equity ratio (gearing) increased by 17.3 percentage points to 50.4 % (previous year: 33.1 %), owing to the rise in net debt associated with the acquisition of Italcementi.

Consolidated balance sheet (short form)

€m	31 Dec. 2015	31 Dec. 2016	Part of balance sheet total 2016
Intangible assets and property, plant, and equipment	20,310	**26,284**	71 %
Financial assets	1,832	**2,387**	6 %
Other non-current assets	1,526	**1,774**	5 %
Current assets	4,707	**6,701**	18 %
Assets held for sale and discontinued operations		**7**	0 %
Shareholders' equity and non-controlling interests	15,976	**17,873**	48 %
Non-current liabilities	7,531	**12,271**	33 %
Current liabilities	4,867	**7,010**	19 %
Balance sheet total	28,374	**37,154**	100 %

Key financial ratios

	2014	2015	2016
Assets and capital structure			
Equity / balance sheet total	50.6 %	56.3 %	**48.1 %**
Net debt / balance sheet total	24.7 %	18.6 %	**24.2 %**
Equity + non-current capital / fixed assets	108.0 %	106.2 %	**105.1 %**
Gearing (net debt / equity)	48.8 %	33.1 %	**50.4 %**
Earnings per share			
Earnings per share (€)	2.59	4.26	**3.66**
Profitability			
Return on total assets before taxes[1]	5.3 %	6.3 %	**4.5 %**
Return on equity[2]	6.1 %	6.4 %	**5.0 %**
Return on revenue[3]	6.9 %	7.6 %	**5.9 %**

1) (Result before tax from continuing operations + interest expenses) / balance sheet total
2) Net income from continuing operations / equity
3) Net income from continuing operations / revenue

Capital efficiency

Target of HeidelbergCement is to achieve a ROIC (Return On Invested Capital) equivalent to at least the weighted average cost of capital (WACC). HeidelbergCement defines the WACC as weighted average of the country specific cost of capital. The weighting is based on the invested capital. The company specific risk and the capital structure of HeidelbergCement as well as the various country risks are taken into account for determining the cost of capital. In addition, the weighted average of the input values of the past four quarters are used for the calculation of the WACC.

According to HeidelbergCement, weighted cost of capital relevant for evaluating capital efficiency amounted to 7.0 % (previous year: 6.7 %) in 2016. ROIC of HeidelbergCement was 7.2 % (previous year: 7.1) for 2016. The detailed calculation is shown in the following table. Thanks to operational improvement compared to the previous year, HeidelbergCement earned also a premium on its cost of capital in 2016, shortly after the takeover of Italcementi.

Return on Invested Capital (ROIC)

€m	2015	2016
Result from current operations	1,846.1	**1,984.3**
Result from participations	29.5	**38.2**
Income taxes paid	-353.1	**-325.6**
Total	1,522.5	**1,696.9**
Equity (incl. non-controlling interests)	15,976.4	**17,872.6**
Net debt	5,286.0	**8,999.1**
Liabilities for puttable minorities	-30.1	**-73.9**
Invested capital	21,232.3	**26,797.9**
Average invested capital (of the past four quarters)	21,559.3	**23,614.9**
Return on Invested Capital (ROIC)	7.1 %	**7.2 %**

Group financial management

Financial principles and goals

The objective of external financing and safeguarding of liquidity is to ensure sufficient liquidity for the Group at all times. The crisis in the international capital markets has emphasised how important it is to focus on liquidity.

Our external financial flexibility is primarily assured by capital markets and a group of major international banks. Within the Group the principle of internal financing applies, i.e. financing requirements of subsidiaries are – where possible – covered by internal loan relationships. In 2016, our subsidiaries were financed according to this principle primarily by our finance company HeidelbergCement Finance Luxembourg S.A. (HC Finance Luxembourg S.A.) based in Luxembourg and by HeidelbergCement AG. This central financing principle ensures a uniform presence in the capital markets and also in relation to rating agencies, it eliminates structural benefits for individual creditor groups, and strengthens our negotiating position with credit institutions and other market participants. Furthermore, it enables us to allocate liquidity in the most efficient way and to monitor and eliminate the financial risk positions (currencies and interest) across the Group on the basis of net positions.
The Group companies use either liquidity surpluses from other subsidiaries in cash pools or are provided with intra-Group loans from HC Finance Luxembourg S.A. or HeidelbergCement AG. In some cases, the Group Treasury department also arranges credit lines for subsidiaries with local banks in order to accommodate legal, tax, or other conditions. Local financing is mainly used for particularly small volumes.

Financing measures

2016 was characterised by three successful bond issues and the placement of debt certificates.

On 14 January 2016, we placed debt certificates of €625 million, which were increased by €20 million to €645 million on 4 February. With a term that expires by 20 January 2022, these certificates consist of one tranche with floating and one tranche with fixed interest rates. The fixed interest rate is 1.85 % p.a., and the variable rate is 1.5 % above the 6-month Euribor rate.

In 2016, we raised capital on the capital market at very favourable conditions by issuing three bonds under the €10 billion EMTN programme. The 2016 debut issue was launched on 30 March with a €1 billion bond and a seven-year term ending on 30 March 2023. The bond bears a fixed coupon of 2.25 % p.a. The issue price was at 99.616 %, resulting in a yield to maturity of 2.31 %. The second bond issue followed on 3 June with an issue volume of €750 million and an eight-year term ending on 3 June 2024. This bond bears a fixed coupon of 2.25 % p.a. The issue price was at 98.963 %, resulting in a yield to maturity of 2.394 %. The third bond issue took place on 7 December with an issue volume of €1 billion and an eight-year term ending on 7 February 2025. The bond has a fixed coupon of 1.5 % p.a. The issue price was at 98.529 %, resulting in a yield to maturity of 1.694 %.

The issue proceeds from the debt certificates and Eurobonds were used to refinance the acquisition of Italcementi. The bridge facility for the financing of the acquisition was thus fully refinanced and terminated in December 2016.

As at 31 December 2016, only €211.1 million had been drawn upon the syndicated credit facility which acts as HeidelbergCement's liquidity back-up. The free credit line amounted to €2,788.9 million at year-end 2016 (see following table). Overall, it is thereby ensured that all Group companies have sufficient headroom for cash drawdowns as well as for letters of credit and guarantees to enable them to successfully finance operational business and new investments.

Credit line

€m	31 Dec. 2016
Syndicated Credit Facility (SFA)	3,000.0
Utilisation (cash)	0.0
Utilisation (guarantee)	211.1
Free credit line	**2,788.9**

Owing to the acquisition of Italcementi and the associated rise in debt, the credit margin grew from 75 basis points to 85 basis points.

According to the terms and conditions of the bonds issued in 2009 and 2010, there is a limitation on incurring additional debt if the consolidated coverage ratio (i.e. the ratio of the aggregate amount of the consolidated EBITDA to the aggregate amount of the consolidated interest expense) of the HeidelbergCement Group is below 2. This covenant is suspended for the other bonds and debt certificates due to the investment grade rating. The consolidated EBITDA of €3,229 million and the consolidated interest expense of €561 million are calculated on a pro forma basis in accordance with the terms and conditions of the bonds. At the end of 2016, the consolidated coverage ratio amounted to 5.75. In the reporting year, net debt rose by €3.7 billion and amounted to €9.0 (previous year: 5.3) billion as at 31 December 2016. The dynamic gearing ratio amounted to 3.06x (previous year: 2.02x).

The following table shows the new issues and repayments of HeidelbergCement Group in 2016. In addition, numerous bilateral bank loans of the Italcementi Group were repaid early in connection with the Italcementi acquisition.

New issues and repayments of HeidelbergCement Group

Transaction	Offering date	Duration	Maturity date	Nominal volume	Yield
New issue	2016-01-20	6 years	2022-01-20	€m 361	1.85 %
New issue	2016-01-20	6 years	2022-01-20	€m 265	variable
New issue	2016-02-10	6 years	2022-01-20	€m 20	variable
New issue	2016-03-30	7 years	2023-03-30	€m 1,000	2.25 %
New issue	2016-06-03	8 years	2024-06-03	€m 750	2.25 %
New issue	2016-06-30	7 years	2023-06-30	€m 115	1.29 %
New issue	2016-12-07	8 years	2025-02-07	€m 1,000	1.50 %
Reduction/bridge facility	2016-01-25	18 months	2017-01-28	€m 600	variable
Reduction/bridge facility	2016-03-24	18 months	2017-01-28	€m 650	variable
Reduction/bridge facility	2016-09-22	18 months	2017-01-28	€m 162	variable
Reduction/bridge facility	2016-10-18	18 months	2017-01-28	€m 888	variable
Reduction/bridge facility	2016-12-07	18 months	2017-01-28	€m 1,000	variable
Repayment	2012-03-08	4 years	2016-03-08	€m 300	4.00 %
Repayment	2006-08-16	10 years	2016-08-15	US$m 750	6.13 %
Repayment	2011-12-20	5 years	2016-10-31	€m 174	6.77 %

The following tables show the financial liabilities of HeidelbergCement Group as at 31 December 2016.

Bonds payable

Issuer €m	Nominal volume	Book value	Coupon rate in %	Offering date	Maturity date	ISIN
HC Finance Luxembourg S.A.	1,000.0	1,033.8	8.000	2009-10-21	2017-01-31	XS0458230322
Ciment Français S.A.S.	500.0	522.7	4.750	2007-04-04	2017-04-04	FR0010454090
HC Finance Luxembourg S.A. CHFm 150	139.9	140.9	7.250	2011-11-14	2017-11-14	CH0140684512
HC Finance Luxembourg S.A.	480.0	501.3	5.625	2007-10-22	2018-01-04	DE000A0TKUU3
Italcementi Finance S.A.	500.0	555.3	6.125	2013-02-21	2018-02-21	XS0893201433
HC Finance Luxembourg S.A.	500.0	504.8	9.500	2011-10-05	2018-12-15	XS0686703736
HC Finance Luxembourg S.A.	500.0	511.8	2.250	2014-03-12	2019-03-12	XS1044496203
HC Finance Luxembourg S.A.	500.0	500.2	8.500	2009-10-21	2019-10-31	XS0458685913
Italcementi Finance S.A.	750.0	904.1	6.625 [1]	2010-03-19	2020-03-19	XS0496716282
HC Finance Luxembourg S.A.	750.0	756.0	7.500	2010-01-19	2020-04-03	XS0478803355
HC Finance Luxembourg S.A.	300.0	311.7	3.250	2013-10-24	2020-10-21	XS0985874543
HC Finance Luxembourg S.A.	500.0	521.2	3.250	2013-12-12	2021-10-21	XS1002933072
HeidelbergCement AG	1,000.0	1,009.3	2.250	2016-03-30	2023-03-30	XS1387174375
HeidelbergCement AG	750.0	749.3	2.250	2016-06-03	2024-06-03	XS1425274484
HeidelbergCement AG	1,000.0	983.2	1.500	2016-12-07	2025-02-07	XS1529515584
Total		**9,505.5**				

1) From 19 March 2017 onwards, coupon step down to 5.375 % due to investment grade rating.

Bank loans					
Issuer €m	Nominal volume	Book value	Coupon rate in %	Offering date	Maturity date
Debt certificates					
HeidelbergCement AG	360.5	365.0	1.850	2016-01-20	2022-01-20
HeidelbergCement AG	264.5	264.7	variable	2016-01-20	2022-01-20
HeidelbergCement AG	20.0	20.0	variable	2016-02-10	2022-01-20
Syndicated facility					
HeidelbergCement AG	0.0	-7.8		2014-02-25	2019-02-25
Others					
Other Group companies		600.6			
Total		**1,242.5**			

Other interest-bearing liabilities	
Issuer €m	Book value
Other Group companies	229.0
Total	**229.0**

Non-controlling interests with put options	
€m	Book value
Non-controlling interests with put options	73.8
Total	**73.8**

The following table shows the main liquidity instruments as at 31 December 2016.

Liquidity instruments	
€m	31 Dec. 2016
Cash and cash equivalents	**1,972.4**
Liquidable financial investments and derivative financial instruments	**79.3**
Free credit line	**2,788.9**
Free liquidity	**4,840.6**

Rating

In the 2016 financial year, the company's credit rating by the rating agencies Moody's Investors Service and Fitch Ratings improved from Ba1 and BB+, respectively, to Baa3 and BBB-, respectively. S&P Global Ratings also awarded a BBB- credit rating. The outlook for our credit rating is assessed as stable. The upgrade of the credit rating to investment grade was mainly due to the stronger corporate profile following the acquisition of the Italcementi Group and its rapid integration.

We were able to successfully continue issuance activity in the money market during 2016 and issued a total volume of €1.8 billion via our €1.5 billion Euro Commercial Paper Programme over the course of 2016. At the end of the year, issuance activity under the Commercial Paper Programme was gradually reduced in order to limit excess liquidity at the end of the year. As at 31 December 2016, none of the commercial papers issued by HeidelbergCement AG remained outstanding. The €3 billion syndicated credit facility thereby serves as a backup line.

Ratings as at 31 December 2016			
Rating agency	Long-term rating	Outlook	Short-term rating
Moody's Investors Service	Baa3	stable	P-3
Fitch Ratings	BBB-	stable	F3
S&P Global Ratings	BBB-	stable	A-3

Statements on HeidelbergCement AG

In addition to the Group management reporting, the parent company's development is described below. In contrast to the consolidated financial statements, the annual financial statements of HeidelbergCement AG are prepared in accordance with German commercial law. HeidelbergCement AG's management report is combined with that of the HeidelbergCement Group in accordance with § 315, section 3 of the German Commercial Code (Handelsgesetzbuch, HGB), as the business trend, economic position, and future opportunities and risks of the parent company are closely linked with the Group on account of their common activity in the building materials business.

As the controlling company, HeidelbergCement AG plays the leading role in the HeidelbergCement Group. It is also operationally active in Germany in the cement business line with eleven cement plants and grinding facilities. The results of HeidelbergCement AG are significantly influenced by its directly and indirectly held subsidiaries and participations. The business development of HeidelbergCement AG is subject to the same risks and opportunities as the business development of the Group. Regarding financing, HeidelbergCement AG plays the key role within the Group. Due to the links between HeidelbergCement AG and its subsidiaries as well as its importance in the Group, the outlook for the Group also reflects the expectations for HeidelbergCement AG to a large extent. Therefore, the statements in the Combined management report apply likewise for the Group and HeidelbergCement AG.

With the Accounting Directive Implementing Act (BilRUG) of 17 July 2015, Germany has implemented the EU Accounting Directive 2013/34/EU in national law. The new regulations are applicable for the first time for the financial year beginning after 31 December 2015. The changes have been incorporated into the 2016 annual financial statements where necessary.

In 2016, business development in Germany benefited from a slight recovery in demand for building materials. No further price increase was possible in the financial year because of competitors' aggressive market strategies. Nevertheless, in operational terms, i.e. excluding the changes due to BilRUG, revenue increased slightly in comparison with the previous year.

As a result of the application of BilRUG, revenue for 2016 additionally includes proceeds from the rental business and intra-Group services provided for the first time. Total revenue is therefore not comparable with that of the previous year. Total revenue of HeidelbergCement AG rose by €106 million to €627 million (previous year: 521). Cement and clinker revenue improved by €11 million (+2.85 %), primarily as a result of higher sales volumes. A particularly strong increase was recorded in proceeds from services provided (shown in revenue alongside rental income as from the reporting year) in the expanded HeidelbergCement Group.

Expenses for raw materials, consumables, and supplies decreased further, compared with the previous year. This was due to the lower clinker production and the general market development for raw materials and energy, as well as the discontinuation of the lime activities in the second half of 2015.

Other operating income fell by €134 million to €41 million (previous year: 175), which is primarily attributable to the new presentation in accordance with BilRUG. Personnel costs rose by €6 million to €218 million (previous year: 212), despite a moderate drop in the number of employees. Other operating expenses rose by €20 million to €244 million (previous year: 224). Earnings before interest and taxes (EBIT) decreased by €95 million to €-50 million (previous year: 45). This decline results mainly from the significant increase in expenses in connection with HeidelbergCement AG's leading role as the controlling company in the HeidelbergCement Group.

Results from participations rose by €1,663 million to €1,670 million (previous year: 7). This improvement results primarily from the existing profit transfer agreement with HeidelbergCement International Holding GmbH, Heidelberg. In 2016, the result of HeidelbergCement International Holding GmbH, Heidelberg, was significantly influenced by the reversal of an impairment loss in the investment in HeidelbergCement Holding S.à.r.l., Luxembourg.

Income from loans declined by €2 million to €49 million (previous year: 51). Other interest and similar income increased by €12 million to €231 million (previous year: 219). Interest and similar expenses rose by €8 million to €249 million (previous year: 241). The change in other interest and similar income as well as interest and similar expenses is primarily attributable to increased in-house banking activities

Through the in-house banking activities, the financing measures of the subsidiaries lead to currency positions that are hedged by means of external foreign exchange transactions, which are appropriate in terms of maturities and amounts. As these hedging transactions do not, as a rule, relate to any valuation units, currency and interest gains or losses may arise. In accordance with the imparity principle, provisions for risks arising from hedging transactions were recognised at the end of the year to the extent of the negative market values. Positive market values are not recognised as assets. The foreign currency results in the 2016 financial year amounted to €4 million (previous year: -13).

Reversal of impairment losses of €1 million and impairment of financial assets totalling €1.6 million were applied in the 2016 financial year. The income tax expense of €37 million (previous year: 18) results from taxes for the reporting year. In addition, there were adjustments for previous years, which related in particular to a company audit for the assessment period of the tax years 2005–2011. Overall, the profit for the 2016 financial year amounted to €1,617 million (previous year: 42), while balance sheet profit was €858 million (previous year: 245).

The balance sheet total rose by €7.1 billion to €26.2 billion (previous year: 19.1). This is largely attributable to the increase of €3.5 billion in financial assets, €3.4 billion in receivables from affiliated companies, €2.7 billion in bonds issued, and the rise of €2 billion in loans to affiliated companies.

On the assets side, shares in affiliated companies rose by €3.7 billion to €17.2 billion (previous year: 13.5), particularly as a result of the addition to the capital reserve at HeidelbergCement International Holding GmbH, Heidelberg. The 74.35 million ordinary shares of Italcementi S.p.A., Italy, which were acquired via the issue of 10.5 million new HeidelbergCement shares, were resold directly to HeidelbergCement France S.A.S., France. As part of intra-Group restructuring measures, Heidelberger Sand und Kies GmbH, Heidelberg, was transferred to Heidelberger Beton GmbH, Heidelberg.

Loans to affiliated companies decreased to €1.0 billion (previous year: 1.3) due to scheduled repayments. Financial assets increased to a total of €18.3 billion. As a result, total fixed assets rose to €18.7 billion. Inventories decreased by €9 million to €52 million (previous year: 61), mainly because of the reduction in inventories of work in progress and finished products. Trade receivables fell in comparison with the previous year to €7.6 million. Receivables and other assets rose to €7.2 billion (previous year: 3.8), which is primarily due to the increase in receivables from affiliated companies to €7.1 billion (previous year: 3.7) related to financing measures within the Group. Cash and cash equivalents increased by €231 million to €259 million (previous year: 28).

On the equity and liabilities side, equity rose to €13.7 billion (previous year: 11.6) as a result of the capital increase in return for contributions in kind and a profit for the financial year that significantly exceeded the previous year's level. Provisions increased to €0.51 billion (previous year: 0.47) in comparison with the previous year. Liabilities rose by €5.0 billion to €12.0 billion (previous year: 7.0). This is primarily a result of bonds issued and higher loans to affiliated companies, which increased to €8.2 billion in connection with Group financing activities.

Evaluation of the economic situation by Group management

HeidelbergCement substantially accelerated its growth in 2016 following the successful acquisition of Italcementi. Our Group now operates in around 60 countries worldwide and – based on its sales volumes in the core business lines aggregates, cement, and ready-mixed concrete – is number one, two and three globally. On account of the strengthened corporate profile following the acquisition of Italcementi and the improved creditworthiness, the rating agencies S&P Global Ratings, Moody's Investors Service, and Fitch Ratings upgraded the credit rating of HeidelbergCement to investment grade in November 2016. We thus achieved one of our central goals and are very well positioned to implement our medium-term strategic priorities of value creation for our shareholders and accelerated growth.

As a leading building materials producer, we benefited from the positive development of demand in many markets. Despite the drop in the oil-producing industry, the economic recovery continued in North America and led to an increase in demand for building materials, driven by commercial and residential construction. The upswing in the construction sector in the United Kingdom also persisted despite the Brexit decision. In Germany and Northern Europe, the dynamic development in residential and infrastructure construction continued. The decline in mining projects in Australia was more than offset by an increase in residential construction. In Eastern Europe, the development of sales volumes of cement and ready-mixed concrete was positive. However, we also faced increasing competition, declining demand, and price pressure in some countries, particularly in Asia and Africa. In Indonesia, the delay of infrastructure projects resulted in a weak development of demand, which combined with excess capacities resulted in intensified competition and decreasing prices.

The consolidation of Italcementi from 1 July 2016 led to a significant increase in revenue and result from current operations. Lower energy costs, our successful margin improvement programmes, and the realisation of initial synergies following the integration of the business activities of Italcementi also contributed to the positive development of results. In contrast, the strengthening of the euro against numerous other currencies had a slightly negative impact on revenue and results. Thanks to the low level of net debt at the start of the year and the refinancing of maturities as well as the Italcementi takeover at favourable conditions, we were able to significantly improve the financial result compared with the previous year, as anticipated. As a whole, we clearly achieved our objective of substantially increasing the profit for the financial year before non-recurring effects. We were also able to improve ROIC accordingly and to earn a premium on our cost of capital again, directly after the Italcementi acquisition.

The cash inflow from operating activities of continuing operations grew considerably in comparison with the previous year, owing to the positive contribution of the Italcementi Group as well as the improved operational performance. In 2016, strict spending discipline regarding investments was again a significant cornerstone of our rigid cash management. Due to the acquisition of Italcementi on the one hand and to cash management discipline on the other hand, net debt rose considerably from €5.3 billion at the end of 2015 to just under €9 billion at the end of 2016. The dynamic gearing ratio on a pro forma basis, i.e. taking into consideration Italcementi's contribution of €256 million to the result from current operations before depreciation and amortisation in the first half of 2016, increased correspondingly from a factor of 2.0x at the end of 2015 to 2.8x at the end of 2016. One of the core objectives for 2017 will be to bring the dynamic gearing ratio back down to the target range of 1.5x to 2.5x. At the end of 2016, the available liquidity amounted to €4.8 billion. HeidelbergCement is in a solid position to face the challenges of 2017 and successfully complete the integration of the business activities of Italcementi.

Comparison of the business trend with the previous year's outlook

Revenue outlook
In the 2015 Annual Report, the Managing Board projected a moderate increase in revenue adjusted for exchange rate and consolidation effects for 2016. This did not take into account the acquisition of Italcementi, which was not yet concluded at that time. The outlook was based on the assumption that sales volumes of cement and aggregates would rise moderately. Furthermore, price increases were to take on a high priority. Cement sales volumes increased only slightly, particularly due to the delay of infrastructure projects in Indonesia. Aggregates sales volumes remained more or less stable at the previous year's level and were adversely impacted by the early onset of winter in North America, among other things. Moreover, we were able to increase our prices for cement and aggregates in key markets such as North America, but had to accept price decreases in emerging countries – especially in Indonesia – as a result of intensified competition. Consequently, revenue excluding the contribution of Italcementi of €1,944 million in the second half of the year and adjusted for exchange rate and consolidation effects fell slightly by 1.9 % and thus failed to meet the expectations at the beginning of the year. On a pro forma basis, i.e. taking into account the contribution to revenue of Italcementi of €3,866 million in 2015 and €1,918 million in the first half of 2016, revenue adjusted for exchange rate and consolidation effects dropped slightly by 1 %.

Expenditure outlook
In the 2015 Annual Report, a slight to moderate increase was anticipated for 2016 in the cost base for energy, and a moderate rise in costs for raw materials and personnel. This did not take into account the acquisition of Italcementi, which was not yet concluded at that time. Energy costs developed better than expected in 2016 and were even substantially lower compared with the previous year's level. After this trend became apparent over the course of the year, the outlook for energy costs was updated to a stable development. In the end, energy costs fell by 15.4 % without taking into account the energy costs of Italcementi, which amounted to €305 million in the second half of the year. As a percentage of revenue, this represents a reduction from 9.3 % in 2015 to 8.2 % in 2016. Excluding exchange rate and consolidation effects, the decrease amounted to 13.3 %. This was attributable to the drop in the oil price to its low point at the start of 2016 and the hedging of the low prices through our purchasing strategy.

In 2016, personnel costs for HeidelbergCement – without taking into account the personnel costs of €314 million for Italcementi in the second half of the year – rose moderately, as expected, by 3.8 %. As a percentage of revenue, they increased from 16.9 % in 2015 to 17.7 % in 2016.

The increase amounted to 5.7 % after exclusion of exchange rate effects and to 2.0 % after additional exclusion of consolidation effects. The strengthening of the euro against numerous currencies, especially the British pound and some Asian and Northern European currencies, lowered the increase in material and personnel costs.

Despite the acquisition of Italcementi, interest costs fell as expected in comparison with the previous year. The low debt level at the start of the year as well as the refinancing of maturities and of the Italcementi acquisition at favourable terms contributed to this decline. Hence, the financial result improved significantly.

Profit outlook

On the basis of the expected development of revenue and expenditure, we predicted a moderate rise in the result from current operations before consolidation and exchange rate effects and a moderate increase in earnings before interest and taxes (EBIT) and the profit for the financial year before non-recurring effects in the 2015 Annual Report. This did not take into account the acquisition of Italcementi, which was not yet concluded at that time. In view of the positive business development in the first quarter, the outlook was adjusted to a moderate to significant increase for each of these items. After the acquisition of Italcementi was finalised at the beginning of October, the outlook was extended by including the development of Italcementi on a comparable pro forma basis, i.e. taking into account Italcementi for the full years 2015 and 2016, and resulted in the same conclusion. The result from current operations, without taking into consideration Italcementi's result of €116 million for the second half of the year, rose by 2.7 % before exchange rate and consolidation effects despite the weaker than anticipated development of revenue. On a pro forma basis, i.e. taking into account the contribution to results of Italcementi of €191 million in 2015 and €89 million in the first half of 2016, growth was around 6 % and thus within the scope of the updated outlook. The decline in energy costs contributed among others to this positive development. EBIT before non-recurring effects increased by 3.1 %. As a consequence of the robust operational performance and thanks to the improved financial result, profit for the financial year before non-recurring effects, i.e. without taking into consideration the additional ordinary result of €-324 million, rose significantly by 24.1 %. ROIC accordingly increased from 7.1 % to 7.2 %. The development of the result and ROIC were therefore in line with the original outlook.

Comparison of the business trend with the outlook in the 2015 Annual Report

€m	Outlook 2015 Annual Report	Actual 2015	Actual 2016	Change (adjusted for exchange rate and consolidation effects)
Revenue[1]	Moderate increase	13,465	13,222	-1.8 % (-1.9 %) Pro forma: -1 % (-1 %)
Energy costs[1]	Slight to moderate increase (updated to "stable development" in May 2016)	1,246	1,053	-15.4 % (-13.3 %)
Personnel costs[1]	Moderate increase	2,274	2,360	+3.8 % (+2 %)
Financing costs (financial result)	Significant decline	-550	-494	-10.2 %
Result from current operations[1]	Moderate increase before exchange rate and consolidation effects (updated to "moderate to significant" in May 2016)	1,846	1,868	+1.2 % (+2.7 %) Pro forma: +2 % (+6 %)
EBIT[1]	Moderate increase before non-recurring effects (updated to "moderate to significant" in May 2016)	1,863	1,921	+3.1 %
Profit for the financial year	Significant increase	983	1,221	+24.1 %
ROIC	Improvement	7.1 %	7.2 %	+0.1 percentage point

1) Without consideration of Italcementi

Additional statements

Statements in accordance with § 289, section 4 and § 315, section 4 of the German Commercial Code (HGB)

On 31 December 2016, the share capital of HeidelbergCement AG amounted to €595,249,431. It is divided into 198,416,477 no-par value bearer shares, each with a pro rata amount of €3, which corresponds to a proportionate amount of the subscribed share capital. Each share carries one vote at the Annual General Meeting. All shares carry the same rights and obligations; there are no different classes of shares. The Managing Board knows of no restrictions concerning voting rights or the transfer of shares.

Mr Ludwig Merckle, Ulm, Germany, holds via VEMOS 2 Holding GmbH, a company under his control, 25.52 % of the voting rights in the company, according to the notifications available to the company as at 31 December 2016 in accordance with the German Securities Trading Law (Wertpapierhandelsgesetz) and Market Abuse Regulation Article 19. No holder of shares has been granted special rights giving power of control.

The company's Managing Board is appointed and discharged by the Supervisory Board. The Articles of Association may be amended by the Annual General Meeting with a simple majority of the share capital represented at the time of voting, except where a greater majority is required by law. Amendments affecting only the wording of the Articles of Association may be made by the Supervisory Board.

As at 31 December 2016, there were two authorised capitals: namely, authorisation of the Managing Board and Supervisory Board to increase the capital by issuing new shares in return for cash contributions (Authorised Capital I), and authorisation of the Managing Board and Supervisory Board to increase the capital by issuing new shares in return for contributions in kind (Authorised Capital II). The Authorised Capitals are summarised as below. The complete text of the authorisations can be found in the Articles of Association, which are published on our website www.heidelbergcement.com under "Company/Corporate Governance/Articles of Association".

Authorised Capital I
The Managing Board is authorised to increase, with the consent of the Supervisory Board, the company's share capital by a total amount of up to €225,000,000 by issuing new no-par value bearer shares in return for cash contributions on one or more occasions until 6 May 2020 (Authorised Capital I). The shareholders must be granted subscription rights. However, the Managing Board is authorised, in certain cases described in more detail in the authorisation, to exclude the subscription rights of shareholders in order to realise residual amounts, to service option or conversion rights, or to issue shares totalling up to 10 % of the share capital at a near-market price. As at 31 December 2016, the Authorised Capital I had not been used.

Authorised Capital II
The Managing Board is also authorised to increase, with the consent of the Supervisory Board, the company's share capital by a total amount of up to €24,874,941 by issuing new no-par value bearer shares in return for contributions in kind on one or more occasions until 6 May 2020 (Authorised Capital II). The subscription right of shareholders is generally excluded in the case of capital increases in return for contributions in kind. The authorisation governs, in particular, the possibility of excluding the subscription right insofar as the capital increase in return for contributions in kind is performed for the purposes of acquisition of companies, to service option

or conversion rights, or in the context of implementing a dividend in kind/dividend option. The Authorised Capital II was utilised until 31 December 2016 through the issue of 10,500,000 new no-par value shares in connection with the Italcementi acquisition.

Conditional Share Capital

In addition, the Conditional Share Capital described below existed as at 31 December 2016. The share capital was conditionally increased by a further amount of up to €168,000,000, divided into up to 56,000,000 new no-par value bearer shares (Conditional Share Capital 2013). The conditional capital increase serves to back the issuance of option or conversion rights, or option or conversion obligations on HeidelbergCement shares. The conditional capital increase is only carried out insofar as the Managing Board issues warrant or convertible bonds until 7 May 2018 under the authorisation of the Annual General Meeting from 8 May 2013 and the bearers of option or conversion rights make use of their rights. Warrant or convertible bonds may also be issued with option or conversion obligations.

The shareholders generally have a subscription right to newly issued warrant or convertible bonds. The authorisation governs specific cases in which the Managing Board may exclude the subscription right of shareholders to warrant or convertible bonds. The complete text of the Conditional Share Capital can also be found in the Articles of Association, which are published on our website www.heidelbergcement.com under "Company/Corporate Governance/Articles of Association". As at 31 December 2016, the authorisation to issue warrant or convertible bonds forming the basis of the Conditional Share Capital 2013 had not been used.

A corresponding volume limit as well as the deduction clauses ensure that the sum of all exclusions of subscription rights in the two existing Authorised Capitals and the Conditional Share Capital 2013 will not exceed a limit of 20 % of the share capital existing at the time the authorisation to exclude the subscription right comes into force.

Acquisition of own shares

Furthermore, the authorisation to acquire own shares described below existed as at 31 December 2016. The company is authorised to acquire own shares up to 3 May 2021 once or several times, in whole or in partial amounts, up to a total of 10 % of the share capital on 4 May 2016 for any permissible purpose within the scope of the legal restrictions. The authorisation may not be used for the purpose of trading in own shares. At no time may more than 10 % of the respective share capital be attributable to the acquired own shares combined with other shares which the company has already acquired and still possesses. The shares may be acquired via the stock exchange or by way of a public purchase offer or by means of a public call for the submission of offers to sell or by issuing rights to sell shares to the shareholders. The own shares acquired on the basis of the authorisation will be used by selling them via the stock exchange or in another suitable manner while ensuring the equal treatment of the shareholders, or for any other purposes permitted by law. Shareholders' subscription rights can be excluded in certain cases. The complete text of the authorisation can be found under item 6 of the agenda of the Annual General Meeting 2016, which is published on our website www.heidelbergcement.com under "Investor Relations/Annual General Meeting 2016". The company has not used the authorisation to date and has no own shares as at 31 December 2016.

A list of the company's significant agreements contingent on a change of control resulting from a takeover bid, and a summary of the effects thereof, is provided in the following in accordance with § 289, section 4, no. 8 and § 315, section 4, no. 8 of the German Commercial Code (HGB).

Please note that we are disregarding agreements whose potential consequences for the company fall below the thresholds of €50 million in a singular instance or €100 million in the case of several similar agreements, as they will not normally affect the decision of a potential bidder. These change of control clauses are standard for this industry and type of transaction and have not been agreed with the intention of hindering any takeover bids.

As at 31 December 2016, the following significant agreements of HeidelbergCement AG were contingent on a change of control within HeidelbergCement AG resulting from a takeover bid.

Name of agreement/date	Type of contract	Nominal amount €m [1]	Repayment	Type of clause
Syndicated credit and aval agreements and bilateral credit lines				
Syndicated credit line and aval credit facility of 25 February 2014	Credit and aval credit facility	3,000 [2]	to the extent outstanding by 25 February 2019	(1)
Loan agreement of 17 June 2016	Credit facility	115.2	to the extent outstanding by 30 June 2023	(1)
Bonds issued by HeidelbergCement AG				
2.25 % bond 2016/2023	Debenture bond	1,000	to the extent outstanding by 30 March 2023	(3)
2.25 % bond 2016/2024	Debenture bond	750	to the extent outstanding by 3 June 2024	(3)
1.5 % bond 2016/2025	Debenture bond	1,000	to the extent outstanding by 7 February 2025	(3)
Bonds issued by HeidelbergCement Finance Luxembourg S.A., guaranteed by HeidelbergCement AG				
8.0 % bond 2009/2017	Debenture bond	1,000	to the extent outstanding by 31 January 2017	(3)
7.25 % bond 2011/2017	Debenture bond	CHFm 150	to the extent outstanding by 14 November 2017	(3)
5.625 % bond 2007/2018	Debenture bond	480	to the extent outstanding by 4 January 2018	(2)
9.5 % bond 2011/2018	Debenture bond	500	to the extent outstanding by 15 December 2018	(3)
2.25 % bond 2014/2019	Debenture bond	500	to the extent outstanding by 12 March 2019	(3)
8.5 % bond 2009/2019	Debenture bond	500	to the extent outstanding by 31 October 2019	(3)
7.5 % bond 2010/2020	Debenture bond	750	to the extent outstanding by 3 April 2020	(3)
3.25 % bond 2013/2020	Debenture bond	300	to the extent outstanding by 21 October 2020	(3)
3.25 % bond 2013/2021	Debenture bond	500	to the extent outstanding by 21 October 2021	(3)
Bonds issued by Italcementi Finance S.A., guaranteed by HeidelbergCement AG				
5.375 % bond 2010/2020	Debenture bond	750	to the extent outstanding by 19 March 2020	(4)
Debt certificates issued by HeidelbergCement AG				
of 20 January/10 February 2016	Debt certificate	645	to the extent outstanding by 20 January 2022	(3)
Shareholders agreement				
between HeidelbergCement AG and IFC dated 19 May 2010, supplemented and revised on 19 January 2012	Agreement between Heidelberg-Cement AG and IFC as well as their associated shareholders in Scancem International DA	to be determined	to be determined	(5)

1) Provided that no other currency is specified.
2) Of this figure, €211.1 million was outstanding as at 31 December 2016.

The relevant change of control clauses give the contractual partner or bearer of the bonds or debt certificates the right to immediately accelerate and to demand repayment of the agreement or outstanding loans, debenture bonds, or debt certificates, or to end the common participation in Scancem International DA in the event of a change in the company's shareholder structure as defined variously below.

The syndicated credit line and aval credit facility agreement dated 25 February 2014 and the loan agreement dated 17 June 2016, both marked (1) in the type of clause column, give each creditor the right, in the event of a change of control, to accelerate the loan amount it provided (plus any accrued interest) and to demand repayment accordingly.

A change of control is deemed to occur when a person or a group of people acting jointly in the sense of § 2, section 5 of the German Securities Acquisition and Takeover Act (WpÜG) has acquired more than 30 % of the shares in the company.

The bonds marked (2) in the type of clause column give each bearer of the debenture bond the right of early termination in the event of changes in the shareholder structure that lead to a change in the control of the company.

A change of control is deemed to occur when more than 50 % of the subscribed capital or more than 50 % of the voting rights are controlled contractually or by other means. In connection with a concept of "registered partner", a change of control to (a) SC Vermögensverwaltung GmbH (formerly Spohn Cement GmbH) or (b) any partner of SC Vermögensverwaltung GmbH including successors and legatees of partners of SC Vermögensverwaltung GmbH and persons who are beneficial owners of shares in SC Vermögensverwaltung GmbH or (c) any legal person or foundation or comparable institution managed by such persons to whom shares in HeidelbergCement AG were transferred by persons mentioned under (a) to (c) is exempted from the change of control provision and thus from the regulation regarding a right of early termination.

The bonds and debt certificates marked (3) in the type of clause column give each bearer of the debenture bond or debt certificate the right, in the event of a change of control as described below, to demand full or partial repayment from the company or, in the case of debenture bonds issued up to and including 2011, at the company's option, alternatively, the full or partial purchase of his debenture bonds by the company (or, at the company's request, by a third party) at the "early repayment amount". The early repayment amount means, in the case of the debt certificate, 100 % of the nominal amount or, in the case of debenture bonds, 101 % of the nominal amount plus accrued and unpaid interest up to (but not including) the repayment date defined in the bond terms.

A change of control is deemed to occur when one of the following events takes place:
- the company becomes aware that a person or group of persons acting in concert in the sense of § 2, section 5 of the German Securities Acquisition and Takeover Act (WpÜG) has become the legal or beneficial owner of more than 30 % of the company's voting rights, or
- the merger of the company with or into a third person or the merger of a third person with or into the company, or the sale of all or substantially all assets (consolidated) of the company to a third person, except in connection with legal transactions, as a result of which (a) in the event of a merger the holders of 100 % of the company's voting rights hold at least the majority of the voting rights in the surviving legal entity immediately after such a merger and (b) in the event of the sale of all or substantially all assets, the acquiring legal entity is or becomes a subsidiary of the company and becomes the guarantor for the debenture bonds.

The bond marked (4) in the type of clause column includes a provision, whereby not only the direct but also the indirect acquisition of the majority of the voting rights in Italcementi S.p.A. or any other dominant influence that leads to control according to Article 93 of Italian Decree 58/1998 represents a change of control. A change of control grants the holders of these bonds a put option at nominal value plus interest against Italcementi Finance S.A., if the rating of the bonds is downgraded, as specified in the terms of the bonds, by certain rating agencies, in connection with this change of control.

In May 2010, HeidelbergCement signed a shareholders agreement, marked (5) in the type of clause column, with International Finance Corporation (IFC), a member of the World Bank Group. The agreement was supplemented and revised on 19 January 2012. This agreement governs the rights of the shareholders in the jointly held Norwegian holding partnership Scancem International DA, which brings together the main African activities of HeidelbergCement in the countries south of the Sahara. The agreement provides IFC and its financial partners with the opportunity of selling their indirect holding in Scancem International DA to HeidelbergCement at a price that corresponds to the reference price determined according to certain requirements in the agreement, if an "adverse sponsor change in control" occurs. This is defined as a change in control at HeidelbergCement AG that leads to a mandatory offer, pursuant to the German Securities Acquisition and Takeover Act (WpÜG), for the outside shareholders of HeidelbergCement AG, if the purchaser of the control is either included in one of the sanction lists of the UN, EU, France, the USA, or the World Bank specified in the agreement, or if the purchaser of the control takes action or makes decisions that would end or compromise the objectives planned with the IFC's participation in Scancem International DA, i.e. the modernisation and expansion of the jointly led activities in the African countries south of the Sahara.

Agreements also exist on pension schemes in the United Kingdom, which stipulate that a change of control (not contractually specified) at HeidelbergCement AG must be communicated to the trustees of these pension schemes. If, according to the corresponding regulatory guidelines, a change of control poses a considerable risk to the fulfilment of the pension obligations (Type A Event), the trustees can request negotiations on the suitability of the safeguarding of the pension cover and these can be verified by means of a clearance procedure before the supervisory authority, which may lead to the adjustment of the securities.

With the introduction of the new Managing Board remuneration system in November 2010, the HeidelbergCement AG Supervisory Board has decided, in the event of new contracts and the extension of Managing Board contracts in accordance with the German Corporate Governance Code (point 4.2.3, section 5), to agree that a possible redundancy payment in the case of early termination of membership of the Managing Board following a change of control be limited to 150 % of the redundancy pay cap.

The other details required in accordance with § 289, section 4, and § 315, section 4 of the German Commercial Code (HGB) relate to circumstances that do not exist at HeidelbergCement AG.

Regional branches

HeidelbergCement has no regional branches either domestically or internationally.

Events occurring after the close of the 2016 financial year

On 18 January 2017, HeidelbergCement issued a Eurobond under its €10 billion EMTN programme with an issuance volume of €750 million and a maturity date of 18 January 2021. The 4 year bond bears a fixed coupon of 0.500 % p.a. The issue price was at 99.822 %, resulting in a yield to maturity of 0.545 %. The bond is unsecured and ranks pari passu with all other financial liabilities. The terms and conditions include the same change of control clause as the bonds and debt certificates marked (3) in the type of clause column in the table on page 91. The proceeds of the transaction will be used for general corporate purposes and the refinancing of upcoming maturities.

Sustainability

The commitment to sustainable development is a pillar of HeidelbergCement's corporate strategy. The creation of economic added value, ecological competence, and social responsibility secure the Group's future viability. For us, sustainable corporate governance means ensuring a balance between making profit and securing future viability. We strive to act in a socially and ecologically responsible way. We take into account the effects of our entrepreneurial activity on the environment and society, and thereby reduce the risks for our business.

Sustainability strategy

As a commodity company, people, nature, and society are the focus of our sustainability strategy. We consider environmental responsibility, climate protection, and sustainable resource conservation to be the foundation for the future development of our Group. In the same way, our obligation to prevent employees from work-related dangers and to protect their health has become an integral part of our activities for many years. Last but not least, acting in a sustainable way for us also means taking on social responsibility at our locations. Our sustainability strategy and the areas of focus of our sustainability activities are strongly influenced by the expectations of external and internal stakeholders, which are systematically recorded and incorporated into our approach. Furthermore, the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD) has defined central fields of action for this industry. These are: occupational safety, climate protection (CO_2 and energy management), use of alternative fuels and raw materials, pollutant emissions, sustainable land use and species conservation, sustainable construction, water management, supply chain management, and stakeholder dialogue.

Further fields of action are arising from the structure of our sales markets. Competition in the market is limited amongst building materials suppliers in many regions, which is why transparency and fair competition take on particular importance. Our international positioning comes with the need to respect cultural diversity and promote regional development at all our locations.

In 2015, we started the revision of our sustainability strategy. Owing to the acquisition and integration of Italcementi, we have not been able to conclude this process as planned. The sustainability objectives and strategies are to be united and realigned in the new HeidelbergCement Sustainability Ambitions 2030. The basis was defined during the Sustainability Days in December 2016, where sustainability managers from throughout the Group discussed the further development of the ambitions. The new Sustainability Ambitions are expected to be published in mid-2017 and will include binding goals through to 2030.

Sustainability management

The Sustainability Steering Committee, led by the Chairman of the Managing Board, is in charge of the management and control of the sustainability strategy. The committee is made up of people from various business lines and disciplines: the member of the Managing Board responsible for environmental sustainability as well as the heads of the Group departments Human Resources, Legal, Logistics, Sales & Marketing, Purchasing, Research & Technology, Communication & Investor Relations, and Global Environmental Sustainability. Operational responsibility for implementing the sustainability goals and measures lies with the individual Group departments, the country managers, and the Group Environmental Sustainability Committee. This interdisciplinary committee was set up in 2008 with the aim of improving our performance in environmental protection and occupational safety – very important areas for our industry – and promoting the exchange of information between the Group areas and business lines.

Employees and society

Employee development

Employees worldwide

At the end of 2016, the number of employees at HeidelbergCement came to 60,424 (previous year: 45,453). The increase of 14,971 employees is primarily attributable to the acquisition of Italcementi. Around 15,150 employees were added as a result of the first-time consolidation of Italcementi. Moreover, the workforce in Australia grew by around 250 employees following the acquisition of the aggregates company Rocla Quarry Products and the insourcing of truck drivers. Based on the generally positive development of our activities in the United Kingdom, Germany, Belgium, and the Netherlands, we gained an additional number of approximately 420 employees. This was counteracted by the loss of around 930 jobs, in particular in North America, Norway, Poland, Georgia, Kazakhstan, Indonesia, India, Malaysia, and Africa south of the Sahara.

Employees by Group areas			
31 December	2015	2016	Change
Western and Southern Europe	9,560	**15,781**	65.1 %
Northern and Eastern Europe-Central Asia	12,598	**13,107**	4.0 %
North America	7,658	**8,444**	10.3 %
Asia-Pacific	13,029	**14,956**	14.8 %
Africa-Eastern Mediterranean Basin	2,527	**7,602**	200.8 %
Group Services	81	**534**	559.3 %
Total	45,453	**60,424**	32.9 %

Personnel costs and social benefits

Expenditure on wages and salaries, social security costs, costs of retirement benefits, and other personnel costs rose by 17.6 % in comparison with the previous year to 2,674 million (previous year: 2,274). This corresponds to a share in revenue of 17.6 % (previous year: 16.9 %). The increase in personnel costs results predominantly from the acquisition of Italcementi on 1 July 2016 and effects from additional changes to the scope of consolidation.

Personnel costs			
€m	2015	2016	Change
Wages, salaries, social security costs	2,152.1	**2,504.0**	16.4 %
Costs of retirement benefits	97.0	**138.3**	42.6 %
Other personnel costs	25.1	**31.2**	24.3 %
Total	2,274.2	**2,673.5**	17.6 %

Development dialogue

Qualified and motivated employees are an important prerequisite for the sustainable success of HeidelbergCement. Identifying our employees’ talents, developing them, and – in competition with other companies – retaining those employees within the Group are therefore at the core of the Group-wide personnel policy. This is supported by the HeidelbergCement competence model, which defines the essential professional and personal capabilities and skills that are critical for the success of our business. It enables the respective superiors to perform systematic, Group-wide assessments of performance and potential in accordance with standardised regulations and serves as a basis for strategic development of managers and successor planning. Superiors and employees discuss development opportunities and prospects within the framework of structured appraisal interviews. The dialogue is primarily targeted at upper and middle management, those in specialist roles, and future executives. We aim to achieve the following three goals:

- to internally fill key positions with top-class candidates worldwide,
- to develop top talent at HeidelbergCement in a targeted way, and
- to retain employees in the Group for the long term by means of personalised development planning.

Integration of Italcementi

Since the acquisition of Italcementi on 1 July 2016, one point of focus has been the integration of the new employees. We view the differences between the corporate cultures as an opportunity to learn from each other, combine our respective strengths, and work together on a joint corporate culture.

In this context, we conducted a "cultural baselining" survey of the employees of Italcementi and HeidelbergCement to find out how the two corporate cultures are perceived. With a participation rate of 79 %, the survey showed that there are very few differences between the way the cultures are perceived internally and externally. Across the Group, HeidelbergCement was attributed the characteristics "fair" and "transparent". This is an initial indication that our open communication has created a good basis for successful integration.

We regularly use employee surveys, called "pulse checks", to assess how the employees involved perceive the integration process. This enables us to respond in a quick and targeted manner to any weak points. Our international in-house magazine also informs our employees about the progress of the integration process.

With intercultural training measures and team-building workshops, we promote mutual understanding and the process of growing together. Managers and specialists held various integration meetings in Heidelberg and Bergamo with employees of Group functions under the motto "Grow Together".

In the reporting year, we continued to adapt the organisational structure in the former Italcementi countries to our established country structure. In the area of human resources, the focus was on the introduction of the Group-wide core processes on 1 January 2017 and the integration of the personnel departments in the global human resources organisation. Other points of focus in this area were the closure of the locations for Italcementi's group functions in Bergamo and Paris, as well as the relocation of essential functions to Heidelberg. In connection with the reorganisation of the Group areas, we have also started to transfer regional functions from Brussels and Oslo to Heidelberg.

We are well on the way to achieving our objective of integrating highly qualified employees in our headquarters and the technical centers in Heidelberg and Leimen: in future, our teams in Heidelberg and Leimen will include 40 employees from Italcementi.

The successful integration is also reflected in our European works council. As early as September 2015, a joint negotiating body was formed from representatives of the European works councils of Italcementi and HeidelbergCement. Its main task was to implement the consultation and information process in cooperation with Group management and to prepare the integration of the two European works councils. Following the elections in August 2016, the new expanded European works council was constituted in the ordinary annual meeting of September 2016.

On-going training

Sustainable HR management means consistently investing in training, i.e. employing and training qualified talent. The proportion of apprentices in Germany is 5 % (previous year: 5 %). The retention rate of these apprentices stands at 91 % (previous year: 80 %).

Technical skills are essential in ensuring the functionally sound operational management of process technology and maintenance in our plants. In addition to technical training, we also offer master classes every year at the German Cement Works Association (Verein Deutscher Zementwerke e.V.). For a few years already, we have offered specifically developed multilingual VDZ e-learning courses about cement production.

As in the previous year, a focus of our training programmes throughout the Group was on occupational safety, which made up around 47 % (previous year: 50 %) of the total training measures. Other priorities were specialist training, which made up 31 % (previous year: 30 %), and the training of our managers, which made up 5 % (previous year: 6 %).

Our extensive training programmes in virtually every work area are characterised by practical and business-oriented learning and enable our employees to develop their skills.

Management training
The motivation and skills of our managers play a crucial role in determining how well HeidelbergCement positions itself among its global competitors and how well-prepared the Group is for future challenges. In order to prepare our managers for their future tasks, we offer training programmes tailored specifically to the needs of our Group. This applies both to traditional topics, such as strategy, leadership, and management, or the method of capital expenditure budgeting, and to special training topics, for instance in the area of technology. Uniform training content ensures that a common understanding of strategy, integrated management approach, and leadership is developed everywhere.

Securing and advancing future executives
In the reporting year, we consistently pursued our efforts to advance future executives. We offer highly motivated and qualified university graduates international trainee programmes focusing on the following areas: technology, sales, finance, personnel, purchasing, and IT. Since 2013, HeidelbergCement has been awarded the trainee seal of the "Initiative for career-enhancing and fair trainee programmes" each year for its high-quality programmes for the advancement of future executives. As a member of the Fair Company initiative, we have been voluntarily committed to the creation of fair working conditions for trainees and young professionals since 2004, and have carried the Fair Company seal since then. We also continued to work intensively on expanding our programmes for the advancement of future executives and strengthening our recruitment of university graduates and graduates with first professional experience worldwide. In 2016, we hired 256 (previous year: 296) university graduates. Currently, around 875 (previous year: 830) employees take part in programmes which prepare them for more advanced tasks.

In 2011, we started a special programme for highly qualified engineers in the cement business as a pilot project in Europe and Central Asia, in order to prepare these employees for senior engineering positions. Upon completion of the "Engineer in Training" programme, the engineers spend several years completing specifically defined training stages in technical fields at various plants both in Germany and abroad – supplemented by training in general management and leadership. Since 2013, this programme has been extended to other Group areas.

The Heidelberg Young Professionals (HEYP) network was established in Germany at the end of 2015. The main objectives of this employee-run network are to encourage the cross-functional exchange of knowledge and information and drive forward the personal and professional development of participants.

During the reporting year, the Aggregates Academy continued its employee training offer in the aggregates business line. Over 270 training sessions on the topic of aggregates were held in 18 countries. These were mostly carried out locally in the form of practical exercises at production sites. In 2016, training sessions at all hierarchical levels focused on the continuous improvement of production processes.

The HeidelbergCement Technology Center (HTC) in our Cement Academy offers seminars, training sessions, and technical simulations for engineers of our cement plants worldwide. In the reporting year, the range was extended to include courses for foremen on maintenance, for example. More than 600 participants from 43 countries, including already 50 participants from Italcementi, attended 38 training sessions, each lasting up to a week. To supplement our classroom courses, we have launched the Cement Manufacturing Curriculum as a multilingual e-learning programme. Over 1,400 employees have already registered for this programme.

The training materials and courses from both academies are generally available in the respective language of the country. The training programme is supported by local managers who have been instructed in adult education ("train-the-trainer" concept).

Demographic development
Our Group, too, is faced with the consequences of demographic change. Around 12 % (previous year: 14%) of our employees are younger than 30. The majority of the employees are aged between 30 and 49, making up around 52 % (previous year: 51%) of the Group's total workforce. 36 % (previous year: 35%) of our employees are above 50 years of age.

We are responding to the effects of demographic change with numerous measures adapted to regional requirements. In Germany, for example, we have continued to develop our health management activities and have incorporated them in the "FIT for LIFE" initiative. It includes a prevention programme for the early diagnosis of illnesses and risk factors, but primarily focuses on the initiative of individuals to adopt a healthy lifestyle. The points of focus in 2016 included examinations for skin cancer prevention, flu vaccinations, back health classes, special health days, and lectures about health. In the future, health management activities will continue to focus on the prevention of typical age-related health risks and change in awareness. We are therefore specifically promoting company sports activities for all age groups.

Diversity as a factor for success
In the Group-wide personnel policy, we consciously aim for a balanced mix of diverse personalities, skills, and experience when putting together teams of employees. We understand diversity as a management concept, which through the inclusion of various cultures, talents, and levels of experience ensures that the composition of our workforce mirrors our presence in the international markets, our customer structure, and our business environment. We aim to achieve this in the following ways:

- local country management and therefore an international management team,
- an international workforce at the Group headquarters,
- a complementary composition of management and other teams (internationality, expertise, experience, age, sex etc.),
- women in management positions reflecting the proportion of women in the total workforce in Germany.

The goal is to advance and attract highly qualified and committed employees around the world who can bring various social and professional skills to our company and thus contribute to the success of the Group.

The international composition of our management team enables us to benefit from a broad range of experience and different cultural backgrounds, thereby allowing us to respond more flexibly to both global challenges and local market needs. The proportion of local managers at the upper management level amounts to around 76 %.

At the Group headquarters, we consciously aim to ensure that the workforce is composed of employees from the countries in which we operate. We benefit considerably from their local knowledge and this also facilitates cooperation with the local personnel. We have 616 employees at the Group headquarters and at our technical centers, the Competence Center Materials and Heidelberg Technology Center in Heidelberg and Leimen, with 183 of these employees representing 41 different countries.

To aid diversity, we believe it is important for management positions to be held by both men and women, thereby providing a true reflection of our employee structure. Within the Group, women made up 13 % of the total workforce and held 10 % of the upper management positions in 2016.

Together with other DAX companies, HeidelbergCement signed a self-commitment in 2011. So far we had voluntarily committed to more than double the proportion of women in leadership positions in Germany from 7 % in 2011 to 15 % in 2020. In Germany, women represented 16 % of the total workforce and held 7 % of leadership positions in the top, senior, and middle management in 2016.

According to the legislation on the promotion of women in leadership positions, specific targets must be set for the two leadership levels below the Managing Board of the company. Managers who in their main role report directly to the Managing Board form the first level at HeidelbergCement, and any of their employees with leadership responsibility form the second level below the Managing Board. In 2016, the proportion of women in leadership positions in Germany at the first level below the Managing Board was 10 %, and 9 % at the second level. Compared with the previous year, these figures remained unchanged. The reason is the increase in the number of technical functions, which have a larger share of men than women. On a comparable basis, the number at the first level below the Managing Board was 12 %, and 10 % at the second level in 2016.

HeidelbergCement decided to retain its voluntary target for the two levels below the Managing Board, but to bring forward its achievement to mid-2017. In specific terms, this means that we aim to achieve a proportion of 14 % of women in leadership positions at the first level below the Managing Board and 15 % at the second level by 30 June 2017. When fixing the target in 2015, the proportion of women in total workforce was 15 %. As a result, the proportion of women in leadership positions would correspond to the proportion of women in total workforce of HeidelbergCement in Germany. We have worked consistently on the promotion of women in the last few years and achieved significant success. The proportion of women in programmes for the advancement of future executives across Germany is already 28 % (previous year: 24 %) and therefore significantly higher than the proportion of women in the total workforce.

Share of women in Germany

	2015	2016	Target: 30 June 2017
Total workforce	15 %	**16 %**	
First leadership level	10 %	**10 %**	14 %
Second leadership level	9 %	**9 %**	15 %

The global "NOW – Network of Women" at HeidelbergCement is an initiative that brings together female employees worldwide both virtually and face-to-face. It targets the development of individual careers and the promotion of women, as well as enabling the regular, informal exchange of ideas.

Work-life balance

In the race for the best employees, we adapt ourselves globally to changing lifestyles. In terms of what we offer to encourage a good work-life balance, we focus on models such as flexitime, part-time, and leave of absence. The part-time ratio at HeidelbergCement AG is 11 % (previous year: 11 %). Because of the small size of our locations, cooperation with external networks has proven itself for example in terms of children's daycare, caring for family members, or holiday camps for children. Employees benefit from having easy access to a professional and flexible network at reasonable costs. As part of our "FIT for FAMILY" initiative, we have entered into cooperation with daycare centers for the location in Heidelberg, Germany. These arrangements allocate us our own quota of places that can be offered to our employees.

Result-oriented remuneration systems

If you expect performance, you need to create a suitable environment. This includes also an attractive remuneration system. Alongside fixed salaries governed by a collective agreement or an individual work contract, HeidelbergCement AG employees also receive variable remuneration elements based on their individual performance and on corporate success. In the case of managers, we consciously aim to achieve a high variable element as part of the total remuneration in order to take into account, in a clear and direct way, collective and personal performances as well as corporate success. The employees in our foreign subsidiaries benefit from attractively designed remuneration systems that relate to the respective local market conditions. For our 190 top managers we have launched a long-term bonus plan for 2016–2018/19 across the Group, which follows the same targets as the long-term bonus plan for the Managing Board.

Occupational health and safety

Group standards

Occupational health and safety has top priority at HeidelbergCement and is an integral part of the key corporate values. In the reporting year, we have continuously improved the technical and organisational safety standards within the Group by means of additional measures in order to reinforce the safety culture in the company. We have used the necessary harmonisation of standards following the acquisition of Italcementi as an opportunity to revise all existing Group requirements and adjust them to the new situation.

Work management systems, such as those in accordance with the internationally accepted OHSAS 18001 standard, have already been implemented in more than 80 % of our locations (without Italcementi). These systems require a structured approach from the location managers with planning, clear work regulations, responsibilities, and controls to ensure an ongoing improvement process and thus prevent accidents. In 2016, several plants in Russia, Estonia, Lithuania, and Liberia introduced management systems in accordance with OHSAS 18001 for the first time, while other plants successfully renewed their certification. Additional locations will follow in 2017. In recent years, the newly added locations of Italcementi introduced an internal management system that corresponds to the requirements of the International Labour Organization (ILO) and has been regularly checked by internal auditors.

Accident management software

The software we introduced in 2015 for recording accidents across the Group is now established and has led to increased transparency. It has made it possible to replace several local programmes and simplify the analysis of accident causes. With this software, we have intensified our recording and analysis of near misses – especially those that presented major accident potential – to be able to adopt more suitable corrective or preventative measures. We will develop the software further so that it can also be used for other applications.

Management responsibility for occupational health and safety

For many years, we have been improving occupational health and safety at a technical and organisational level, which is reflected in a consistent reduction in accident frequency rates. Despite these efforts, we still have to report serious accidents – including some fatalities – that are often caused by human error. With our Group guideline on occupational health and safety that was revised in 2015, we have also introduced a range of basic rules that are mandatory for all employees and contractors. These basic rules particularly relate to those activities that have been identified as main accident black spots and are therefore specifically addressed in the Group standards. In 2016, increased emphasis was placed on these basic rules across the Group, and they were also integrated in the activities of the Group safety week. In this way, everyone affected should remain aware of these risk areas in order to decrease the number of accidents, especially those resulting in fatalities.

Accident trends

Although we achieved a decline of 9 % in the accident frequency rate in our core business on a like-for-like basis compared with the previous year, we are not satisfied with this result. Numerous locations have been accident-free for many years and others were able to drastically reduce their accident rates, but the overall improvement is insufficient. Taking into consideration the newly added locations of Italcementi since 1 July 2016, the accident frequency rate remained almost unchanged. Our most urgent task is therefore to support the implementation of preventative measures more effectively in locations with an accident frequency rate in 2016 that either rose significantly in comparison with the previous year or was above average.

It is positive to note that we have been able to reduce the number of fatalities in the reporting year on a like-for-like basis. Nonetheless, it was with great regret that we had to announce the death of two of our own employees, who died in 2016 as a result of accidents at work. Furthermore, the lives of five employees from external companies were claimed. At the former Italcementi locations, two of our own employees and two from external companies lost their lives. All of these fatalities are very painful and highlight the need to further intensify our efforts. Each occurrence that results in death is analysed in detail and discussed by the Managing Board. Appropriate measures are being determined and shared across the Group in order to avoid similar accidents from happening elsewhere.

Accident trends [1]

	2012	2013	2014	2015 [5]	**2016 [6]**
Accident frequency rate [2]	3.4	2.6	2.1	2.3	**2.2**
Accident severity rate [3]	115	94	91	106	**98**
Fatality rate [4]	0.5	1.1	1.0	1.7	**0.7**

1) Accident trends in the business areas of cement, ready-mixed concrete, and aggregates in companies where HeidelbergCement is in charge of safety management.
2) Number of accidents (with at least one lost working day) suffered by Group employees per 1,000,000 working hours.
3) Number of lost working days resulting from accidents suffered by Group employees per 1,000,000 working hours.
4) Number of fatalities of Group employees per 10,000 Group employees.
5) 2015 accident frequency rate adjusted due to delayed reporting.
6) Without consideration of Italcementi, the accident frequency rate was 2.0, the accident severity rate 85, and the fatality rate 0.5.

Social responsibility

The responsibility we take at our locations around the world is a key factor in the success of our business activity worldwide, according to the motto "think global – act local". We aim to work with local partners to create added value for both our Group and the local communities.

We believe in giving local employees responsibility for local management wherever possible. Each plant collaborates closely with local suppliers and service providers. We invest around 30 % of our purchasing volume in the areas surrounding our plants. Together with the creation of jobs, this helps to create added value and promote economic development at our locations.

Corporate citizenship
Corporate responsibility is not limited to a company's business processes and the areas where they have a direct impact. As a corporate citizen, we are a part of society, and we benefit from being fully involved at the community level at our locations around the world. We are also playing an active role in the search for solutions to social issues that affect these locations. Our understanding of our role is reflected in the Corporate Citizenship Guidelines, which lay down the benchmarks and objectives related to our social commitment.

Our social commitment is focused on areas in which we have specific expertise and can achieve the best results for society:

- Building, architecture, and infrastructure: we provide practical help in the construction of buildings and infrastructure by making products, financial means, and expertise available.
- Environment, climate, and biodiversity: we support initiatives that promote environmental protection and strengthen the diversity of nature at our locations.
- Education, training, and culture: in this area, we are guided by the specific needs of our locations.

Promotion of education in Burkina Faso
In Burkina Faso, our subsidiary Cimburkina donated 200 tonnes of cement for the construction of a modern school in Koudougou. The new school grants 350 children access to formal education. The educational provision should benefit girls in particular. On account of the high rate of illiteracy in Burkina Faso and the poor condition of many public schools, the promotion of education in this country is one of the key concerns of Cimburkina. Local construction materials, which provide natural cooling and ventilation, are used for the school's ecologically sustainable building concept. Solar energy provides power, and fresh water comes from a nearby well.

Lehigh Hanson supports the construction of houses for families in need
In Johnston County, North Carolina, Lehigh Hanson supports the organisation Habitat for Humanity in the construction of houses for low-income families in the region. For two years, a committed team of employees from the Princeton quarry, North Carolina, has been helping to build several houses and, together with local management, donated US$65,000 to cover the cost of constructing one additional home.

New community relationship management guideline
In 2016, the Group adopted a handbook for community relationship management, which is designed to systemise and increase the transparency of its relationships with local communities as well as its charitable commitment. The aim is to strengthen the exchange of ideas with local stakeholders in developing countries in particular and to achieve long-term socio-economical added value for local communities.

Environmental responsibility

As an active member of the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD), we are committed to the sustainable development of our business activities. In particular, this relates to the preservation of the health and safety of our employees and environmental protection.

Climate protection

Climate protection is a fundamental part of our environmental policy. By continuously improving the energy efficiency of our plants, increasing the use of alternative fuels, and substituting clinker, the energy-intensive intermediate product, with alternative raw materials, we continue to lower carbon dioxide (CO_2) emissions. Between 1990 and 2016, HeidelbergCement reduced the specific net CO_2 emissions by 22.6 % to 600 kg CO_2 per tonne of cement.

In 2016, we developed a new target for the reduction of CO_2, which was assessed externally to ensure that it complies with the target set at the COP21 world climate conference in Paris. By 2030, we intend to decrease our specific net CO_2 emissions per tonne of cement by 30 % (without Italcementi) compared with 1990.

Thanks to our success in reducing CO_2 emissions and due to our transparent reporting, CDP has recognised us a global leader with respect to measures and strategies against climate change by including us in the "Climate A List". Furthermore, HeidelbergCement has once again been granted the status of "Sector Leader Energy & Materials" in the DACH region (Germany, Austria, Switzerland) and "Index/Country Leader DAX".

Compared to the figures in the 2015 Annual Report, the values on climate protection were changed. In line with the Group reporting on sales volumes and revenue, joint ventures are no longer included. After the integration of Italcementi since 1 July 2016, all three key figures on climate protection deteriorated, because Italcementi performed weaker so far in climate protection than HeidelbergCement. Excluding Italcementi, all three key figures improved in 2016: specific net CO_2 emissions amounted to 581 kg CO_2/t cement, the alternative fuel rate to 23.5, and the clinker ratio to 73.5 %.

Climate protection

	2014	2015	2016
Specific net CO_2 emissions (kg CO_2/t cement)	603	595	**600**
Alternative fuel rate	22.6 %	22.4 %	**21.2 %**
Clinker ratio	74.9 %	74.1 %	**74.4 %**

In accordance with our obligation to the Low Carbon Technology Partnerships initiative (LCTPi), which we joined in 2015 with 17 other cement companies, we have further invested in research into innovative techniques for the capture and utilisation of CO_2.

Following a comprehensive feasibility study, the Brevik plant was selected by the Norwegian government in 2016 to be considered as the location for the construction and testing of a large-scale facility for the capture of CO_2 by 2020. It is anticipated that 400,000 tonnes of CO_2 will be captured here each year using an amine scrubber. This would be the first large-scale CCS (carbon capture and storage) facility in the cement industry.

To further develop the oxyfuel technology, HeidelbergCement participates in the CEMCAP project, which aims to drive technologies for the capture of CO_2 in the cement industry and is funded by the "Horizon 2020" EU development programme. In the oxyfuel process, the rotary kiln is supplied with pure oxygen instead of ambient air which facilitates the capture of CO_2. In our plant in Hanover, Germany, we are working on the development of this technology on an experimental scale. We have installed a test cooler in order to investigate the possibility of cooling clinker with CO_2 only, and without compromising process efficiency. This is one of the main prerequisites for the future success of the oxyfuel process in clinker production.

The EU-funded "LEILAC" project, in which HeidelbergCement is one of the main strategic partners, started in January 2016. This project aims to demonstrate the technical and economic feasibility of a process technology for the capture of the released CO_2 in its purest form during the heating of the raw material. As planned, the first milestone was reached on 1 October: the basic design and concept for the innovative calciner was defined and reported to the EU. In 2017, the construction plan is to be prepared in detail and construction of the calciner to begin.

In addition, HeidelbergCement is also researching the use of microalgae in CO_2 recycling for the manufacture of biofuels as well as fish food and other animal feed. Our research and development projects in Sweden, Turkey, and France are very encouraging and make an important contribution to our strategy of making CO_2 useable. In this context, we are also developing a joint large-scale pilot project to produce algae for fish food in Morocco together with partners from other industries. HeidelbergCement is recognised as the industry leader in this area both in the EU and internationally – especially following the COP22 world climate conference in Marrakesh.

Use of alternative fuels and raw materials

As part of our strategy for resource preservation and climate protection, we are steadily increasing our use of alternative fuels and raw materials in production processes. This is predominantly waste that would be uneconomical to recycle or cannot be recycled in full. In this scenario, co-processing in cement kilns is regarded as the next best option by using the waste's calorific value at a much higher energy efficiency level compared to waste incineration plants, and also embedding its mineral components into the clinker. The waste is co-processed without any residue while complying with the same strict emission standards as waste incineration plants.

The high level of expertise in the use of alternative fuels and raw materials that we have acquired in Europe over the last 30 years also helps us to set up waste co-processing projects in countries where waste is still mostly disposed of in landfill sites.

Despite the historically low coal prices, HeidelbergCement was able to increase its alternative fuel ratio to 23.5 % in 2016 (without Italcementi). This growth was largely driven by the northern European countries, where we were able to substantially increase the use of alternative fuels in all kiln lines. In some kilns, the increase amounted to 10 % despite already high usage rates. With an alternative fuel rate of 70 %, our Polish subsidiary made a major contribution to the overall result as well.

We are also increasing the use of alternative fuels in the countries that were newly added after the acquisition of Italcementi. In particular, France registered a tremendous rise in 2016. Due to the integration of Italcementi, the target for thermal substitution has to be redefined, as well as all other sustainability targets. The new (integrated) set of targets for 2030 will be published in the course of 2017.

Biodiversity

The third edition of the Quarry Life Award ended in December 2016 with the announcement of the international winners. The Quarry Life Award is a biennial research competition designed to increase awareness of the high biological value of our quarrying sites. Overall, 494 project proposals were submitted, of which 94 were subsequently entered in the competition. The projects in this competition for young scientists, which is presented both nationally and internationally, were carried out in 69 quarries and gravel pits in 21 countries.

Our partnership with the largest international nature conservation organisation BirdLife International helps us to improve our environmental footprint and social mandate to operate as a responsible commodity company. Through open dialogue with BirdLife International and cooperation with its national partner organisations, we strive to minimise our impact on nature as well as to protect and promote biodiversity wherever needed. Our projects contribute to global nature conservation goals and are locally relevant at the same time. In 2016, we launched a project map. This interactive online tool, which is available on the BirdLife website, is a visual representation of our current joint projects. The project map summarises the goals, activities, and results of each project and illustrates them with photos. The local partnership projects have been continued in many European and African countries. For instance, a new project in Estonia is investigating the significance of quarries for the population of sand martins.

In Togo, we have established a tree nursery in Tabligbo, close to the site of our new clinker plant. The restoration work of the quarry started at virtually the same time as the extraction of raw materials and was conducted in close consultation with local communities, which has so far been unique in Africa. Two years after the extraction of raw materials started, two hectares of the total area have already been restored. This was celebrated by our subsidiary ScanTogo in June 2016 as part of a tree-planting campaign with representatives from the local communities and authorities.

In 2016, we published the sixth book in our series on biodiversity in our quarrying sites with the title "Butterflies and other insects in quarries and gravel pits". The book presents the most diverse species groups that inhabit our quarrying sites and focuses on the important role that these sites play in the conservation of endangered species.

Sustainable construction

In 2016, our research focused more intensively on products with improved sustainability performance and on solutions to support sustainable development. In our central research laboratory in Leimen, we have developed possible alternatives to traditional cement with a lower environmental impact due to reduced CO_2 emissions and energy consumption. Many of these alternatives have been tested in pilot applications. Thanks to the integration of Italcementi's product innovation laboratory in Bergamo, we have also increased our involvement in the development of new marketable and sustainable products and solutions.

As a founding member of the Concrete Sustainability Council, we actively contributed to the development of the certification system for sustainably produced concrete, which was introduced at the beginning of 2017. With the certification of concrete – taking into account social and ecological aspects along the value chain – the product and the entire industry is expected to receive better recognition in the future from Green Building Councils and in the awarding process of public construction contracts.

In 2016, as a leading building materials producer, we have strengthened our involvement in Green Building Councils, the European Construction Technology Platform, and other associations in order to support and accelerate developments in the area of sustainable construction.

In October 2016, our global center for Research and Development (GRD) moved into a new office and laboratory building in Leimen, Germany. The new building is DGNB Gold certified and fullfills highest standards regarding sustainability and technology. Energy consumption is minimised by the use of district heating and thermal activation of the building's concrete ceilings.

Reducing other environmental effects

In line with Sustainability Ambitions 2020, we have conducted Group-wide environmental audits in all business lines. By 2020, we aim to audit all locations at five-year intervals. The measures resulting from previous audits have already been implemented and contribute to an improved environmental performance.

During the reporting year, we made technical improvements to reduce dust, nitrogen oxide (NO_x), and sulphur oxide (SO_x) emissions. To decrease dust emissions, for example, we have installed a bag filter in the clinker cooler in Geseke, Germany. In the Czech cement plant in Radotin, a second electrostatic precipitator has been replaced with a bag filter. The plant's two kilns are now equipped with the most modern filters. We have also invested in the reduction of dust emissions through the use of new and additional bag filters in the United Kingdom, China, and Bangladesh.

Moreover, we have upgraded the SO_x washer at the Ribblesdale cement plant in the United Kingdom in line with new energy efficiency standards. A new wet scrubber has also been commissioned in the Chinese cement plant Guangzhou to lower sulphur oxide emissions and meet the latest standards.

We have installed an SCR (selective catalytic reduction) catalytic converter in Lengfurt, Germany, to decrease NO_x emissions. The new SCR catalytic converter in the Italian cement plant Rezzato is now in its second year of operation and ensures low emissions with maximum energy efficiency.

The cement plants in India have pressed ahead with their project for the collection of rainwater in order to protect water resources in critical areas. In the Narsingarh clinker plant, for example, a new reservoir has been constructed.

Six of our cement plants in the USA – Glens Falls/New York, Leeds/Alabama, Nazareth/Pennsylvania, Speed/Indiana, Union Bridge/Maryland, and Waco/Texas – have been awarded the prestigious ENERGY STAR® by the U.S. Environmental Protection Agency (EPA) for their outstanding energy efficiency. All six plants are among the most energy efficient cement plants in the USA and meet the strict criteria of the EPA. The Union Bridge cement plant received the ENERGY STAR® for the fourth consecutive time, and the Glens Falls, Leeds, and Nazareth plants for the third time.

In the aggregates business line, we focussed our efforts in 2016 on reducing noise and dust emissions, as well as water and fuel consumption. We replaced the old primary crusher at the Slapy location in Czechia, resulting in lower operating hours, as well as lower noise and dust emissions. In the Bílý Kámen quarry, old screening equipment was replaced with new dustproof facilities. In the Spy Hill quarry in Canada, we relocated water-collecting ponds to the extraction site's lowest-lying areas to enable the optimal collection of quarry and rainwater, thereby lowering the high cost of additional fresh water.

In the ready-mixed concrete business line, we have installed a recycling system in our new plant in Tbilisi, Georgia. In Croatia, we constructed a new sedimentation tank in the Vinkovci location and modernised the existing recycling system in the Donja Bistra plant. Vehicles with greater capacity have been added to our fleet in Australia, thus saving energy and working time per cubic metre of concrete delivered. We have also optimised our approach for the recycling of water across the country. In Hong Kong, the dust filters in our ready-mixed concrete plants have been modernised to comply with the new emissions limit of 10 mg/cubic metre. Furthermore, the central production facilities in the Sg Besi plant in Kuala Lumpur, Malaysia, have been fully encased in order to reduce dust emissions and visually upgrade the location.

As in previous years, numerous locations in all Group areas and all business lines once again received awards for environmental protection measures.

Procurement

In the 2016 reporting year, goods and services with a total value of €9,968 million were procured at HeidelbergCement. This corresponds to 65.7 % of total revenue.

Procurement management
Our lead buyer organisation facilitates continuously efficient procurement of important commodity groups at Group level. This means that we bundle process-critical goods and services, usually with high volumes, into commodity groups in order to obtain better terms and conditions from our suppliers. The tasks of our lead buyers within the Group include conducting price negotiations, concluding framework agreements, supplier management, and observing current market and price developments. The harmonisation of the supply chain requires significant effort following the integration of Italcementi in particular. Thereby, our lead buyers make an important contribution to increasing efficiency and to risk management in our Group.

The second component of procurement management is the local purchasing at our production sites, which strengthens our negotiating position with local suppliers. The local purchasing departments also obtain goods and services directly via the Group framework agreements. In this way, we combine the advantages of central and local procurement.

Increasing efficiency

The proven savings initiative in procurement – the "FOX" programme (Financial and Operational Excellence) – was continued in 2016 as part of the ongoing improvement process to further increase the Group's financial and operational performance in the long term. In view of the generally persisting cost pressure, the programme also targets additional savings in procurement. We succeeded in achieving considerable cost savings in the reporting year, which was also due to synergy effects arising from the ongoing integration of Italcementi.

Another objective is to improve payment periods, because our terms of payment represent a key success factor for competitiveness. Thanks to continuous process optimisations and an improvement in our Group-wide terms of payment, we were able to achieve a correspondingly high liquidity effect by the end of 2016.

Furthermore, greater focus was put on the optimisation of the administrative procurement processes in 2016. On the one hand, the aim is to increase the level of automation in procurement, and on the other hand, to further standardise processes and interfaces. In addition, we have started to integrate the Italcementi systems in the standard system landscape of HeidelbergCement. Increased emphasis has also been placed on establishing a systematic supplier management in order to improve supply chain transparency, for instance with regard to the observance of compliance rules.

Procurement of energy

Overall, HeidelbergCement pursues a strategy for the procurement of fuels and electricity that is based on a combination of short-term, index-based contracts and fixed-price contracts. In the coal sector, in particular, we have in many cases annual quantities for 2016 fixed at the attractive prices of late 2015 or early 2016. The significant price increases in the second half of the year therefore only affected us to a limited extent in 2016. On account of these measures, we were able to reduce electricity and fuel costs in many markets during 2016 and substantially cut back energy costs in the cement business for the Group as a whole.

Outlook

The expected future development of the HeidelbergCement Group, HeidelbergCement AG, and the business environment in 2017 is described in the following. In this context, please note that this Annual Report contains forward-looking statements based on the information presently available and the current assumptions and forecasts of the Group management of HeidelbergCement. Such statements are naturally subject to risks and uncertainties and may therefore deviate significantly from the actual development. HeidelbergCement undertakes no obligation and furthermore has no intention to update the forward-looking statements made in this Annual Report.

Assumptions underlying our outlook

Our business is subject to a multitude of external influencing factors that are beyond our control. These include geopolitical, macroeconomic, and regulatory factors. This outlook is based on the assumption that the global political environment will not undergo any critical changes during the outlook period. In particular, this implies that the political crisis between Ukraine and Russia as well as the political and religious conflicts in the Middle East will not have a global impact on our business activity and that the eurozone will not be fundamentally destabilised. Despite the economic growth reported in the past year, we experienced a substantial drop in cement demand in China. We expect that the resulting excess capacities will only have a limited effect on export volumes.

Moreover, our assumptions for exchange rates and raw material prices in 2017 are based on their levels at the end of 2016. We therefore believe that the euro will weaken slightly against the US dollar as well as against the Canadian and Australian dollar. We expect that energy prices during the forecast period will substantially exceed the annual average of 2016. The oil price saw a trend reversal at the start of 2016 and has since more or less doubled. On the one hand, the higher prices are having a negative impact on the economy and population of importing countries. On the other hand, companies in the raw materials industry are increasing their investments in new projects. The impact of this development is difficult to predict.

Furthermore, we have not taken account of any material changes to balance sheet positions or any associated expense or earnings positions in our outlook below that may result from changes to macroeconomic parameters, such as discount rates, interest rates, and inflation rates, changes to future salary developments, or similar.

The anticipated development of the HeidelbergCement Group is described in the following. For the operating key figures sales volumes, revenue, and result from current operations before and after depreciation and amortisation, we are considering the 2016 pro forma figures as the basis, i.e. we are taking into account the contributions of Italcementi for the whole of 2016.

Economic environment

General economic development

After global economic growth in 2016 weakened slightly in comparison with the previous year, we anticipate a somewhat accelerated expansion in 2017. In its World Economic Outlook published in January 2017, the International Monetary Fund (IMF) forecasts global economic growth of 3.4 % for 2017, compared with 3.1 % in 2016. Drivers of this trend are, on the one hand, strong growth in the USA, on the other hand, it is also anticipated that the growth in the emerging countries will accelerate again, despite a further economic slowdown in China. Higher rates of increase are particularly expected for countries in Africa south of the Sahara and in Asian countries (excluding China). However, considerable uncertainties exist with regard to further geopolitical and macroeconomic development and the forecasts for global economic growth were reduced recently. Among the geopolitical risks, the conflicts in the Middle East and in eastern Ukraine are especially noteworthy. In terms of macroeconomic risks, particular mention must be made of the rise in energy prices and inflation, the unpredictable consequences of the downturn in the Chinese economy, and the political uncertainties in Europe due to the upcoming elections.

In Asia, China will continue to be the determining factor in economic development. The IMF projects a decline in growth for China, from 6.7 % in 2016 to 6.5 % in 2017. For Indonesia, growth of 5.3 % is anticipated. Following the economic slowdown in 2016, development is again being perceived more positively in the African countries south of the Sahara, where growth rates are expected to rise from 1.6 % in 2016 to 2.8 % in 2017. In North Africa, the growth rate in Egypt is forecast to be just under 4 % and in Morocco around 4.8 %.

In the mature markets, economic growth is estimated to accelerate from 1.6 % in 2016 to 1.9 % in 2017. According to IMF forecast, the important markets for HeidelbergCement – USA, United Kingdom, Germany, France, Italy, and Canada – should develop positively in 2017. Nevertheless, the growth rates in the United Kingdom, Germany, and Italy are expected to decline slightly in comparison with the previous year, France should remain stable, and the other countries should register a moderate improvement: The USA are expected to achieve the highest increase in economic output at 2.3 %, followed by Canada with 1.9 %. The United Kingdom and Germany should each grow by 1.5 %, France by 1.3 %, and Italy by 0.7 %. It is anticipated that the influx of immigrants into Germany will initially have a positive effect on economic growth and particularly on demand for consumer goods and housing. Additional growth of 2.7 % is anticipated for Australia, driven by the spending of private households and an increase in exports. An acceleration of growth is expected in Canada as a result of a renewed increase in investments by the oil industry and in infrastructure.

Further growth is also predicted for all countries in Eastern Europe and Central Asia in 2017. Similar to the mature markets, however, the development in the individual countries will vary. In the countries of Eastern and Southeastern Europe, economic growth ranging from 2.5 % in Hungary to 3.8 % in Romania is expected. Whereas growth rates in Bosnia-Herzegovina, Czechia, Poland, and Hungary are increasing, they are expected to decrease in Bulgaria and Romania. It is anticipated that the recovery in Ukraine will continue to accelerate. The rise in the oil price should have a positive impact on economic growth in Russia.

With regard to consumer goods price inflation, IMF expects a stronger rise in mature markets and a moderate increase in emerging countries. Prices for raw materials, and oil in particular, are likely to remain significantly above the 2016 level in 2017.

Industry development

The development of economic output is also reflected in the estimated demand for building materials. As the production and marketing of building materials is very localised and global trade in building materials only represents a small percentage of the total volume, we focus on the regions and countries relevant to our business instead of considering a global view of the demand trend.

For the USA, a further increase of 3.0 % in cement demand is anticipated for 2017, higher than the level of 2016 (2.4 %). This rise is mainly the result of increasing investments in public construction, whereas the growth in private residential construction is somewhat weaker. In 2017, the American cement association PCA projects an increase of 4.6 % in the number of starts of construction of single- and multi-family houses. In December 2015, the US Congress adopted a new five-year federal programme (FAST – Fixing America's Surface Transportation Act) with a volume of US$305 billion for the expansion of the infrastructure. At the same time, the financing support from the TIFIA (Transport Infrastructure Finance and Innovation Act) programme has been reduced. Over US$207 billion is available for road construction, representing an increase of almost 10 %. Furthermore, the new federal programme ensures planning security for major infrastructural projects that are constructed over a longer period and are generally more cement-intensive.

In Europe, trends in the demand for building materials are expected to vary by region. In its forecast from November 2016, Euroconstruct expects an increase in cement consumption in most countries. In the United Kingdom, a slight increase in cement demand is anticipated, driven by private residential construction and infrastructural projects. So far, there has been no indication of major impacts on the construction sector from the Brexit vote. The positive development in demand in Norway and Sweden is also expected to continue thanks to ongoing favourable residential and infrastructure construction. While an increase in cement demand is forecast in the Netherlands based on recovering residential construction, demand is expected to grow in Belgium due to greater commercial construction. In France, an increase in private residential construction and infrastructure expenditure is expected. A moderate recovery in cement demand is anticipated in Italy, driven by civil engineering. In Poland and Hungary, expanded cement consumption is projected on account of the positive economic trend. In its forecast from November 2016, the German Cement Works Association (VDZ) predicts slight growth for Germany's cement market in 2017, based on the positive economic development. Almost all construction sectors are expected to contribute to this trend, particularly the continuing dynamic development in private residential construction and road construction, where incoming orders rose by 15 % and around 18 % in 2016.

Just as the general economic forecasts are subject to uncertainties, so is the development of demand for building materials during 2017. With efforts being made to consolidate budgets in some mature markets, the demand for building materials is still dependent on the trend in private residential construction and commercial construction. A rising demand for building materials can only be achieved in line with positive economic development, reduced unemployment figures, and affordable property financing. In the growth markets of the emerging countries, the continuation of solid economic growth also plays an important role, as does income available for private residential construction, which in turn depends on the development of local food prices and thus inflation. Political and military conflicts, such as the one in Ukraine, can also influence the development of sales volumes.

Driven by the continuing capacity build-up and simultaneous strong development of demand, we also expect a high level of competition in the cement business in 2017, especially in the emerging countries of Asia and Africa. The resulting price pressure and potential weakening of some currencies in these regions, however, will likely slow down the investment activities of local manufacturers.

At the start of 2014, the EU adopted a regulation to reduce CO_2 pollution rights. As part of the so-called backloading, the number of allocated emission rights for 2014 to 2016 was reduced by 900 million overall. The price of emission rights initially rose after this new arrangement was introduced, but recently declined again and is still well below the level of previous years. The European Union is currently discussing changes to the allocation for the fourth trading period from 2020. HeidelbergCement has more emission rights than it needs for 2017.

Anticipated earnings

Revenue
Taking into account the general economic and industry-specific outlook for the building materials industry and the special growth prospects for markets in which HeidelbergCement operates, we expect a moderate increase in revenue excluding exchange rate and consolidation effects for 2017 on a pro forma basis, i.e. taking into account the contributions of Italcementi for the whole of 2016. The pro forma revenue totalled €17.1 billion in 2016.

In the cement business, we anticipate moderately rising sales volumes on a pro forma basis as a result of increased demand, particularly in North America, Asia, and Africa. In the aggregates business, we also expect a moderate increase in the development of sales volumes on a pro forma basis due to the recovery of infrastructure investments in the countries of North America and Europe. The pro forma sales volumes for cement und aggregates totalled 125.0 million tonnes and 287.4 million tonnes respectively in 2016. In 2017, price increases will continue to take on a high priority in order to offset rising energy costs and improve margins.

Group areas
In the Western and Southern Europe Group area, we anticipate a slight to moderate increase in sales volumes of cement and aggregates on a pro forma basis, driven by the recovery or continuation of demand growth in the countries in which we operate.

In Northern and Eastern Europe-Central Asia, we expect a stable development of cement sales volumes based on a recovery in demand in Eastern Europe and a slight decrease in Russia and Kazakhstan. Sales volumes of aggregates, however, are predicted to increase significantly due to the full consolidation of the Mibau Group.

In North America, we expect a moderate increase in cement and aggregates volumes thanks to the continuing economic recovery.

For the Asia-Pacific Group area, we anticipate a return to a moderate growth in sales volumes for cement and aggregates. In India and Indonesia, in particular, demand is forecast to rise on account of the acceleration in economic growth and the noticeable increase in infrastructure investments.

In Africa, we anticipate growing demand for building materials thanks to the sustained economic growth. With the new capacities that we have commissioned in recent years, we are well positioned and have sufficient reserves to participate in the market growth. Overall, we anticipate a slight to moderate rise in sales volumes.

Costs

HeidelbergCement estimates that the cost base for energy will increase considerably in 2017 as a result of the rising oil and coal prices since the beginning of 2016. A slight to moderate increase in the cost of raw materials and personnel is expected. HeidelbergCement further focuses on the continuous improvement of efficiency and margins. With this in mind, we are implementing the Continuous Improvement programmes in the cement and aggregates business lines to establish a culture of continuous advancement of operational and commercial work processes at employee level. Process optimisations are expected to achieve a sustainable improvement in results of at least €120 million in each business line over a three-year period. The "CIP" programme for the cement business line commenced at the beginning of 2015, and the "Aggregates CI" programme for the aggregates business line was introduced at the start of 2016. We also continue to optimise our logistics with the "LEO" programme, which has the goal of reducing costs by a total of €150 million over several years. In addition, we launched the new efficiency improvement programme Competence Center Readymix (CCR) in the ready-mixed concrete business line at the end of 2016. Over a three-year period, the optimisation of logistics and concrete formulations are expected to achieve an improvement in results of €120 million. In 2017, we anticipate a significant decrease in financing costs due to our disciplined cash flow management and the refinancing of maturities at more favourable terms.

Results

In view of the forecasts for revenue and cost development, we expect a moderate increase in result from current operations on a pro forma basis excluding exchange rate and consolidation effects for 2017. This assumption is made on the basis that sales volumes of building materials will grow as anticipated and price increases can be implemented. The same applies for the EBIT before major non-recurring effects. On a pro forma basis, result from current operations totalled €2,073 million in 2016 and the EBIT adjusted for non-recurring effects totalled €2,111 million. Excluding non-recurring effects, we also expect a considerable growth in profit for the financial year. This assessment is based on an improved result from current operations and lower financing costs. Based on the increase in results and decrease in net debt, we anticipate a corresponding improvement in ROIC.

Dividend

HeidelbergCement has announced a progressive dividend policy for the coming years. This means that dividend in strong years is to be increased in an appropriate way so that it can remain stable in weak years. For the 2016 financial year, the Managing Board and Supervisory Board will propose to the Annual General Meeting the payout of a dividend of €1.60 per share. This corresponds to a payout ratio of 30.0 % of the Group share of profit adjusted for non-recurring effects. By 2019, we aim to increase the payout ratio to between 40 % and 45 % of the Group share of profit for the financial year. In individual cases, we will align the adjustment of the dividend to the development of the dynamic gearing ratio and the cash flow of the HeidelbergCement Group, as well as taking the further general economic development into account.

Investments

As in previous years, HeidelbergCement will continue to apply strict spending discipline to investments. In the 2017 financial year, we will therefore maintain our focus on the attractiveness of potential investment projects, the development of results of the Group, and on the expected general economic trend. Taking into account the expanded HeidelbergCement Group following the takeover of Italcementi, we anticipate cash-relevant investments of approximately €1.4 billion in our investment planning for 2017.

HeidelbergCement will consistently continue with its targeted investments in future growth relating to cement activities. The emphasis is on the growth markets of Africa as well as the North America Group area. The construction of a cement grinding installation in the north of Togo is in its final stages. The new facility with a capacity of around 250,000 tonnes is scheduled for completion in the first half of 2017. Furthermore, we are expanding our cement capacity in Benin with the construction of an additional cement mill at the Cotonou grinding plant. The commissioning of the new mill with a capacity of 250,000 tonnes is also scheduled for the first half of 2017. Another planned step towards expansion is the market entry in South Africa. We are also continually evaluating further options for capacity expansions in other African countries. In addition, we are expanding our cement capacities in the North America Group area. A new cement grinding installation in the Californian cement plant Tehachapi is scheduled to start in the second quarter of 2017. The construction of an additional cement mill in the Edmonton cement plant in Canada (province of Alberta) is expected to be completed in the fourth quarter of 2017.

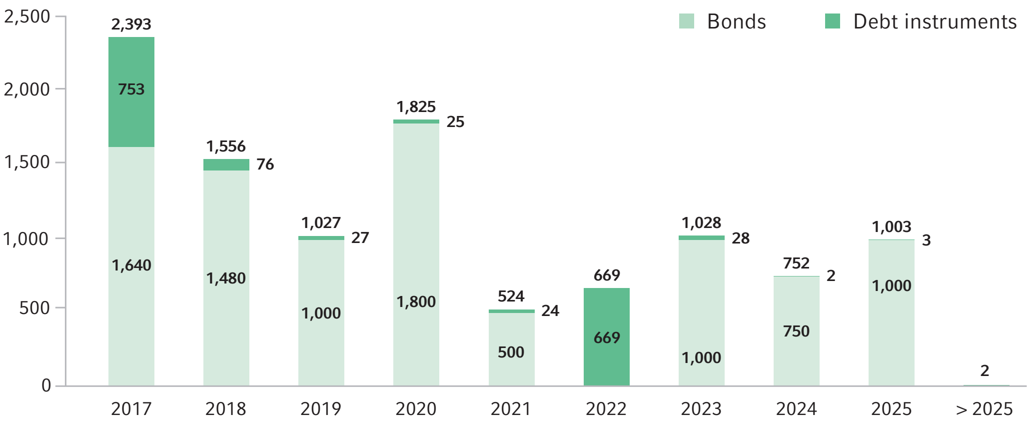
Aside from these capacity expansions, we will invest in the maintenance and modernisation of our existing production sites in 2017. In line with the Germany Cement Master Plan, we will continue an ambitious investment programme for modernisation and efficiency improvement, as well as environmental protection, in our German cement plants. This includes major projects such as the modernisation of the Burglengenfeld and Schelklingen plants, where completely new preheater kilns are being constructed. In the United Kingdom, a multi-year investment programme to improve efficiency and reduce emissions commenced in the Ribblesdale and Ketton plants at the beginning of 2017. We will complete the modernisation and conversion from wet to dry processes at the Shymkentcement cement plant in Kazakhstan in the end of 2017. The Kaspi cement plant in Georgia will also be completely modernised by 2018 and converted to the dry process. In the United States, the development of a new quarry for the Union Bridge cement plant, including the construction of a crusher and a 6.5 km long conveyor belt, will be completed in the fourth quarter of 2017.

Expected financing

HeidelbergCement has a stable financing structure for the long term and a well-balanced debt maturity profile (see the following diagram). We refinanced the Eurobond of €1 billion maturing in January 2017 by means of a bond of €750 million issued in January 2017 and by using available liquidity. In addition, we will refinance the bonds of €500 million and CHF 150 million that are due in April and November 2017 respectively, as well as the financial liabilities maturing in 2017, by making use of available liquidity, issuing on the capital market, or using free credit lines, depending on the capital market situation.

The following graph shows the maturity profile of HeidelbergCement as at 31 December 2016.

Debt maturity profile as at 31 December 2016 [1] (€m)



1) Excluding reconciliation adjustments of liabilities of €113.1 million (accrued transaction costs, issue prices, fair value adjustments, and purchase price allocation) as well as derivative liabilities of €85.3 million. Excluding also puttable minorities with a total amount of €73.8 million.

As at the end of 2016, we had liquidity reserves consisting of cash, securities portfolios, and committed bank credit facilities, amounting to €4.8 billion (see Group financial management section on page 83). With the €1.5 billion Euro Commercial Paper Programme and €10 billion EMTN Programme we also have framework programmes in the money and capital markets in place that allow us to issue the relevant securities within a short period of time.

Our objective is to further improve our financial ratios in the coming years in order to achieve the necessary preconditions for our credit rating to be upgraded further by the rating agencies. In particular, we have set the ambitious target to reduce the dynamic gearing ratio in a timely manner again to below 2.5x (31 December 2016: 3.0x) after the acquisition of Italcementi. A lasting investment grade rating remains our objective as – given the capital-intensive nature of our business – favourable refinancing opportunities in the banking, money, and capital markets create an important competitive advantage.

Employees and society

In 2017, we will expand our offer of language training and intercultural courses in order to support the integration of Italcementi. For employees in Group and regional functions, the focus is on understanding the cultures in the new Group countries. However, it is also important to us that the new foreign employees understand our corporate culture, which is reflected in corresponding training offers.

Our measures will also concentrate on specialised training in 2017. A new e-learning curriculum for professional repair and maintenance work in cement plants will be rolled out in 2017. Our new global competence centers for sales and ready-mixed concrete will support, in particular, knowledge transfer and learning through best-practice solutions.

In 2017, we will once again use training sessions across the Group to deal more intensively with the topic of management responsibility in occupational health and safety and introduce safety briefings to supplement existing measures. Italcementi will be further integrated in the occupational safety network. Consistent implementation of and compliance with existing safety standards continue to take top priority in the action plans of all Group countries and are a prerequisite for the prevention of accidents.

The guideline for community relationship management, which was developed and adopted in 2016, is to be rolled out across the Group in 2017. In addition, the internal exchange of experience and knowledge transfer about CSR projects is to be extended and systemised under the leadership of the CSR expert group.

Suez Cement, our subsidiary in Egypt, encourages its employees to be engaged in voluntary activities as part of its social commitment. The involvement of employees in corporate social projects not only helps to implement individual measures, but is also a tool for personnel development. The most important initiatives of Suez Cement cover education, the environment, and the fight against unemployment. In 2017, the company will renew its partnership agreement with the Don Bosco Technical Institute to support the employment of young people and, in cooperation with the Takatof Association (NGO), modernise two primary schools in Helwan. With regard to environmental protection, Suez Cement will work together with the Mayor of Helwan, the Ministry of Ecology, and local community development associations to collect waste near the Helwan and Tourah cement plants. Its long-term objective is to set up a cooperative that will be responsible for waste management in the region.

Environmental responsibility

The regulatory environment concerning the EU Emissions Trading System (EU ETS) remains difficult and uncertain due to the constant addition of changes and improvements. In 2015, the European Commission proposed changes for the fourth trading period (2020–2030) in the carbon leakage risk assessment and the definition of benchmarking values and overall caps (for energy-intensive industries). Political discussions on these topics will advance during 2017.

We will continue our activities with respect to the capture and utilisation of CO_2 emissions in 2017. These include the “CEMCAP” and “LEILAC” projects. In addition, in December 2016, HeidelbergCement, together with RWTH Aachen University, Germany, applied for €3 million in funding from the German Federal Ministry of Education and Research (BMBF) for applied research into the integration of CO_2 in minerals such as olivine and basalt and their following use as aggregates for the production of building materials. If realised, the three-year project is expected to deliver not only process related insights but also demonstrate product application opportunities. In 2017, we will conduct a joint study with Carbon8 in Estonia on the carbonisation of ash from incinerators.

The use of alternative fuels and raw materials within the Group will be further increased. Aside from measures in Asia and Europe, our commitment in 2017 will focus on the Mediterranean Basin, in particular Morocco, Egypt, Spain, and Italy, in order to increase the use of waste as an alternative fuel.

In 2017, the biodiversity guideline applicable to Europe will be revised and made available to all Group countries in the form of an advisory handbook. With our partner BirdLife International, we will further intensify our cooperation in Europe and launch new joint activities in Africa and Asia. The newly added quarries in Europe, Africa, and Asia following the integration of Italcementi will also be analysed with regard to their value for biodiversity. We will offer training sessions within the Group to spread the knowledge acquired during a joint study with the Belgian University of Liège on the existence and impact of invasive species in quarrying sites.

In view of the “Circular Economy Package” of the European Commission for a circular waste economy, we will continue to drive forward the implementation of the certification system for sustainably produced concrete in 2017. We will also intensify the use of recycled materials in the production of different building materials.

Moreover, we will continue the Group-wide environmental audit of all business lines in 2017 with the goal of auditing all locations by 2020.

In 2017, our environmental protection initiatives in the cement business line will also focus on reducing dust, nitrogen oxide, and sulphur oxide emissions. Thus on the one hand, for example, all Lepol kilns in the Italian cement plants of Samatzai and Isola delle Femmine are being equipped with urea-based selective non-catalytic reduction $DeNO_x$ facilities and, on the other hand, SO_x emissions are being reduced by means of dry absorption. The new facilities are expected to be commissioned in the first half of 2017.

In Egypt, we will replace several dust filters in the Suez, Kattameya, and Helwan production locations in 2017 to meet the new legal dust limiting values that will take effect in 2020. In the Turkish cement plants Çanakkale and Ladik and the Greek plant Halyps, we will also commission SNCR systems for flue gas purification.

The old electrostatic precipitator in the coal mill at the Cesla location in Russia will be replaced with a new fabric filter. A project has also been started in the Hungarian cement plant Vác to replace the main filter in the kiln with a fabric filter. In Indonesia, we continue to work on a reduction in dust concentration and will therefore invest in new fabric filters in one production line at the Cirebon and Citeureup locations, respectively.

In the USA, the focus in 2017 will again be on achieving and complying with the National Emission Standards for Hazardous Air Pollutants (NESHAP) in all cement plants, including those that were newly added with Italcementi. This leads to lower dust, mercury, hydrochloric acid, and hydrocarbon emissions.

In 2017, the emphasis of the aggregates business line is again on dust and noise reduction. In the field of ready-mixed concrete, we will drive forward measures for the recycling of water and reduction of water consumption. We carried out a global water risk study for all business lines in 2014. On the basis of the results obtained in this study, we have set ourselves the goal of implementing individual water management plans adapted to local conditions at all locations in water-scarce regions between 2016 and 2030.

Research and technology

In the next few years, we will continue to center our efforts on developing cement types with reduced clinker proportion and thus lower CO_2 emissions. The alternative fuels and raw materials used will benefit the environment. Significant cost savings are also expected, depending on the future price development for CO_2 emission certificates. In addition, we will promote the development of our new clinker technology as another option to save CO_2 and energy.

Another area of focus is the development of high-quality binders and concrete applications, achieving greater benefits for our customers and added value for our company. In the future, we will intensify the successful transfer of technology to further increase the speed of innovation. For the concrete business, we plan to increase again the profit contribution of special products in mature markets in 2017. Furthermore, we will intensify our efforts to develop innovative high-end concrete solutions and open up new markets for cement-bound building materials.

In 2017, we will continue the successful "Continuous Improvement Program" (CIP) and roll out the project in further cement plants. In doing so, our aim is also to anchor the improvements achieved in the past under the "Operational Excellence" (OPEX) and "Maintenance Improvement" (MIP) programmes with lasting effect in the Group. We will also implement MIP and OPEX in the newly acquired Italcementi plants, thereby reducing production costs and leveraging the targeted synergies in the cement business line.

In the aggregates business line, the successful and proven "Aggregates CI" (Continuous Improvement) programme is being continued in 2017. We have completed year one of a three-year programme where we intend to sustainably increase our results by €120 million by the end of 2018. Supported by a small group of experienced experts, our production sites are driving forward improvements across the business line. This covers, among other things, land management, mine planning, operations, quality control, sales, and management. We make effective use of the skills and innovative ideas of our employees to achieve significant added value for the Group.

Procurement

Over the current and the next year, we will continue to increase the efficiency of our procurement activities by consistently standardising and optimising our procurement processes. This also includes further efforts to bundle commodity groups, integrate the purchasing departments of Italcementi, and realise synergy effects, as well as rolling out globally the digitisation of core processes.

For 2017, we anticipate that the energy prices in the markets relevant to us will generally rise in comparison with 2016. In some cases, these rises are exacerbated by currency effects that are reflected as cost increases in local currency. This mostly affects Egypt and, to some extent, the United Kingdom. These increases can only be partially offset with various measures to optimise energy costs.

Risk and opportunity report

Risks and opportunities

HeidelbergCement's risk policy is based on the business strategy, which focuses on safeguarding the Group's existence and sustainably increasing its value. Entrepreneurial activity is always forward-looking and therefore subject to certain risks. Identifying risks, understanding them, as well as assessing and reducing them systematically are the responsibility of the Managing Board and a key task for all managers.

HeidelbergCement is subject to various risks that are not fundamentally avoided, but instead accepted, provided they are consistent with the legal and ethical principles of entrepreneurial activity and are well balanced by the opportunities they present. Opportunity and risk management at HeidelbergCement is closely linked by Group-wide planning and monitoring systems. Opportunities are recorded in the annual operational plan and followed up as part of monthly financial reporting. Operational management in each country and the central Group departments are directly responsible for identifying and observing opportunities at an early stage.

Risk management

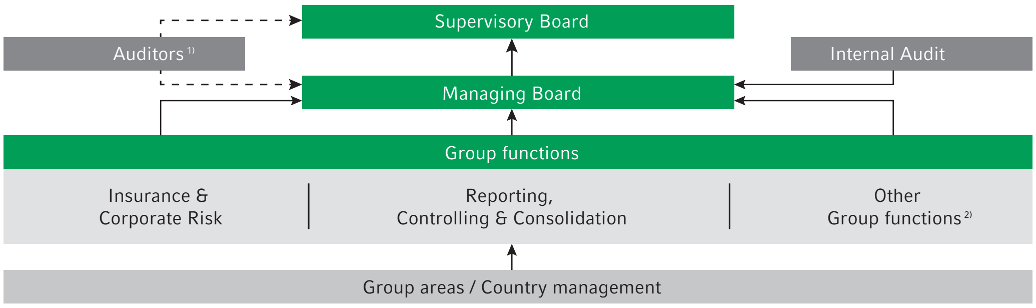
The Managing Board of HeidelbergCement AG is obliged to set up and supervise an internal control and risk management system. The Managing Board also has overall responsibility for the scope and organisation of the established systems. The Supervisory Board and its Audit Committee also review the effectiveness of the risk management system on a regular basis.

HeidelbergCement has installed transparent regulations to govern competences and responsibilities for risk management that are based on the Group's structure.

A code of conduct, guidelines, and principles apply across the Group for the implementation of systematic and effective risk management. The standardised internal control and risk management system at HeidelbergCement is based on financial resources, operational planning, and the risk management strategy established by the Managing Board. It comprises several components that are carefully coordinated and systematically incorporated into the structure and workflow organisation.

The essential elements of the risk management system are:
- documentation of the general conditions for a methodical, efficient risk management in a Group guideline. In addition to this Risk Management Policy, the Group's Code of Business Conduct is concerned with the code of conduct and compliance standards to be observed.
- coordination of risk management in the Group Insurance & Corporate Risk department,
- managers responsible for corporate risk at country level,
- direct information and open communication of quantified risks between the Managing Board and country management,
- standardised and regular reporting at Group and country level.

Organisation of risk management at HeidelbergCement



1) Part of the annual audit
2) Legal, Compliance, Tax, IT, Treasury, Corporate Finance, Human Resources, Strategy & Development, Marketing & Sales

Risk management process

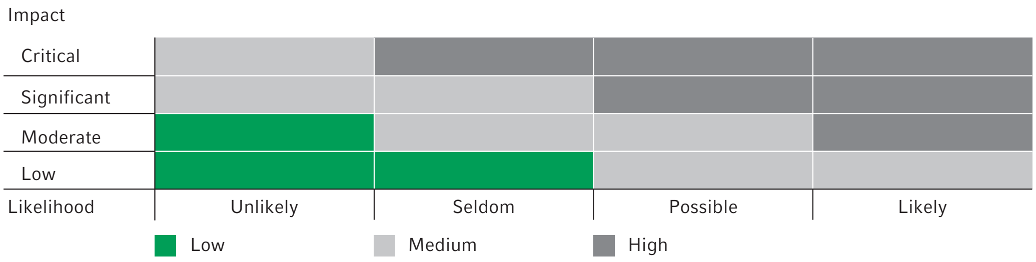
In order to optimise risk management, we are employing comprehensive software across the Group to map the entire risk management process. By using this software, we have implemented the basic conditions for increasing transparency and efficiency in all phases of the risk management process and for contributing to audit security. The software helps us with, among other things, the clear representation of the Group structure and the assignment of appropriate local responsibilities. Supported by standardised evaluation schemes, risks are systematically recorded and can be tracked over time together with the proposed countermeasures. The visualised risk data can now be consolidated in a timely manner, analysed flexibly and in various ways, and depicted using standardised risk reporting.

Identification and assessment of risks

The process of identifying risks is performed regularly on a decentralised basis by the country management and by the globally responsible Group functions. General macro-economic data as well as other industry-specific factors and risk information sources serve as auxiliary parameters for the identification process.

Appropriate thresholds for risk reporting have been established for the individual countries, taking into account their specific circumstances. On the basis of our Group's risk model and according to the defined risk categories, the risks are assessed with reference to a minimum probability of occurrence of 10 % and their potential extent of damage. The operational planning cycle is used as the base period for the probability forecast. In addition to this risk quantification, geared towards a duration of twelve months, there exists also an obligation to report on new and already known risks with medium- or long-term risk tendencies. The impacts on the key parameters – result from current operations, profit after tax, and cash flow – are used as a benchmark to assess damage potential. Both dimensions of risk assessment can be visualised by means of a risk map.

Dimensions of risk assessment



The underlying scaling is as follows:

Likelihood	
Unlikely	1 % to 20 %
Seldom	21 % to 40 %
Possible	41 % to 60 %
Likely	61 % to 100 %

Impact	**Definition of impact on business activity, financial performance and results of operations, and cash flow**
Low	Negligible negative impact (≤ €20 million)
Moderate	Limited negative impact (> €20 million)
Significant	Significant negative impact (> €120 million)
Critical	Harmful negative impact (> €220 million)

The risk statement also includes risks that do not have a direct impact on the financial situation, but that can have an effect on non-monetary factors such as reputation or strategy. In the case of risks that cannot be directly calculated, the potential extent of damage is assessed on the basis of qualitative criteria such as low risk or risks constituting a threat to the Group's existence.

The process of regular identification is supplemented with an ad-hoc risk report in the event of the sudden occurrence of serious risks or of sudden damage caused. This can arise, in particular, in connection with political events, trends in the financial markets, or natural disasters.

Aggregating, reporting, monitoring, and controlling risks

The quantitative, updated risk reports for all business lines in our Group countries are presented to the Managing Board on a quarterly basis within the framework of central management reporting to ensure that risks are monitored in a structured and continuous way. Correlations between individual risks and events are considered at local level as far as possible. The quarterly management meetings provide a platform for the Managing Board and responsible country managers to discuss and determine appropriate risk control measures promptly. Decisions are thus made as to which risks will be intentionally borne independently and which will be transferred to other risk carriers, as well as which measures are suitable for reducing or avoiding potential risks.

The Group Insurance & Corporate Risk department is responsible for coordinating the risk management processes. It summarises all significant quantitative and qualitative risks for countries and Group functions on a quarterly basis in a central risk map. The Group's detailed risk report is presented to the Managing Board once a year. In addition, interim reporting to the Supervisory Board is effected in the course of the year.

Monitoring and adjustments
The Group Internal Audit department systematically examines and assesses risk management to help increase risk awareness. In addition, the auditor carries out an examination of the risk management system as part of the annual audit in accordance with legal guidelines to determine whether the monitoring system is capable of identifying at an early stage any issues that could threaten the Group's existence. The Managing Board also regularly informs the Supervisory Board and its Audit Committee about the risk situation.

The internal control and risk management system with regard to the Group accounting process

In accordance with § 289, section 5 and § 315, section 2, no. 5 of the German Commercial Code (HGB), the internal control system within the HeidelbergCement Group includes all principles, processes, and measures intended to ensure the effectiveness, cost efficiency, and accuracy of the accounting and to ensure observance of the relevant legal provisions.

The internal monitoring system within the HeidelbergCement Group consists of process-independent and process-integrated control measures. The process-integrated auditing activities include controls that are incorporated into the process (e.g. the principle of dual control). Process-independent measures are controls carried out by persons not directly involved in the accounting process (e.g. Group Internal Audit).

Structures and processes
The organisational and management structure of HeidelbergCement AG and its Group companies is clearly defined. The responsibilities within the accounting process (e.g. accounting of HeidelbergCement AG and its Group companies, Group Controlling, Group Treasury, and Group Reporting, Controlling and Consolidation) are clearly defined and functionally separated.

Key characteristics of the accounting processes and the consolidation
All departments involved in the accounting process have the requisite qualifications and are equipped in accordance with the requirements. In the case of accounting issues that are complex or require discretionary judgement, we also call upon the expertise of external service providers such as pension experts or recultivation obligation assessors.

The accounting guideline and uniform accounting framework, both of which are centrally administered by the Group Reporting, Controlling, and Consolidation department, are mandatory for all Group companies. New laws, accounting standards, and current developments (e.g. in the Group's economic and legal environment) are analysed and taken into account with regard to their relevance and impact on the consolidated financial statements. The central accounting guideline and uniform accounting framework guarantee uniform recognition, measurement, and presentation in the consolidated financial statements. Group-wide deadlines set out in a centrally managed financial calendar and instructions pertaining to the financial statements also help to make the accounting process structured, efficient, and uniform across the Group.

In most countries, the financial statements of the Group companies are prepared in shared service centers in order to centralise and standardise the accounting processes. Accounting systems from SAP and Oracle are used in the majority of cases. To prepare the consolidated financial statements, further information is added to the individual financial statements of the Group companies and these are then consolidated using standardised software developed by SAP. All consolidation adjustments, such as the capital consolidation, the debt consolidation, the expense and income consolidation, and the at equity valuation, are carried out and documented. The various elements that make up the consolidated financial statements, including the Notes, are created entirely from this consolidation program.

At HeidelbergCement, the accounts data is checked at both local and central level. The decentralised checking of the local financial statements is carried out by the responsible Financial Director and country controlling. The central checking of the accounts data is carried out by the Group departments Consolidation, Controlling, Tax, and Treasury.

HeidelbergCement's control system is also supplemented by manual checks, such as regular spot checks and plausibility checks, carried out both locally and centrally. The validations automatically performed by the consolidation program also form an integral part of HeidelbergCement's control system.

Process-independent checks are carried out by the Audit Committee of the Supervisory Board and by Group Internal Audit. The latter checks the internal control system for the structures and processes described and monitors application of the accounting guidelines and accounting framework. The results of the check carried out by Group Internal Audit are reported to the Managing Board and Audit Committee. Additional process-independent monitoring activities are also performed by the Group auditor and other auditing bodies, such as the external tax auditors.

Measures for identifying, assessing, and limiting risks
In order to identify and assess risks, individual business transactions at HeidelbergCement are analysed using the criteria of potential risk, likelihood of occurrence, and impact. Suitable control measures are then established on the basis of these analyses. To limit the risks, transactions above a certain volume or with a certain complexity are subject to an established approval process. Furthermore, organisational measures (e.g. separation of functions in sensitive areas) and ongoing target/actual comparisons are performed for key accounting figures. The IT systems used for accounting are protected from unauthorised access by appropriate security measures.

The established control and risk management systems are not able to guarantee accurate and complete accounting with absolute certainty. In particular, individual false assumptions, inefficient controls, and illegal activities may limit the effectiveness of the internal control and risk management systems employed. Exceptional or complex circumstances that are not handled in a routine manner also entail a latent risk.

The statements made here apply only to the Group companies included in the consolidated financial statements of HeidelbergCement AG whose financial and operational policies can be determined directly or indirectly by HeidelbergCement AG for the purpose of deriving benefit from the activity of the company.

Risk areas

Risks that may have a significant impact on our assets, financial, and earnings position in the 2017 financial year are divided into four categories based on the risk catalogue established in the Group: financial risks, strategic risks, operational risks, as well as legal and compliance risks. In the following, we assess only the risk situation of risks that are significant for us.

Financial risks

Our significant financial risks are currency risks, interest rate risks, refinancing risks, and credit risks as well as tax and pension risks. We manage these risks primarily as part of our ongoing business and financing activities and, when required, by using derivative financial instruments. These risk areas are monitored on a continuous basis by the Group Treasury department in accordance with internal Group guidelines. All Group companies must identify their risks and hedge them in cooperation with Group Treasury on the basis of these guidelines. The activities and processes of Group Treasury are governed by comprehensive guidelines, which, amongst other things, regulate the separation of trade and the processing of financial transactions. As part of our ongoing risk management, we manage the transaction risk, i.e. the risk of fluctuating prices (e.g. currency exchange rates, interest rates, raw material prices) that may affect the Group's earnings position. The overall development of financial risks has not changed significantly in comparison with the previous year.

Currency risks

The most significant risk position with respect to financial risks is the currency risk, particularly the translation risk. Political events (Brexit, the US presidential election) have triggered an increase in the volatility of exchange rates. Greater fluctuations on the currency markets should be anticipated as a result of the ongoing uncertainty concerning further interest rate hikes in the USA and the economic development in China. If these fluctuations deviate from the assumptions made in the forecast, this might have a negative impact on translation and transaction effects. We consider these currency risks to represent a medium risk with a seldom likelihood but a significant impact.

Currency risks arising as a result of transactions with third parties in foreign currency (transaction risks) are hedged in certain cases using derivative financial instruments with a hedging horizon of up to twelve months. We primarily use currency swaps and forward exchange contracts for this purpose, as well as currency options in some individual cases. Through our in-house banking activities, the borrowing and investment of liquidity of the subsidiaries lead to currency positions that are hedged by means of external currency swap transactions, which are appropriate in terms of maturities and amounts.

In general, we do not hedge currency risks arising from converting the financial statements of foreign individual companies or subgroups (translation risks). The associated effects have no impact on cash flow, and influences on the consolidated balance sheet and income statement are monitored on a continuous basis. More information on currency risks can be found in the Notes on page 255 f.

Interest rate risks

Interest rate risks exist as a result of potential changes in the market interest rate and may lead to a change in fair value in the case of fixed interest-bearing financial instruments and to fluctuations in interest payments in the case of variable interest-bearing financial instruments. Interest rate risks are maintained within the parameters set by the Group's Chief Financial Officer. By using financial instruments, primarily interest rate swaps, we are able to hedge both the risk of fluctuating cash flows and the risk of value fluctuations. However, a downgrading of our credit rating by the rating agencies (see Rating section on page 83 f.) could increase the interest margins in the event of a refinancing measure. On the basis of the balanced maturity structure of financial liabilities (see diagram in the Outlook chapter on page 116) and the expected cash inflow from operating activities, there is no significant short- or medium-term need to refinance, meaning that no negative effects on the interest result are to be expected. Therefore, we see here only a low risk. More information on interest rate risks can be found in the Notes on page 255.

Refinancing/liquidity risks

Refinancing/liquidity risks exist when a company is not able to procure the funds necessary to fulfil operational obligations or obligations entered into in connection with financial instruments.

Possible risks from fluctuating cash flows are considered as part of the Group liquidity planning. Assumptions concerning the expected economic cycle harbour particular uncertainties in liquidity planning, which is why we update them on an ongoing basis and simulate them by means of so-called stress tests. On this basis, we can – if necessary – initiate the appropriate measures, such as the issue of additional money and capital market securities or the raising of fresh funds in the bank market. To secure our payment obligations, we have access to a syndicated credit line with a volume of €3 billion. As a result, we have access to substantial amounts of cash and cash equivalents and have thus considerably reduced the refinancing risk. In addition, cash is continuously accruing from our operating activities. As an additional precautionary measure, an appropriate amount for increasing shareholders' equity was decided upon at the 2015 Annual General Meeting. We consider the refinancing/liquidity risks as a low risk.

The revolving syndicated credit facility of €3 billion mentioned above with a term that runs until the end of February 2019, following the conclusion of a new agreement in February 2014, of which only €211,1 million had been drawn upon as at the balance sheet date, is available for financing existing payment obligations. In total, we have €4.8 billion of cash and cash equivalents, of securities, and free credit lines in our portfolio across the Group (see Liquidity instruments table in the Group financial management section on page 83).

In connection with credit agreements, we agreed to comply with various financial covenants, which were all met in the reporting period. The most important key financial ratios are the dynamic gearing ratio and the consolidated coverage ratio. Within the framework of Group planning, compliance with the covenants is monitored consistently, with notification issued to the creditors on a quarterly basis. In the event of a breach of the covenants, the creditors could, under certain conditions, accelerate corresponding loans irrespective of the contractually agreed terms. Depending on the volume of the relevant loan and the refinancing possibilities in the financial markets, this could lead to a refinancing risk for the Group.

The syndicated credit facility contains covenants, which were agreed at a level that takes into account the current economic environment and our forecasts. More information on liquidity risks can be found in the Notes on page 253 f.

Credit risks

Credit risks exist when a contractual partner in a business cannot fulfil its obligations, or at least not within the stipulated period. We minimise the risk position arising from this by diversification and ongoing assessment of the creditworthiness of the contracting parties.

Credit risks from operating activities are monitored continuously as part of our receivables management. We apply strict standards with regard to the creditworthiness of our business partners. In this way – as well as by avoiding concentrations of positions – we are able to minimise the Group's credit risks. We minimise credit risks for our financial investments by only conducting transactions with banks that are particularly creditworthy. We select banks for payment transactions and establish cash pools in exactly the same way. We consider the credit risks as a low risk. More information on credit risks can be found in the Notes on page 252.

Tax risks

We are subject to the applicable tax laws in the countries where we are active. Risks can arise from changes in local taxation laws or case law and different or increasingly restrictive interpretations of existing provisions. These risks can impact our tax expense and benefit as well as tax receivables and liabilities.

Pension risks

Primarily in North America, HeidelbergCement is involved in various defined contribution pension plans for unionised employees (Multi-employer Pension Plans). The funding status of these pension plans could be affected by adverse developments in the capital markets, demographic changes, and increases in pension benefits. If one of the participating companies no longer pays contributions into the pension plan, all other parties concerned will be held liable for the obligations that have not been covered. Regarding the year 2017, we consider the pension risks as a medium risk with a seldom likelihood and moderate impact.

Strategic risks

Strategic risks particularly include risks related to the development of our sales markets in terms of demand, pricing, and the level of competition. In this category we also take into account risks arising from acquisitions and investments, product substitution, and political risks. Strategic risks have increased in comparison with the previous year, essentially as a result of the rise in competitive and price pressure in Indonesia and Egypt.

Industry-specific risks and sales market risks

The International Monetary Fund anticipates a slight acceleration of global economic growth for 2017. However, this is subject to the industrial countries in North America and Europe continuing their recovery, and that the economic growth in Asia, particularly in China, does not decline to a level critical to global economic growth. While the overall outlook for the global economy is positive, macroeconomic and particularly geopolitical risks exist at the same time. An escalation of the conflicts in the Middle East or Ukraine could have a substantial negative impact on the business environment. The same applies to the outcome of the elections in major European countries, such as the Netherlands, France, Germany, and Italy. Added to this are the uncertain consequences of the Brexit negotiations between the United Kingdom and the EU starting in spring 2017. The future economic policy of the new US administration is still unclear, and the economic development in China has to be closely monitored. The significant increase in the oil price since the beginning of

2016 can have varying effects on individual countries: in oil-importing countries, expenditure on fuel will increase and less funds will potentially be available for consumption, while oil-exporting countries will have more income to invest in projects.

In general, we expect a positive economic development in the individual Group areas for 2017. Aside from general risks due to fluctuations in demand, we also see risks regarding sales volumes, prices, and customer relationships due to high competition, particularly in emerging countries such as Indonesia, Egypt or in Sub-Saharan Africa. Overall, however, we rate this as a low to medium risk.

The global development of demand for building materials naturally represents both an opportunity and a risk for us, and is dependent on a number of different factors. The key factors include population growth and the increasing need for housing, economic growth, growing industrialisation and urbanisation, and the increased need for infrastructure. Demand for building materials is essentially divided into three sectors: private residential construction, commercial construction, and public construction.

Demand in private residential construction depends on factors such as access to affordable loans, the trend in house prices, and the available household income, which is in turn influenced by additional parameters such as the rate of unemployment or inflation. The development of these factors and thus the demand in this sector is mostly subject to country-specific risks and uncertainties. In the USA, the bursting of the property bubble at the start of the financial crisis in 2008 led to a high excess of houses and apartments as well as a corresponding price collapse. Since 2013, we have observed a considerable recovery of the housing market in the USA. The number of sales and construction starts as well as house prices have risen. The continuing recovery of this market is subject to uncertainties and depends, among other things, on the further development of interest rates. In Asia, there is a risk that rising cost of living could negatively impact the revenue available for construction projects and thereby also the investments in private residential construction. In China, there still remain risks from speculations in urban residential property. Although the steps taken by the government and central bank to combat overheating in the booming property market have so far been successful, the situation must still be monitored very carefully.

The utilisation of production facilities, office spaces, and storage areas is crucial in determining the level of demand in commercial construction, and in turn depends on the general order situation both at home and abroad. As a result of the economic crisis, the vacancy rate of office and industrial spaces is still high in some countries. While the recovery process in this sector has become more noticeable, its extent and time span is still uncertain. Intensified budgetary consolidation or increasing interest rates resulting from rising inflation pressure could have a negative effect on economic growth and the future demand for building materials.

Investments in infrastructure such as roads, railways, airports, and waterways fall into the public construction sector. The demand in this sector depends on national budgets and the implementation of special infrastructure funding programmes. Risks exist insofar as countries could cut back on their infrastructure investments due to declining revenues, for example in oil-exporting countries because of the still relatively low oil price, or in order to consolidate their budgets. Noticeable growth in result from state-funded projects will only be seen with a time lag. The scope of the cutbacks and their effects on the demand for building materials cannot be predicted with absolute certainty.

Building materials are characterised by heavy weight in relation to the sales price and are thus not transported overland for long distances. Excess cement volumes are traded by sea on a regional level as well as between individual continents. If the difference in the price level between two countries, with connection to the sea trade, is so high that it exceeds the transportation costs, there is a danger of increased import pressure and thus of a price drop in the importing market.

A major industry-specific risk is the weather-related sales risk for building materials, which is mainly due to the seasonal nature of demand. Harsh winters with extremely low temperatures or high precipitation impact construction activity and have a negative effect on the demand for building materials. In addition to the winter weather, monsoons in some Group countries, such as India, are another example of the seasonal weather conditions that adversely affect the sales volumes of our products and thus our business results.

We counteract weather-related fluctuations in sales volumes and risks from trends in sales markets with regional diversification, increased customer focus, the development of special products, and, to the extent possible, with operational measures: for example, we adjust the production level to the demand situation and use flexible working time models. In 2014, we restructured our activities in Belgium as a result of a persistent weakness of the construction industry and closed a cement plant permanently.

In order to further improve relationships with our customers and to respond to country-specific needs, HeidelbergCement carries out customer surveys across the Group and expands research and development operations at Group level. A continuous transfer of knowledge between our locations, which is systematically supported and promoted by the employees of our technical centers – HTC (cement and binders), CCM (aggregates), and CCR (ready-mixed concrete) – working at various locations across the Group, ensures that synergy effects are utilised as effectively as possible.

Our expectations regarding the future development of the industry and our sales markets are presented in the Outlook chapter on page 112 f.

Risks from acquisitions and investments

Capacity expansions from acquisitions and investments ensure opportunities, but also risks. Possible risks in the case of acquisitions arise from the integration of employees, processes, technologies, and products. These also include cultural and language barriers in the growing markets as well as a generally increased level of personnel turnover in Asia, which leads to an outflow of valuable knowledge. We counteract these risks by targeted personnel development and an integrative corporate culture, including the creation of local management structures.

Acquisitions can affect the net debt to equity ratio and financing structure and lead to increases in fixed assets, including goodwill. In particular, impairments of goodwill due to unforeseen business trends can lead to financial burdens.

Investment projects can span several years from the planning phase to completion. In this process, there are particular risks when it comes to obtaining the necessary permission for mining raw materials or developing infrastructure, including connecting to energy and road networks, as well as risks concerning the requirements for subsequent use plans for quarrying sites.

In the case of future acquisitions, partnerships, and investments, there is a risk that political restrictions may only allow them to be implemented under complicated conditions or may prevent them at all. A resulting shortage in capacity expansion projects could affect the growth prospects of HeidelbergCement. In order to minimise financial burdens and risks and better exploit opportunities, we look for suitable partners, particularly in politically unstable regions.

HeidelbergCement constantly monitors the market environment with respect to embarking on suitable acquisition projects or partnerships. In addition, market potential and raw material deposits are also systematically analysed and turned into proposals for investment projects. We place very high return requirements on every acquisition or investment decision, which are explained in the Internal management control and indicators section on page 44 f. Significant investment and acquisition projects are also subject to subsequent checks.

The cement industry is building up its capacities in the markets of Eastern Europe, Asia, and Africa in order to benefit from the rising domestic demand. HeidelbergCement is likewise investing in capacity expansions and is focusing on local markets with exceptional growth potential. In 2016, a new cement production line commenced production in Indonesia. Competitors are also building up new capacities in these regions. If the capacity increases in the markets in which we operate exceed the growth in demand, there is a risk of price collapse, which has negative effects on revenue and result from current operations. Prior to capacity expansion projects, HeidelbergCement reviews both the market environment and the market potential and responds to excess capacities with cost-saving and efficiency improvement programmes, capacity adjustments, and location enhancements. Owing to the weak growth in demand in the past three years and capacity expansions by competitors, there is a surplus of cement in Indonesia. Due to the oversupply, market prices fell considerably in 2016. If market development remains below expectations in 2017, price pressure might continue and adversely impact revenue and results. We rate this as a medium risk with a seldom likelihood and a moderate impact.

In October 2016, HeidelbergCement concluded the acquisition of Italcementi S.p.A. We have many years of experience in integrating companies and have already created the necessary processes and structures. Nevertheless, there is a risk that the integration ends up being more difficult than anticipated, that new, currently unknown risks become apparent, or the development of revenue and results of the business units acquired with Italcementi is weaker than originally expected and adversely affects the revenue and result of the Group following the takeover.

Risks resulting from the substitution of products

Cement, sand, gravel, and hard rock are the basic raw materials for the construction of houses, industrial facilities, and infrastructure throughout the world. The use of cement-like binders can be traced back to Roman times. Because cement is highly energy- and CO_2-intensive, research projects are being undertaken to develop alternative binders with a more favourable energy and climate footprint.

Employees of the Heidelberg Technology Center (HTC) are closely monitoring the development of alternative binders and are actively exploring this area. However, when comparing the current state of knowledge regarding alternative binders with the stringent requirements relating to the processability, durability, and cost-effective production of the binders, we generally do not anticipate that the alternative binders currently being developed will replace traditional cement types on a large scale in the next few years. If the production costs for traditional binders increase dramatically, particularly in mature markets, e.g. as a result of further shortages of government-issued CO_2 emission certificates or significant increases in energy prices, alternative binders could replace traditional binders provided that they fulfil all the aforementioned requirements. However, since this is currently not foreseeable, the risk is not included in our risk reporting.

Political risks and risks arising from exceptional external incidents
As is the case for all companies, potential turmoil in a political, legal, or social context poses fundamental risks for us, too. HeidelbergCement operates in around 60 countries around the world and is therefore also exposed to political risks, such as nationalisation, prohibition of capital transfer, terrorism, war, and unrest. At a number of locations, we cannot rule out certain security risks because of internal political circumstances. The conflict in eastern Ukraine affects the operation of one of our cement plants. If the situation in this region does not improve, we may lose the plant. We consider this development as a medium risk with a possible likelihood and low impact.

In isolated cases, cement prices are subject to government regulation, e.g. in Togo. There may also be government intervention in production control, such as the temporary decommissioning orders in China. Overall, we consider this as a low risk.

Exceptional external incidents, such as natural disasters or pandemics, could also negatively impact our business performance. Liberia and Sierra Leone experienced an Ebola outbreak in 2014, which was only declared officially over at the end of 2015. Should another outbreak occur, there exists the risk that an adequate amount of raw materials necessary for cement production cannot be imported to these countries. During the last outbreak, we were able to secure sufficient transport capacities. Currently, we do not see any risk here. Appropriate compensation limits of our Group-wide property insurance programme guarantee comprehensive coverage against natural disasters, including earthquakes, for our activities in heavily endangered regions of North America and Asia.

Operational risks

Operational risks particularly include risks related to the availability and cost development of energy, raw materials, and qualified personnel. In this category we also take into account regulatory risks associated with environmental constraints, as well as production, quality, and IT risks. Operational risks increased substantially compared with the previous year, particularly because of the trend reversal in the development of energy prices and the subsequent rise in the prices of oil, coal, and electricity.

Volatility of energy and raw material prices
For an energy-intensive company such as HeidelbergCement, price trends in energy markets, which are extremely volatile, represent a considerable risk. In 2016, average annual energy prices were below the previous year. After reaching its low point at the start of 2016, the oil price doubled by year end. This development was favoured by a decline in the production of shale gas and oil in North America and agreements between the OPEC member states. At the same time, prices for coal, petroleum coke, and electricity increased also considerably. There is a risk that the costs for individual energy sources exceed the anticipated costs in our planning and that the total energy

costs are therefore higher than planned. This risk exists particularly for individual countries such as Indonesia or Egypt. We consider the risk for individual energy sources and countries respectively as a medium risk with a possible likelihood and a low to moderate impact.

In addition to the volatility of energy prices, infrastructural bottlenecks also pose a common risk for our Group with regard to electricity supply, especially in Africa. The prices of other raw materials are also subject to economic fluctuations. In absolute terms, the costs of raw materials rose in 2016, but they declined slightly in relation to revenue.

We minimise the price risks for energy and raw materials by Group-wide, structured procurement processes. Furthermore, we rely on the increasing use of alternative fuels and raw materials. In this way, we minimise price risks while reducing CO_2 emissions and the proportion of energy-intensive clinker in the end product cement. We have sustainably improved the efficiency of the cement manufacturing process with the Group-wide "Operational Excellence" programme, which was carried out between 2011 and 2013. By reducing and optimising our consumption of electricity, fuel, and raw materials, we are working directly towards a reduction in energy costs. With the "Continuous Improvement Program" (CIP) that was launched in 2014, we intend to not only retain but further improve our achievements continuously.

Each year, Purchasing relaunches the "FOX" savings initiative, which is part of HeidelbergCement's ongoing improvement programme that aims to further increase the Group's financial and operational performance in the long term. In view of the generally persisting cost pressure and the additional integration activities, we are currently targeting further savings in purchasing and through the exploitation of synergies. More information on our procurement management can be found on page 108 f.

In the process of setting prices for our products, we aim to pass on increases in the costs of energy and raw materials to our customers. The success of these price increases is subject to considerable uncertainty, as most of our products are standardised bulk goods whose price is essentially determined by supply and demand. As a result, there is a risk that price increases cannot be passed on or will cause a decline in sales volumes, particularly in markets with excess capacities.

Availability of raw materials and additives

HeidelbergCement requires a considerable amount of raw materials for cement and aggregates production, which is ensured by our own high deposits. In order to emphasise the key role of raw materials in our company and facilitate the transfer of knowledge and synergy effects beyond national borders, we have combined our geology activities in the cement business across the Group at HTC Global and for the aggregates business at CCM (Competence Center Materials). There is, however, potential for certain risks in particular locations with regard to obtaining mining concessions. Necessary permissions may be refused in the short term or disputes may arise regarding mining fees. In Damoh, India, there is a dispute with the state government about the correct calculation of limestone mining fees. We rate this as a low risk with an improbable likelihood and moderate impact.

In 2016, HeidelbergCement adopted the definitions of reserves and resources as set out in the Pan-European Standard for Reporting of Exploration Results, Mineral Resources and Reserves (PERC Reporting Standard) to align estimation and reporting practices for mineral reserves and resources Group-wide.

The implementation of the PERC Reporting Standard in HeidelbergCement improves management knowledge and decision-making through a harmonized definition of reserves and resources and a broader consideration of development constraints that influence the availability of raw materials. A Group policy on reserve and resource management, combined with rigorous local processes and practices, leads to a low risk associated with the availability of raw materials.

Ecological factors and environmental regulations for access to raw material deposits also create a degree of uncertainty. In some regions of the world, for example in West Africa south of the Sahara, raw materials for cement production are so scarce that cement or clinker needs to be imported by sea. Rising transportation costs and capacity constraints in the port facilities can lead to an increase in product costs. Overall, we rate this as a low risk.

Availability and prices of the additive blast furnace slag, which is used in cement manufacturing and is a by-product in steel manufacturing, are subject to economic fluctuations and therefore entail a cost risk. Blast furnace slag is used primarily in Europe, the CIS countries (Commonwealth of Independent States), and the USA. A further increase in steel production compared with the previous year is expected for 2017.

The adjustments of European excess steel capacity in connection with the vertical integration of the major manufacturers may result in a shortage of blast furnace slag in the medium to long term. As a precaution against potential future supply shortages and price fluctuations, we adopt a global approach when addressing suppliers and aim to achieve long-term supply agreements.

Production-related risks

The cement industry is a facility-intensive industry with complex technology for storing and processing raw materials, additives, and fuels. Because of accident and operating risks, personal injury and material or environmental damage may occur and operations may be interrupted.

In order to avoid the potential occurrence of damage and the resulting consequences, we rely on various surveillance and security systems in our plants as well as integrated management systems, which guarantee high safety standards, and regular checks, maintenance, and servicing. To identify the threat of potential dangers, we aim to provide all employees with appropriate training to raise their risk awareness. Overall, we consider the production-related risks as low risks.

As demand for building materials is heavily dependent on weather conditions, there is a risk that capacity utilisation may fluctuate and production downtimes may occur. We minimise this risk by establishing different regional locations, making use of demand-oriented production control and flexible working time models. In addition, we make use of production downtimes, where possible, to carry out any necessary maintenance work.

HeidelbergCement's risk transfer strategy sets deductibles for the main insurance programmes that have been adjusted to the size of the Group and are based on many years of failure analyses. As of 2011, the international liability insurance programme has optimised the cover and liability limits, particularly for risks resulting from environmental damage.

Quality risks
Building materials are subject to a strict standardisation. If supplied products do not meet the prescribed standards or the customer's quality requirements, we risk losing sales volumes, facing claims for damages, and/or damaging our customer relationships. HeidelbergCement ensures compliance with the standards at the Group's own laboratories by means of fine-meshed quality assurance in parallel with every process step as well as final inspections. Quality assurance controls are also carried out by independent experts as part of the extensive quality assurance programmes already in place. We consider the quality risks as a low risk.

Regulatory risks in environmental protection
Changes to the regulatory environment can affect the business activities of HeidelbergCement. This concerns mainly legal regulations for environmental protection. Tighter environmental regulations could lead to increasing costs, higher demand for investments, or even the closing of production sites.

As part of the European climate package newly adopted in December 2008, which concerns the reduction of greenhouse gas emissions, ambitious goals have been set by the European Parliament and the European Commission with regard to climate protection. The cement industry, like other CO_2-intensive industry sectors, has not been affected by the full auction of emission rights since 2013. The emission rights will thus continue to be allocated free of charge, but by 2020 their quantity will have been reduced by 21 % compared with 2005. The emission certificates are to be allocated on the basis of demanding, product-specific benchmarks, and will be further reduced by the annually growing cross-sectoral correction factor. A rise in climate protection cost may be assumed as the total volume of certificates continues to decrease. In the long term, this could create additional burdens in Europe as a result of higher manufacturing costs and therefore clear competitive disadvantages in comparison with producers from countries not involved in emissions trading.

The US state of California has had a cap-and-trade programme for emission rights since November 2012. Four auctions were held in the reporting year. Our subsidiary Lehigh Hanson did not take part because the state of California allocated sufficient emission rights free of charge to the cement industry. We do not expect this to change in the short term. Furthermore, Lehigh Hanson is actively examining approaches to maintain the CO_2 output below the declining upper limit by improving kiln efficiency and the use of biomass, among other things. However, we will monitor the programme closely to ensure we make a timely decision regarding participation. Any involvement in the cap-and-trade programme entails the risk of having insufficient emission rights in the future and of incurring additional costs from the acquisition of rights.

An emissions trading system was introduced as pilot project in the Chinese province of Guangdong in 2013. In 2014, 97 % of the emission certificates assigned for the year 2013 were allocated free of charge. As we required less than 97 % of the allocated emission rights, these remain free of charge for us. Guangdong is one of China's first provinces to introduce the emissions trading system. The full extent of the impact on our cement plants there cannot be conclusively assessed at this point. In 2017, a new national emissions trading system, which will also apply to the cement industry, is to be introduced in China.

The implementation of the European Industrial Emissions Directive 2010/75 into national law in 2013 led to more stringent environmental requirements for the European cement industry. In

Germany, in particular, the limits for dust and ammonia emissions from 2016 and for nitrogen oxide emissions from 2019 were significantly tightened and even exceed EU requirements. Considerable investment is needed in order for us to meet these more stringent environmental regulations.

The National Emission Standards for Hazardous Air Pollutants (NESHAP), introduced by the American Environmental Protection Agency (EPA), have been in force since September 2015. In 2015, our North American subsidiary Lehigh Hanson completed major investments in technical equipment in order to meet these new standards, which are more stringent than standards already existing in other parts of the world. Investments in this area will still be made in some of the plants which were acquired from Italcementi.

Climate protection and reducing CO_2 emissions are a focus of HeidelbergCement's sustainability strategy. By increasing energy efficiency, developing cement types with a lower proportion of clinker, and using alternative fuels, such as biomass, we were able to reduce our specific net CO_2 emissions from 1990 to 2016 by 22.6 %. The consolidation of Italcementi from 1 July 2016 has already been taken into account. Additional measures concerning climate and environmental protection are outlined in the Environmental responsibility chapter on page 104 f. and the Research and technology section on page 46 f.

IT risks

IT systems support our global business processes, communication, and also to an increasing extent sales, logistics, and production. Risks could primarily arise from the unavailability of IT systems, the delayed provision, and the loss or manipulation of data. The risk of a system failure increases especially due to the introduction of service and logistics centers based on central server solutions. The impact of a failure increases continuously with the number of connected locations. The increasing digitisation of business processes also contributes to this.

To minimise these risks, our Group uses back-up procedures as well as standardised IT infrastructures. Furthermore, the critical systems are run at two separate computer centers per region that comply with the latest security standards.

All important server systems and PCs are regularly updated and secured by safeguards.

Information security is an integral part of the Group-wide IT strategy. We prepare, implement, and revise measures to protect data, systems, and networks. The IT security process is structured and divided into guidelines, standards, and recommendations, which help raise our employees' awareness.

Italcementi's systems are being adapted to our security standards as part of the integration. This process ensures that there is no increased risk to our systems and networks.

A continuous improvement process ensures a sustainable increase in the efficiency of security measures. We also take measures to counteract the ageing process of equipment and system technology. In the case of existing applications, we are particularly concerned with business-critical resources (e.g. ERP and logistics applications, or net infrastructure), which are updated and consolidated. We consider the risk of system or application outages as a medium risk.

Legal and compliance risks

Our principal legal and compliance risks include risks from ongoing proceedings and investigations, as well as risks arising from changes in the regulatory environment and the non-observance of compliance requirements. The ongoing proceedings are being monitored intensively from a legal perspective. In addition, financial provision has been made in accordance with the legislative requirements for possible disadvantages arising from these proceedings. The number of legal and compliance proceedings has risen in comparison with the previous year as a result of the acquisition of the Italcementi Group.

Hanson asbestos-related claims and environmental damage
Some of our Hanson participations in the USA are exposed to particular legal risks and disputes relating to former activities. The most significant of these are asbestos-related claims, which, amongst other things, allege bodily injury and involve several American subsidiaries. Products containing asbestos were manufactured before these companies belonged to the Hanson Group and to HeidelbergCement. In the USA, these damage claims are being handled and intensively managed by a team of in-house lawyers in collaboration with insurers and external consultants. The dispute is likely to continue for a few more years because of the complexity of the cases and the peculiarities of the American legal system. Adequate provisions have been formed on the basis of an extrapolation of the claims and reliable estimates of the development of costs over the next 15 years. The damage claims are mostly covered by liability insurances. Therefore provisions in the Group balance sheet are offset by corresponding claims against insurers.

Furthermore, there is a considerable number of environmental and product liability claims against former and existing Hanson participations in the USA, which relate back to business activities discontinued a long time ago. There is partly insufficient insurance cover for law suits and liability loss claims relating to toxic substances such as coal by-products or wood preservatives. Our subsidiaries may also be charged further fines set by the court in addition to the clean-up costs and the compensation; there is, however, a possibility to settle authorised claims for compensation outside of court. Sufficient financial provision has been made for this event. Overall, we consider the risks related to environmental damages in North America as a low risk.

Cartel proceedings
The Belgian company Cartel Damage Claims SA (CDC) filed a claim for antitrust damages with the Mannheim District Court in 2015, after failing in their first attempt to claim damages of this kind via the Düsseldorf High Regional Court in February 2015 for legal reasons. This action relates to alleged new claims accumulated in 2014 and 2015 from 23 cement customers. CDC jointly and severally demands compensation for damages from HeidelbergCement for the alleged price effects of the legally fined German cement cartel from 1993 to 2002 in Southern and Eastern Germany. CDC estimates the damages at €82 million plus interest of €57 million. If the claim for damages is granted, HeidelbergCement must take recourse to the other cartel members at its own risk. HeidelbergCement believes to have convincing arguments against the claim, but, given the early stage of the claim, cannot reliably exclude a negative outcome. We assign a medium risk to this case.

Experiences gained from a series of antitrust proceedings over the past few years, including the action mentioned above, motivate us to continuously review and develop intensive internal precautions, particularly regular training initiatives – using electronic training programmes, among others – in order to avoid cartel law violations.

Legal proceedings affecting the Italcementi Group

Following intensive judicial disputes, an enforceable judgment was issued by a Russian court in favour of one of the former Russian business partners of the Italcementi subsidiary Ciments Français, Sibconcord, resulting in an obligation on the part of Ciments Français to pay around €50 million. However, this judgment directly contradicts a binding decision in a Turkish arbitration pertaining to the same case. This arbitration was hearing the case in accordance with the internationally recognised regulations of the International Chamber of Commerce (ICC) and has made a final decision to dismiss Sibconcord's action against Ciments Français. Ciments Français is in the process of having this arbitration ruling recognised in various countries in order to protect itself from enforcement measures and has already been successful in Belgium, Bulgaria, France, Italy, Kazakhstan, Turkey, and the USA.

Claims for compensation amounting to US$17 million (plus default interest claims exceeding this amount many times over) from unfulfilled commission claims have been brought against the Egyptian Italcementi subsidiary Helwan Cement Company S.A.E. (Helwan) before courts in Egypt and California. Helwan is defending itself against these claims. The alleged claims for compensation are said to arise from an exclusive conciliation agreement regarding cement exports with The Globe Corporation, California, and its legal successor Tahaya Misr Investment Inc. The claim has now been conclusively dismissed in California. We expect the same outcome of the legal dispute in Egypt, and thus a positive result for Helwan.

There are currently suspended legal proceedings involving Helwan and the Egyptian Italcementi subsidiary Tourah Portland Cement Company with regard to the effectiveness of their past privatisations, which took place prior to the acquisition of these companies by the Italcementi Group. The plaintiffs' entitlement to these claims is currently being verified as part of a constitutional court review of a law that allows such claims to be made only by persons directly involved in the privatisation, which does not include the plaintiffs.

We assign a low risk to each of these cases and in total a medium risk.

Sustainability and compliance risks

As part of its sustainable corporate governance, HeidelbergCement makes a special commitment to protect the environment, preserve resources, conserve biodiversity, and to act in a socially responsible way. We consider concern for the environment, climate protection, and sustainable resource conservation to be the foundation for the future development of our Group. Compliance with applicable law and Group regulations forms an integrated part of our corporate culture and is therefore a task and an obligation for every employee. Violations of our commitments or of laws and Group guidelines pose direct sanction risks in addition to strategic and operational risks, and also entail a risk to our reputation.

We have implemented a compliance programme across the Group to ensure conduct that is compliant with both the law and Group guidelines. This comprises, amongst other things, informational leaflets, a compliance hotline, and employee training measures, which are conducted using state-of-the-art technologies and media such as electronic learning modules, and which focus on the risk areas of antitrust and competition legislation as well as anticorruption regulations. Violations of applicable laws and internal guidelines will be appropriately sanctioned. In addition, corresponding corrective and preventive measures will be taken to help prevent similar incidents from arising in the future.

Moreover, we have implemented Group-wide a system for the evaluation and reduction of corruption risks and potential conflicts of interest. To ensure that we comply with the relevant sanctions regulations in the countries in which we are active, in particular those of the European Union and the USA, we carry out regular systematic verification procedures against international sanctions lists. In 2016, we reviewed and reaffirmed these priorities in the course of updating our general compliance risk assessment. Compliance with the new EU legislation on data protection emerged as an additional risk area, which we will address with suitable risk reduction measures.

See page 94 f. for more information on sustainability, page 104 f. for more on environmental responsibility, and page 146 f. for more on compliance.

Opportunity areas

Business opportunities are recognised at Group level and at operational level in the individual countries and taken into account as part of the strategy and planning processes. In the opportunities outlined below, we refer to possible future developments or events that can lead to a positive deviation from our forecast. Usually, we do not assess opportunities as their probability of occurrence is difficult to estimate.

Financial opportunities
Exchange rate and interest risks described under financial risks are also offset by opportunities that can turn the identified factors of influence to our advantage. Fluctuations in the exchange rates of foreign currencies against the euro present both risks and opportunities. On the one hand, for example, appreciation of the US dollar against the euro leads to growth in revenue and operating income; on the other hand, the US dollar-based proportion of purchasing costs measured in euro also increases. This primarily affects raw materials, which are traded in US dollar on the global market. We see opportunities for the development of results if the euro exchange rate against the other currencies weakens for the remainder of 2017.

Strategic opportunities
Industry and sales market risks are also offset by opportunities that can turn the identified factors of influence to our advantage. In 2017, opportunities could arise from stronger-than-expected economic growth in oil-exporting countries owing to the significantly increased oil price since the beginning of 2016. Public construction might also benefit as a result of higher tax yield. In the medium and long term, we particularly see opportunities for an increase in demand for building materials in residential, commercial, and public construction as a result of rising population numbers, growing prosperity, and the ongoing trend of urbanisation, especially in the growth markets of emerging countries.

Risks arising from acquisitions and investments are also counterbalanced by opportunities. We have accelerated our growth and further improved our earnings potential through the Italcementi takeover. There is the opportunity that the integration will progress more quickly than expected and provide a greater contribution to the growth in earnings. In the Outlook chapter on page 110 f., only acquisitions that have already been completed are taken into account.

Operational opportunities

Risks from the increase in prices for energy, raw materials, and additives are offset by opportunities that can turn the identified factors of influence to our advantage. Overall, the development of the energy price could be more advantageous if the supply of coal, shale gas, and oil exceeds demand, or if tariff increases for energy sources in emerging countries are lower or introduced later than expected.

The consistent and ongoing implementation of measures to increase efficiency, reduce costs, and improve margins in production, logistics, and distribution is an integral part of our business strategy. As part of the "LEO" programme, which was launched in 2012, we are working on the optimisation of our logistics to achieve further improvements in efficiency and reduce costs through the better utilisation of vehicles and drivers. In addition, the projects "Aggregates CI" in the aggregates business line, "CIP" in the cement business line, and "CCR" in the ready-mixed concrete business line aim to increase margins by continuous improvements of operational and commercial work processes. The opportunity exists for all projects to produce higher than anticipated results and margin improvements that exceed previous expectations.

Assessment of the overall risk and opportunity situation by Group management

The assessment of the Group's overall risk situation is the result of a consolidated examination of all major compound and individual risks. Compared with the previous year, the composition of the risk matrix has changed following the consolidation of Italcementi and the trend reversal in energy prices. Overall, the risks have increased substantially, largely due to the increased risk related to the energy price development.

Overall, the Managing Board is not aware of any risks that could threaten the existence of the Group either independently or in combination with other risks. There has been no notable change in the Group's risk situation between the reporting date of 31 December 2016 and the preparation of the 2016 consolidated financial statements. The company has a solid financial base and its liquidity situation is comfortable.

HeidelbergCement is aware of the opportunities and risks for its business activity as presented in this chapter. The measures described above play a significant role in allowing HeidelbergCement to make use of the opportunities to further develop the Group without losing sight of the risks. Our control and risk management system, standardised across the Group, ensures that any major risks that could negatively affect our business performance are identified at an early stage.

With its integrated product portfolio, its strong positions in growth markets, and its efficient cost structure, HeidelbergCement considers itself well-equipped to overcome any risks that may materialise and benefit from opportunities presented.

3

Corporate Governance

Part of the combined management report of HeidelbergCement Group and HeidelbergCement AG

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Corporate Governance statement[1)]

Statement of compliance in accordance with § 161 of the German Stock Company Act (Aktiengesetz)

On 13 February 2017, the Managing Board and on 14 February 2017, the Supervisory Board resolved to submit the following statement of compliance in accordance with § 161, section 1 of the German Stock Company Act: The Managing Board and Supervisory Board of HeidelbergCement AG declare, in accordance with § 161, section 1 of the German Stock Company Act, that they have complied with, and are in compliance with, the recommendations of the Government Commission on the German Corporate Governance Code (hereafter referred to as the Code) in the version dated 5 May 2015, since submission of last year's statement of compliance in February 2016, with the following exception:

– The shareholdings of members of the Supervisory Board are not disclosed (deviation from point 6.2).
  Justification: The members of the Supervisory Board are bound by the disclosure requirements relating to the purchase of voting rights under §§ 21 ff. of the German Securities Trading Law (Wertpapierhandelsgesetz) and to the own-account deals of managers under Art. 19 of the European Market Abuse Directive. This seems to guarantee sufficient transparency as regards the shareholdings of members of the Supervisory Board. It should also be noted that the Government Commission on the German Corporate Governance Code proposes in its ongoing consultation procedure on the suggested amendments to the code for 2017 that point 6.2 of the code should be removed without replacement. It justifies this removal particularly based on the fact that it considers any additional regulations over and above the legal reporting requirement in the Code to be superfluous.

Corporate Governance practices that extend beyond the legal requirements

A Group-wide Code of Business Conduct requires all employees to observe the basic rules of business decorum – irrespective of whether these rules have been expressed in legal regulations or not. In particular, the Code of Business Conduct calls for:
– integrity and professional behaviour towards customers, suppliers, authorities, and business partners,
– consistent avoidance of conflicts of interest,
– careful and responsible handling of the Group's property and assets,
– careful and responsible handling of company and business secrets as well as personal data,
– fair, non-discriminatory employment conditions and fair dialogue with the employee representatives,
– the provision of healthy and safe jobs, and
– considerate handling of natural resources.

The Code of Business Conduct, which is published on our website www.heidelbergcement.com under "Company/Corporate Governance/Declaration of Corporate Governance", is part of the comprehensive compliance programme and its observance is monitored by control mechanisms included in the programme.

1) In accordance with § 289a of the German Commercial Code (HGB), likewise the Corporate Governance Report in accordance with point 3.10 of the German Corporate Governance Code

Working methods of Managing Board and Supervisory Board, and composition and working methods of their committees

As a German stock company, HeidelbergCement is required by law to have a two-tier board system. The Managing Board is responsible for independently managing the Group; its members are jointly accountable for the management of the Group; the Chairman of the Managing Board coordinates the work of the members of the Managing Board. The Supervisory Board appoints, monitors, and advises the Managing Board and is directly involved in decisions of fundamental importance to the Group; the Chairman of the Supervisory Board coordinates the work of the Supervisory Board.

Management by the Managing Board
In managing the Group, the Managing Board is obliged to act in the Group's best interests. It takes into account the interests of shareholders, its employees, and other stakeholders with the aim of creating sustainable added value. The Managing Board develops the Group's strategy, coordinates it with the Supervisory Board, and ensures its implementation. It ensures that all provisions of law and the Group's internal guidelines are adhered to, and works to achieve compliance by Group companies. It ensures appropriate risk management and risk controlling within the Group.

The Managing Board considers diversity when filling management positions within the Group, and in doing so, strives to give due consideration to women. On 15 September 2015, the Managing Board resolved to achieve a target figure of 14 % by 30 June 2017 for the proportion of women in managerial positions at the first level below the Managing Board at HeidelbergCement AG and a target figure of 15 % for the proportion at the second level. For further information, refer to the chapter Employees and society on page 95 f. After reconsideration, the Supervisory Board resolved on 14 September 2015 to maintain the current proportion of women in the Managing Board and to set the target figure for the proportion of women in the Managing Board by 30 June 2017 to 0 %, although this specification explicitly states that the Supervisory Board is committed, as was previously the case, to take diversity into account when making personnel decisions.

The Managing Board Rules of Procedure issued by the Managing and Supervisory Boards govern, in connection with the schedule of responsibilities approved by the Supervisory Board, the work of the Managing Board, in particular the departmental responsibilities of individual members of the Managing Board, matters reserved for the full Managing Board, and the required majority for resolutions. In accordance with these rules, each member of the Managing Board runs his management department independently, with the provision that all matters of clearly defined fundamental importance are to be decided upon by the full Managing Board. This takes place in the regular meetings of the Managing Board, led by the Chairman of the Managing Board, on the basis of prepared meeting documents. The results of the meetings are recorded in minutes, which are issued to all members of the Managing Board. There are no Managing Board committees.

Consultation and supervision by the Supervisory Board
The task of the Supervisory Board is to regularly advise and supervise the Managing Board in the management of the Group. The Managing Board must involve the Supervisory Board in decisions of fundamental importance to the Group. The rules of procedure issued by the Supervisory Board for the Managing Board and the Supervisory Board govern the organisation and work of the Supervisory Board, in particular the required majority for resolutions, the legal transactions and measures requiring their consent, the standard retirement age for Managing and Supervisory Board members, the regular limit of length of membership of the Supervisory Board, and the tasks of established committees.

The Supervisory Board meets at least twice every half-year; at these meetings, it usually discusses the open topics and passes the required resolutions, on the basis of reports drawn up by the Managing Board and documents received in advance in preparation for the meeting. Additional or extraordinary meetings are held if necessary. The results of the meetings are recorded in minutes, which are issued to all members of the Supervisory Board. The Supervisory Board comprises a number of independent members – a number which it deems sufficient – and at least one independent member with expertise in either accounting or auditing. In accordance with the Articles of Association, the Supervisory Board has set up a total of four committees, which are entrusted with the tasks and working methods described below. The following respective plenary session of the Supervisory Board is given an account of the results of the committee work.

The Personnel Committee is responsible for preparing the decision of the Supervisory Board concerning the appointment of members of the Managing Board, for preparing the election of the Chairman of the Managing Board, and the establishment of the Managing Board's remuneration structure as well as the remuneration paid to the individual members of the Managing Board. It is also responsible for making a decision concerning the structuring of the non-remuneration-related legal relationships between the company and the members of the Managing Board. The Personnel Committee comprises Messrs Fritz-Jürgen Heckmann, Josef Heumann, Hans Georg Kraut (until 31 July 2016), Ludwig Merckle, Alan Murray, Heinz Schmitt, and Stephan Wehning (from 12 September 2016); the Chairman is Mr Ludwig Merckle.

The Audit Committee is responsible for preparing the decision of the Supervisory Board concerning the adoption of the annual financial statements and the approval of the consolidated financial statements. It is also responsible for monitoring the accounting process, the effectiveness of the internal control system, the risk management system, the internal audit system, the compliance programme, the audit, and the quality of the audit. When dealing with the audit, it is responsible in particular for the preparation of the Supervisory Board's proposal to the Annual General Meeting for the appointment of the auditor, as part of the selection and proposal procedure provided by law if applicable, for issuing the audit assignment, establishing points of focus for the audit, additional services provided by the auditor in accordance with the guideline adopted by the Audit Committee on 8 November 2016, concluding the fee agreement with the auditor, verifying the auditor's independence including obtaining the auditor's statement of independence, and making the decision concerning measures to be taken if reasons emerge during the audit to warrant the possible disqualification of the auditor or suggest a conflict of interest on the part of the auditor. The Audit Committee discusses the half-yearly and quarterly reports with the Managing Board before they are published.

The Chairman of the Audit Committee has specialist knowledge and experience in the application of accounting principles and internal control processes. In addition to the Chairman, the Audit Committee includes at least one independent member with expertise in either accounting or auditing. The Audit Committee comprises Fritz-Jürgen Heckmann, Ludwig Merckle, Heinz Schmitt, Dr. Jürgen M. Schneider, Werner Schraeder, and Frank-Dirk Steininger; the Chairman is Mr Ludwig Merckle.

The Nomination Committee is responsible for putting suitable candidates forward to the Supervisory Board for its proposals for election to be made to the Annual General Meeting. It comprises Messrs Fritz-Jürgen Heckmann, Ludwig Merckle, and Tobias Merckle as shareholder representatives; the Chairman is Mr Fritz-Jürgen Heckmann.

The Arbitration Committee, formed in accordance with § 27, section 3 and § 31, section 3 of the German Codetermination Law, is responsible for making a proposal to the Supervisory Board for the appointment of members of the Managing Board if the necessary two-thirds majority is not initially achieved. It comprises Messrs Fritz-Jürgen Heckmann, Hans Georg Kraut (until 31 July 2016), Tobias Merckle, Heinz Schmitt, and Stephan Wehning (from 12 September 2016); the Chairman is Mr Fritz-Jürgen Heckmann.

Composition of the Supervisory Board, Diversity

Adopting the recommendations stated in point 5.4.1 of the Code, the Supervisory Board resolved on 28 June 2012 and 14 September 2015 to set the following concrete objectives regarding its composition: The composition of the Supervisory Board is an appropriate reflection of the national and international alignment of HeidelbergCement as a leading building materials manufacturer. The Supervisory Board comprises at least three members who have been elected by the shareholders and who are independent members in line with point 5.4.2 of the Code. The Supervisory Board comprises at least two female members. The standard retirement age for members of the Supervisory Board is 75 years; at this age ends also the regular limit of length of membership of the Supervisory Board.

The Supervisory Board considers that its constitution corresponds to its specified goals. In addition, the Supervisory Board ascertained with respect to its composition and the composition of its Audit Committee that all of its members are familiar with the sector in which the company operates.

At present, the Supervisory Board includes two women, one of whom was elected by shareholders and the other by employees. In accordance with the legal transitional periods, the minimum proportion of at least 30 % each of women and men in the Supervisory Board, as specified in § 96, section 2 of the German Stock Company Act, only applies to new appointments to the Supervisory Board of the company as of 1 January 2016. No new appointments have yet been made.

Cooperation between Managing Board and Supervisory Board

The Managing Board and Supervisory Board cooperate closely for the benefit of the Group. To this end, the Managing Board coordinates the Group's strategic approach with the Supervisory Board and discusses the current state of strategy implementation with the Supervisory Board at regular intervals. For clearly defined transactions of fundamental importance, the Supervisory Board has specified provisions in the Managing Board Rules of Procedure requiring its approval.

The Managing Board informs the Supervisory Board regularly, without delay and comprehensively, of all issues of importance to the Group with regard to strategy, planning, business development, risk situation, risk management, and compliance. The Managing Board explains deviations of the actual business development from previously formulated plans and goals, indicating the reasons for this. The Supervisory Board has included detailed provisions in the Managing Board Rules of Procedure with regard to the Managing Board's information and reporting duties. Documents required for decisions, in particular, the annual financial statements, the consolidated financial statements, and the Auditors' report, are sent to the members of the Supervisory Board in due time before the meeting. The cooperation between the Managing Board and the Supervisory Board is shaped by mutual trust and a culture of open debate while fully protecting confidentiality.

In the periods between Supervisory Board meetings, the Chairman of the Supervisory Board also maintains regular contact with the Managing Board, especially the Chairman of the Managing Board, to discuss Group issues regarding strategy, planning, business development, risk situation, risk management, and compliance. The Chairman of the Supervisory Board is informed by the Chairman of the Managing Board without delay on important events which are essential for the assessment of the situation and development, as well as for the management of the company.

Shareholdings of members of the Managing Board and Supervisory Board
The direct or indirect ownership of shares or share-based financial instruments, especially derivatives, by members of the Managing Board has, neither in any individual case nor in total, exceeded the threshold of 1 % of the issued shares.

According to the notifications available to the company, Supervisory Board member Ludwig Merckle holds via VEMOS 2 Holding GmbH, a company under his control, 25.52 % of the issued shares. As regards the other members of the Supervisory Board, the ownership of shares or share-based derivatives has, neither in any individual case nor in total, exceeded the threshold of 1 % of the issued shares, according to the available reports.

Relationships with shareholders
In line with the options provided for in accordance with the law or the Articles of Association, the shareholders exercise their rights before or during the Annual General Meeting and thereby exercise their voting right. Each share carries one vote at the Annual General Meeting (one-share-one-vote principle). The ordinary Annual General Meeting is normally held in the first five months of the financial year. All important documents for exercising shareholder rights as well as the resolution issues and documentation are duly and easily available on our website for shareholders to access. Both the notice of the agenda for the Annual General Meeting and our website will provide shareholders with the information they need to exercise their rights, and particularly their voting rights at the Annual General Meeting, including by way of proxy or postal vote. A company proxy bound by instructions is also available to shareholders to exercise their voting rights at the Annual General Meeting. The presentation slides accompanying the report given by the Chairman of the Managing Board to the Annual General Meeting will be made available on the internet at the same time. After the Annual General Meeting is over, our website will be updated with the attendance details and the voting results of each agenda item.

As part of our investor relations work, we provide information to shareholders and other investors comprehensively and regularly on a quarterly basis to tell them about the business development as well as the financial situation and earnings position, and also provide them with notifications in accordance with the German Securities Trading Law and information on analyst presentations, press releases, and the annual financial calendar. Details on our investor relations work can be found on page 36 f.

Compliance

Within the Group's management culture, strong emphasis is placed on the compliance programme, which is firmly anchored in the Group-wide management and supervisory structures. It comprises the entire compliance organisation within the Group, the setup of guidelines, and verification of compliance with these guidelines.

The compliance organisation is under the authority of the Chairman of the Managing Board, to whom the Director Group Compliance reports directly. Each country has its own compliance officer; however, responsibility for ensuring that employees' conduct complies with the law and regulations lies with all managers and, of course, the employees themselves.

The compliance officers are supported by modern technologies and media, such as electronic learning platforms and learning programmes, as well as an internet- and telephone-based reporting system. The entire compliance programme is reviewed on an ongoing basis for any necessary adjustments to current legal and social developments, and is continuously improved and developed accordingly.

Group-wide implementation of the compliance programme is monitored by regular and special audits by Group Internal Audit as well as via special half-yearly compliance reporting by the Director Group Compliance to the Managing Board and the Audit Committee of the Supervisory Board. As part of his responsibilities, the Director Group Compliance monitors the effectiveness of the compliance programme and verifies in particular whether it adequately satisfies the legal requirements and recognised compliance standards. An additional quarterly report regularly informs the Managing Board members with regional responsibility about the most important compliance incidents in their Group areas.

In 2016, the focus was on the integration of the recently added national organisations and business units following the acquisition of Italcementi. For this purpose, the appropriate structures according to the HeidelbergCement compliance organisation have been created in the relevant countries. The HeidelbergCement compliance instruments are now being gradually implemented at a rapid pace.

In 2016, the compliance officers' preventive activities once again placed great emphasis on compliance with the provisions of competition legislation and anti-corruption regulations. This was backed by appropriate training measures in these areas. Another point of focus was the topic of trade sanctions. New business partners as well as the entire business partner position are regularly checked for entries in sanctions lists. We have also updated our general compliance risk assessment. This assessment confirms our current focus and additionally identified compliance with the new EU data protection regulation as a further risk area. Measures to reduce this risk are being developed.

In addition, other focuses continue to be occupational safety legislation and environmental law. This reflects the characteristics and specific features of a heavy industry that extracts raw materials and manufactures and markets homogeneous mass goods, and which generally operates locally. Special efforts are also made to observe the prohibition of insider trading, capital market and data protection regulations, regulations on non-discrimination in dealings with employees, and internal purchasing principles.

Remuneration report

The remuneration report contains two parts. The first part presents the Managing Board remuneration system and the remuneration of members of the Managing Board for the 2016 financial year, both according to the applicable accounting standards as well as the valid version of the German Corporate Governance Code dated 5 May 2015. The second part shows the remuneration for the Supervisory Board paid for the 2016 financial year.

Current Managing Board remuneration system 2016

The current Managing Board remuneration system has been applied to all members of the Managing Board since financial year 2014. It constitutes a further development to the system that was in force from 2011 to 2013. The current Managing Board remuneration system was approved by the Annual General Meeting on 7 May 2014 with a majority of 97.5 % of the votes cast, in accordance with § 120, section 4 of the German Stock Company Act.

Principles

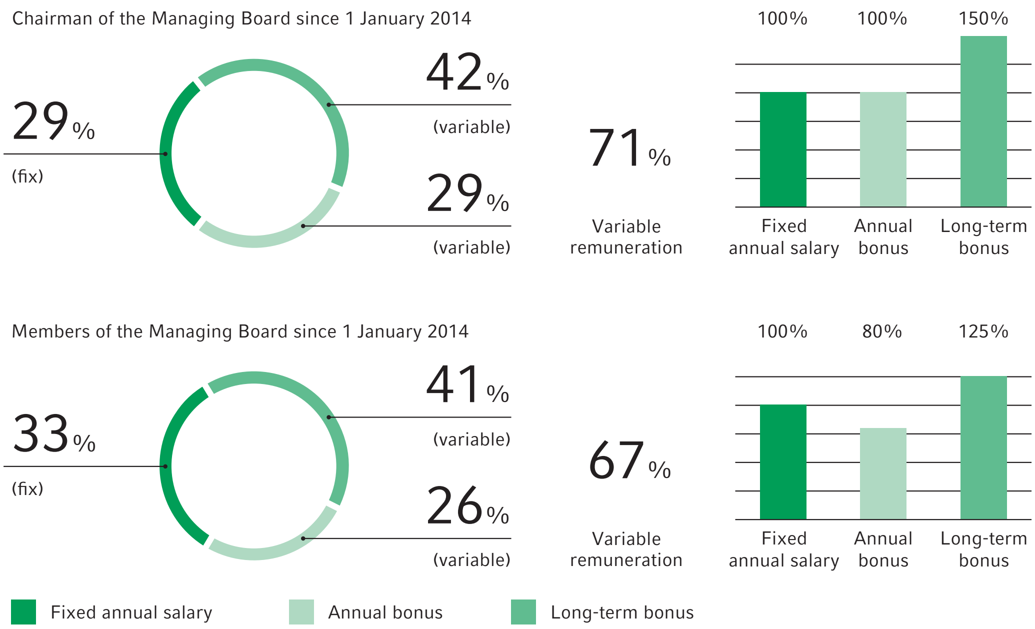
The system and amount of remuneration of the Managing Board are determined by the Supervisory Board following a recommendation by the Personnel Committee. They are based on the size and international activity of the Group, its economic and financial situation, its future prospects, the amount and structure of the Managing Board remuneration in comparable companies, and the remuneration structure used for the rest of the Group. In addition, the tasks and performance of the relevant member of the Managing Board, and of the entire Managing Board, are taken into account. The remuneration is calculated in such a way that it is competitive on the market for highly qualified senior managers and provides an incentive for successful work in a business culture with a clear focus on performance and results.

Remuneration elements

The remuneration system applicable since 1 January 2014 comprises:
1. a fixed annual salary,
2. a variable annual bonus,
3. a variable long-term bonus with long-term incentive,
4. fringe benefits, as well as
5. pension promises.

The following graph shows the relation between fixed and variable remuneration elements of the target remuneration (without fringe benefits and pension promises) and a comparison of the amount of the individual variable components – when 100% of the target is met – with the fixed annual salary.

Relation of remuneration elements when 100% of the target is met



1. Fixed annual salary

The fixed annual salary is a set cash payment relating to the financial year, which is based on each Managing Board member's area of responsibility and is paid on a monthly basis over the year. It amounts to around 29 % of the target remuneration for the Chairman of the Managing Board and 33 % for members of the Managing Board, when 100 % of the target is met.

2. Annual bonus

The annual bonus is a variable remuneration element, which relates to the financial year and is 100 % of the fixed annual salary for the Chairman of the Managing Board and 80 % for members of the Managing Board, when 100 % of the target is met. It amounts to around 29 % of the target remuneration for the Chairman of the Managing Board and 26 % for members of the Managing Board. The Group share of profit, adjusted for one-off items, is used as the key performance indicator. In addition, individual targets will be agreed with the Chairman of the Managing Board and the Managing Board members.

At the start of the financial year, the Supervisory Board decides on the performance targets and, at the end of the financial year, determines the extent to which the target has been reached.

- Target value (value when 100 % of the target is met)
  100 % of the fixed annual salary for the Chairman of the Managing Board, 80 % of the fixed annual salary for the Managing Board members
- Key performance indicators and weighting (value when 100 % of the target is met)
  2/3 Group share of profit
  1/3 individual targets
- Target achievement range
  0–200 % (The maximum value of the annual bonus is limited to 200 % of the fixed annual salary for the Chairman of the Managing Board and 160 % for the Managing Board members and total loss of the entire annual bonus is possible; the determination of the range refers to each individual key performance indicator.)

The following table shows a sample calculation for the determination of the annual bonus of the Chairman of the Managing Board with a fixed annual salary of €1,500,000.

Sample calculation annual bonus of the Chairman of the Managing Board [1]		
Target	€1,500,000 (100 % of fixed annual salary of €1,500,000)	
Performance period	1 year	
Key performance indicators	2/3 Group share of profit (€1,000,000) 1/3 individual targets (€500,000)	
Range	0–200 %	
Target achievement (example)	Group share of profit 140 % (€1,400,000) individual targets 100 % (€500,000)	
Example result	Group share of profit + individual targets	€1,400,000 € 500,000
	= Cash payout	€1,900,000

1) The degrees of target achievement are fictitious and serve only as illustration.

3. Long-term bonus

The long-term bonus is a variable remuneration element based on the long term, which is to be granted in annual tranches starting in 2011. It amounts to 150 % of the fixed annual salary for the Chairman of the Managing Board and 125 % for members of the Managing Board, when 100 % of the target is met. The long-term bonus amounts to approximately 42 % of the target remuneration for the Chairman of the Managing Board and 41 % for members of the Managing Board and comprises two equally weighted components.

The first component (management component with a term of three years) considers the internal added value as measured by earnings before interest and taxes (EBIT) and return on invested capital (ROIC), and is arranged in the form of a bonus with cash payment. The bonus will be paid after the Annual General Meeting in the year following the three-year performance period. The second component (capital market component with a term of four years) considers the external added value as measured by total shareholder return (TSR) – adjusted for the reinvested dividend payments and for changes in the capital – compared with the relevant capital market indices, using performance share units (PSUs). The PSUs are virtual shares used for the calculation of the capital market component.

At the start of every tranche, the Supervisory Board determines the performance targets for the two key performance indicators of the management component. After expiry of the respective performance period, the Supervisory Board will ascertain the extent to which the target has been reached for the management component; for the capital market component it will be ascertained by way of calculation.

The target for the management component is based on the Group's relevant three-year operational plan. The share-based capital market component is measured over a four-year period, on the basis of § 193, section 2, no. 4 of the German Stock Company Act (AktG).

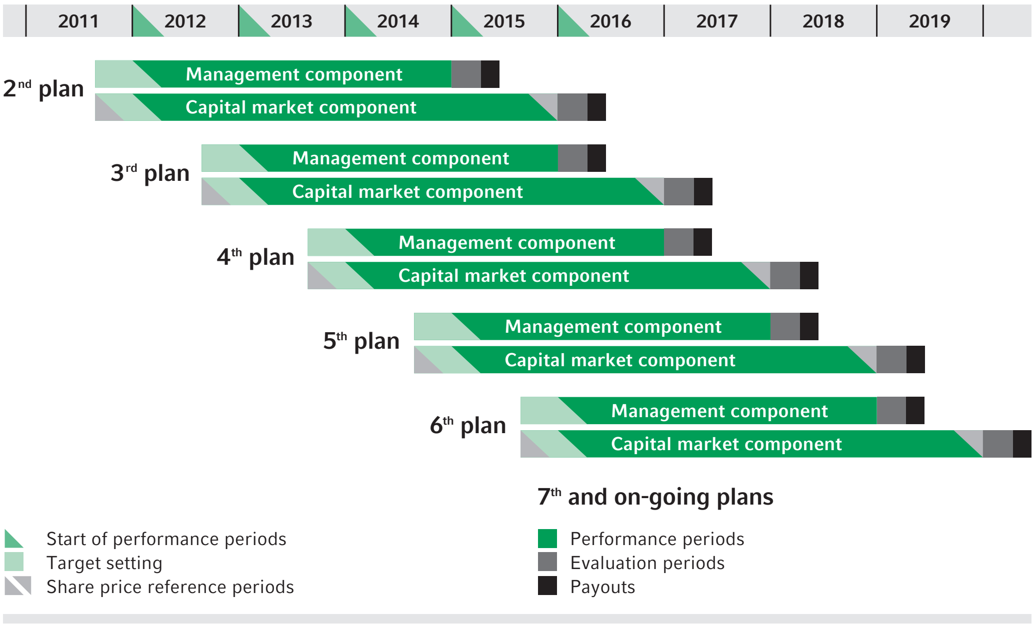
For the capital market component, the number of performance share units (PSUs) initially granted is ascertained in the first instance: the number of PSUs is calculated from 50 % of the target value of the long-term bonus divided by the reference price [2)] of the HeidelbergCement share as at the date of grant. After expiry of the four-year performance period, the PSUs definitively earned are to be calculated in a second step according to the achievement of the target and paid in cash at the reference price of the HeidelbergCement share valid at that time – adjusted for the reinvested dividend payments and for changes in the capital.

- Target value (value when 100 % of the target is met)
  150 % of the fixed annual salary for the Chairman of the Managing Board and 125 % of the fixed annual salary for the Managing Board members (of which 50 % is the management component and 50 % is the capital market component)
- Key performance indicators and weighting (value when 100 % of the target is met)
  Management component (three-year performance period):
  1/2 average of EBITs attained during the performance period
  1/2 target ROIC at the end of the performance period
  Capital market component (four-year performance period):
  1/2 peer TSR; calculation of TSR compared with DAX Index
  1/2 peer TSR; calculation of TSR compared with MSCI World Construction Materials Index
- Target achievement range
  Management component: target achievement ranges from 0–200 %, i.e. the maximum value of the management component of the long-term bonus is limited to 150 % of the fixed annual salary for the Chairman of the Managing Board and 125 % for the Managing Board members and total loss of the management component is possible; the range applies separately for each key performance indicator EBIT and ROIC.
  Capital market component: target achievement ranges from 0–200 %, i.e. depending on the target achievement, the number of virtual shares (PSUs) can at most double or reduce to zero (total loss).
- Cap of performance of the HeidelbergCement share before payout
  Maximum of 2.5 times the reference price, which was determined at the start of the performance period.
- Payment under the respective long-term bonus plan is limited to twice the target value.

2) The reference price is respectively the average of the daily closing prices of the HeidelbergCement share on the Frankfurt Stock Exchange Xetra trading system for three months retrospectively from the start/expiration of the performance period.

Payment system for the long-term bonus

The following graph shows the payment system for the long-term bonus.



The management component of the long-term bonus plan 2016–2018/19, which was granted in 2016, is paid after the Annual General Meeting 2019, i.e. in the year following the three-year performance period; the capital market component is paid after the Annual General Meeting 2020, i.e. in the year following the four-year performance period.

The following table shows a sample calculation for the determination of the long-term bonus of the Chairman of the Managing Board with a fixed annual salary of €1,500,000.

Sample calculation long-term bonus of the Chairman of the Managing Board [1]		
Target	€2,250,000 (150 % of fixed annual salary of €1,500,000)	
Basis	Management component: 50 % of €2,250,000 = €1,125,000 Capital market component: 50 % (€1,125,000) will be converted into virtual shares; Ø share price of the last 3 months before the beginning of the plan: €70 €1,125,000/€70 = 16,070 virtual shares	
Performance period	3 years (from 2016 to 2018) for the management component and 4 years (from 2016 to 2019) for the capital market component	
Key performance indicators	Management component: 1,125,000 € 1/2 EBIT (€562,500) 1/2 ROIC (€562,500)	Capital market component: €1,125,000 (16,070 virtual shares) Peer TSR: 1/2 DAX Index (8,035 virtual shares) 1/2 MSCI World Construction Materials Index (8,035 virtual shares)
Range	0–200 %	
Target achievement (example)	EBIT 160% (€900,000) ROIC 120% (€675,000)	Relative TSR: DAX Index 100% (8,035 virtual shares) MSCI World Construction Materials Index 140% (11,250 virtual shares)
Example result	Management component: €900,000 + €675,000 = €1,575,000 Capital market component: 8,035 +11,250 = 19,285 virtual shares (Ø share price over the last 3 months before the end of the 4th year e.g.: €100; Maximum value is 250 % x €70 = €175) = 19,285 virtual shares x €100 = €1,928,500	
	Management component €1,575,000 + capital market component €1,928,500 = €3,503,500 [2]	

1) The degrees of target achievement and share prices are fictitious and serve only as illustration.
2) The arithmetical payment amount is less than twice the target value (€4,500,000) and therefore a payment without cap is possible.

4. Fringe benefits

The taxable fringe benefits of the members of the Managing Board consist especially of the provision of company cars, mobile phone, and communication resources, the reimbursement of expenses, as well as insurance benefits, exchange rate hedging agreed on an individual basis, and assignment-related benefits, such as coverage of costs for flights home.

5. Pension promises

The retirement agreements of the members of the Managing Board appointed prior to 2016, with the exception of Daniel Gauthier, contain the promise of an annual retirement pension, which is calculated as a percentage of the pensionable income. The percentage rate depends on the term of the Managing Board membership. After five years of Managing Board membership, the rate is at least 40 % of the pensionable income and can increase to a maximum of 65 % of the pensionable income. The percentage rate for the Chairman of the Managing Board is 4 % of the pensionable income for each year of service started, but no more than 60 %. The pensionable income is equivalent to a contractually agreed percentage of the fixed annual salary of the Managing Board member. When the Managing Board member's agreement is terminated and he starts receiving the pension benefit, he receives a transitional allowance for six months, equal to the monthly instalments of the fixed annual salary.

The pension is paid monthly either:

- after leaving the company upon reaching retirement age (pension benefit paid on individual basis between the 62nd and 65th year of age), or
- in the case of early termination of the agreement for reasons not attributable to the Managing Board member, provided the member has reached 60 years of age at the time the agreement is terminated, or
- due to permanent invalidity as a result of illness.

The retirement agreements include a survivor pension benefit. If a member of the Managing Board dies during the term of his employment contract, or after effectuating the pension benefit, the member's widow and dependent children receive a widow's/orphan's pension. The widow's pension is 60 % of the deceased's pension benefit. The orphan's pension is 10 % of the deceased's pension benefit as long as a widow's pension is being paid at the same time. If a widow's pension is not being paid at the same time, the orphan's pension is 20 % of the deceased's pension benefit.

The pension schemes for the members of the Managing Board appointed since 2016, Kevin Gluskie, Hakan Gurdal, and Jon Morrish, are in line with the pension plan of HeidelbergCement AG. Their commitment to an annual pension is 3 % of the pensionable income for each year of service started, but no more than 40 %.

The retirement provision for Daniel Gauthier is based on the retirement scheme of Cimenteries CBR S.A., a wholly owned subsidiary of HeidelbergCement AG, based in Brussels, Belgium. The pension promise is comparable to the retirement provision for the members of the Managing Board, appointed prior to 2016, in terms of the amount, and also contains a survivor pension benefit.

Adjustment of remuneration

The Supervisory Board has the option of discretionary adjustment (administrative discretion) of the annual and the long-term bonus by ±25 % of the target value of these variable remuneration elements in order to account for the personal performance of the individual members of the Managing Board and/or for exceptional circumstances.

In accordance with § 87, section 2 of the German Stock Company Act (AktG), the Supervisory Board's right and obligation to reduce the Managing Board remuneration to a reasonable amount remains unaffected, if the position of the Group worsens after the fixing to such an extent that it would be unfair for the Group if remuneration of the Managing Board continued to be granted unchanged.

Individual investment (share ownership)

To support the sustainable development of the Group, the Supervisory Board has decided upon a set of guidelines for the shareholdings of members of the Managing Board. Members of the Managing Board are obliged to invest part of their personal wealth to purchase a fixed number of HeidelbergCement shares and to hold these shares for the term of their membership on the Managing Board. The number of shares to be held by the Chairman of the Managing Board is set at 30,000 HeidelbergCement shares and at 10,000 HeidelbergCement shares for each of the other members of the Managing Board. In order to comply with the guidelines, half of the amount paid for the long-term bonus, which was earned for Managing Board activities, is to be used to buy shares of the company until the full individual investment is generated. The accumulation of the individual investment can therefore take several years. HeidelbergCement shares that are already held by Managing Board members are taken into account in the individual investment. The Supervisory Board has received confirmation that the individual investment has already been made or accumulated in accordance with the contract.

D&O liability insurance

The members of the Managing Board are covered in the Group's existing D&O liability insurance. The agreed deductible corresponds to the minimum deductible pursuant to § 93, section 2, sentence 3 of the German Stock Company Act (AktG) in the respective version.

Guidelines in the case of new agreements and extensions to existing Managing Board agreements

The following guidelines on the redundancy pay cap and change of control clause are applicable as of 1 January 2011 for new agreements or extensions to existing Managing Board agreements. The guidelines are part of all Managing Board agreements.

Redundancy pay cap

In accordance with the German Corporate Governance Code, when concluding new Managing Board agreements or extending existing Managing Board agreements, it must be ensured that payments to a member of the Managing Board – in the event of the early termination of a Managing Board membership without serious cause – do not exceed the value of two annual remunerations (including fringe benefits) and do not amount to more than the remaining term of the agreement. The redundancy pay cap is calculated based on the amount of the total remuneration for the past financial year and, if necessary, also on the amount of the anticipated total remuneration for the current financial year.

Change of control clause

In accordance with the German Corporate Governance Code, when concluding new Managing Board agreements or extending existing Managing Board agreements, it must be ensured – in the event of the early termination of a Managing Board membership – that benefits promised as a result of a change of control do not exceed 150 % of the redundancy pay cap.

Amount of Managing Board remuneration in 2016

The disclosure of the remuneration of the Managing Board for the 2016 financial year is governed by two different bodies of rules and regulations: firstly, by the applicable German Accounting Standards (DRS 17), and secondly, by recommendations from the German Corporate Governance Code in the version of 5 May 2015.

Managing Board remuneration 2016 according to DRS 17

Amount of fixed and variable remuneration

The fixed remuneration of the Managing Board rose due to the expansion of the Managing Board and the transition phase in comparison with the previous year to €6.5 million (previous year: 5.3). The sum of variable remuneration elements rose to €15.4 million (previous year: 13.3). It comprised a one-year bonus in 2016 and the payment of the management component of the long-term bonus plan 2014–2016/17. The remuneration of the Managing Board members for financial year 2016 according to DRS 17 is shown in the following table.

Managing Board remuneration for the 2016 financial year (DRS 17)

€ '000s rounded off (previous year in brackets)	Dr. Bernd Scheifele	Dr. Dominik von Achten	Daniel Gauthier [1]	Kevin Gluskie [2]	Hakan Gurdal [2]	Andreas Kern [1]	Jon Morrish [2]	Dr. Lorenz Näger	Dr. Albert Scheuer	Total
Non-performance related compensation										
Fixed annual salary	1,500 (1,485)	975 (969)	350 (700)	714	550	350 (700)	550	775 (775)	700 (700)	**6,464** (5,329)
Fringe benefits	137 (145)	67 (67)	62 (92)	253	333	15 (29)	197	142 (144)	29 (60)	**1,235** (537)
Performance related compensation										
Annual bonus	2,719 (3,153)	1,227 (1,478)	445 (1,064)	836	633	427 (961)	698	894 (1,164)	883 (978)	**8,762** (8,798)
Deduction of fringe benefits from the annual bonus	-63 (-70)	0	-58 (-84)	0	0	-6 (-11)	0	-63 (-70)	0	**-190** (-235)
Total cash compensation including fringe benefits	4,293 (4,713)	2,269 (2,513)	799 (1,772)	1,803	1,516	786 (1,679)	1,445	1,748 (2,013)	1,612 (1,738)	**16,271** (14,429)
Compensation with long-term incentive										
Management component 2014-2016/17 (2013–2015/16)	1,980 (1,188)	1,125 (810)	875 (630)	0	0	875 (630)	0	945 (630)	875 (630)	**6,675** (4,518)
Capital market component 2016-2018/19 (2015–2017/18)	1,826 (1,412)	989 (765)	355 (549)	773	596	355 (549)	596	786 (608)	710 (549)	**6,987** (4,433)
Total compensation	8,099 (7,314)	4,383 (4,088)	2,029 (2,951)	2,577	2,112	2,016 (2,859)	2,041	3,480 (3,251)	3,197 (2,917)	**29,934** (23,380)

1) Until 30 June 2016 2) Since 1 February 2016

Long-term bonus plan 2016–2018/19

The members of the Managing Board are participating in the long-term bonus plan 2016-2018/19, granted in 2016. The target values for the plan, rounded to the nearest € '000, are €2,250,000 for Dr. Bernd Scheifele, €1,219,000 for Dr. Dominik von Achten, €969,000 for Dr. Lorenz Näger, and €875,000 for Dr. Albert Scheuer. For the retiring members of the Managing Board, Daniel Gauthier and Andreas Kern, the target value will be reduced by half as per the agreement due to their retirement on 30 June 2016 and amounts to €438,000 each. For the new members of the Managing Board, the target value is determined pro rata from 1 February 2016 and amounts to €949,000 for Kevin Gluskie and €731,000 for Hakan Gurdal and Jon Morrish, respectively. The plan comprises two equally weighted components: the management component and the capital market component. The target value of each component, rounded to the nearest € '000, amounts to €1,125,000 for Dr. Bernd Scheifele, €609,000 for Dr. Dominik von Achten, €484,000 for Dr. Lorenz Näger, €438,000 for Dr. Albert Scheuer, for Daniel Gauthier and Andreas Kern €219,000 each. For Kevin Gluskie the pro-rata calculation results in a target value for the management component of €473,000 and for the capital market component of €476,000. For Hakan Gurdal and Jon Morrish the pro-rata calculation results in a target value for the management component of €364,000 and for the capital market component of €367,000 each. The reference price for the capital market component amounts to €69.91. This equates to 16,092 performance share units (PSUs) for Dr. Bernd Scheifele, 8,717 PSUs for Dr. Dominik von Achten, 6,929 PSUs for Dr. Lorenz Näger, 6,258 PSUs for Dr. Albert Scheuer, 3,129 PSUs for Daniel Gauthier and Andreas Kern each, 6,814 PSUs for Kevin Gluskie as well as 5,250 PSUs for Hakan Gurdal and Jon Morrish each. In accordance with § 314, section 1, no. 6a, sentence 4 of the German Commercial Code (HGB), the fair value at the grant date must be indicated for the capital market components. For Dr. Bernd Scheifele this amounts to €1,826,000, for Dr. Dominik von Achten to €989,000, for Dr. Lorenz Näger to €786,000, for Dr. Albert Scheuer to €710,000, for Daniel Gauthier and Andreas Kern to €355,000 each, for Kevin Gluskie to €773,000 as well as for Hakan Gurdal and Jon Morrish to €586,000 each. The fair value was determined in accordance with a recognised actuarial method (Monte Carlo simulation). The following table shows the long-term bonus plan 2016-2018/19..

Long-term bonus plan	**Target value 2016-2018/19**	Management component	Capital market component		
€ '000s rounded off		Target value	Target value	Number of PSUs	Fair Value at grant date
Dr. Bernd Scheifele	**2,250**	1,125	1,125	16,092	1,826
Dr. Dominik von Achten	**1,219**	609	609	8,717	989
Daniel Gauthier [1]	**438**	219	219	3,129	355
Kevin Gluskie [2]	**949**	473	476	6,814	773
Hakan Gurdal [2]	**731**	364	367	5,250	596
Andreas Kern [1]	**438**	219	219	3,129	355
Jon Morrish [2]	**731**	364	367	5,250	596
Dr. Lorenz Näger	**969**	484	484	6,929	786
Dr. Albert Scheuer	**875**	438	438	6,258	710
Total	**8,600**	4,295	4,304	61,568	6,987

1) Until 30 June 2016: Reduction by half of the target value with retirement per 30 June 2016
2) Since 1 February 2016: Pro rata calculation on a daily basis over a period of 4 years starting 1 February 2016

Amount of fringe benefits (rounded to €'000s)

The taxable fringe benefits amounted to €1.2 million (previous year: 0.5). For posts and offices held with Group companies, Dr. Bernd Scheifele received €63,000 (previous year: 70,000), Daniel Gauthier € 58,000 (previous year: 84,000), Andreas Kern €6,000 (previous year: 11,000), and Dr. Lorenz Näger € 63,000 (previous year: 70,000). These amounts are to be offset fully against total remuneration. Furthermore, Dr. Bernd Scheifele and Dr. Lorenz Näger receive compensation of €50,000 for expenses relating to their service on supervisory boards within the HeidelbergCement Group and Dr. Dominik von Achten for the integration of Italcementi. Fringe benefits also relate to taxation of monetary benefits, which amount to €24,000 (previous year: 25,000) for Dr. Bernd Scheifele, €17,000 (previous year: 17,000) for Dr. Dominik von Achten, €4,000 (previous year: 8,000) for Daniel Gauthier, €253,000 (previous year: -) for Kevin Gluskie, €333,000 (previous year: -) for Hakan Gurdal, €9,000 (previous year: 18,000) for Andreas Kern, €197,000 (previous year: -) for Jon Morrish, €29,000 (previous year: 24,000) for Dr. Lorenz Näger, and €29,000 (previous year: 60,000) for Dr. Albert Scheuer.

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Amount of total remuneration 2016 according to DRS 17

When applying Accounting Standard DRS 17, the total remuneration of the Managing Board amounted to €29.9 million (previous year: 23.4) in 2016.

Pension promises

In 2016, allocations to provisions for pensions (service cost) for members of the Managing Board amounted to €2.4 million (previous year: 2.6). The present values of the defined benefit obligation amounted to €47.5 million (previous year: 37.5). The figures are shown in the following table.

Pension promises	Service cost		Defined benefit obligation	
€ '000s rounded off	2015	2016	2015	2016
Dr. Bernd Scheifele	1,259	**1,179**	13,902	**17,366**
Dr. Dominik von Achten	375	**339**	3,064	**4,236**
Daniel Gauthier [1]	156	**159**	5,250	**5,758**
Kevin Gluskie [2]		**0**		**538**
Hakan Gurdal [2]		**0**		**397**
Andreas Kern [1]	181	**167**	5,888	**7,153**
Jon Morrish [2]		**0**		**306**
Dr. Lorenz Näger	430	**396**	4,854	**6,176**
Dr. Albert Scheuer	188	**177**	4,497	**5,594**
Total	2,589	**2,417**	37,454	**47,524**

1) Until 30 June 2016 2) Since 1 February 2016

Pension payments to former members of the Managing Board and their surviving dependants amounted to €3.2 million (previous year: 3.2) in 2016. Provisions for pension obligations to former members of the Managing Board amounted to €26.8 million (previous year: 26.2).

Loans to members of the Managing Board

Loans granted to Mr. Jon Morrish by HeidelbergCement AG prior to his service as member of the Managing Board of HeidelbergCement AG continued into the business year and were fully repaid on 20 December 2016. No further loans were granted to members of the Managing Board of HeidelbergCement AG in 2016.

Managing Board remuneration 2016 according to the German Corporate Governance Code

Pursuant to the recommendations of the German Corporate Governance Code (GCGC) dated 5 May 2015, both the granted benefits and the allocations in form of the proposed reference tables are disclosed for the reporting year 2016.

Granted benefits

When compared with DRS 17, the granted benefits presented in the table on pages 158–161 depict the target value of the annual bonus as well as the target value of the management component and the fair value of the capital market component for the long-term bonus plan 2016–2018/19, as shown on page 155. In addition, the minimum and maximum values that can be achieved are also stated. Furthermore, the pension expenses are taken into account in the total remuneration as shown in the table on this page in the form of service cost.

The total Managing Board remuneration granted according to the German Corporate Governance Code amounted to €26.7 million (previous year: 20.7) for the 2016 financial year.

Allocations

For the members of the Managing Board, the allocations to be disclosed for the 2016 financial year are shown in the table on pages 158–161.

The table shows the allocations for the 2016 financial year regarding the fixed annual salary, fringe benefits, and the one-year variable compensation. Pursuant to the new version of the German Corporate Governance Code dated 5 May 2015, allocations for multi-year variable compensation, where the plan term ended in the 2016 financial year, and prepayments for the long-term bonus plan starting in the 2016 financial year for the retiring members of the Managing Board, are disclosed. The allocations from the capital market component of the long-term bonus plan 2013–2015/16, the management component of the long-term bonus plan 2014–2016/17, and the prepayment for the long-term bonus plan 2016-2018/19 are therefore disclosed.

The accrued total remuneration of the Managing Board according to the German Corporate Governance Code amounted to €35.5 million (previous year: 31.2) for the 2016 financial year.

The allocations from the components of the long-term bonus plans rose in 2016 compared with the previous year. For the year 2016, the change of the board remuneration model in 2014, with a stronger weight on the long-term bonus plans, affected the payout of the management component of the long-term bonus plan 2014–2016/17 for the first time completely.

As in the previous year, a significant improvement of the average earnings before interest and taxes (EBIT) over the performance period and of the return on invested capital (ROIC) was achieved. The target achievement of the management component was significantly above 200 % so that a capping of the bonus calculation at the maximum value of 200 % was applied. The values for EBIT and ROIC reported in the Combined management report and the Notes were adjusted for one-time business transactions which were not foreseen in the planning and the target for the respective long-term bonus plans. These adjustments are applied throughout the planning period of the remaining term to keep consistency. The hereby calculated average EBIT of €1,919 million and ROIC of 8.5 % for the target achievement include adjustments for the sale of the building products business in North America and the United Kingdom as well as exchange rate fluctuations in the invested capital.

Furthermore, the greatly improved performance of the HeidelbergCement share in comparison with the reference indices DAX and MSCI World Construction Materials Index resulted in a target achievement of above 200 %, which was capped at the maximum value of 200 % for the capital market component. In addition, the sharp rise in the price of the HeidelbergCement share contributed to a further increase in the payment amount. The share price, adjusted for reinvested dividend payments and changes to the capital, more than doubled in the performance period over four years from €41.71 to €89.25, but stayed below the defined cap. The payment amount therefore totals 428 % of the target value.

The target achievement for the management component of the long-term bonus plan 2014–2016/17 and the capital market component of the long-term bonus plan 2013–2015/16 is shown in the diagram on page 162.

Granted benefits according to GCGC [1]	Dr. Bernd Scheifele Chairman of the Managing Board				Dr. Dominik von Achten Deputy Chairman of the Managing Board			
€ '000s (rounded off)	2015	2016	Min. 2016	Max. 2016	2015	2016	Min. 2016	Max. 2016
Non-performance related compensation								
Fixed annual salary	1,485	**1,500**	**1,500**	**1,500**	969	**975**	**975**	**975**
Fringe benefits	145	**137**	**137**	**137**	67	**67**	**67**	**67**
Total	1,630	**1,637**	**1,637**	**1,637**	1,036	**1,042**	**1,042**	**1,042**
Performance related compensation								
Annual bonus [2]	1,485	**1,500**	**0**	**3,375**	775	**780**	**0**	**1,755**
Deduction of fringe benefits from the annual bonus	-70	**-63**	**0**	**-63**	0	**0**	**0**	**0**
Total one-year variable compensation [3]	1,415	**1,437**	**0**	**3,312**	775	**780**	**0**	**1,755**
Long-term bonus plan 2015–2017/18								
Management component	1,125				609			
Capital market component	1,412				765			
Long-term bonus plan 2016–2018/19								
Management component [2]		**1,125**	**0**	**5,063**		**609**	**0**	**2,742**
Capital market component [2]		**1,826**				**989**		
Total multi-year variable compensation	2,537	**2,951**	**0**	**5,063**	1,374	**1,599**	**0**	**2,742**
Total	5,582	**6,025**	**1,637**	**8,824**	3,185	**3,421**	**1,042**	**5,539**
Service cost	1,259	**1,179**	**1,179**	**1,179**	375	**339**	**339**	**339**
Total compensation	6,841	**7,205**	**2,816**	**10,003**	3,560	**3,760**	**1,381**	**5,878**

Allocations according to GCGC [1]	Dr. Bernd Scheifele Chairman of the Managing Board		Dr. Dominik von Achten Deputy Chairman of the Managing Board	
€ '000s (rounded off)	2015	2016	2015	2016
Non-performance related compensation				
Fixed annual salary	1,485	**1,500**	969	**975**
Fringe benefits	145	**137**	67	**67**
Total	1,630	**1,637**	1,036	**1,042**
Performance related compensation				
Annual bonus	3,153	**2,719**	1,478	**1,227**
Deduction of fringe benefits from the annual bonus	-70	**-63**	0	**0**
Total one-year variable compensation [3]	3,083	**2,656**	1,478	**1,227**
Long-term bonus plan 2012–2014/15				
Capital market component	2,549		1,738	
Long-term bonus plan 2013–2015/16				
Management component	1,188		810	
Capital market component		**2,542**		**1,733**
Long-term bonus plan 2014–2016/17				
Management component		**1,980**		**1,125**
Long-term bonus plan 2016–2018/19				
Advanced payment [4]				
Total multi-year variable compensation	3,737	**4,522**	2,548	**2,858**
Total	8,450	**8,815**	5,061	**5,127**
Service cost	1,259	**1,179**	375	**339**
Total compensation	9,708	**9,994**	5,436	**5,466**

1) German Corporate Governance Code dated 5 May 2015
2) The maximum amount includes the Supervisory Board's option of discretionary adjustment of the payout by +25% of the target value.

Daniel Gauthier Member of the Managing Board (until 30 June 2016)				Kevin Gluskie Member of the Managing Board (since 1 February 2016)				Total			
2015	2016	Min. 2016	Max. 2016	2015	2016	Min. 2016	Max. 2016	2015	2016	Min. 2016	Max. 2016
700	350	350	350		714	714	714		550	550	550
92	62	62	62		253	253	253		333	333	333
792	412	412	412		967	967	967		883	883	883
560	280	0	630		571	0	1,286		440	0	990
-84	-58	0	-58		0	0	0		0	0	0
476	222	0	572		571	0	1,286		440	0	990
438											
549											
	219	0	984		473	0	2,136		364	0	1,646
	355				773				596		
987	574	0	984		1,246	0	2,136		960	0	1,646
2,255	1,208	412	1,968		2,785	967	4,389		2,283	883	3,519
156	159	159	159		0	0	0		0	0	0
2,410	1,367	571	2,128		2,785	967	4,389		2,283	883	3,519

Daniel Gauthier Member of the Managing Board (until 30 June 2016)		Kevin Gluskie Member of the Managing Board (since 1 February 2016)		Hakan Gurdal Member of the Managing Board (since 1 February 2016)	
2015	2016	2015	2016	2015	2016
700	350		714		550
92	62		253		333
792	412		967		883
1,064	445		836		633
-84	-58		0		0
980	387		836		633
1,352					
630					
	1,348		0		0
	875		0		0
	219				
1,982	2,442		0		0
3,754	3,241		1,803		1,516
156	159		0		0
3,909	3,400		1,803		1,516

3) One-year variable compensation including the Supervisory Board's discretionary adjustment and and the deduction of fringe benefits
4) Contractually agreed pre-payment for the long-term bonus plan 2016–2018/19 in case of retirement during the year

Granted benefits according to GCGC [1]	Andreas Kern Member of the Managing Board (until 30 June 2016)				Jon Morrish Member of the Managing Board (since 1 February 2016)			
€ '000s (rounded off)	2015	2016	Min. 2016	Max. 2016	2015	2016	Min. 2016	Max. 2016
Non-performance related compensation								
Fixed annual salary	700	350	350	350		550	550	550
Fringe benefits	29	15	15	15		197	197	197
Total	729	365	365	365		747	747	747
Performance related compensation								
Annual bonus [2]	560	280	0	630		440	0	990
Deduction of fringe benefits from the annual bonus	-11	-6	0	-6		0	0	0
Total one-year variable compensation [3]	549	274	0	624		440	0	990
Long-term bonus plan 2015–2017/18								
Management component	438							
Capital market component	549							
Long-term bonus plan 2016–2018/19								
Management component [2]		219	0	984		364	0	1,646
Capital market component [2]		355				596		
Total multi-year variable compensation	987	574	0	984		960	0	1,646
Total	2,265	1,213	365	1,973		2,147	747	3,383
Service cost	181	167	167	167		0	0	0
Total compensation	2,446	1,380	532	2,140		2,147	747	3,383

Allocations according to GCGC [1]	Andreas Kern Member of the Managing Board (until 30 June 2016)		Jon Morrish Member of the Managing Board (since 1 February 2016)	
€ '000s (rounded off)	2015	2016	2015	2016
Non-performance related compensation				
Fixed annual salary	700	350		550
Fringe benefits	29	15		197
Total	729	365		747
Performance related compensation				
Annual bonus	961	427		698
Deduction of fringe benefits from the annual bonus	-11	-6		0
Total one-year variable compensation [3]	950	421		698
Long-term bonus plan 2012–2014/15				
Capital market component	1,352			
Long-term bonus plan 2013–2015/16				
Management component	630			
Capital market component		1,348		0
Long-term bonus plan 2014–2016/17				
Management component		875		0
Long-term bonus plan 2016–2018/19				
Advanced payment [4]		219		
Total multi-year variable compensation	1,982	2,442		0
Total	3,661	3,228		1,445
Service cost	181	167		0
Total compensation	3,842	3,395		1,445

1) German Corporate Governance Code dated 5 May 2015
2) The maximum amount includes the Supervisory Board's option of discretionary adjustment of the payout by +25% of the target value.

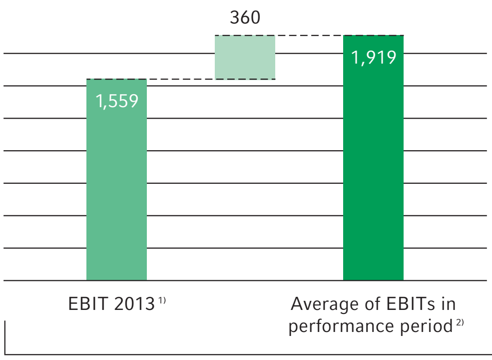
	Dr. Lorenz Näger Member of the Managing Board				Dr. Albert Scheuer Member of the Managing Board				Total			
	2015	2016	Min. 2016	Max. 2016	2015	2016	Min. 2016	Max. 2016	2015	2016	Min. 2016	Max. 2016
	775	775	775	775	700	700	700	700	5,329	6,464	6,464	6,464
	144	142	142	142	60	29	29	29	537	1,235	1,235	1,235
	919	917	917	917	760	729	729	729	5,866	7,699	7,699	7,699
	620	620	0	1,395	560	560	0	1,260	4,560	5,471	0	12,311
	-70	-63	0	-63	0	0	0	0	-235	-190	0	-190
	550	557	0	1,332	560	560	0	1,260	4,325	5,281	0	12,121
	484				438				3,531			
	608				549				4,433			
		484	0	2,180		438	0	1,969		4,295	0	19,350
		786				710				6,987		
	1,092	1,271	0	2,180	987	1,148	0	1,969	7,965	11,283	0	19,350
	2,561	2,745	917	4,429	2,307	2,437	729	3,958	18,155	24,263	7,699	37,982
	430	396	396	396	188	177	177	177	2,589	2,417	2,417	2,417
	2,991	3,140	1,313	4,824	2,495	2,613	906	4,134	20,744	26,680	10,116	40,399

	Dr. Lorenz Näger Member of the Managing Board		Dr. Albert Scheuer Member of the Managing Board		Total	
	2015	2016	2015	2016	2015	2016
	775	775	700	700	5,329	6,464
	144	142	60	29	537	1,235
	919	917	760	729	5,866	7,699
	1,164	894	978	883	8,798	8,762
	-70	-63	0	0	-235	-190
	1,094	831	978	883	8,563	8,572
	1,352		1,352		9,692	
	630		630		4,518	
		1,348		1,348		9,667
		945		875		6,675
						438
	1,982	2,293	1,982	2,223	14,210	16,780
	3,994	4,042	3,720	3,835	28,639	33,052
	430	396	188	177	2,589	2,417
	4,424	4,438	3,908	4,011	31,227	35,468

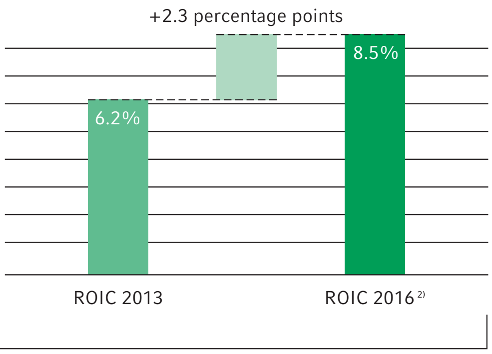
3) One-year variable compensation including the Supervisory Board's discretionary adjustment and and the deduction of fringe benefits
4) Contractually agreed pre-payment for the long-term bonus plan 2016–2018/19 in case of retirement during the year

Management component (Long-term bonus plan 2014–2016/17)

Earnings before interest and taxes (EBIT) in €m



Return on Invested Capital (ROIC) in %

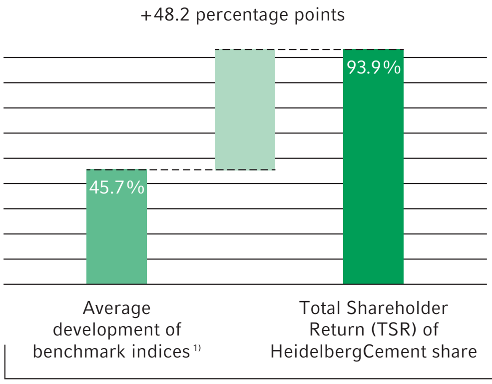


200% target achievement

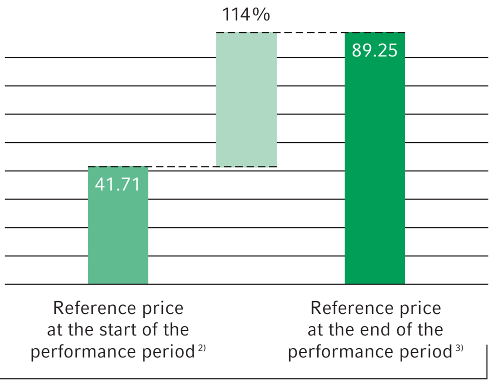
1) Value as in the Annual Report 2014 adapted to the new accounting standards
2) Values adjusted for the sale of the building products business in North America and the United Kingdom as well as exchange rate fluctuations in the invested capital

Capital market component (Long-term bonus plan 2013–2015/16)

Development of benchmark indices and Total Shareholder Return (TSR) of HeidelbergCement share 2013–2016 in %



Development of HeidelbergCement share price 2013–2016 in €



428% target achievement

1) Benchmark indices: DAX and MSCI World Construction Materials Index.
2) Reference price is the average of the daily closing prices from 1 October to 31 December 2012.
3) Reference price is the average of the daily closing prices from 1 October to 31 December 2016 amounting to €85.89, adjusted for reinvested dividend payments and changes in the capital.

Remuneration of the Supervisory Board in 2016

Supervisory Board remuneration was reestablished by the 2015 Annual General Meeting and is set out in § 12 of the Articles of Association of HeidelbergCement AG, which are published on our website www.heidelbergcement.com under "Company/Corporate Governance/Articles of Association". The remuneration consists of fixed amounts and attendance fees. Each member receives a fixed amount of €70,000, with the Chairman receiving two-and-a-half times this amount and the Deputy Chairman one-and-a-half times. The members of the Audit Committee additionally receive fixed remuneration of €25,000 and the members of the Personnel Committee €20,000. The Chairmen of the committees receive twice these respective amounts.

In addition, an attendance fee of €2,000 is paid for each meeting of the Supervisory Board and its committees that is personally attended. Should several such meetings be held on the same or on consecutive days, the attendance fee will be paid only once.

Total Supervisory Board remuneration (excluding value added tax) in the 2016 financial year amounted to €1,426,705 (previous year: 1,471,000).

The employee representatives on the Supervisory Board remit a significant portion of their Supervisory Board compensation to the recuperation facility for the employees at HeidelbergCement AG and – with the exception of the representative of the senior managers – to the trade union-linked Hans Böckler Foundation.

The Supervisory Board remuneration in the 2016 financial year is divided as shown in the following table.

The Supervisory Board remuneration paid for the 2016 financial year

€	Fixed remuneration	Remuneration for committee membership	Attendance fees	Total
Fritz-Jürgen Heckmann (Chairman)	175,000	45,000	12,000	**232,000**
Heinz Schmitt (Deputy Chairman)	105,000	45,000	12,000	**162,000**
Josef Heumann	70,000	20,000	12,000	**102,000**
Gabriele Kailing [1]	70,000		8,000	**78,000**
Hans Georg Kraut (until 31 July 2016)	40,738	11,639	8,000	**60,377**
Ludwig Merckle	70,000	90,000	12,000	**172,000**
Tobias Merckle [1]	70,000		8,000	**78,000**
Alan Murray	70,000	20,000	12,000	**102,000**
Dr. Jürgen M. Schneider	70,000	25,000	12,000	**107,000**
Werner Schraeder	70,000	25,000	12,000	**107,000**
Frank-Dirk Steininger	70,000	25,000	12,000	**107,000**
Stephan Wehning [2]	29,262	6,066	4,000	**39,328**
Prof. Dr. Marion Weissenberger-Eibl [1]	70,000		10,000	**80,000**
Total	980.000	312,705	134,000	**1,426,705**

1) No member of committees
2) Member since 1 August 2016 and member of the Personnel Committee since 12 September 2016

Supervisory Board and Managing Board

Supervisory Board

According to the Articles of Association, the Supervisory Board of HeidelbergCement AG consists of twelve members. Half of the members shall be elected by the Annual General Meeting according to the provisions of the German Stock Company Act and half by the employees according to the provisions of the German Codetermination Law. The term of office for the Supervisory Board started with the conclusion of the Annual General Meeting of 7 May 2014 and ends according to schedule with the conclusion of the ordinary Annual General Meeting in 2019.

Fritz-Jürgen Heckmann
Chairman of the Supervisory Board
Stuttgart; Business Lawyer
Member since 8 May 2003, Chairman since 1 February 2005;
Chairman of the Arbitration and Nomination Committee and member of the Personnel and Audit Committee

External mandates:
HERMA Holding GmbH + Co. KG [2], Filderstadt (Chairman) | Neue Pressegesellschaft mbH & Co. KG [2], Ulm | Paul Hartmann AG [1], Heidenheim (Chairman) | Süddeutscher Verlag GmbH [2], Munich | Südwestdeutsche Medien Holding GmbH [2], Stuttgart | Wieland-Werke AG [1], Ulm (Chairman)

Heinz Schmitt
Deputy Chairman
Heidelberg; Controller; Chairman of the Council of Employees at the headquarters of HeidelbergCement AG and Chairman of the Group Council of Employees
Member since 6 May 2004, Deputy Chairman since 7 May 2009; member of the Audit, Arbitration, and Personnel Committee

Josef Heumann
Burglengenfeld; Kiln Supervisor; Chairman of the Council of Employees at the Burglengenfeld plant, HeidelbergCement AG
Member since 6 May 2004; member of the Personnel Committee

Gabriele Kailing
Frankfurt; Chairwoman of DGB District of Hesse-Thuringia
Member since 7 May 2014

Hans Georg Kraut
Schelklingen; Director of the Schelklingen plant of HeidelbergCement AG until 31 July 2016; Managing Director of Urzeit Weide GbR
Member from 6 May 2004 until 31 July 2016; member of the Personnel and Arbitration Committee until 31 July 2016

Ludwig Merckle
Ulm; Managing Director of Merckle Service GmbH
Member since 2 June 1999; Chairman of the Personnel and Audit Committee and member of the Nomination Committee

External mandates:
Kässbohrer Geländefahrzeug AG [1], Laupheim (Chairman) | PHOENIX Pharmahandel GmbH & Co KG [2], Mannheim | PHOENIX Pharma SE i. Gr. [1], Mannheim (Deputy Chairman)

Tobias Merckle
Leonberg; Managing Director of the association Seehaus e.V.
Member since 23 May 2006; member of the Nomination and Arbitration Committee

Alan Murray
Naples, Florida/USA; former member of the Managing Board of HeidelbergCement AG
Member since 21 January 2010; member of the Personnel Committee

External mandates:
Hanson Pension Trustees Limited, trustee of the Hanson No 2 Pension Scheme [2], UK | Owens-Illinois, Inc. [2], USA | Wolseley plc [2], Jersey, Channel Islands

Dr. Jürgen M. Schneider
Mannheim; former Chief Financial Officer of Bilfinger Berger AG and until February 2016 Dean of the Business School of the University of Mannheim
Member since 7 May 2014; member of the Audit Committee

External mandates:
DACHSER Group SE & Co. KG [2], Kempten (Chairman) | DACHSER SE [2], Kempten (Chairman) | Heberger GmbH [2], Schifferstadt (Chairman)

Werner Schraeder
Ennigerloh; Building Fitter; Chairman of the General Council of Employees of HeidelbergCement AG and Chairman of the Council of Employees at the Ennigerloh plant of HeidelbergCement AG
Member since 7 May 2009; member of the Audit Committee

External mandates:
Berufsgenossenschaft Rohstoffe und chemische Industrie [2], Heidelberg

Frank-Dirk Steininger
Frankfurt; Specialist in Employment Law for the Federal Executive Committee of IG Bauen-Agrar-Umwelt
Member since 11 June 2008; member of the Audit Committee

External mandates:
RS Gleisbau GmbH, preliminary creditors' committee, preliminary self-administration [2], Berlin (Deputy Chairman)

Stephan Wehning
Schelklingen; Director of the Schelklingen plant of HeidelbergCement AG since 1 August 2016
Member since 1 August 2016; member of the Personnel and Arbitration Committee since 12 September 2016

Univ.-Prof. Dr. Marion Weissenberger-Eibl
Karlsruhe; Head of the Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe and holder of the Chair of Innovation and TechnologyManagement (iTM) at the Karlsruhe Institute of Technology (KIT)
Member since 3 July 2012

External mandates:
MTU Aero Engines AG[1], Munich | Rheinmetall AG[1], Düsseldorf

The above mentioned indications refer to 31 December 2016 – or in case of an earlier retirement from the Supervisory Board of HeidelbergCement AG to the date of retirement – and have the following meaning:
1) Membership in other legally required supervisory boards of German companies;
2) Membership in comparable German and foreign supervisory committees of commercial enterprises.

Supervisory Board Committees

Personnel Committee
Ludwig Merckle (Chairman), Fritz-Jürgen Heckmann, Josef Heumann, Hans Georg Kraut (until 31 July 2016), Alan Murray, Heinz Schmitt, Stephan Wehning (since 12 September 2016)

Audit Committee
Ludwig Merckle (Chairman), Fritz-Jürgen Heckmann, Heinz Schmitt, Dr. Jürgen M. Schneider, Werner Schraeder, Frank-Dirk Steininger

Nomination Committee
Fritz-Jürgen Heckmann (Chairman), Ludwig Merckle, Tobias Merckle

Arbitration Committee, according to § 27, section 3 of the German Codetermination Law
Fritz-Jürgen Heckmann (Chairman), Hans Georg Kraut (until 31 July 2016), Tobias Merckle, Heinz Schmitt, Stephan Wehning (since 12 September 2016)

Managing Board

The Managing Board of HeidelbergCement AG has comprised seven members since 1 July 2016: the Chairman of the Managing Board, the Chief Financial Officer, and five members of the Managing Board with regional responsibilities. The Managing Board organisation is characterised by dual management responsibility: The operating units in the Group areas fall under the line responsibility of individual members of the Managing Board. In addition, they have cross-area responsibility for specific corporate functions with great strategic importance for the Group.

Dr. Bernd Scheifele
Chairman of the Managing Board
Area of responsibility: Strategy and Development, Communication & Investor Relations, Human Resources, Legal, Compliance, Internal Audit
Chairman of the Managing Board since 2005; appointed until January 2020

External mandates:
PHOENIX Pharmahandel GmbH & Co KG[2], Mannheim (Chairman) | PHOENIX Pharma SE i. Gr.[1], Mannheim (Chairman) | Verlagsgruppe Georg von Holtzbrinck GmbH[1], Stuttgart (Deputy Chairman)

Group mandates:
Castle Cement Limited[2], UK | ENCI Holding N.V.[2], Netherlands | Hanson Limited[2], UK | Hanson Pioneer España, S.L.U.[2], Spain | HeidelbergCement Holding S.à.r.l.[2], Luxembourg | HeidelbergCement India Limited[2], India | PT Indocement Tunggal Prakarsa Tbk.[2], Indonesia | RECEM S.A.[2], Luxembourg

Dr. Dominik von Achten
Deputy Chairman of the Managing Board
Area of responsibility: until 31 March 2016 North America, since 1 April 2016 Western and Southern Europe, Competence Center Materials, until 31 December 2016 Purchasing, since 1 January 2017 Industry 4.0/Digital Transformation HeidelbergCement
Member of the Managing Board since 2007; appointed until September 2022

External mandates:
Kunststoffwerk Philippine GmbH & Co. KG[2], Lahnstein, and Saarpor Klaus Eckhardt GmbH Neunkirchen Kunststoffe KG[2], Neunkirchen[3] | Verlag Lensing-Wolff GmbH & Co. KG ("Medienhaus Lensing")[2], Dortmund

Group mandates:
Castle Cement Limited[2], UK | Cimenteries CBR S.A.[2], Belgium | ENCI Holding N.V.[2], Netherlands | Hanson Quarry Products Europe Limited[2], UK | HeidelbergCement Holding S.à.r.l.[2], Luxembourg | HeidelbergCement UK Holding Limited[2], UK | Italcementi S.p.A.[2], Italy (Deputy Chairman)

3) Jointly meeting advisory council of Unternehmensgruppe Philippine Saarpor (Philippine Saarpor group)

Daniel Gauthier
Area of responsibility: until 31 March 2016 Western and Northern Europe (without Germany), Africa-Mediterranean Basin, Group Services, Environmental Sustainability
Member of the Managing Board from 2000 until 30 June 2016

External mandates:
SAS ADIAL[2)], France | Akçansa Çimento Sanayi ve Ticaret A.S.[2)], Turkey (Deputy Chairman) | Carmeuse Holding SA[2)], Belgium | SAS Genlis Metal[2)], France | Laserco DT S.A.[2)], Belgium | Miema SA[2)], Belgium (Chairman)

Group mandates:
CBR International Services S.A. [2)], Belgium (Chairman) | Cementrum I B.V. [2)], Netherlands | Cimenteries CBR S.A. [2)], Belgium (Chairman) | ENCI Holding N.V. [2)], Netherlands (Chairman) | Ghacem Ltd. [2)], Ghana (Chairman) | Hanson Pioneer España, S.L.U. [2)], Spain | HeidelbergCement Asia Pte Ltd [2)], Singapore | Tadir Readymix Concrete (1965) Ltd [2)], Israel | TPCC Tanzania Portland Cement Company Ltd. [2)], Tanzania

Kevin Gluskie
Area of responsibility: since 1 April 2016 Asia-Pacific, Competence Center Readymix, Market Intelligence & Sales Processes, Product Marketing
Member of the Managing Board since February 2016; appointed until January 2019

External mandates:
Cement Australia Holdings Pty Ltd[2)], Australia | Cement Australia Pty Limited[2)], Australia | Cement Australia Partnership[2)], Australia | China Century Cement Ltd.[2)], Bermuda | Easy Point Industrial Ltd.[2)], Hong Kong | Guangzhou Heidelberg Yuexiu Enterprise Management Consulting Company Ltd.[2)], China | Jidong Heidelberg (Fufeng) Cement Company Limited[2)], China | Jidong Heidelberg (Jingyang) Cement Company Limited[2)], China | Squareal Cement Ltd[2)], Hong Kong

Group mandates:
Asia Cement Public Company Limited[2)], Thailand | Butra HeidelbergCement Sdn. Bhd.[2)], Brunei (Chairman) | Gulbarga Cement Limited[2)], India | Hanson Building Materials (S) Pte Ltd[2)], Singapore | Hanson Investment Holdings Pte Ltd[2)], Singapore | Hanson Pacific (S) Pte Limited[2)], Singapore | HeidelbergCement Asia Pte Ltd[2)], Singapore (Chairman) | HeidelbergCement Bangladesh Limited[2)], Bangladesh (Chairman) | HeidelbergCement Holding HK Limited[2)], Hong Kong | HeidelbergCement India Limited[2)], India | HeidelbergCement Myanmar Company Limited[2)], Myanmar | Jalaprathan Cement Public Company Limited[2)], Thailand | Pioneer Concrete (Hong Kong) Limited[2)], Hong Kong | PT Indocement Tunggal Prakarsa Tbk.[2)], Indonesia | Singha Cement (Private) Limited[2)], Sri Lanka (Chairman) | Zuari Cement Limited[2)], India (Chairman)

Hakan Gurdal
Area of responsibility: since 1 April 2016 Africa-Eastern Mediterranean Basin, since 1 January 2017 Purchasing
Member of the Managing Board since February 2016; appointed until January 2019

External mandates:
Akçansa Çimento Sanayi ve Ticaret A.S.[2)], Turkey

Group mandates:
Austral Cimentos Sofala SA[2)], Mozambique | CimBurkina S.A.[2)], Burkina Faso | Ciments du Maroc[2)], Morocco | Ciments du Togo SA[2)], Togo (Chairman) | Ghacem Ltd.[2)], Ghana | Hanson Israel Limited[2)], Israel | Interlacs S.A.R.L.[2)], Democratic Republic of the Congo (Chairman) | La Cimenterie de Lukala S.A.R.L.[2)], Democratic Republic of the Congo (Chairman) | Scancem International DA[2)], Norway (Chairman) | Scantogo Mines SA[2)], Togo (Chairman) | Suez Cement Company SAE[2)], Egypt | TPCC Tanzania Portland Cement Company Ltd.[2)], Tanzania

Andreas Kern
Area of responsibility: until 31 March 2016 Eastern Europe-Central Asia, Germany, Sales and Marketing, worldwide coordination of secondary cementitious materials
Member of the Managing Board from 2000 until 30 June 2016

External mandates:
Basalt-Actien-Gesellschaft[1)], Linz am Rhein

Jon Morrish
Area of responsibility: since 1 April 2016 North America, Group-wide coordination of secondary cementitious materials
Member of the Managing Board since February 2016; appointed until January 2019

Group mandates:
Cadman (Black Diamond), Inc.[2)], USA | Cadman (Rock), Inc.[2)], USA | Cadman (Seattle), Inc.[2)], USA | Cadman Holding Co., Inc.[2)], USA | Cadman, Inc.[2)], USA | Calaveras Materials Inc.[2)], USA (Chairman) | Calaveras-Standard Materials, Inc.[2)], USA (Chairman) | Campbell Concrete & Materials LLC[2)], USA (Chairman) | Campbell Transportation Services LLC[2)], USA (Chairman) | Civil and Marine Inc.[2)], USA (Chairman) | Commercial Aggregates Transportation and Sales LLC[2)], USA (Chairman) | Constar LLC[2)], USA (Chairman) | Continental Florida Materials Inc.[2)], USA (Chairman) | EPC VA 121, LLC[2)], USA (Chairman) | Ferndale Ready Mix & Gravel, Inc.[2)], USA | Gulf Coast Stabilized Materials LLC[2)], USA (Chairman) | HA Properties IN, LLC[2)], USA (Chairman) | HA Properties KY,

LLC[2], USA (Chairman) | HA Properties NY II, LLC[2], USA (Chairman) | HA Properties NY, LLC[2], USA (Chairman) | HA Properties SC, LLC[2], USA (Chairman) | Hampshire Properties LLC[2], USA (Chairman) | HAMW Minerals, Inc.[2], USA (Chairman) | Hanson Aggregates LLC[2], USA (Chairman) | Hanson Aggregates BMC[2], Inc., USA (Chairman) | Hanson Aggregates Contracting, Inc.[2], USA (Chairman) | Hanson Aggregates Davon LLC[2], USA (Chairman) | Hanson Aggregates Mid-Pacific, Inc.[2], USA (Chairman) | Hanson Aggregates Midwest LLC[2], USA (Chairman) | Hanson Aggregates New York LLC[2], USA (Chairman) | Hanson Aggregates Pacific Southwest, Inc.[2], USA (Chairman) | Hanson Aggregates Pennsylvania LLC[2], USA (Chairman) | Hanson Aggregates Properties TX, LLC[2], USA (Chairman) | Hanson Aggregates Southeast LLC[2], USA (Chairman) | Hanson Aggregates WRP, Inc.[2], USA (Chairman) | Hanson Finance America, Inc.[2], USA (Chairman) | Hanson Hardscape Products LLC[2], USA (Chairman) | Hanson Marine Finance, Inc.[2], USA (Chairman) | Hanson Marine Operations, Inc.[2], USA (Chairman) | Hanson Micronesia Cement, Inc.[2], USA (Chairman) | Hanson Permanente Cement of Guam, Inc.[2], USA (Chairman) | Hanson Structural Precast, Inc.[2], USA (Chairman) | HBMA Holdings LLC[2], USA (Chairman) | HBP Mineral Holdings LLC[2], USA (Chairman) | HBP Property Holdings LLC[2], USA (Chairman) | HeidelbergCement Canada Holding Limited[2], UK | HeidelbergCement UK Holding II Limited[2], UK | HNA Investments[2], USA (Chairman) | HP&P SE Properties SC LLC[2], USA (Chairman) | HP&P VA Properties SC LLC[2], USA (Chairman) | HSC Cocoa Property Reserve, LLC[2], USA (Chairman) | HSPP Properties PMA Ohio LLC[2], USA (Chairman) | HSPP Properties Tennessee LLC[2], USA (Chairman) | KH 1 Inc.[2], USA (Chairman) | Lehigh Cement Company LLC[2], USA (Chairman) | Lehigh Hanson, Inc.[2], USA (Chairman) | Lehigh Hanson Materials Limited[2], Canada | Lehigh Hanson Receivables LLC[2], USA (Chairman) | Lehigh Northwest Cement Company[2], USA (Chairman) | Lehigh Northwest Marine, LLC[2], USA (Chairman) | Lehigh Portland Holdings, LLC[2], USA (Chairman) | Lehigh Reality Company[2], USA (Chairman) | Lehigh Southwest Cement Company[2], USA (Chairman) | LHI Duomo Holdings LLC[2], USA (Chairman) | Material Service Corporation[2], USA (Chairman) | Mineral and Land Resources Corporation[2], USA (Chairman) | Mission Valley Rock Co.[2], USA (Chairman) | PCAz Leasing, Inc.[2], USA (Chairman) | Plum Run Lake, LLC[2], USA (Chairman) | Sherman Industries LLC[2], USA (Chairman) | Sherman-Abetong, Inc.[2], USA (Chairman) | Shrewsbury Properties LLC[2], USA (Chairman) | South Coast Materials Company[2], USA (Chairman) | South Valley Materials, Inc.[2], USA (Chairman) | Standard Concrete Products, Inc.[2], USA (Chairman)

Dr. Lorenz Näger
Area of responsibility: Finance, Group Accounting, Controlling, Taxes, Treasury, Insurance & Corporate Risk Management, IT, Shared Service Center, Logistics
Member of the Managing Board since 2004; appointed until September 2019

External mandates:
MVV Energie AG[1], Mannheim | PHOENIX Pharmahandel GmbH & Co KG[2], Mannheim | PHOENIX Pharma SE i. Gr.[1], Mannheim

Group mandates:
Castle Cement Limited[2], UK | Cimenteries CBR S.A.[2], Belgium | ENCI Holding N.V.[2], Netherlands | Hanson Limited[2], UK | Hanson Pioneer España, S.L.U.[2], Spain | HeidelbergCement Canada Holding Limited[2], UK | HeidelbergCement Holding S.à.r.l.[2], Luxembourg | HeidelbergCement UK Holding Limited[2], UK | HeidelbergCement UK Holding II Limited[2], UK | Italcementi S.p.A[2], Italy (Deputy Chairman) | Lehigh B.V.[2], Netherlands (Chairman) | Lehigh Hanson, Inc.[2], USA | Lehigh Hanson Materials Limited[2], Canada | Lehigh UK Limited[2], UK | Palatina Insurance Ltd.[2], Malta | PT Indocement Tunggal Prakarsa Tbk.[2], Indonesia | RECEM S.A.[2], Luxembourg

Dr. Albert Scheuer
Area of responsibility: until 31 March 2016 Asia-Pacific, since 1 April 2016 Northern and Eastern Europe-Central Asia, worldwide coordination of Heidelberg Technology Center, Research & Development/Product Innovation, Environmental Sustainability
Member of the Managing Board since 2007; appointed until August 2019

Group mandates:
CaucasusCement Holding B.V.2), Netherlands (Chairman) | Ceskomoravský cement, a.s.2), Czech Republic (Chairman) | Devnya Cement AD2), Bulgaria | Duna-Dráva Cement Kft.2), Hungary | Górazdze Cement S.A.2), Poland (Chairman) | Halyps Building Materials S.A.2), Greece (Chairman) | HeidelbergCement Asia Pte Ltd2), Singapore | HeidelbergCement Central Europe East Holding B.V.2), Netherlands (Chairman) | HeidelbergCement India Limited2), India | HeidelbergCement Northern Europe AB2), Sweden | HeidelbergCement Romania SA2), Romania | HeidelbergCement Ukraine Public Joint Stock Company2), Ukraine | Limited Liability Company HeidelbergCement Georgia2), Georgia (Deputy Chairman) | Open Joint-Stock Company "Slantsy Cement Plant "Cesla"2), Russia | PT Indocement Tunggal Prakarsa Tbk.2), Indonesia (Chairman) | RECEM S.A.2), Luxembourg | ShymkentCement JSC2), Kazakhstan (Chairman) | Tvornica Cementa Kakanj d.d.2), Bosnia-Herzegovina

The above mentioned indications refer to 31 December 2016 or in case of an earlier retirement from the Managing Board of HeidelbergCement AG to the date of retirement and have the following meaning:
1) Membership in legally required supervisory boards of German companies;
2) Membership in comparable German and foreign supervisory committees of commercial enterprises.

4

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Consolidated income statement

€m	Notes	2015	2016
Revenue	1	13,464.7	**15,165.7**
Change in finished goods and work in progress		23.2	**-51.1**
Own work capitalised		8.8	**13.2**
Operating revenue		13,496.7	**15,127.8**
Other operating income	2	355.3	**426.5**
Material costs	3	-5,477.1	**-5,823.4**
Employee and personnel costs	4	-2,274.2	**-2,673.5**
Other operating expenses	5	-3,689.2	**-4,329.2**
Result from joint ventures	6	201.2	**211.3**
Result from current operations before depreciation and amortisation (RCOBD)		2,612.7	**2,939.4**
Depreciation and amortisation	7	-766.6	**-955.1**
Result from current operations		1,846.1	**1,984.3**
Additional ordinary income	8	84.7	**70.2**
Additional ordinary expenses	8	-97.0	**-394.6**
Additional ordinary result		-12.4	**-324.4**
Result from associates	9	28.7	**37.8**
Result from other participations		0.8	**0.5**
Result from participations		29.5	**38.2**
Earnings before interest and taxes (EBIT)		1,863.2	**1,698.1**
Interest income		72.9	**66.0**
Interest expenses		-469.1	**-451.4**
Foreign exchange losses		-35.3	**-16.2**
Other financial result	10	-118.2	**-92.1**
Financial result		-549.8	**-493.6**
Profit before tax from continuing operations		1,313.4	**1,204.5**
Income taxes	11	-294.5	**-305.0**
Net income from continuing operations		1,018.9	**899.5**
Net loss from discontinued operations	12	-35.7	**-3.2**
Profit for the financial year		983.3	**896.3**
Thereof non-controlling interests		183.1	**190.1**
Thereof Group share of profit		800.1	**706.2**
Thereof proposed dividend	13	244.3	**317.5**
Earnings per share in € (IAS 33)	14		
Earnings per share attributable to the parent entity		4.26	**3.66**
Earnings per share – continuing operations		4.45	**3.67**
Loss per share – discontinued operations		-0.19	**-0.02**

Consolidated statement of comprehensive income

€m	2015	2016
Profit for the financial year	983.3	**896.3**
Other comprehensive income		
Items not being reclassified to profit or loss in subsequent periods		
Remeasurement of the defined benefit liability (asset)	111.5	**22.4**
Income taxes	-17.4	**13.7**
Defined benefit plans	94.0	**36.1**
Net gains/losses arising from equity method investments	0.0	**-1.0**
Total	94.0	**35.2**
Items that may be reclassified subsequently to profit or loss		
Cash flow hedges – change in fair value	12.5	**1.3**
Reclassification adjustments for gains/losses included in profit or loss	-14.6	**-1.6**
Income taxes	0.1	**0.1**
Cash flow hedges	-2.1	**-0.3**
Currency translation	1,043.9	**-80.7**
Reclassification adjustments for gains/losses included in profit or loss	-64.2	
Income taxes	11.1	**-10.2**
Currency translation	990.8	**-90.9**
Net gains/losses arising from equity method investments	-2.5	**-9.7**
Total	986.2	**-100.9**
Other comprehensive income	1,080.2	**-65.7**
Total comprehensive income	2,063.4	**830.6**
Thereof non-controlling interests	193.8	**171.5**
Thereof Group share	1,869.7	**659.0**

Consolidated statement of cash flows

€m	Notes	2015	2016
Net income from continuing operations		1,018.9	**899.5**
Income taxes		294.5	**305.0**
Interest income / expenses		396.3	**385.3**
Dividends received	15	183.3	**191.0**
Interest received	16	91.7	**138.5**
Interest paid	16	-583.6	**-529.6**
Income taxes paid	17	-353.1	**-325.9**
Depreciation, amortisation, and impairment		801.2	**1,031.3**
Elimination of other non-cash items	18	-72.3	**93.1**
Cash flow		1,777.0	**2,188.3**
Changes in operating assets	19	-144.8	**-64.9**
Changes in operating liabilities	20	122.7	**161.5**
Changes in working capital		-22.1	**96.6**
Decrease in provisions through cash payments	21	-244.2	**-382.6**
Cash flow from operating activities – continuing operations		1,510.7	**1,902.3**
Cash flow from operating activities – discontinued operations	22	-61.5	**-28.3**
Cash flow from operating activities		1,449.3	**1,874.0**
Intangible assets		-23.2	**-27.7**
Property, plant and equipment		-884.5	**-1,012.2**
Subsidiaries and other business units		-64.7	**-2,983.3**
Other financial assets, associates, and joint ventures		-29.3	**-15.6**
Investments (cash outflow)	23	-1,001.8	**-4,038.8**
Subsidiaries and other business units		77.2	**4.5**
Other fixed assets		151.6	**179.9**
Divestments (cash inflow)	24	228.7	**184.4**
Cash from changes in consolidation scope	25	20.5	**632.1**
Cash flow from investing activities – continuing operations		-752.5	**-3,222.3**
Cash flow from investing activities – discontinued operations	22	1,245.1	**901.4**
Cash flow from investing activities		492.6	**-2,320.9**
Capital decrease – non-controlling interests		-3.1	**-1.9**
Dividend payments – HeidelbergCement AG		-140.9	**-244.3**
Dividend payments – non-controlling interests	26	-227.7	**-90.4**
Decrease in ownership interests in subsidiaries	27	0.9	**17.8**
Increase in ownership interests in subsidiaries	27	-15.5	**-5.9**
Proceeds from bond issuance and loans	28	49.7	**3,531.3**
Repayment of bonds and loans	29	-1,385.0	**-1,545.2**
Changes in short-term interest-bearing liabilities	30	-100.2	**-605.4**
Cash flow from financing activities – continuing operations		-1,821.8	**1,056.1**
Cash flow from financing activities – discontinued operations	22	-4.8	**0.1**
Cash flow from financing activities		-1,826.6	**1,056.1**
Net change in cash and cash equivalents – continuing operations		-1,063.6	**-264.0**
Net change in cash and cash equivalents – discontinued operations		1,178.8	**873.1**
Net change in cash and cash equivalents		115.2	**609.1**
Effect of exchange rate changes		7.1	**12.7**
Cash and cash equivalents at 1 January		1,228.1	**1,350.5**
Cash and cash equivalents at 31 December	31	1,350.5	**1,972.4**

Consolidated balance sheet

Assets			
€m	Notes	31 Dec. 2015	31 Dec. 2016
Non-current assets			
Intangible assets	32		
Goodwill		10,180.6	**11,828.2**
Other intangible assets		258.1	**491.5**
		10,438.8	**12,319.7**
Property, plant and equipment	33		
Land and buildings		4,997.3	**6,883.7**
Plant and machinery		3,671.9	**5,578.9**
Other operating equipment		272.2	**355.9**
Prepayments and assets under construction		929.7	**1,146.0**
		9,871.2	**13,964.5**
Financial assets			
Investments in joint ventures	6	1,452.7	**1,433.5**
Investments in associates	9	254.1	**486.9**
Financial investments	34	69.0	**378.5**
Loans and derivative financial instruments	35	56.0	**88.5**
		1,831.8	**2,387.4**
Fixed assets		22,141.7	**28,671.7**
Deferred taxes	11	805.0	**946.0**
Other non-current receivables	35	710.6	**781.2**
Non-current income tax assets		10.4	**47.0**
Total non-current assets		23,667.7	**30,445.9**
Current assets			
Inventories	36		
Raw materials and consumables		613.4	**936.5**
Work in progress		188.1	**329.9**
Finished goods and goods for resale		616.9	**776.3**
Prepayments		25.8	**40.7**
		1,444.1	**2,083.4**
Receivables and other assets	37		
Current interest-bearing receivables		168.7	**108.4**
Trade receivables		1,214.6	**1,804.1**
Other current operating receivables		395.5	**550.6**
Current income tax assets		58.2	**103.1**
		1,837.1	**2,566.2**
Short-term financial investments			**19.4**
Derivative financial instruments	38	75.1	**59.9**
Cash and cash equivalents	31	1,350.5	**1,972.4**
Total current assets		4,706.7	**6,701.2**
Assets held for sale and discontinued operations			**6.7**
Balance sheet total		28,374.4	**37,153.8**

Equity and liabilities

€m	Notes	31 Dec. 2015	31 Dec. 2016
Shareholders' equity and non-controlling interests			
Subscribed share capital	39	563.7	**595.2**
Share premium	40	5,539.4	**6,225.4**
Retained earnings	41	8,434.4	**8,982.3**
Other components of equity	42	377.9	**290.1**
Equity attributable to shareholders		14,915.4	**16,093.1**
Non-controlling interests	43	1,060.9	**1,779.5**
Total equity		15,976.4	**17,872.6**
Non-current liabilities	46		
Bonds payable		4,685.8	**7,651.9**
Bank loans		123.8	**785.5**
Other non-current interest-bearing liabilities		21.6	**62.8**
Non-controlling interests with put options		4.2	**22.5**
		4,835.5	**8,522.7**
Pension provisions	44	974.2	**1,284.6**
Deferred taxes	11	435.9	**657.4**
Other non-current provisions	45	1,118.2	**1,359.5**
Other non-current operating liabilities		94.6	**255.7**
Non-current income tax liabilities		72.7	**191.3**
		2,695.5	**3,748.5**
Total non-current liabilities		7,531.0	**12,271.2**
Current liabilities	46		
Bonds payable (current portion)		1,109.4	**1,853.5**
Bank loans (current portion)		397.4	**457.1**
Other current interest-bearing liabilities		343.4	**166.2**
Non-controlling interests with put options		25.8	**51.3**
		1,876.1	**2,528.1**
Pension provisions (current portion)	44	91.3	**102.8**
Other current provisions	45	239.8	**347.9**
Trade payables		1,450.8	**2,178.9**
Other current operating liabilities		1,091.1	**1,655.9**
Current income tax liabilities		117.9	**196.4**
		2,990.9	**4,481.9**
Total current liabilities		4,866.9	**7,010.0**
Total liabilities		12,398.0	**19,281.2**
Balance sheet total		28,374.4	**37,153.8**

Consolidated statement of changes in equity

€m	Subscribed share capital	Share premium	Retained earnings	Cash flow hedge reserve
1 January 2015	563.7	5,539.4	7,643.9	3.1
Profit for the financial year			800.1	
Other comprehensive income			93.8	-0.2
Total comprehensive income			893.9	-0.2
Changes in consolidation scope				
Changes in ownership interests in subsidiaries			29.1	
Changes in non-controlling interests with put options			7.4	
Transfer of asset revaluation reserve			1.1	
Other changes				
Capital increase				
Repayment of capital				
Dividends			-140.9	
31 December 2015	563.7	5,539.4	8,434.4	2.9
1 January 2016	563.7	5,539.4	8,434.4	2.9
Profit for the financial year			706.2	
Other comprehensive income			39.1	0.6
Total comprehensive income			745.3	0.6
Changes in consolidation scope				
Changes in ownership interests in subsidiaries			30.8	
Changes in non-controlling interests with put options			15.2	
Transfer of asset revaluation reserve			1.4	
Other changes			-0.5	-0.2
Capital increase from issuance of new shares	31.5	686.1		
Repayment of capital				
Dividends			-244.3	
31 December 2016	595.2	6,225.4	8,982.3	3.3

1) The accumulated currency translation differences included in non-controlling interests changed in 2016 by €-9.6 million (previous year: 27.1) to €-136.4 million (previous year: -126.8). The total currency translation differences recognised in equity thus amounts to €88.3 million (previous year: 185.5).

	Other components of equity						
	Available for sale reserve	Asset revaluation reserve	Currency translation	Total other components of equity	Equity attributable to shareholders	Non-controlling interests [1]	**Total equity**
	33.6	31.3	-664.7	-596.8	13,150.3	1,094.7	**14,244.9**
					800.1	183.1	**983.3**
	-1.1		977.0	975.8	1,069.6	10.6	**1,080.2**
	-1.1		977.0	975.8	1,869.7	193.8	**2,063.4**
						20.3	**20.3**
					29.1	-2.1	**27.0**
					7.4	-13.9	**-6.6**
		-1.1		-1.1			
						-0.9	**-1.0**
						2.8	**2.8**
						-5.9	**-5.9**
					-140.9	-227.7	**-368.6**
	32.5	30.2	312.3	377.9	14,915.4	1,060.9	**15,976.4**
	32.5	30.2	312.3	377.9	14,915.4	1,060.9	**15,976.4**
					706.2	190.1	**896.3**
	0.7		-87.5	-86.3	-47.1	-18.6	**-65.7**
	0.7		-87.5	-86.3	659.0	171.5	**830.6**
						689.5	**689.5**
					30.8	-8.3	**22.5**
					15.2	-43.7	**-28.4**
		-1.4		-1.4			
				-0.2	-0.7	1.9	**1.1**
					717.6		**717.6**
						-1.9	**-1.9**
					-244.3	-90.4	**-334.7**
	33.2	28.8	224.7	290.1	16,093.1	1,779.5	**17,872.6**

Segment reporting / Notes to the consolidated financial statements

Group areas	Western and Southern Europe		Northern and Eastern Europe-Central Asia		North America	
€m	2015	2016	2015	2016	2015	2016
External revenue	3,214	**3,887**	2,060	**2,357**	3,746	**4,027**
Inter-Group areas revenue	10	**41**	63	**68**		
Revenue	3,225	**3,928**	2,124	**2,425**	3,746	**4,027**
Change to previous year in %		**21.8 %**		**14.2 %**		**7.5 %**
Result from joint ventures	5	**4**	16	**19**	39	**45**
Result from current operations before depreciation and amortisation (RCOBD)	511	**536**	382	**445**	829	**996**
as % of revenue	15.8 %	**13.7 %**	18.0 %	**18.3 %**	22.1 %	**24.7 %**
Depreciation	-194	**-244**	-141	**-157**	-246	**-280**
Result from current operations	317	**292**	241	**287**	583	**716**
as % of revenue	9.8 %	**7.4 %**	11.3 %	**11.9 %**	15.6 %	**17.8 %**
Result from associates	16	**20**	1	**1**	10	**9**
Result from other participations	-3	**-4**	1	**-1**	0	**0**
Result from participations	12	**16**	2	**0**	10	**9**
Additional ordinary result						
Earnings before interest and taxes (EBIT)	329	**308**	243	**288**	593	**724**
Capital expenditures [2]	204	**297**	140	**124**	263	**301**
Segment assets [3]	5,683	**7,600**	2,075	**2,791**	8,491	**9,771**
RCOBD as % of segment assets	9.0 %	**7.1 %**	18.4 %	**15.9 %**	9.8 %	**10.2 %**
Number of employees as at 31 December	9,560	**15,781**	12,598	**13,107**	7,658	**8,444**
Average number of employees	9,644	**12,763**	11,723	**12,944**	8,183	**8,606**

Voluntary additional information

Business lines	Cement		Aggregates		Ready-mixed concrete-asphalt	
€m	2015	2016	2015	2016	2015	2016
External revenue	5,469	**6,512**	2,244	**2,465**	4,104	**4,433**
Inter-business lines revenue	694	**867**	861	**898**	52	**50**
Revenue	6,163	**7,379**	3,105	**3,362**	4,156	**4,483**
Change to previous year in %		**19.7 %**		**8.3 %**		**7.9 %**
Result from joint ventures						
Result from current operations before depreciation and amortisation (RCOBD)	1,527	**1,782**	751	**839**	149	**136**
as % of revenue	24.8 %	**24.2 %**	24.2 %	**24.9 %**	3.6 %	**3.0 %**
Result from current operations	1,124	**1,229**	531	**601**	60	**37**
in % of revenue	18.2 %	**16.7 %**	17.1 %	**17.9 %**	1.4 %	**0.8 %**
Number of employees as at 31 December	22,064	**32,623**	8,555	**9,648**	10,410	**13,610**
Average number of employees	22,401	**27,738**	9,029	**9,590**	10,488	**12,253**

1) Includes corporate functions, eliminations of intra-Group relationships between the segments and additional ordinary result.

2) Capital expenditures = in the segment columns: property, plant and equipment as well as intangible assets investments; in the reconciliation column: investments in non-current financial assets and other business units

3) Segments assets = property, plant and equipment as well as intangible assets.

Asia-Pacific		Africa-Eastern Mediterranean Basin		Group Services		Reconciliation [1]		Continuing operations	
2015	**2016**	2015	**2016**	2015	**2016**	2015	**2016**	2015	**2016**
2,761	**2,878**	935	**1,307**	748	**710**			13,465	**15,166**
14	**29**	17	**7**	312	**368**	-417	**-513**		
2,775	**2,907**	952	**1,314**	1,060	**1,078**	-417	**-513**	13,465	**15,166**
	4.8 %		**37.9 %**		**1.7 %**				**12.6 %**
104	**110**	37	**34**					201	**211**
719	**704**	262	**350**	25	**23**	-116	**-115**	2,613	**2,939**
25.9 %	**24.2 %**	27.6 %	**26.6 %**	2.4 %	**2.2 %**			19.4 %	**19.4 %**
-131	**-162**	-41	**-83**	0	**-4**	-13	**-24**	-767	**-955**
588	**542**	222	**266**	25	**19**	-129	**-139**	1,846	**1,984**
21.2 %	**18.6 %**	23.3 %	**20.3 %**	2.4 %	**1.8 %**			13.7 %	**13.1 %**
2	**1**	0	**5**		**2**			29	**38**
1	**2**	0	**0**	2	**3**			1	**0**
3	**3**	0	**5**	2	**5**			30	**38**
						-12	**-324**	-12	**-324**
590	**545**	222	**272**	27	**24**	-141	**-463**	1,863	**1,698**
247	**215**	54	**102**	0	**1**	94	**2,999**	1,002	**4,039**
3,322	**4,398**	702	**1,635**	36	**88**			20,310	**26,284**
21.6 %	**16.0 %**	37.4 %	**21.4 %**	70.1 %	**26.5 %**			12.9 %	**11.2 %**
13,029	**14,956**	2,527	**7,602**	81	**534**			45,453	**60,424**
13,229	**14,308**	2,607	**5,200**	84	**311**			45,469	**54,132**

Service-joint ventures-other		Reconciliation [1]		Continuing operations	
2015	**2016**	2015	**2016**	2015	**2016**
1,647	**1,756**			13,465	**15,166**
348	**416**	-1,955	**-2,231**		
1,996	**2,172**	-1,955	**-2,231**	13,465	**15,166**
	8.8 %				**12.6 %**
201	**211**			201	**211**
289	**275**	-104	**-92**	2,613	**2,939**
14.5 %	**12.6 %**			19.4 %	**19.4 %**
248	**234**	-117	**-116**	1,846	**1,984**
12.4 %	**10.7 %**			13.7 %	**13.1 %**
4,423	**4,542**			45,453	**60,424**
3,552	**4,551**			45,469	**54,132**

Notes to the 2016 consolidated financial statements

General information

HeidelbergCement AG is a public limited company based in Germany. The company has its registered office in Heidelberg, Germany. Its address is: HeidelbergCement AG, Berliner Straße 6, 69120 Heidelberg.

The core activities of HeidelbergCement include the production and distribution of cement, aggregates, ready-mixed concrete, and asphalt. Further details are given in the management report.

Accounting and valuation principles

Accounting principles
The consolidated financial statements of HeidelbergCement AG were prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union and the additional requirements of German Commercial Law pursuant to § 315a, section 1 of the German Commercial Code. All binding IFRSs for the 2016 financial year adopted into European law by the European Commission, including the interpretations of the IFRS Interpretations Committee (IFRS IC), were applied.

The previous year's figures were determined according to the same principles. The consolidated financial statements are prepared in euro. The financial statements show a true and fair view of the financial position and performance of the HeidelbergCement Group.

In accordance with IAS 1 (Presentation of Financial Statements), the consolidated financial statements contain a balance sheet as at the reporting date, an income statement, a statement of comprehensive income, a statement of changes in equity, and a statement of cash flows in accordance with the principles of IAS 7 (Statement of Cash Flows). The segment reporting is prepared in accordance with the regulations of IFRS 8 (Operating Segments).

For reasons of clarity, some individual items have been combined in the income statement and in the balance sheet. Explanations of these items are contained in the Notes. To improve the level of information, the additional ordinary result is shown separately in the income statement. The income statement classifies expenses according to their nature.

Scope of consolidation
In addition to HeidelbergCement AG, the consolidated financial statements include all subsidiaries, joint arrangements, and associates.

Subsidiaries are characterised by the fact that HeidelbergCement can exercise control over these companies. Control exists when HeidelbergCement has decision-making powers, is exposed to variable returns, and is able to influence the level of the variable returns as a result of the decision-making powers. Normally, this is the case when more than 50 % of the shares are owned. If contractual or legal regulations stipulate that a company can be controlled despite a shareholding of less than 50 %, this company is included in the consolidated financial statements as a subsidiary. If a company cannot be controlled with a shareholding of more than 50 % as a result of contractual or legal regulations, this company is not included in the consolidated financial statements as a subsidiary.

In joint arrangements, HeidelbergCement exercises joint control over a company with one or more parties through contractual agreements. Joint control exists if decisions about the relevant activities of the company must be made unanimously. Depending on the rights and obligations of the parties, joint arrangements may be joint operations or joint ventures. In joint operations, however, the controlling parties have direct rights to the assets and obligations for the liabilities of the jointly controlled operation. Joint ventures are characterised by the fact that the parties that have joint control participate in the net assets of the company by virtue of their position as shareholders.

In associates, HeidelbergCement has a significant influence on the operating and financial policies of the company. This is normally the case if HeidelbergCement holds between 20 % and 50 % of the voting rights in a company.

Consolidation principles

The capital consolidation of subsidiaries is performed using the acquisition method in accordance with IFRS 3 (Business Combinations). In this process, the acquirer measures the identifiable assets acquired and liabilities assumed at their fair values at the acquisition date. The acquiring entity's investment, measured at the fair value of the consideration transferred, is eliminated against the revalued equity of the newly consolidated subsidiary at acquisition date. The residual positive difference between the fair value of the consideration transferred and the fair value of acquired assets and liabilities is shown as goodwill. A residual negative difference is recognised in profit or loss after further review. Non-controlling interests can be recognised either at their proportionate share of the acquiree's net assets or at fair value. This option can be applied separately for every business combination. Transaction costs relating to business combinations are recorded as additional ordinary expenses.

Income and expenses as well as receivables and payables between consolidated companies are eliminated. Profits and losses from intra-Group sales of assets are eliminated. The consequences of consolidation on income tax are taken into account by recognising deferred taxes.

The share of equity and the share of profit or loss for the financial year attributable to non-controlling interests are shown separately. In the case of put options held by non-controlling interests (including non-controlling interests in German partnerships), the proportionate share of the period's comprehensive income attributable to the non-controlling interests as well as the dividend payments to non-controlling interests are shown over the course of the year as changes in equity. At the reporting date, non-controlling interests with a put option were reclassified as financial liabilities. The financial liability is measured at the present value of the redemption amount. Differences between the carrying amount of the non-controlling interests and the present value of the redemption amount are recognised directly in equity. In the statement of changes in equity, this is reported in the line changes in non-controlling interests with put options.

In the event of business combinations achieved in stages, HeidelbergCement achieves control of a company in which it held a non-controlling equity interest immediately before the acquisition date. In this scenario, differences between the carrying amount and the fair value of previously held shares are recognised in profit or loss. Changes in the ownership interest in a subsidiary that do not lead to a loss of control are recognised outside profit or loss as equity transactions. In the case of transactions that lead to a loss of control, any residual interests are revalued at fair value in profit or loss.

In joint operations, the assets, liabilities, income and expenses, as well as cash flows are included pro rata in the consolidated financial statements in accordance with the rights and obligations of HeidelbergCement.

Joint ventures and associates are accounted for using the equity method. Initially, the acquired investments are recognised at cost. In subsequent years, the carrying amount of the investment is increased or decreased according to the share of HeidelbergCement in the comprehensive income of the investee. Dividend payments received from investees reduce the carrying amount. When the share of losses attributable to HeidelbergCement in the company in which a participating interest is held equals or exceeds the carrying amount of the investment, no further shares of losses are recognised. If the investee subsequently reports profits, the investor resumes recognising its share of these profits only after the share in profit equals the share of losses not yet recognised.

Subsidiaries, joint operations, joint ventures, and associates that do not have a material impact on the financial position and performance of the Group, either individually or collectively, are accounted for at cost less impairment losses and shown as financial investments available for sale at cost.

Currency translation

The individual financial statements of the Group's foreign subsidiaries are translated into euro according to IAS 21 (The Effects of Changes in Foreign Exchange Rates) using the concept of functional currency. In general, for operating companies, the functional currency is that of the country in which the subsidiary is based, since all foreign subsidiaries are financially, economically, and organisationally independent in the conduct of their business. Assets and liabilities are translated using the closing rates at the reporting date, with equity, in contrast, using the historical exchange rates. The translation differences resulting from this are recognised outside profit or loss in other components of equity through other comprehensive income until the subsidiary is disposed of. A proportionate reclassification to profit or loss also takes place in the event of a repayment of capital without a reduction in ownership interest. The proportionate equity of the foreign joint ventures and associates is translated in accordance with the procedure described for subsidiaries. Income and expenses are translated using average annual exchange rates.

Foreign currency transactions in the companies' individual financial statements are recorded at the spot exchange rate at the date of the transaction. Exchange gains or losses from the measurement of monetary items in foreign currency at the closing rate up to the reporting date are recognised in profit or loss. Exchange differences arising from foreign currency borrowings, to the extent that they are part of a net investment in a foreign operation, form an exception to recognition in profit or loss. They are part of a net investment in a foreign operation if settlement is neither planned nor likely to occur in the foreseeable future. These translation differences are recognised directly in equity via other comprehensive income and only reclassified to profit or loss on repayment of the loan or disposal of the business. Non-monetary items in foreign currency are recorded at historical exchange rates.

The following key exchange rates were used in the translation of the individual financial statements denominated in foreign currencies into euro.

Exchange rates		Exchange rates at reporting date		Average exchange rates	
EUR		31 Dec. 2015	**31 Dec. 2016**	2015	**2016**
USD	USA	1.0861	**1.0516**	1.1103	**1.1070**
AUD	Australia	1.4896	**1.4607**	1.4781	**1.4886**
CAD	Canada	1.5026	**1.4137**	1.4194	**1.4660**
EGP	Egypt	8.5038	**19.0655**	8.5602	**11.1119**
GBP	Great Britain	0.7368	**0.8521**	0.7264	**0.8194**
IDR	Indonesia	14,982	**14,129**	14,941	**14,756**
MAD	Morocco	10.7881	**10.6496**	10.8198	**10.8514**
THB	Thailand	39.1250	**37.7577**	38.0195	**39.0348**

Recognition and measurement principles

The consolidated financial statements are generally prepared using the historical cost principle. Exceptions to this are derivative financial instruments and available-for-sale investments, which are measured at fair value. Furthermore, the carrying amounts of the assets and liabilities recognised in the balance sheet, which represent the hedged items in fair value hedges and are otherwise accounted at cost, are adjusted as a result of changes in the fair values assigned to the hedged risks. The fundamental recognition and measurement principles are outlined below.

Intangible assets are initially measured at cost. In subsequent periods, intangible assets with a finite useful life are measured at cost less accumulated amortisation and impairment, and intangible assets with an indefinite useful life are measured at cost less accumulated impairment. Intangible assets with a finite useful life are amortised using the unit of production method, in the case of mining licences, otherwise using the straight-line method.

Emission rights are shown as intangible assets. Emission rights granted free of charge are initially measured at a nominal value of zero. Emission rights acquired for consideration are accounted for at cost and are subject to write-down in the event of impairment. Provisions for the obligation to return emission rights are recognised if the actual CO_2 emissions up to the reporting date are not covered by emission rights granted free of charge. The amount of provision for emission rights already acquired for consideration is measured at the carrying amount and, for emission rights yet to be acquired in order to fulfil the obligation, at the market value as at the reporting date.

In accordance with IFRS 3 (Business Combinations), **goodwill** arising from business combinations is not amortised. Instead, goodwill is tested for impairment according to IAS 36 (Impairment of Assets) at least once a year in the fourth quarter after completion of the current operational plan or upon the occurrence of significant events or changes in circumstances that indicate an impairment requirement. In this impairment test, the carrying amount of a group of cash-generating units (CGUs) to which goodwill is allocated is compared with the recoverable amount of this group of CGUs. On the basis of the sales and management structure, a group of CGUs is defined generally as a country or Group area; an exception is the cross-border Nordic Precast Group as well as the Mibau Group. As soon as the carrying amount of a group of CGUs to which a goodwill is allocated exceeds its recoverable amount, an impairment loss of the allocated goodwill is recognised in profit or loss. The recoverable amount is the higher of fair value less costs to sell and the value in use of a group of CGUs. The fair value is the amount obtainable from the sale in an arm's length transaction. The value in use is calculated by discounting estimated future cash flows after taxes with a post-tax risk-adjusted discount rate (WACC).

Property, plant and equipment are accounted for according to IAS 16 (Property, Plant and Equipment) at cost less accumulated depreciation and impairment. Cost includes all costs that can be attributed to the manufacturing process and appropriate amounts of production overheads. Costs for repair and maintenance of property, plant and equipment are generally expensed as incurred. Capitalisation takes place if the measures lead to an extension or significant improvement of the asset. Property, plant and equipment are depreciated on a straight-line basis unless there is another depreciation method more appropriate for the pattern of use. Borrowing costs that can be allocated directly or indirectly to the construction of large facilities with a creation period of more than twelve months (Qualifying Assets) are capitalised as part of the cost in accordance with IAS 23 (Borrowing Costs).

Inventories are measured in accordance with IAS 2 (Inventories) at the lower of cost and net realisable value using the weighted average cost method. Adequate provisions are made for risks relating to quality and quantity. Besides direct expenses, the costs for finished goods and work in progress include production-related indirect materials and indirect labour costs, as well as production-related depreciation. The overhead rates are calculated on the basis of the average operating performance rate. Borrowing costs are not recognised as part of the costs because the production period is less than twelve months. Spare parts for equipment are generally reported under inventories. If they were acquired in connection with the acquisition of the equipment, or in a separate acquisition meet the definition of an asset, then they are reported under fixed assets.

Pension provisions and similar obligations are determined in accordance with IAS 19 (Employee Benefits). For numerous employees, the Group makes provisions for retirement either directly or indirectly through contributions to pension funds. Various post-employment benefit plans are in place, depending on the legal, economic, and tax framework in each country, which are generally based on employees' years of service and remuneration. The pension provisions include those from current pensions and from entitlements from pensions to be paid in the future.

At HeidelbergCement, the company pension schemes include both defined contribution and defined benefit plans. In defined contribution plans, the Group pays contributions into various financing vehicles. After paying the contributions, the Group has no further legal or constructive obligations to fund past service benefits. In defined benefit plans, the Group's obligation is to provide the agreed benefits to current and former employees. A distinction is made between benefit systems financed by provisions and those financed by funds.

The most significant post-employment benefit plans financed by funds exist in the USA, Canada, the United Kingdom, Belgium, Australia, Indonesia, and Norway. The retirement benefit system in Indonesia consists of a statutory defined benefit plan and a company-based defined contribution plan financed by funds, the benefits from which may be set off against the statutory benefits. In Germany, France, Italy, and Sweden, the retirement benefit plans are financed by means of provisions. HeidelbergCement also has a retirement benefit system financed by provisions to cover the health care costs of pension recipients in the USA, Belgium, Canada, the United Kingdom, Indonesia, France, Morocco, and Ghana. In addition, the Group grants its employees other long-term employee benefits, such as jubilee benefits, old age part-time arrangements, or early retirement commitments.

The Group areas or countries North America, the United Kingdom, and Germany account for approximately 93 % of the defined benefit obligations.

The majority of defined benefit pension plans in North America have been closed to new entrants, and many have been frozen for future accruals. In North America, a retirement plans committee has been established by HeidelbergCement to serve as oversight of the pension administration and fiduciary responsibilities of HeidelbergCement in relation to the retirement plans and to act as plan administrator. The regulatory framework for each of the qualified pension plans in the USA has a minimum funding requirement based on the statutory funding objective agreed with the plan administrator. In the USA, the Employee Retirement Income Security Act of 1974 (ERISA) provides the national legal framework. ERISA sets minimum standards for participation, vesting, benefit accrual, and funding and requires accountability of plan fiduciaries. In Canada, the pension plans of HeidelbergCement fall under the jurisdiction of the provinces of Alberta or Ontario.

In the United Kingdom, the main defined benefit pension plans operate under UK trust law and under the jurisdiction of the UK Pensions Regulator. These plans are run by groups of trustees, some of whom are appointed by the sponsoring employer and some of whom are nominated by the plan members. The trustees are obligated by the statutory funding framework mandated by UK law to meet the statutory funding objective of having sufficient and appropriate assets to cover the schemes' technical provisions. All of the main defined benefit pension plans in the United Kingdom are closed to new entrants and in most cases to future accruals. Benefits are granted under a number of plans, many of which are final salary plans. As such, the liabilities are expected to trend downward in the mid- to long-term as benefits are paid. Liability driven investment (LDI) strategies are used extensively in the United Kingdom and the UK pension plans are currently, in aggregate, overfunded on an IAS 19 basis. As pension benefits in the United Kingdom receive inflationary increases after benefit commencement, these benefits are subject to inflation risk. This risk is mitigated in many cases through the use of LDI products and/or through the use of caps on the maximum pension indexation granted. Given the closed nature of the arrangements, the liabilities in the United Kingdom are only marginally impacted by the salary trend assumption.

In Germany, pension plans operate under the framework of German Company Pension Law (BetrAVG) and general regulations based on German Labour Law. The main pension plans were closed to new entrants in 2005. Employees hired prior to 2006 continue to earn benefits under these arrangements. The closed pension arrangements have either a final salary plan design or a fixed benefit per year of service structure. In addition, individual pension entitlements have been granted to the members of the Managing Board (please refer to the Management Report, chapter Remuneration report on page 152). The German pension benefits are largely unfunded.

The liabilities in respect of the benefits granted are subject to the following major risks:

– Discount rate risks in all cases where falling market interest rates could result in a higher present value being placed on the remaining future obligations,

– Inflation risks (in particular where benefits are linked to salary, or pension payments are subject to inflation adjustments),

– Asset performance risks, in countries where funded pension plans are present (such as the USA and the United Kingdom); these risks have been mitigated in part through the use of liability driven investment strategies,

– Longevity risks in cases where benefits would be paid for a longer period in the future than is currently anticipated in the mortality assumptions used to estimate the future benefits payable,

– Changes to national funding requirements may accelerate cash flows required to meet pension funding requirements, and national law might also mandate increases in benefits beyond those presently agreed upon.

The pension obligations and the available plan assets are valued annually by independent experts for all major Group companies. The pension obligations and the expenses required to cover this obligation are measured in accordance with the internationally accepted projected unit credit method.

For the purpose of financial reporting, the actuarial assumptions are dependent on the economic situation in each individual country. The interest rate is based on the interest rate level observed on the measurement date for high-quality corporate bonds (AA rating) with a duration corresponding to the pension plans concerned in the relevant country. In countries or currency areas without a deep market for corporate bonds, the interest rate is determined on the basis of government bonds or using other approximation methods.

Actuarial gains and losses result from increases or decreases in the present value of the defined benefit obligations versus the expected amounts. These may be caused by, for example, changes in the calculation parameters or deviations between the actual and expected development of the pension obligations. These amounts, as well as the difference between the actual asset performance and the interest income shown in profit or loss, and the effect of the asset ceiling are reported in other comprehensive income.

Defined contribution accounting has been used for certain multi-employer pension plans for which insufficient information is available to use defined benefit accounting.

Other provisions are recognised in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) if, as a result of past events, there are legal or constructive obligations towards third parties that are likely to lead to outflows of resources embodying economic benefits that can be reliably determined. The provisions are calculated on the basis of the best estimate, taking into account all identifiable risks.

The capital market components of the Group-wide virtual stock option plan are accounted for as cash-settled, share-based payment transactions in accordance with IFRS 2 (Share-based Payment). As at the reporting date, a provision is recognised pro rata temporis in the amount of the fair value of the payment obligation. Changes in the fair value are recognised in profit or loss. The fair value of the options is determined using a recognised option price model.

Deferred tax assets and liabilities are recognised in accordance with the balance sheet liability method (IAS 12 Income Taxes). This means that, with the exception of goodwill arising on capital consolidation, deferred taxes are principally recognised for all temporary differences between the IFRS financial statements and the tax accounts. However, deferred tax assets are only recognised to the extent that it is probable that taxable income will be sufficiently available in the future. Furthermore, deferred tax assets are recognised on unused tax losses carried forward, to the extent that the probability of their recovery in subsequent years is sufficiently high. Deferred tax liabilities are considered in connection with undistributed profits from subsidiaries, joint ventures, and associates, unless HeidelbergCement is able to control the dividend policy of the companies and no dividend distribution or disposal is anticipated in the foreseeable future. The deferred taxes are measured using the rates of taxation that, as of the reporting date, are applicable or have been announced as applicable in the individual countries for the period when the deferred taxes are realised. Deferred tax assets and liabilities are offset if there is an enforceable right to set off current tax assets and liabilities and if they relate to income taxes levied by the same taxing authority and the Group intends to settle its current tax assets and liabilities on a net basis. In principle, changes in the deferred taxes in the balance sheet lead to deferred tax expense or income. If circumstances that lead to a change in the deferred taxes are recognised outside profit or loss in other comprehensive income or directly in equity, the change in deferred taxes is also taken into account in other comprehensive income or directly in equity. If deferred taxes were recognised via other comprehensive income, they are also subsequently released via other comprehensive income.

Financial instruments are any contracts that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. The financial instruments include non-derivative and derivative financial instruments.

Non-derivative financial instruments are, in principle, measured at fair value when first recognised. These include financial investments, loans and receivables granted, and financial liabilities.

Financial instruments classified as held for trading are measured at fair value through profit or loss.

Financial investments that are categorised as available for sale in accordance with IAS 39 (Financial Instruments: Recognition and Measurement) are regularly measured at fair value if it can be reliably ascertained. This class of instruments is referred to in the following as investments available for sale at fair value. The unrealised gains and losses resulting from the subsequent measurement are recognised outside profit or loss in equity through other comprehensive income. The stock market price at the reporting date forms the basis of the fair value. If the fair values of investments available for sale at fair value fall below the cost and there is objective evidence of a significant or permanent impairment, the accumulated losses previously recognised in equity are recognised directly in profit or loss. Investments in equity instruments, for which no listed price on an active market exists and whose fair values cannot be reliably determined with justifiable expense, are measured at cost. This class of instruments is referred to in the following as investments available for sale at cost. This concerns other participations that are not listed on the stock exchange. If there is objective evidence of significant or permanent impairment, these impairment losses are directly recognised in profit or loss. The recognition of reversals of impairment in profit or loss for equity instruments held is not permitted.

Loans and receivables are measured at amortised cost, using the effective interest method if applicable, provided that they are not linked with hedging instruments. This concerns non-current receivables, interest-bearing receivables, trade receivables, and other current operating receivables. In principle, the amortised cost in the case of current receivables corresponds to the nominal value or the redemption amount. Receivables are derecognised from the balance sheet when all risks and rewards were transferred and the receipt of payment associated with the receivables is ensured. In case not all risks and rewards are transferred, the receivables are derecognised when the control over the receivables has been transferred. If there is objective evidence of impairment of the loans and receivables (e.g. significant financial difficulties or negative changes in the market environment of the debtor), impairment losses are recognised in profit or loss. For trade receivables, the impairment losses are recognised through the use of an allowance account. A derecognition is booked as soon as a default of receivables occurs. Reversals are carried out if the reasons for the impairment losses no longer apply. In the past financial year, there were no financial assets (as in the previous year) whose terms have been changed which would otherwise have been overdue or impaired.

Non-derivative financial liabilities are initially recognised at the fair value of the consideration received or at the value of the cash received less transaction costs incurred, if applicable. These instruments are subsequently measured at amortised cost, using the effective interest method if applicable. This includes trade payables, other operating liabilities, and financial liabilities.

Non-current financial liabilities are discounted. In principle, the amortised cost in the case of current financial liabilities corresponds to the nominal value or the redemption amount.

The Group has not yet made use of the possibility of designating non-derivative financial instruments, when first recognised, as financial instruments at fair value through profit or loss. All non-derivative financial instruments are accounted for at the settlement date.

A **derivative financial instrument** is a contract whose value is dependent on a variable, which usually requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors, and which is settled at a later date. All derivative financial instruments are measured at fair value on the trade date when first recognised. The fair values are also relevant for the subsequent measurement. For derivative financial instruments, the fair value corresponds to the amount that HeidelbergCement would either receive or have to pay at the reporting date in the case of early termination of this financial instrument. This amount is calculated on the basis of the relevant exchange and interest rates on the reporting date. The fair value of derivative financial instruments traded in the market corresponds to the market value.

In the HeidelbergCement Group, derivative financial instruments such as currency forwards, currency option contracts, interest rate swaps, or interest rate options are, in principle, used to minimise financial risks. The focus is on hedging interest, currency, and other market price risks. No derivative financial instruments are contracted or held for speculative purposes.

Contracts concluded for the purpose of receiving or supplying non-financial items in accordance with the company's expected purchase, sale, or usage requirements and held as such (own use contracts) are accounted for as pending transactions rather than derivative financial instruments. Written options for the purchase or sale of non-financial items that can be cash-settled are not classified as own use contracts.

Hybrid financial instruments consist of a non-derivative host contract and an embedded financial derivative. The two components are legally inseparable. These are usually contracts with riders. Separate accounting of the embedded derivative and the host contract is required if the economic characteristics and risks are not closely linked with the host contract, the embedded derivative fulfils the same definition criteria as a stand-alone derivative, and the hybrid financial instrument is not measured at fair value through profit or loss. Alternatively, the hybrid financial instrument may be measured in total at fair value through profit or loss unless the embedded derivative changes the resulting cash flows to an insignificant degree or separation of the embedded derivative is not permitted.

Hedge accounting denotes a specific accounting method that modifies the accounting of the hedged item and hedge of a hedging relationship so that the results of measuring the hedged item or hedge are recognised in the period incurred directly in equity or in profit or loss. Accordingly, hedge accounting is based on matching the offsetting values of the hedging instrument and the hedged item.

For accounting purposes, three types of hedges exist in accordance with IAS 39. Specific requirements have to be met for hedge accounting.

- Cash flow hedges
  Where necessary, HeidelbergCement hedges the risk of fluctuation in future cash flows. The risk of interest rate fluctuations in the case of variable interest is hedged by means of swaps that convert variable interest payments into fixed interest payments. This method is also used for hedging currency risks of transactions to be executed in foreign currency in the future. The fair value of the derivatives used for hedging is shown in the balance sheet. As an offsetting item, the other components of equity are adjusted directly in equity to the amount of the effective portion of the change in fair value, taking deferred taxes into account. These amounts are reclassified to the income statement when the hedged item is also recognised in profit or loss. The ineffective portion of the change in fair value is recognised directly in profit or loss.

- Fair value hedges
  In individual cases, HeidelbergCement hedges against fluctuations in the fair value of assets or liabilities. Where necessary, the currency risk that arises when financial instruments are accounted for in a currency other than the functional currency is thus hedged. In addition, the fair value of fixed interest-bearing liabilities is selectively hedged by means of conversion to variable interest. In the case of hedging against fluctuations in the fair value of certain balance sheet items (fair value hedges), both the hedging instrument and the hedged portion of the risk of the underlying transaction are recognised at fair value. Changes in fair value are recognised in profit or loss.

- Hedging a net investment in a foreign operation
  When acquiring foreign companies, the investment can, for example, be hedged with loans in the functional currency of the foreign company. In these cases, the currency risk arising on the subsidiary's equity through fluctuations in exchange rates (translation risk) is designated as a hedged risk. The loans are translated using the exchange rate applicable at the reporting date. As an offsetting item, the foreign currency translation reserves in equity are adjusted. Consequently, translation differences are recognised outside profit or loss in equity through other comprehensive income until the net investment is sold, and are recognised in profit or loss on its disposal.

Derivative financial instruments for which no hedge accounting is used nevertheless represent an effective hedge in an economic sense within the context of the Group strategy. In accordance with IAS 39, these instruments are classified for accounting purposes as held for trading. The changes in the fair values of these derivative financial instruments recognised in profit or loss are almost offset by changes in the fair values of the hedged items.

Assets held for sale and discontinued operations are shown separately in the balance sheet if they can be sold in their present condition and the sale is highly probable. Assets classified as held for sale are recognised at the lower of their carrying amount and fair value less costs to sell. According to their classification, liabilities directly connected with these assets are shown in a separate line on the liability side of the balance sheet.

For discontinued operations, the profit after tax is shown in a separate line in the income statement. In the statement of cash flows, the cash flows are broken down into continuing and discontinued operations. For discontinued operations, the previous year's values in the income statement, the statement of cash flows, and the segment reporting are adjusted accordingly in the year of the reclassification. The Notes include additional details on the assets held for sale and discontinued operations.

Contingent liabilities and assets are, on the one hand, possible obligations or assets arising from past events and whose existence depends on the occurrence or non-occurrence of one or more uncertain future events that are not within the Group's control. On the other hand, contingent liabilities are current obligations arising from past events for which there is unlikely to be an outflow of resources embodying economic benefits or where the scope of the obligation cannot be reliably estimated. Contingent liabilities are not included in the balance sheet unless they are current obligations that have been taken on as part of a business combination. Contingent assets are only recognised in the balance sheet if they are virtually certain. Insofar as an outflow or inflow of economic benefits is possible, details of contingent liabilities and assets are provided in the Notes.

Finance leases, for which all risks and rewards incidental to ownership of the leased asset are transferred to the Group, lead to capitalisation of the leased asset at the inception of the lease. The leased asset is recognised at the lower of its fair value and the present value of the minimum lease payments. Lease payments are apportioned between the finance charge and the reduction of the outstanding liability so as to produce a constant rate of interest on the remaining balance of the liability over the term of the lease. The finance charge is recognised in profit or loss. Leased assets are generally depreciated over the useful life of the asset. If there is insufficient certainty that the transfer of title to the Group will take place at the end of the lease term, the leased asset is depreciated over the shorter of the expected useful life and the lease term.

Lease payments for **operating leases** are recognised as an expense in the income statement over the lease term on a straight-line basis.

Income is recognised if it is sufficiently probable that the Group will receive future economic benefits that can be reliably determined. It is measured at the fair value of the consideration received or receivable; sales tax and other duties are not taken into account. Revenue is recognised as soon as the goods have been delivered and the risks and rewards in accordance with the contractually agreed terms of delivery have passed to the purchaser. Interest income is recognised pro rata temporis using the effective interest method. Dividend income is realised when the legal entitlement to payment arises.

Application of new accounting standards

First-time application of accounting standards in the financial year
In the 2016 financial year, HeidelbergCement applied the following standards and interpretations of the International Accounting Standards Board (IASB) for the first time.

First-time application of accounting standards

Title
Amendments to IAS 16 and IAS 38: Clarification of Acceptable Methods of Depreciation and Amortisation
Amendments to IFRS 11: Accounting for Acquisitions of Interests in Joint Operations
Annual Improvements to IFRS Standards 2012-2014 Cycle

- The **amendments to IAS 16 and IAS 38: Clarification of Acceptable Methods of Depreciation and Amortisation** make it clear that revenue-based methods of depreciation and amortisation cannot be used in general.

- The **amendments to IFRS 11: Accounting for Acquisitions of Interests in Joint Operations** regulate the accounting of the acquisition of interests in joint operations that constitute a business. The principles of IFRS 3 for business combinations are consequently to be applied on first-time consolidation.

- As part of the **Annual Improvements to IFRS Standards 2012-2014 Cycle**, the IASB made minor amendments to a total of four standards.

The aforementioned amendments did not have any impact on the financial position and performance of the Group.

Published but not yet applicable accounting standards

The IASB and IFRS IC adopted the standards and interpretations listed below, whose application was not yet mandatory for the 2016 financial year. HeidelbergCement will not apply these standards and interpretations until the date when their application first becomes mandatory and after endorsement by the European Commission.

Published, but not yet applicable accounting standards

Title	Date of first-time application [1]	Endorsement by the EU Commission
Amendments to IAS 7 Statement of Cash Flows (Disclosure Initiative)	1 January 2017	no
Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses	1 January 2017	no
Annual Improvements to IFRS Standards 2014-2016 Cycle	1 January 2017/ 1 January 2018	no
Amendments to IFRS 2: Group Cash-settled Share-based Payment Arrangements	1 January 2018	no
IFRS 9 Financial Instruments	1 January 2018	yes
IFRS 15 Revenue from Contracts with Customers	1 January 2018	yes
IFRIC Interpretation 22 Foreign Currency Transactions and Advance Considerations	1 January 2018	no
IFRS 16 Leases	1 January 2019	no
Amendments to IFRS 10 and IAS 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	deferred indefinitely	no

1) Fiscal years beginning on or after that date

- The **amendments to IAS 7 Statement of Cash Flows** were published by IASB as part of its Disclosure Initiative and contain guidelines for additional notes on changes in liabilities arising from financing activities.

- The **amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses** addresses various questions relating to the recognition of deferred tax assets for unrealised losses arising from debt instruments available for sale measured at fair value. The amendments are not expected to have any impact on the financial position and performance of the Group.

- The **Annual Improvements to IFRS Standards 2014-2016 Cycle** relate to minor changes to a total of three standards.

- The **amendments to IFRS 2: Group Cash-settled Share-based Payment Arrangements** have a narrow scope of application and concern specific areas of the classification and measurement of share-based payment transactions. The amendments will not have any impact on the financial position and performance of the Group.

- **IFRS 9 Financial Instruments** governs the accounting of financial instruments and completely replaces IAS 39 (Financial Instruments: Recognition and Measurement). IFRS 9 pursues a new, less complex approach for the categorisation and measurement of financial assets. In doing so, it refers to the cash flow characteristics of the financial assets and the business model under which they are managed. The regulations for the accounting of financial liabilities in accordance with IFRS 9 essentially correspond to the previous regulations in IAS 39. In addition, IFRS 9 provides a new impairment model, which, in contrast to IAS 39, is not based on existing losses, but on expected credit losses. With regard to hedge accounting, IFRS 9 provides for the removal of the thresholds applied as part of retrospective effectiveness testing. Instead, evidence is now to be documented of the economic relationship between the hedged item and the hedging instrument.

Furthermore, the number of potential hedged items and the disclosures for hedge accounting were extended. The first-time application of IFRS 9 is not expected to have a significant impact on the financial position and performance of the Group.

- The objective of **IFRS 15 Revenue from Contracts with Customers** is to consolidate the wide range of regulations for revenue recognition that have been set out in various standards and interpretations to date and to establish uniform basic principles that are applicable to all industries and all categories of revenue transactions. IFRS 15 determines when and to what extent revenue is recognised. The basic principle is that revenue is recognised with the transfer of goods and services to the amount of the expected consideration (payment). IFRS 15 also includes extended guidelines on multiple-element arrangements as well as new regulations concerning the treatment of service contracts and contract modifications. IFRS 15 replaces IAS 18 (Revenue) and IAS 11 (Construction Contracts), as well as the associated interpretations. The potential impact of IFRS 15 on the consolidated financial statements is currently being examined. According to current estimates, the first-time application of IFRS 15 should not have a significant impact on the financial position and performance of the Group due to the business model of HeidelbergCement, which generally includes simple sales transactions of cement, aggregates, ready-mixed concrete, and asphalt.

- **IFRIC Interpretation 22 Foreign Currency Transactions and Advance Considerations** determines the timing of the exchange rate to be used for the translation of foreign currency transactions that include a prepayment made or received. The date used to determine the exchange rate for the underlying asset, income, or expense is generally the date of initial recognition of the asset or liability arising from the prepayment. The interpretation will not have any impact on the financial position and performance of the Group.

- **IFRS 16 Leases** provides new regulations for the accounting of leases and replaces IAS 17 (Leases) and related interpretations. For all leases, according to IFRS 16, the lessee has a fundamental obligation to account for rights and obligations arising under leases. In future, lessees will account for the right-of-use asset in the fixed assets as well as a corresponding lease liability. Leases with a term of up to twelve months and contracts with a low volume, in terms of value, are exempted from the accounting obligation. The lease liability is measured at the present value of the lease payments made during the term of the lease. The costs of the right-of-use asset include the initially recognised amount of the lease liability as well as any additional costs incurred in connection with the lease contract. The lease liability is compounded in subsequent periods and reduced by the amount of the lease payments made. The right-of-use asset is amortised on a straight-line basis over the term of the lease contract. The new regulation will lead to an increase in fixed assets in the consolidated balance sheet as well as a rise in financial liabilities. According to the current regulations of IAS 17, the expenses arising from operating leases are recognised as other operating expenses in the income statement. The future minimum lease payments (not discounted) are mentioned in the Notes under the other financial commitments. According to the regulations of IFRS 16, the expenses are reflected in the depreciation and interest expenses. Until now, payments for operating leases have been shown under cash flow from operating activities in the statement of cash flows. In future, these payments will be split between interest payments and redemption payments. While the interest payments will continue to be recorded in cash flow from operating activities, the redemption payments will be assigned to the cash flow from financing activities.

Estimation uncertainty and assumptions

The presentation of the financial position and performance in the consolidated financial statements is dependent on estimates and assumptions made by the management, which affect the amounts and presentation of the assets and liabilities, expenses and income, and contingent liabilities accounted for in the period. The actual values may differ from these estimates. The assumptions and estimates relate particularly to the necessity and calculation of impairment of goodwill, the recognition of deferred tax assets, and the measurement of pension provisions and other provisions, as well as the measurement of specific financial instruments (e.g. earn-out clauses and put options of non-controlling interests).

A cash flow-based method in accordance with IAS 36 (Impairment of Assets) is used to determine the recoverable amount of groups of cash-generating units as part of the impairment test for goodwill. In particular, estimates are required in relation to future cash flows of the groups of cash-generating units as well as to the discount rates and growth rates used (discounted cash flow method). A change in the influencing factors may have a significant impact on the existence or amount of impairment losses. Explanations concerning the composition of the carrying amount of goodwill and the impairment test are provided in Note 32 Intangible assets.

To assess the future probability that deferred tax assets can be utilised, various estimates must be adopted, e.g. operational plans, utilisation of losses carried forward, and tax planning strategies. If the actual results deviate from these estimates, this may impact the financial position and performance. More detailed information on deferred tax assets is given in Note 11 Income taxes.

The obligations arising from defined post-employment benefit plans are determined on the basis of actuarial methods, which are based on assumptions and estimates concerning the discount rate, pension increase rate, life expectancy, and other influencing factors. A change in the underlying parameters may lead to changes in the amounts recognised in the balance sheet. Further details are given on page 188 f. and in Note 44 Pension provisions.

Provisions for damages and environmental obligations are measured on the basis of an extrapolation of the claims and estimates of the development of costs. A change in the influencing parameters may have an impact on the income statement as well as the amounts recognised in the balance sheet. The recognition and measurement of the other provisions are based on estimates of the probabilities of future outflow of resources and on the basis of empirical values and the circumstances known at the reporting date. The actual outflow of resources may differ from the outflow of resources expected at the reporting date and may have an impact on the recognition and measurement. Further explanations on provisions can be found in Note 45 Other provisions.

The measurement of specific financial instruments, such as earn-out clauses and put options of non-controlling interests, which are not traded on an active market, is based on best possible estimates using probability forecasts and recognised actuarial methods.

Scope of consolidation

In addition to HeidelbergCement AG, the consolidated financial statements include 816 subsidiaries that have been fully consolidated, of which 37 are German and 779 are foreign companies. The changes in comparison with 31 December 2015 are shown in the following table.

Number of fully consolidated companies

	Germany	Abroad	Total
31 December 2015	32	679	**711**
First-time consolidations	5	119	**124**
Divestments		-5	**-5**
Incorporations/mergers/liquidations/method changes		-14	**-14**
31 December 2016	37	779	**816**

As part of the first-time consolidation of the Italcementi Group, 106 subsidiaries were newly included in the consolidated financial statements.

A list of shareholdings of the HeidelbergCement Group as at 31 December 2016 on the basis of the regulations of § 313, section 2 of the German Commercial Code (HGB) is provided on page 261 f. It contains an exhaustive list of all subsidiaries that make use of the exemption from disclosure obligations in accordance with § 264b of the German Commercial Code (HGB).

Business combinations in the reporting year

Acquisition of Italcementi

On 1 July 2016, HeidelbergCement completed the acquisition of 45.0 % of all shares, or 45.5 % of the outstanding shares, in Italcementi S.p.A., Bergamo, Italy, from Italmobiliare S.p.A. All conditions for the closing of the transaction have been fulfilled following the approval of the relevant competition authorities.

With the closing of the transaction, HeidelbergCement acquired 157,171,807 ordinary shares, or 45.5 % of the outstanding share capital of Italcementi, for a total purchase price of €1,595.5 million. Of these ordinary shares, 82,819,920 were acquired against cash, and the remaining 74,351,887 were acquired through the issue of 10,500,000 new HeidelbergCement shares.

In the context of the acquisition, HeidelbergCement AG carried out a capital increase in return for contributions in kind. The issuance of 10,500,000 new shares to Italmobiliare was made from the Authorised Capital II excluding the subscription rights of shareholders. The Group's subscribed share capital thus rose by €31,500,000, from €563,749,431 to €595,249,431.

The acquisition entailed a legal obligation to issue a public tender offer to the remaining shareholders of Italcementi. The offer document was published on 28 July 2016. The subscription period commenced on 29 August 2016 and ended on 30 September 2016. The offer price was €10.60 per Italcementi share. This corresponds to a premium of 70.7 % compared with the average price of the Italcementi share in the three months prior to the announcement of the acquisition at the end of July 2015.

After expiration of the acceptance period on 30 September 2016, 165,371,303 Italcementi shares were tendered for sale. The payment of the purchase price to the shareholders who had tendered their shares was made on 7 October 2016. HeidelbergCement also acquired 14,000,000 Italcementi shares outside the tender offer via the stock exchange. In total, the tendered and purchased shares as well as the shareholding already acquired from Italmobiliare on 1 July 2016 represent around 97.4 % of the subscribed share capital and voting rights in Italcementi.

As HeidelbergCement had exceeded the threshold of 95 % of the share capital of Italcementi after expiration of the acceptance period, HeidelbergCement exercised its right to purchase the remaining 8,865,966 shares, which had not been tendered yet, at the same conditions (€10.60 per share) offered to the other shareholders (Joint Procedure). The purchase price was paid on 12 October 2016. The Italcementi share was delisted from the stock exchange on the same day.

The acquisition stages and the fair value of the consideration transferred (acquisition costs) are shown in the following table.

Acquisition of outstanding shares in Italcementi S.p.A.

	Number of shares	%	Consideration transferred €m
Acquisition of shares from Italmobiliare against cash	82,819,920	23.98 %	**877.9**
Acquisition of shares from Italmobiliare against issuance of new shares of HeidelbergCement AG	74,351,887	21.52 %	**717.6**
1 July 2016	157,171,807	45.50 %	**1,595.5**
Acquisition of shares outside of the offer against cash	14,000,000	4.05 %	**148.4**
Acquisition of shares tendered in the offer	165,371,303	47.88 %	**1,752.9**
Acquisition of shares within the scope of the "Joint Procedure"	8,865,966	2.57 %	**94.0**
	345,409,076	100.00 %	**3,590.8**

The fair value for a new share of HeidelbergCement AG was set at €68.34 on the basis of the closing price in the Xetra trading system on 1 July 2016.

With this transaction, HeidelbergCement is acquiring a portfolio of plants and quarries that complements the international presence of the company in geographical terms. Italcementi is represented in 22 countries and has strong market positions in France, Italy, USA, and Canada. The company is also active in emerging countries with high growth potential, such as India, Egypt, Morocco, and Thailand. Aside from its modern and efficient plants, Italcementi also owns extensive reserve positions in cement and aggregates.

As a result of the business combination with Italcementi, HeidelbergCement is now the global market leader in aggregates, the second-largest manufacturer of cement, and the number three worldwide for ready-mixed concrete. The geographical presence of Italcementi strengthens the activities of HeidelbergCement in each of its core regions. HeidelbergCement is thus expanding its international presence to several significant markets, in which there are no overlaps between the two companies. The portfolio in Western Europe is extended to include leading market positions in France and Italy. In North America, the activities of HeidelbergCement are rounded out in eastern Canada in particular. The transaction strengthens the presence in the USA, India, and Kazakhstan. HeidelbergCement also gains new market positions in rapidly growing markets such as Egypt, Morocco, and Thailand. In Europe, Italcementi adds locations on the Bulgarian and Spanish coasts. As a result of the transaction, HeidelbergCement receives further activities in dynamically growing metropolitan regions such as Paris, Milan, Cairo, Marrakesh, Chennai, and Bangkok, thereby strengthening its strategic focus on urban centers.

Accounting for the business combination

The acquisition of the shareholding in Italcementi was recorded as a business combination with effect from 1 July 2016. The shares acquired on 1 July 2016 represented 45.5 % of the voting rights. However, on account of the remaining voting rights being in free float and the composition of management, they allowed HeidelbergCement to unilaterally control the major activities of Italcementi. The individual acquisition stages described above are considered as a linked transaction and treated as a single transaction in the context of the accounting for the business combination. Accordingly, Italcementi is included in the consolidated financial statements from 1 July 2016 with a capital share of 100 %.

The following table shows the provisional fair values of the assets and liabilities of the Italcementi Group as at the acquisition date.

Provisional fair values recognised as at the acquisition date

€m	Italcementi
Non-current assets	
Intangible assets	168.5
Property, plant and equipment	
Land and buildings	1,891.4
Plant and machinery	1,938.9
Other operating equipment	88.2
Prepayments and assets under construction	197.3
	4,115.9
Investments in joint ventures	85.5
Investments in associates	206.3
Financial investments, loans and derivative financial instruments	53.1
Fixed assets	4,629.2
Deferred taxes	209.7
Other non-current receivables and income tax assets	120.5
Total non-current assets	4,959.4
Current assets	
Inventories	593.9
Current interest-bearing receivables	38.3
Trade receivables	507.5
Other current operating receivables and income tax assets	313.6
Short-term financial investments and derivative financial instruments	124.8
Cash and cash equivalents	617.0
Total current assets	2,195.2
Disposal groups held for sale	999.8
Total Assets	8,154.3
Non-current liabilities	
Bonds payable	1,428.1
Bank loans	282.8
Other non-current interest-bearing liabilities	21.4
Pension provisions	249.5
Deferred taxes	479.3
Other non-current provisions	508.7
Other non-current operating and income tax liabilities	96.0
Total non-current liabilities	3,065.9
Current liabilities	
Bonds payable (current portion)	542.9
Bank loans (current portion)	288.6
Other current interest-bearing liabilities incl. non-controlling interests with put options	344.6
Other current provisions	22.2
Trade payables	612.6
Other current operating and income tax liabilities	539.5
Total current liabilities	2,350.4
Liabilities associated with disposal groups	172.7
Total liabilities	5,588.9
Net Assets	2,565.4

As a result of the size and complexity of the transaction, the purchase price allocation has not yet been completed. The fair values of the acquired assets and liabilities as well as the contingent liabilities may be revised within twelve months from the acquisition date.

The provisional goodwill of €1,665.9 million arising from the business combination is calculated as follows:

Calculation of the provisional goodwill

€m	Italcementi
Acquisition costs	3,590.8
Preliminary fair value of acquired net assets	2,565.4
Non-controlling interest within Italcementi Group	-640.6
Provisional goodwill	**1,665.9**

The non-controlling interests within the Italcementi Group were measured on the basis of their proportionate interest in the fair value of the identifiable net assets. The provisionally recognised goodwill, which is not deductible for tax purposes, represents synergy and market growth potential arising from the business combination.

In connection with the acquisition, contingent liabilities of €276.1 million were reported on the balance sheet, which are mainly associated with legal, environmental and other risks.

As part of the business combination, receivables with a provisional fair value of €747.3 million were acquired. These concern loans and current financial receivables of €55.2 million, trade receivables amounting to €507.5 million, and other operating receivables to the amount of €184.6 million. The gross value of the contractual receivables totals €808.7 million, of which €61.4 million is likely irrecoverable.

In connection with the acquisition, transaction costs of €24.3 million were recognised in profit or loss in the additional ordinary expenses.

The Italcementi Group has contributed €1,807.1 million to revenue and €-51.1 million to the result from continuing operations since the acquisition. If the acquisition had taken place on 1 January 2016, contributions to revenue would be €1,883.9 million higher and the result from continuing operations €174.1 million lower.

Additional business combinations

To secure raw material reserves and to strengthen its market position in Australia, HeidelbergCement acquired the business of Rocla Quarry Products and 100 % of the shares in Calga Sands Pty Ltd, New South Wales (together: RQP), on 29 January 2016 as part of an asset deal. RQP operates 12 large sand pits in the metropolitan regions of Perth, Adelaide, Melbourne, and Sydney with a production of about 6 million tonnes per year. It also has a number of smaller production locations and mineral reserves. The purchase price settled in cash amounts to €98.2 million. The goodwill of €0.6 million is not tax-deductible and represents synergy potential. In connection with the business combination, transaction costs of €4.2 million were recognised in profit or loss in the additional ordinary expenses.

On 21 April 2016, HeidelbergCement acquired 100 % of the shares in both the holding company ACH Investments Limited, Mauritius, and its subsidiary Austral Cimentos Sofala, SA, Maputo, Mozambique. Austral Cimentos Sofala operates a grinding plant in Dondo, near to the port of Beira, with an annual capacity of around 350,000 tonnes. With this acquisition, HeidelbergCement strengthens its market presence in southeastern Africa.

The purchase price for the companies totalled €8.8 million and was paid in cash. The recognised goodwill resulting from the business combinations, which is not deductible for tax purposes, amounts to €18.6 million and represents growth potential.

To exploit synergy potential in the aggregates business line, Norbetong AS, a Norwegian subsidiary of HeidelbergCement, incorporated the business activities of two quarries in Norsk Stein A/S (part of the Mibau Group, which was previously accounted for using the equity method), also based in Norway, against the allocation of company rights on 4 October 2016. The new shareholding in Norsk Stein A/S was then transferred as an intra-Group transaction from Norbetong AS to Heidelberger Sand und Kies GmbH, Heidelberg, and incorporated by this company against the allocation of company rights in Mibau Holding GmbH, Cadenberge. With these linked transactions, HeidelbergCement, which already held 50 % of the shares in the Mibau Group, acquired a further 10 % of the shares and gained control of the Mibau Group, which was therefore fully consolidated with effect from 1 October 2016. The total cost of the business combination is made up of the fair value of the previous equity interest of €72.0 million as well as the proportionate interest in the fair value of the incorporated business activities effectively transferred of €10.2 million. The revaluation of the previous shareholding resulted in a profit of €34.8 million, which was recognised in the additional ordinary income. The non-controlling interests of €29.8 million were measured on the basis of their proportionate interest in the fair value of the identifiable net assets. The provisionally recognised goodwill, which is not deductible for tax purposes, amounts to €37.5 million. The purchase price allocation is not yet been completed, as not all measurements have been finalised. The transaction costs of €0.4 million were recognised in profit or loss in the additional ordinary expenses.

The following table shows the provisional fair values of the assets and liabilities of the business combinations as at the acquisition date.

Provisional fair values recognised as at the acquisition date

€m	Australia	Mozambique	Mibau Group	Total
Intangible assets	71.4	0.0	0.8	**72.2**
Property, plant and equipment	24.5	7.7	129.7	**161.9**
Financial assets			2.4	**2.4**
Inventories	2.5	3.9	24.6	**31.1**
Trade receivables		0.0	41.7	**41.7**
Cash and cash equivalents		0.6	12.0	**12.6**
Other assets	2.7	0.7	6.1	**9.6**
Total assets	101.2	13.0	217.3	**331.5**
Provisions	3.4		0.4	**3.8**
Non-current liabilities		0.5	81.3	**81.8**
Current liabilities	0.3	22.3	61.1	**83.8**
Total liabilities	3.7	22.8	142.9	**169.3**
Net assets	97.6	-9.8	74.5	**162.2**

The acquired property, plant and equipment relates to land, land rights, and buildings (€71.1 million), plant and machinery (€85.9 million), other equipment (€2.4 million), and prepayments and assets under construction (€2.6 million).

The companies have contributed €123.0 million to revenue and €3.5 million to consolidated results since their acquisition. If the acquisitions had taken place on 1 January 2016, contributions to revenue and consolidated results would be €189.7 million and €13.6 million higher, respectively.

Furthermore, HeidelbergCement effected smaller business combinations during the reporting period that individually and collectively were of minor importance for the presentation of the financial position and performance of the Group.

Business combinations in the previous year

On 13 March 2015, HeidelbergCement and the Norwegian KB Gruppen Kongsvinger AS signed an agreement on the combination of the concrete product activities of their Swedish subsidiaries Abetong AB and Contiga AB. The transaction was concluded on 28 September 2015. The newly formed Nordic Precast Group AB, which is the result of this combination and in which HeidelbergCement holds a 57.6 % stake, operates in Norway, Sweden, Denmark, Germany, Poland, and Latvia, and is assigned to the Northern and Eastern Europe-Central Asia Group area. The combination aims at improving our competitiveness in the concrete products area in Northern Europe. The fair value of the consideration transferred for the acquisition of shares in the Contiga Group amounts to €80.9 million. It comprises the 42.4 % of shares in the recently founded Nordic Precast Group AB amounting to €62.0 million as well as a cash payment of €18.9 million. Non-controlling interests within the Contiga Group amount to €2.5 million. It is contractually agreed that HeidelbergCement subsequently acquires these non-controlling interests. This agreement is accounted for as a put option of the non-controlling interests and shown accordingly. The purchase price allocation has been completed.

This resulted in an increase of €6.2 million in the fair value of land recorded in property, plant and equipment and a rise of €1.4 million in deferred tax liabilities in comparison with 31 December 2015. The final recognised goodwill of €77.2 million, which ensued from the business combination and is not deductible for tax purposes, also includes the amount attributable to the non-controlling interests in Nordic Precast Group AB. The goodwill represents the growth potential arising from an improved market position.

To expand its market shares in the ready-mixed concrete and aggregates business lines in Poland, HeidelbergCement acquired 100 % of the shares of both Duda Beton Sp.z.o.o. and Duda Kruszywa Sp.z.o.o., Opole, on 15 October 2015. The purchase price amounted to €18.2 million and was paid in cash. The goodwill of €7.9 million is not tax-deductible. The purchase price allocation has been completed. In comparison with 31 December 2015, there were no material adjustments.

During the previous year, HeidelbergCement also carried out further acquisitions in the Group areas Western and Northern Europe, North America, and Asia-Pacific, which are immaterial when considered individually. The total acquisition costs amounted to €30.4 million and are made up of cash payments of €27.7 million and the fair value of previous shareholdings of €2.7 million. The revaluation of the previously held shares resulted in a profit of €1.9 million, which was recognised in the additional ordinary income. Goodwill amounted to a total of €5.5 million and is not deductible for tax purposes.

The following table shows the fair values of the assets and liabilities of the business combinations as at the acquisition date.

Fair values recognised as at the acquisition date

€m	Contiga Group	Poland	others	Total
Intangible assets	0.5	0.0	3.2	**3.6**
Property, plant and equipment	51.8	9.9	20.3	**82.0**
Financial assets	1.9		0.1	**2.0**
Inventories	6.3	0.9	1.9	**9.1**
Trade receivables	30.7	5.3	8.3	**44.2**
Cash and cash equivalents	16.3	0.4	1.1	**17.7**
Other assets	15.5	0.5	1.6	**17.6**
Total assets	122.9	17.0	36.3	**176.2**
Deferred taxes	5.1		1.7	**6.9**
Provisions	0.5	0.5	0.7	**1.7**
Non-current liabilities	28.6	0.4	1.8	**30.8**
Current liabilities	82.5	5.8	7.0	**95.3**
Total liabilities	116.7	6.6	11.2	**134.5**
Net assets	6.2	10.3	25.1	**41.6**

Divestments in the reporting year

The US companies Hanson Permanente Cement, Inc., Phoenix, and Kaiser Gypsum Company, Inc., Raleigh, report claims for compensation arising from legal disputes, which were transferred to the HeidelbergCement Group as part of the takeover of the Hanson Group in 2007. The claims relate to health problems allegedly caused by the sale of products containing asbestos. On 30 September 2016, these two companies filed a voluntary bankruptcy petition to a US bankruptcy court in accordance with Chapter 11 of the US Bankruptcy Code. The objective is, among other things, to establish a trust to which all current and future asbestos personal injury claims will be channelled pursuant to section 524(g) of the US Bankruptcy Code. These companies are subject to court proceedings as a result of the voluntary bankruptcy filing. The control of the HeidelbergCement Group is therefore no longer given according to IFRS 10, and the companies were deconsolidated with their subsidiaries on 30 September 2016.

The following table shows the assets and liabilities as at the date of divestiture.

Assets and liabilities as at the date of divestiture

€m	Total
Intangible assets	**1.0**
Property, plant and equipment	**161.5**
Other non-current receivables	**390.2**
Cash and cash equivalents	**0.1**
Other assets	**82.9**
Total assets	**635.6**
Provisions	**310.9**
Liabilities	**57.0**
Total liabilities	**367.9**
Net assets	**267.7**

The additional ordinary expenses arising from the deconsolidation amount to €19.1 million. The disposal of the net assets is offset by the investments retained in the companies at a fair value of €248.6 million as at the date of divestiture. The participations are shown as financial investments available for sale at fair value. The fair value as at the reporting date is €265.8 million.

The fair value of the investments retained in the companies is essentially determined by the value of the current business operations. It has been calculated on the basis of expert opinions using the DCF method. The resulting value is essentially derived from the value of the land held by the companies, which was calculated on the basis of actual transactions relating to comparable sites while taking into account the recultivation expenses still to be incurred. The asbestos liabilities were estimated using the expected insurance deductible to be paid until completion, taking into consideration the value of the existing insurance coverage for the asbestos claims. Current receivables and liabilities were reported at their nominal value, remaining non-current receivables were discounted.

Uncertainties relating to the determination of the fair value of the investments in these companies mainly result from the appraisal of land. Any changes to the market situation could have a positive or negative impact on this figure. In addition, uncertainties exist regarding the amount of the recultivation expenses to be considered. The following table shows the effect of variations of those unobservable inputs on the fair value of the investment.

Sensitivity of the fair value

Inputs	Variance	Change of fair value in €m	Variance	Change of fair value in €m
Commercial land value	+5 %	**5.7**	-5 %	**-6.7**
	+10 %	**12.4**	-10 %	**-13.3**
Recultivation expenses	+5 %	**-3.8**	-5 %	**3.8**
	+10 %	**-7.6**	-10 %	**7.6**

Divestments in the previous year

Based on the findings of the report by the British Competition Commission on the aggregates, ready-mixed concrete, and cement market in the United Kingdom, which was published on 14 January 2014, HeidelbergCement was obliged to sell one blast furnace slag grinding plant in the 2015 financial year. The transaction was completed on 31 July 2015 with the disposal of the plant in Scunthorpe. The sales price of €30.2 million is made up of a cash payment of €27.4 million and a non-current, contingent purchase price receivable of €2.8 million.

The agreement dated 18 December 2014 binds HeidelbergCement to sell the German lime operating line. The sale of the majority participation in Walhalla Kalk GmbH & Co. KG, Regensburg, as well as the participation in Walhalla Kalk Verwaltungsgesellschaft mbH, which is also based in Regensburg, was completed on 1 September 2015. Furthermore, the Istein lime plant and all shares in HC Kalkproduktionsgesellschaft Istein mbH, Efringen-Kirchen, were also sold on 1 July 2015. The sales price amounting to €48.4 million is made up of a cash payment of €39.8 million as well as a receivable of €6.5 million.

The following table shows the assets and liabilities as at the date of disposal.

Assets and liabilities as at the date of disposal

€m	UK	Germany	Total
Disposal groups held for sale	28.9	61.1	**90.0**
Liabilities associated with disposal groups		18.1	**18.1**
Net assets	28.9	42.9	**71.8**

The divestments generated losses of €5.4 million and profits of €3.7 million, which are shown in additional ordinary expenses and income, respectively.

Discontinued operations in the reporting year
HeidelbergCement has entered into an agreement via its subsidiary Ciments Français S.A.S with Aalborg Portland Holding A/S, a wholly owned subsidiary controlled indirectly by Cementir Holding SpA, to sell business activities in Belgium, primarily comprising Italcementi's Belgian subsidiary Compagnie des Ciments Belges S.A. (CCB). With the disposal, HeidelbergCement meets the condition of the European Commission to eliminate competitive concerns caused by the acquisition of Italcementi. The agreement needed to be approved by the European Commission. The sale was completed on 25 October 2016.

HeidelbergCement has entered into an agreement via its subsidiaries Essroc Corp. and Lehigh Hanson, Inc. with Argos USA LLC, a subsidiary of Cementos Argos S.A., to sell the cement plant in Martinsburg, West Virginia, and eight related cement terminals. With the disposal, HeidelbergCement meets the condition of the US competition authorities (Federal Trade Commission – FTC) to eliminate competitive concerns related to the acquisition of Italcementi. The company was disposed of on 30 November 2016.

These business activities were acquired exclusively with a view to resale and are therefore shown in the income statement, in the statement of cash flows, and in the consolidated balance sheet as a discontinued operation in accordance with IFRS 5.

Discontinued operations in the previous year
On 23 December 2014, HeidelbergCement signed an agreement with an American subsidiary of Lone Star Funds on the sale of its building products business in North America (excluding Western Canada) and the United Kingdom (referred to in summary as "Hanson Building Products"). Hanson Building Products is a leading manufacturer of pressure and gravity pipes in North America and one of the largest brick producers in North America and the United Kingdom. By selling Hanson Building Products, HeidelbergCement is consistently pursuing its strategy of focusing on the refinement of raw materials for its core products cement and aggregates, as well as the downstream concrete and asphalt activities. The transaction was concluded on 13 March 2015.

On completion and following a contractually agreed purchase price adjustment, HeidelbergCement received a payment of €1,265 million in total, which is shown as cash flow from investing activities – discontinued operations. An additional payment of up to US$100 million is conditional on the success of the business in 2015. The final agreement relating to the amount of the profit-related payment is still outstanding. The result from the discontinued operation is shown in Note 12.

Notes to the segment reporting

HeidelbergCement's segment reporting is based on the Group's internal division into geographical regions and business lines. It reflects the management organisation and divides the Group into geographical regions. In addition, a voluntary breakdown into business lines is provided.

As of the first quarter 2016, HeidelbergCement has reorganised the Group areas and therefore the reporting structure. This amendment was adopted in the context of the generation change in the Managing Board and in light of the acquisition of Italcementi. HeidelbergCement is divided into six Group areas:

- Western and Southern Europe: Belgium, Germany, France, United Kingdom, Italy, Netherlands, and Spain
- Northern and Eastern Europe-Central Asia: Denmark, Iceland, Norway, Sweden, and the Baltic States, as well as the cross-border Nordic Precast Group AB and Mibau Group, Bosnia-Herzegovina, Bulgaria, Georgia, Greece, Kazakhstan, Croatia, Poland, Romania, Russia, Czechia, Slovakia, Ukraine, and Hungary
- North America: Canada and USA
- Asia-Pacific: Bangladesh, Brunei, China, India, Indonesia, Malaysia, Singapore, Thailand, and Australia
- Africa-Eastern Mediterranean Basin: Egypt, Benin, Burkina Faso, DR Congo, Gambia, Ghana, Liberia, Morocco, Mauritania, Mozambique, Sierra Leone, Tanzania, Togo, as well as Israel and Turkey
- Group Services comprises the international trading activities as well as the activities in Kuwait and Saudi Arabia.

The previous year's figures in the segment reporting have been adjusted accordingly following the transfer of the Northern European countries to the Northern and Eastern Europe-Central Asia Group area and of Spain to the Western and Southern Europe Group area.

HeidelbergCement is also divided into four business lines: cement, aggregates, ready-mixed concrete-asphalt, and service-joint ventures-other. The service-joint ventures-other business line essentially covers the trading activities and results of our joint ventures.

HeidelbergCement evaluates the performance in the segments primarily on the basis of the result from current operations. Group financing (including financing expenses and income) and income taxes are managed centrally by the Group and are therefore not allocated to segments. The IFRS used in these financial statements form the basis for the valuation principles of the segment reporting. Revenue with other Group areas or business lines represents the revenue between segments. In the reconciliation, intra-Group relationships between the segments are eliminated.

The revenue and non-current assets of the main countries are shown in the table below.

Information by country	Revenue with external customers		Non-current assets [1]	
€m	2015	**2016**	2015	**2016**
United States	3,061	**3,374**	8,061	**9,163**
United Kingdom	1,485	**1,328**	3,139	**2,691**
Germany	998	**1,107**	1,009	**1,287**
Australia	1,007	**1,091**	1,615	**1,736**
Indonesia	1,177	**1,025**	1,073	**1,204**
Canada	686	**653**	425	**607**
France		**535**		**1,665**
Sweden	457	**514**	419	**392**
Other countries	4,594	**5,539**	4,571	**7,539**
Total	13,465	**15,166**	20,310	**26,284**

1) Intangible assets and property, plant and equipment

Revenue is allocated to countries according to the supplying company's country of origin.

Notes to the income statement

1 Revenue

Revenue development by Group areas and business lines	Cement		Aggregates		Ready-mixed concrete-asphalt		Service-joint ventures-other		Intra-Group eliminations		Total	
€m	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Western and Southern Europe	1,344	**1,823**	774	**878**	1,330	**1,577**	412	**387**	-635	**-737**	3,225	**3,928**
Northern and Eastern Europe-Central Asia	1,330	**1,383**	247	**284**	504	**542**	219	**410**	-176	**-195**	2,124	**2,425**
North America	1,366	**1,631**	1,471	**1,531**	1,039	**1,012**	262	**236**	-391	**-383**	3,746	**4,027**
Asia-Pacific	1,463	**1,568**	537	**587**	1,086	**1,071**	33	**43**	-344	**-363**	2,775	**2,907**
Africa-Eastern Mediterranean Basin	701	**1,014**	76	**90**	198	**259**	33	**33**	-56	**-82**	952	**1,314**
Group Services	11					**21**	1,056	**1,071**	-7	**-14**	1,060	**1,078**
Inter-Group area revenue within business lines	-52	**-40**		**-7**			-18	**-8**			-70	**-55**
Total	6,163	**7,379**	3,105	**3,362**	4,156	**4,483**	1,996	**2,172**	-1,608	**-1,774**	13,812	**15,623**
Inter-Group area revenue between business lines									-347	**-457**	-347	**-457**
Continuing operations									-1,955	**-2,231**	13,465	**15,166**

2 Other operating income

Other operating income		
€m	2015	2016
Gains from sale of fixed assets	78.5	**67.3**
Income from sale of non-core products	58.0	**62.7**
Rental income	32.9	**35.1**
Foreign exchange gains	58.7	**44.4**
Reversal of provisions	14.8	**23.1**
Income from reduction of bad debt provision	7.0	**10.2**
Other income	105.3	**183.7**
	355.3	**426.5**

The foreign exchange gains concern trade receivables and payables. Foreign exchange gains from interest-bearing receivables and liabilities are shown in the financial result. Income from the reversal of provisions includes the reversal of provisions that cannot be assigned by cost type.

Significant income that occurs in the course of ordinary business activities but not reported in result from current operations is shown in the additional ordinary income and explained in Note 8.

3 Material costs

Material costs		
€m	2015	**2016**
Raw materials	2,092.8	**2,193.1**
Supplies, repair materials, and packaging	851.0	**894.3**
Costs of energy	1,255.5	**1,368.7**
Goods purchased for resale	1,060.0	**1,099.2**
Miscellaneous	217.8	**268.1**
	5,477.1	**5,823.4**

Material costs amounted to 38.4 % of revenue (previous year: 40.7 %).

4 Personnel costs and employees

Personnel costs		
€m	2015	**2016**
Wages, salaries, social security costs	2,152.1	**2,504.0**
Costs of retirement benefits	97.0	**138.3**
Other personnel costs	25.1	**31.2**
	2,274.2	**2,673.5**

Personnel costs equalled 17.6 % of revenue (previous year: 16.9 %). The development of expenses for retirement benefits is explained in Note 44 Pension provisions.

Annual average number of employees		
Categories of employees	2015	**2016**
Blue-collar employees	31,163	**36,542**
White-collar employees	13,992	**17,187**
Apprentices	314	**403**
	45,469	**54,132**

As at the reporting date, HeidelbergCement Group had 60,424 (previous year: 45,453) employees. The increase in comparison with the previous year is essentially attributable to the first-time consolidation of Italcementi.

Long-term bonus – capital market component

As a long-term variable remuneration element, the members of the Managing Board of HeidelbergCement AG and certain managers within the HeidelbergCement Group receive a long-term bonus made up of a management component and a capital market component. The capital market component with a term of four years considers the external added value as measured by total shareholder return (TSR) – adjusted for the reinvested dividend payments and for changes in capital – compared with the relevant capital market indices, using performance share units (PSUs). The PSUs are virtual shares used for the calculation of the capital market component.

For the capital market component, the number of PSUs initially granted is determined in a first step: the number of PSUs is calculated from a set percentage of the fixed annual salary divided by the reference price of the HeidelbergCement share as at the time of issue. The reference price in each case is the average of the daily closing prices (trading days) of the HeidelbergCement share on the Frankfurt Stock Exchange Xetra trading system for three months retrospectively from the start/expiration of the performance period.

After expiry of the four-year performance period, the PSUs definitively earned are to be calculated in a second step according to the attainment of the target (0-200 %) and paid in cash at the reference price of the HeidelbergCement share valid at that time, adjusted for the reinvested dividend payments and for changes in capital.

The following table shows the key parameters of the plans.

Key parameters of the long-term bonus plans

	Plan 2013	Plan 2014	Plan 2015	Plan 2016
Date of issuance	1 January 2013	1 January 2014	1 January 2015	1 January 2016
Term	4 years	4 years	4 years	4 years
Reference price at issuance	€41.71	€56.53	€56.05	€69.91
Maximum payment amount per PSU	€104.28	€141.33	€140.13	€174.78

The reconciliation of the number of PSUs from 1 January 2013 to 31 December 2016 is shown in the following table.

Number of PSUs

	Plan 2013	Plan 2014	Plan 2015	Plan 2016
Granted as of 1 January 2013				
Additions	166,151			
Disposals	-6,990			
Granted as of 31 December 2013 / as of 1 January 2014	159,161			
Additions		144,273		
Disposals	-4,321	-8,746		
Granted as of 31 December 2014 / as of 1 January 2015	154,840	135,527		
Additions			148,853	
Disposals	-6,323	-8,785	-9,382	
Granted as of 31 December 2015 / as of 1 January 2016	148,517	126,742	139,471	
Additions				129,541
Disposals	-1,421	-2,210	-3,466	-6,234
Granted as of 31 December 2016	147,096	124,532	136,005	123,307

In the reporting year, all of the 194,333 PSUs from the 2012 plan granted as of 31 December 2015 were exercised and either settled via cash payment or lapsed due to the departure of employees.

For accounting in accordance with IFRS 2 (Share-based Payment), the fair value of the PSUs is calculated using a recognised option price model. A large number of different development paths for the HeidelbergCement share – taking into account the effects of reinvested dividends – and the benchmark indices are simulated (Monte Carlo simulation). As at the reporting date, the benchmark index DAX 30 had 11,481 points (previous year: 10,743) and the benchmark index MSCI World Construction Materials 209.0 points (previous year: 173.3).

The fair value and additional measurement parameters are shown in the tables below.

Fair value				
in €	Plan 2013	Plan 2014	Plan 2015	Plan 2016
Fair value as of 31 December 2013	55.60			
Fair value as of 31 December 2014	94.64	81.13		
Fair value as of 31 December 2015	150.29	144.33	130.31	
Fair value as of 31 December 2016	178.50	180.13	166.28	143.86

Measurement parameters	31 Dec. 2013	31 Dec. 2014	31 Dec. 2015	31 Dec. 2016
	Plans 2011/12/13	Plans 2012/13/14 [2]	Plans 2013/14/15 [2]	Plans 2014/15/16 [2]
Expected dividend yield	8 %	7.5 %	7.0 %	6.5 %
Share price at 31 December	€55.15	€58.81	€75.62	€88.63
Volatility of HeidelbergCement share [1]	32 %	26 %	25 %	25 %
Volatility of MSCI World Construction Materials Index [1]	23 %	17 %	17 %	19 %
Volatility of DAX 30 Index [1]	17 %	16 %	20 %	20 %
Correlation HeidelbergCement share / MSCI World Construction Materials Index [1]	95 %	82 %	29 %	78 %
Correlation HeidelbergCement share / DAX 30 Index [1]	92 %	73 %	91 %	37 %
Correlation DAX 30 Index / MSCI World Construction Materials Index [1]	95 %	79 %	21 %	61 %

1) Average over the last two years
2) The plans expiring in the financial year were revalued each on the base of the current value (31 Dec. 2014: Plan 2011 / 31 Dec. 2015: Plan 2012 / 31 Dec. 2016: Plan 2013)

The total expenditure for the capital market component of the long-term bonus plan for the 2016 financial year amounted to €20.1 million (previous year: 31.3). As at the reporting date, the provisions for the capital market component totalled €48.8 million (previous year: 58.3). The capital market component of the long-term bonus plan 2013-2015/16 is paid after the Annual General Meeting 2017. The same applies to the additional current long-term bonus plans, i.e. payment takes place in the year following the four-year performance period.

5 Other operating expenses

Other operating expenses		
€m	2015	2016
Selling and administrative expenses	887.7	**1,055.3**
Freight	1,324.8	**1,455.7**
Expenses for third party repairs and services	1,082.7	**1,312.0**
Rental and leasing expenses	246.8	**302.8**
Other taxes	41.3	**59.3**
Foreign exchange losses	66.8	**62.3**
Other expenses	39.1	**81.9**
	3,689.2	**4,329.2**

The foreign exchange losses concern trade receivables and payables. Foreign exchange losses from interest-bearing receivables and liabilities are shown in the financial result.

Significant expenses that occur in the course of ordinary business activities but not reported in result from current operations are shown in the additional ordinary expenses and explained in Note 8.

6 Result from joint ventures

With its joint venture partners, HeidelbergCement operates numerous joint ventures worldwide. The following companies make an important contribution to the result from current operations of the HeidelbergCement Group.

- Cement Australia Holdings Pty Ltd, based in New South Wales, is a joint venture between HeidelbergCement and LafargeHolcim. Each partner holds 50 % of the capital shares in the company. Cement Australia is the largest Australian cement manufacturer and operates two cement plants and two grinding plants in eastern and southeastern Australia as well as in Tasmania. HeidelbergCement procures its entire Australian cement demand from Cement Australia.
- Akçansa Çimento Sanayi ve Ticaret A.S., based in Istanbul, is a joint venture between HeidelbergCement and Haci Ömer Sabanci Holding A.S. HeidelbergCement and Sabanci Holding each hold 39.7 % of the capital shares in Akçansa. The remaining shares are in free float. Akçansa is the largest cement manufacturer in Turkey and operates three cement plants in the north and northwest of the country as well as six grinding facilities. It also has a dense network of ready-mixed concrete production sites and manufactures aggregates.
- Texas Lehigh Cement Company LP, based in Austin, Texas, operates one cement plant in Buda, Texas, and supplies the regional market. The joint venture partners HeidelbergCement and Eagle Materials, Inc. each hold 50 % of the capital shares in the company.
- Alliance Construction Materials Limited, located in Kowloon, is the leading manufacturer of concrete and aggregates in Hong Kong. HeidelbergCement and our joint venture partner Cheung Kong Infrastructure Holdings Limited each hold 50 % of the capital shares in the company.

The following table shows the statement of comprehensive income for these material joint ventures (100 % values).

Statement of comprehensive income for material joint ventures	Cement Australia Holdings Pty Ltd		Akçansa Çimento Sanayi ve Ticaret A.S.		Texas Lehigh Cement Company LP		Alliance Construction Materials Ltd	
€m	2015	2016	2015	2016	2015	2016	2015	2016
Revenue	641.9	**675.4**	511.0	**459.2**	199.3	**188.2**	234.3	**227.7**
Depreciation and amortisation	-34.0	**-33.0**	-23.7	**-22.6**	-2.2	**-2.2**	-2.7	**-4.8**
Result from current operations	157.6	**162.7**	116.8	**97.0**	74.0	**73.7**	56.7	**45.2**
Additional ordinary result	-0.7	**-9.1**		**7.8**				
Result from participations			6.6	**6.9**	0.0	**0.0**		
Earnings before interest and taxes (EBIT)	156.9	**153.6**	123.4	**111.7**	74.0	**73.7**	56.7	**45.2**
Interest income			0.9	**1.0**	0.0	**0.0**	0.2	**0.3**
Interest expenses	-15.3	**-13.8**	-9.4	**-9.6**				
Other financial result	0.0	**0.0**	0.2	**1.0**	-0.1	**-0.1**	-0.2	**-0.7**
Profit before tax	141.6	**139.9**	115.0	**104.1**	74.0	**73.5**	56.6	**44.8**
Income taxes	-15.9	**-11.4**	-21.6	**-18.4**	-0.7	**-0.4**	-9.4	**-7.3**
Profit for the financial year	125.7	**128.5**	93.5	**85.7**	73.3	**73.1**	47.3	**37.5**
Other comprehensive income	-1.7	**-0.8**	-28.3	**-36.1**	9.4	**2.2**	1.5	**0.5**
Total comprehensive income	124.0	**127.7**	65.2	**49.6**	82.7	**75.3**	48.8	**38.0**

The assets and liabilities of the material joint ventures (100 % values), the reconciliation to the total carrying amount of the interest, and the dividends received by the joint ventures are shown in the following table.

Summarised financial information for material joint ventures	Cement Australia Holdings Pty Ltd		Akçansa Çimento Sanayi ve Ticaret A.S.		Texas Lehigh Cement Company LP		Alliance Construction Materials Ltd	
€m	2015	2016	2015	2016	2015	2016	2015	2016
Intangible assets	22.5	**21.9**	54.3	**45.9**			13.1	**15.0**
Property, plant and equipment	430.5	**421.1**	237.4	**218.0**	21.1	**20.4**	13.7	**24.0**
Financial assets	44.2	**44.9**	72.4	**64.1**	17.3	**17.2**	17.3	**19.6**
Other non-current assets	1.5	**2.2**	1.0	**1.0**		**0.0**	4.5	**3.7**
Total non-current assets	498.7	**490.0**	365.1	**329.1**	38.4	**37.6**	48.5	**62.2**
Cash and cash equivalents	1.2	**0.2**	6.9	**6.3**	0.4	**0.3**	33.3	**33.8**
Other current assets	167.4	**139.2**	172.6	**167.6**	66.9	**65.7**	49.9	**48.0**
Total current assets	168.6	**139.4**	179.5	**173.9**	67.3	**66.1**	83.2	**81.9**
Total assets	667.3	**629.4**	544.6	**503.0**	105.6	**103.7**	131.7	**144.1**
Non-current interest-bearing liabilities	0.1	**230.1**	34.7					
Non-current provisions	6.7	**6.2**	8.7	**9.9**	3.4	**4.3**		
Other non-current liabilities	9.6	**11.5**	15.1	**13.0**			1.0	**7.4**
Total non-current liabilities	16.4	**247.8**	58.5	**22.9**	3.4	**4.3**	1.0	**7.4**
Current interest-bearing liabilities	255.8	**70.7**	1.0	**56.2**			0.5	
Current provisions	9.4	**9.6**	2.9	**2.2**			0.1	
Trade payables	32.3	**44.0**	86.4	**75.6**	8.4	**8.1**	35.5	**40.6**
Other current liabilities	51.7	**48.2**	14.1	**12.0**	3.9	**4.1**	15.5	**11.8**
Total current liabilities	349.3	**172.5**	104.3	**145.9**	12.3	**12.2**	51.6	**52.4**
Total liabilities	365.7	**420.2**	162.8	**168.8**	15.7	**16.5**	52.6	**59.8**
Net assets	301.7	**209.2**	381.8	**334.2**	90.0	**87.2**	79.1	**84.3**
Non-controlling interests			3.4	**2.6**			0.1	**0.3**
Net assets after non-controlling interests	301.7	**209.2**	378.4	**331.6**	90.0	**87.2**	79.0	**84.0**
Group share in %	50.0	**50.0**	39.7	**39.7**	50.0	**50.0**	50.0	**50.0**
Investments in joint ventures	150.8	**104.6**	150.3	**131.7**	45.0	**43.6**	39.5	**42.0**
Goodwill	368.0	**375.6**	59.2	**59.1**	39.0	**40.3**	102.6	**105.8**
Total carrying amount of the interest	518.8	**480.2**	209.5	**190.8**	84.0	**83.9**	142.1	**147.8**
Dividends received	51.0	**70.6**	32.4	**31.5**	33.5	**38.9**	17.3	**17.4**

The Akçansa share is listed on the stock exchange in Istanbul. As at the reporting date, the fair value of shares held by HeidelbergCement amounts to €280.8 million (previous year: 316.3).

HeidelbergCement also holds investments in individually immaterial joint ventures. The summarised financial information for these companies is shown in the following table (HeidelbergCement shareholding).

Summarised financial information for immaterial joint ventures		
€m	2015	2016
Investments in immaterial joint ventures	498.4	**531.2**
Result from continuing operations	41.1	**57.8**
Other comprehensive income	2.2	**-3.2**
Total comprehensive income	43.3	**54.6**

7 Amortisation and depreciation of intangible assets and property, plant and equipment

Scheduled amortisation of intangible assets and property, plant and equipment is determined on the basis of the following Group-wide useful lives.

Useful lives

	Years
Standard software	3
SAP applications	3 to 5
Buildings	20 to 40
Technical equipment and machinery	10 to 30
Plant and office equipment	5 to 10
IT hardware	4 to 5

Impairment losses are shown in the additional ordinary expenses.

8 Additional ordinary result

The additional ordinary result includes income and expenses which, although occurring in the course of ordinary business activities, are not reported in result from current operations.

Additional ordinary result

€m	2015	2016
Additional ordinary income		
Gains from the disposal of business units and repayment of capital	49.3	34.5
Other additional income	35.4	35.7
	84.7	70.2
Additional ordinary expenses		
Losses from the disposal of business units and repayment of capital	-6.5	-24.7
Impairment of goodwill	-25.7	-41.0
Impairment of other intangible assets and property, plant and equipment	-14.3	-34.0
Restructuring expenses	-11.1	-96.9
Other additional expenses	-39.4	-198.0
	-97.0	-394.6
	-12.4	-324.4

Additional ordinary income

In 2016, the gains from the disposal of business units are essentially attributable to the revaluation of previously held shares as part of the step acquisition of the Mibau Group. In the previous year, this item primarily included foreign exchange-related income in connection with the repayment of capital of a foreign holding company as well as income from the divestment of the lime activities in Germany.

Other additional income includes non-recurring income from the foreign exchange revaluation of the US dollar bank deposits of Egyptian subsidiaries amounting to €11.7 million following the floating of the exchange rate of the Egyptian pound in November 2016. Currency losses due to the floating of the exchange rate are shown in other additional expenses. Further additional income results from the sale of land as well as other items that are not reported in result from current operations. Other additional income in the 2015 financial year was predominantly due to the release of a provision for compensation related to antitrust proceedings.

Additional ordinary expenses

The losses from the disposal of business units in the 2016 financial year are essentially attributable to the deconsolidation of the US companies Hanson Permanente Cement, Inc. and Kaiser Gypsum Company, Inc., as well as two joint ventures. The previous year's figure mainly includes the loss from the divestment of a blast furnace slag grinding plant in the United Kingdom.

Following the goodwill impairment test, impairment losses were recognised in the reporting year for the CGU DR Congo. The impairment losses of the previous year related to the CGU Russia. Detailed explanations on the impairment test can be found in Note 32 Intangible assets.

Impairment of other intangible assets and property, plant and equipment were recognised, particularly in connection with shutdowns of locations. The impairment losses related to intangible assets at €2.5 million (previous year: 0.2) and property, plant and equipment at €31.5 million (previous year 14.1). The impairment losses were incurred in the Group areas of Northern and Eastern Europe-Central Asia (€13.1 million), Africa-Eastern Mediterranean Basin (€7.0 million), Western and Southern Europe (€6.8 million), Asia-Pacific (€4.6 million), and North America (€2.5 million). Impairment losses of €33.1 million were recognised on the value in use and €0.9 million on the fair value less costs to sell.

The restructuring expenses of €96.9 million in the financial year related to the Group areas of Western and Southern Europe (€54.0 million), Africa-Eastern Mediterranean Basin (€39.2 million), Asia-Pacific (€2.2 million), Northern and Eastern Europe-Central Asia (€1.1 million), and North America (€0.5 million); €73.1 million of these expenses were attributable to the integration of Italcementi.

The other additional expenses include foreign currency losses amounting to €58.7 million from the revaluation of the US dollar liabilities of our Egyptian subsidiaries following the floating of the exchange rate of the Egyptian pound in November 2016. This item also contains transaction costs of €29.1 million from company acquisitions, expenses of €25.0 million in connection with a damage claim, additions to provisions for litigation risks of €23.5 million, as well as impairments of €11.7 million to spare parts, which were carried out in the context of the impairment of property, plant and equipment. In addition, integration costs of €11.4 million associated with the Italcementi acquisition, impairment of a joint venture amounting to €10.8 million, as well as other expenses not reported in result from current operations are shown here.

9 Result from associates

The following table shows the summarised financial information concerning the associates.

Summarised financial information of associates

€m	2015	2016
Investments in associates	254.1	**486.9**
Result from associates	28.7	**37.8**
Other comprehensive income	1.1	**2.8**
Total comprehensive income	29.8	**40.6**
Unrecognised share of losses of the period	-0.2	**-0.3**
Unrecognised share of losses cumulated	-7.1	**-6.4**

10 Other financial result

Other financial result		
€m	2015	2016
Interest balance from defined benefit pension plans	-25.9	**-27.5**
Interest effect from the valuation of other provisions	-3.3	**-10.6**
Valuation result of financial derivatives	-56.2	**-23.2**
Miscellaneous other financial result	-32.8	**-30.8**
	-118.2	**-92.1**

Interest rate effects arising from the valuation of other provisions are explained in Note 45. The valuation result of derivative financial instruments essentially stems from the interest component of the foreign currency derivatives.

11 Income taxes

Income taxes from continuing operations		
€m	2015	2016
Current taxes	-341.6	**-433.3**
Deferred taxes	47.1	**128.3**
	-294.5	**-305.0**

The increase of €91.7 million in current taxes is essentially attributable to the improvements in result in the USA and the first inclusion of France. The decline in income in Indonesia, however, reduced the current tax expense. Adjusted for additional tax payments and tax refunds for previous years, which amounted to €-39.0 million (previous year: -11.5), the current taxes increased by €64.2 million.

The deferred tax income includes income of €239.4 million (previous year: -32.0) resulting from the recognition and reversal of temporary differences. Deferred tax assets created in previous years for losses carried forward were impaired by €64.2 million (previous year: 19.5) during the reporting year. The reduction in the deferred tax expense for tax losses not recognised in previous years amounted to €154.4 million in the financial year (previous year: 130.7). As in the previous year, upon recognition of deferred tax assets of €479.6 million (previous year: 531.4) in the USA, which were not covered by deferred tax liabilities, the assessment regarding the recoverability of the losses and interest carried forward within the next five years was considered in accordance with the forecast income and on the basis of the tax planning. This also applies to the recognition of an excess deferred tax asset in Kazakhstan of €7.4 million (previous year: 6.7) and in Italy (€23.7 million) for the first time.

Tax losses carried forward and tax credits for which no deferred tax is recognised amount to €3,048.3 million (previous year: 2,621.4). The losses carried forward both in Germany and abroad have essentially vested, but are not determined separately in all countries by official notice and are therefore partly subject to review by the financial authorities prior to utilisation. In addition, no deferred tax assets were recognised for deductible temporary differences of €57.2 million (previous year: 17.8). Overall, unrecognised deferred tax assets amounted to €741.4 million (previous year: 649.2) in the reporting year.

In the financial year, €12.7 million (previous year: -5.8) of deferred taxes, resulting primarily from the measurement of pension provisions in accordance with IAS 19 and from the measurement of financial instruments in accordance with IAS 39, were recognised directly in equity.

In addition, €-9.5 million (previous year: -0.4) of current taxes, likewise resulting from the measurement of financial instruments according to IAS 39, were directly recognised in equity. The deferred tax liabilities increased by €266.6 million (previous year: -59.5) as a result of changes in the scope of consolidation, especially following the first-time consolidation of Italcementi, and were directly recognised in equity.

As laid down in IAS 12, deferred taxes must be recognised on the difference between the share of equity of a subsidiary captured in the consolidated balance sheet and the carrying amount for this subsidiary in the parent company's tax accounts, if realisation is expected (outside basis differences). On the basis of the regulations for the application of IAS 12.39, deferred taxes of €46.1 million (previous year: 24.4) were recognised on planned future dividends. No deferred tax liabilities were recognised for additional outside basis differences from retained earnings of the subsidiaries of HeidelbergCement AG amounting to €8.8 billion (previous year: 8.0), as no further dividend payments are planned. In accordance with the regulations of IAS 12.87, the amount of unrecognised deferred tax liabilities was not computed.

To measure deferred taxes, a combined income tax rate of 29.70 % is applied for the domestic companies. This consists of the statutory corporation tax rate of 15.0 % plus the solidarity surcharge of 5.5 % levied on the corporation tax to be paid, as well as an average trade tax burden of 13.87 %. For 2015, the combined income tax rate was 29.46 %.

The calculation of the expected income tax expense at the domestic tax rate is carried out using the same combined income tax rate that is used in the calculation of deferred taxes for domestic companies.

The profit before tax of the Group companies based abroad is taxed at the applicable rate in the respective country of residence. The local income tax rates range between 0 % and 38.17 %, thus resulting in corresponding tax rate differentials.

A weighted average tax rate is established by taking the tax rate differentials into account. As in previous years, the increase in this rate in comparison with the earlier period is primarily due to the change in the relative weighting of the companies' results. In line with the anticipated ongoing recovery in our mature markets, such as the USA, the weighted average tax rate is expected to continue to rise in the future.

Tax reconciliation of continuing operations

€m	2015	2016
Profit before tax	1,313.4	**1,204.5**
Impairment of goodwill	-25.6	**-41.0**
Profit before tax and impairment of goodwill	1,339.0	**1,245.5**
Expected tax expense at national tax rate of 29.7 % (2015: 29.5 %)	-394.5	**-369.9**
Tax rate differentials	46.2	**27.2**
Expected tax expense at weighted average tax rate of 27.5 % (2015: 26.0 %)	-348.4	**-342.7**
Tax-free earnings (+) and non-deductible expenses (-)	17.5	**20.4**
Effects from loss carry forwards	111.2	**90.2**
Not recognised deferred tax assets	-35.4	**-48.0**
Tax increase (-), reduction (+) for prior years	-68.5	**-49.2**
Changes in tax rate	35.3	**21.3**
Others	-6.3	**3.1**
Income taxes	-294.5	**-305.0**

Deferred tax by type of temporary difference		
€m	2015	2016
Deferred tax assets		
Fixed assets	55.6	**35.2**
Other assets	97.3	**99.2**
Provisions and liabilities	659.4	**903.8**
Carry forward of unused tax losses and interest, tax credits	1,077.5	**1,103.0**
Gross amount	1,889.9	**2,141.2**
Netting	-1,084.9	**-1,195.2**
	805.0	**946.0**
Deferred tax liabilities		
Fixed assets	1,333.6	**1,628.9**
Other assets	16.8	**22.4**
Provisions and liabilities	170.3	**201.3**
Gross amount	1,520.8	**1,852.6**
Netting	-1,084.9	**-1,195.2**
	435.9	**657.4**

12 Discontinued operations

The result from discontinued operations includes discontinued business activities in Belgium and the USA that were acquired in connection with the acquisition of Italcementi, the Hanson Building Products business, which was sold in 2015, and operations of the Hanson Group that were discontinued in previous years.

The net income from the discontinued business activities in Belgium and the USA that were acquired in connection with the acquisition of Italcementi amounts to €27.1 million. The result is not broken down further because these business activities already fulfilled the criteria for classification as held for sale as at the acquisition date in order to eliminate competitive concerns related to the acquisition of Italcementi.

The following table shows the composition of the result from the discontinued operation Hanson Building Products and the operations of the Hanson Group discontinued in previous years.

Net income/loss from discontinued operations	Discontinued operations Hanson Building Products	Discontinued operations of the Hanson Group in previous years	
€m	2015	2015	2016
Revenue	184.9		
Expenses	-163.7	-21.9	**-47.7**
Result before tax	21.2	-21.9	**-47.7**
Attributable income taxes	-37.8	-29.6	**17.4**
Result after tax	-16.6	-51.6	**-30.3**
Profit on disposal after taxes	32.5		
Net income/loss from discontinued operations	15.9	-51.6	**-30.3**

The result from the discontinued operation Hanson Building Products recorded in the previous year includes income and expenses as well as income taxes, arising from the bricks, pressure and gravity pipes, and precast concrete parts business until the date of disposal. The profit on disposal includes the anticipated gain from the disposal of assets and liabilities including cash and cash equivalents, additional costs of disposal, and currency effects. Additional information on the discontinued operations is provided on page 206.

The expenses incurred in connection with operations of the Hanson Group discontinued in previous years result essentially from provisions for damages and environmental obligations. In order to determine adequate provisions, the cost estimate period was extended to 15 years. This resulted in expenses of €14.9 million. Further details on these obligations are provided in Note 45 Other provisions. The attributable income taxes essentially relate to taxes for previous years.

13 Proposed dividend

The Managing Board and Supervisory Board propose the following dividend: €1.60 per share. Based on 198,416,477 no-par value shares entitled to participate in dividends for the 2016 financial year, the amount for dividend payment comes to €317,466,363.

14 Earnings per share

Earnings per share

€m	2015	2016
Profit for the financial year	983.3	**896.3**
Non-controlling interests	183.1	**190.1**
Group share of profit	800.1	**706.2**
Number of shares in '000s (weighted average)	187,916	**193,023**
Earnings per share in €	4.26	**3.66**
Net income from continuing operations – attributable to the parent entity	835.8	**709.4**
Earnings per share in € – continuing operations	4.45	**3.67**
Net loss from discontinued operations – attributable to the parent entity	-35.7	**-3.2**
Loss per share in € – discontinued operations	-0.19	**-0.02**

The basic earnings per share are calculated in accordance with IAS 33 (Earnings per Share) by dividing the Group share in profit for the financial year by the weighted average of the number of issued shares. The diluted earnings per share indicator takes into account not only currently issued shares but also shares potentially available through option rights. The earnings per share were not diluted in the reporting period according to IAS 33.30.

Notes to the statement of cash flows

The consolidated statement of cash flows shows how the Group's cash and cash equivalents changed through inflows and outflows during the reporting year. In accordance with IAS 7 (Statement of Cash Flows), a distinction is made between cash flows from operating, investing, and financing activities. The changes in the relevant balance sheet items cannot be directly derived from the consolidated balance sheet, as they are adjusted for non-cash transactions, such as effects arising from currency translation and changes in the consolidation scope.

The cash flow is calculated as net income from continuing operations adjusted for income taxes, net interest, depreciation, amortisation, impairment losses, and other non-cash items. Cash flows from dividends received from non-consolidated companies, from interest received and paid, and from taxes paid are also recognised. Changes in working capital and utilisation of provisions are taken into account when determining the cash flow from operating activities.

Cash flows from the acquisition or sale of intangible assets as well as property, plant and equipment and financial assets are recognised in the cash flow from investing activities. If these relate to the acquisition or disposal of subsidiaries or other business units (gain or loss of control), the effects on the statement of cash flows are shown in separate items.

The cash flow from financing activities mainly results from changes in capital and dividend payments as well as proceeds from and repayments of bonds and loans. In addition, cash flows from changes in ownership interests in subsidiaries that do not result in a loss of control are classified as financing activities.

The cash flows from foreign Group companies shown in the statement are generally translated into euro using the average annual exchange rates. In contrast, cash and cash equivalents are translated using the exchange rate at year end, as in the consolidated balance sheet. The effects of exchange rate changes on cash and cash equivalents are shown separately.

The significant individual items in the statement of cash flows are explained below.

15 Dividends received

The cash inflow from dividends received relate with €173.8 million (previous year: 162.5) to joint ventures, with €12.6 million (previous year: 16.6) to associates, and with €4.6 million (previous year: 4.2) to other participations.

16 Interest received/interest paid

The cash inflow from interest received rose by €46.8 million to €138.5 million (previous year: 91.7). This increase is particularly due to special items arising from the settlement of interest rate swaps. Interest payments decreased by €54.0 million to €529.6 million (previous year: 583.6).

17 Income taxes paid

This item includes payments relating to income taxes amounting to €325.9 million (previous year: 353.1).

18 Elimination of other non-cash items

The other non-cash items include non-cash expenses and income, such as additions to and reversals of provisions, results from participations accounted for using the equity method, non-cash effects from foreign currency translation, as well as impairments and reversals of write-downs of current assets. Furthermore, the results were adjusted for the book gains and losses from fixed asset disposals. The total amount earned from these fixed asset disposals is shown under divestments in investment activities.

19 Changes in operating assets

Operating assets consist of inventories, trade receivables, and other assets used in operating activities.

20 Changes in operating liabilities

Operating liabilities include trade payables and other liabilities from operating activities.

21 Decrease in provisions through cash payments

This item includes the cash outflow of pension provisions and other provisions.

22 Cash flow from discontinued operations

The cash flow from discontinued operations contains the cash flows associated with the Belgian Italcementi activities as well as North American Italcementi locations that were resold in the financial year to meet the conditions of the competition authorities. The positive cash flow from investing activities of discontinued operations of €901.4 million (previous year: 1,245.1) is attributable to sales proceeds amounting to €961.2 million after deduction of disposed cash and cash equivalents and ongoing capital spending in the second half of 2016. The corresponding cash inflows during the previous year relate to the sale of the building products business in North America and the United Kingdom in March 2015.

23 Investments (cash outflow)

The payments for investments differ from additions in the fixed-asset movement schedule, which shows, for instance, non-cash items as additions, e.g. additions in connection with barter transactions or contributions in kind.

Of the total cash-relevant investments of €4,038.8 million (previous year: 1,001.8), €630.1 million (previous year: 538.5) related to investments to sustain and optimise capacity and €3,408.7 million (previous year: 463.3) to capacity expansions.

Investments in intangible assets and property, plant and equipment amounted to €1,039.9 million (previous year: 907.7) and concerned maintenance, optimisation, and environmental protection measures at our production sites, as well as expansion projects in growth markets.

Payments for the acquisition of subsidiaries and other business units amounted to €2,983.3 million (previous year: 64.7), of which €2,873.2 million was attributable to the acquisition of the shareholding in Italcementi S.p.A. Further details of the acquisitions can be found on page 198 f. Cash and cash equivalents amounting to €632.2 million were acquired in connection with the investments in subsidiaries and other business units.

The investments in financial assets, associates, and joint ventures totalled €15.6 million (previous year: 29.3).

24 Divestments (cash inflow)

The cash inflow from the disposal of subsidiaries and other business units amounted to €4.5 million (previous year: 77.2). Detailed explanations on the divestments are provided on page 204 f.

Proceeds from the disposal of other fixed assets amounting to €179.9 million (previous year: 151.6) include proceeds from the disposal of intangible assets and property, plant and equipment totalling €107.3 million (previous year: 94.0). The remaining payments received of €72.6 million (previous year: 57.6) primarily apply to the repayment of capital from joint ventures and the repayment of loans.

25 Cash from changes in consolidation scope

This line shows the change in cash and cash equivalents in connection with a gain or loss of control over subsidiaries and other business units and with other changes in the consolidation scope.

26 Dividend payments – non-controlling interests

This item shows dividends paid to non-controlling interests during the financial year.

27 Decrease/increase in ownership interests in subsidiaries

This item shows cash flows from the decrease or increase of ownership interests in subsidiaries that do not lead to a loss of control.

28 Proceeds from bond issuance and loans

This item primarily includes the issue of three new bonds with a nominal value of €1 billion, €750 million, and €1 billion, respectively. In addition, debt certificates of €645 million were issued.

In the previous year, this item primarily included drawings of the syndicated credit line concluded in the 2014 financial year.

29 Repayment of bonds and loans

This item includes the scheduled repayments of financial liabilities. In 2016, two bonds of €300 million and US$750 million, respectively, were repaid. The first repayment took place in March and the second in August. The debt certificate of €173.5 million was repaid in October 2016.

In the previous year, the two bonds of €650 million each were repaid in August and December.

30 Changes in short-term interest-bearing liabilities

This line shows the balance from proceeds and payments for items with a high turnover rate, large amounts, and short terms from financing activities.

31 Cash and cash equivalents

Cash and cash equivalents with a remaining term of less than three months are included. Of this item, €8.4 million (previous year: 12.4) is not available for use by HeidelbergCement. This relates to short-term cash deposits at banks that were placed as security for various business transactions, for example outstanding recultivation payments.

Notes to the balance sheet – Assets

32 Intangible assets

Intangible assets

€m	Goodwill	Other intangible assets	Total
Cost			
1 January 2015	11,065.4	574.9	**11,640.3**
Currency translation	596.1	9.1	**605.2**
Change in consolidation scope	96.4	3.6	**100.0**
Additions		23.5	**23.5**
Disposals		-7.0	**-7.0**
Reclassifications		5.1	**5.1**
Reclassifications to current assets	-22.9	2.2	**-20.7**
31 December 2015	11,735.1	611.4	**12,346.5**
Amortisation and impairment			
1 January 2015	1,460.8	315.0	**1,775.8**
Currency translation	67.9	11.8	**79.6**
Additions		29.6	**29.6**
Impairment	25.7	0.1	**25.9**
Disposals		-3.4	**-3.4**
Reclassifications		-0.5	**-0.5**
Reclassifications to current assets		0.7	**0.7**
31 December 2015	1,554.4	353.3	**1,907.8**
Carrying amount at 31 December 2015	**10,180.6**	**258.1**	**10,438.8**
Cost			
1 January 2016	11,735.1	611.4	**12,346.5**
Currency translation	-92.9	11.0	**-81.9**
Change in consolidation scope Italcementi	1,665.9	168.5	**1,834.5**
Change in consolidation scope other	57.3	73.4	**130.6**
Additions		27.8	**27.8**
Disposals		-8.6	**-8.6**
Reclassifications	-4.2	18.8	**14.6**
Reclassifications to current assets		-0.1	**-0.1**
31 December 2016	13,361.1	902.3	**14,263.5**
Amortisation and impairment			
1 January 2016	1,554.4	353.3	**1,907.8**
Currency translation	-58.7	3.6	**-55.1**
Change in consolidation scope	-0.1	-0.2	**-0.2**
Additions		43.8	**43.8**
Impairment	41.0	2.5	**43.5**
Disposals		-2.8	**-2.8**
Reclassifications	-3.8	10.6	**6.9**
Reclassifications to current assets		-0.1	**-0.1**
31 December 2016	1,532.9	410.8	**1,943.8**
Carrying amount at 31 December 2016	**11,828.2**	**491.5**	**12,319.7**

Goodwill

Larger individual items of goodwill are connected with the acquisition of the Hanson Group, London, United Kingdom; Italcementi Group, Bergamo, Italy; S.A. Cimenteries CBR, Brussels, Belgium; Lehigh Hanson, Inc., Wilmington, USA; HeidelbergCement Northern Europe AB, Stockholm, Sweden; and ENCI N.V., 's-Hertogenbosch, Netherlands. Goodwill comprises acquired market shares and synergy effects that cannot be assigned to any other determinable and separable intangible asset.

Goodwill impairment tests are carried out annually in accordance with IAS 36 (Impairment of Assets). The recoverable amount was determined based on value in use, taking into account the following parameters.

Cash flow estimates extend over a five-year planning period, after which a terminal value is applied. A three-year detailed bottom-up operational plan approved by management forms the basis for these estimates. This is generally complemented by a top-down plan for an additional two years, which incorporates medium-term expectations of the management based on estimates of market volume, market shares, as well as cost and price development. As a general rule, the top-down plan is derived by applying growth rates to the detailed three-year operational plan. A detailed plan is created for all CGUs operating in unstable markets. This applies especially to those markets in which demand for building materials and building products, as well as the price level, have decreased substantially due to current political unrest and economic uncertainties. It is generally assumed that demand and prices in these markets will recover. Basically, for Europe a slight recovery is expected, however, as a result of the current political unrest, the planned level of demand and prices in the affected CGUs at the end of the planning period are partly significantly below the level before the financial and economic crisis. A sustained increase in demand, which will remain moderate, is anticipated for other CGUs, which will be above average in North America. For Indonesia, a significant decline in earnings is expected for 2017due to the intense competition, followed by a moderate recovery in the further planning period. The sales volumes derived from the demand are generally based on the assumption of constant market shares. The underlying development of the price level varies by CGU.

Variable costs are assumed to evolve in line with the projected development of sales volumes and prices. As a rule, it is expected that the contribution margin in per cent of revenue develops slightly positive. With increasing sales volumes, this leads partially to a significant improvement in the operating margin. Furthermore, it was assumed that the savings achieved through cost reduction programmes, as well as the initiatives to increase prices, would have a positive influence on the operating margins.

The projections for the estimated growth rates of the terminal value are based on country-specific long-term inflation rates.

The WACC rates for the Group were calculated using a two-phase approach. Whereby a phase-one WACC rate was used to discount the future cash flows for the first five years and a phase-two WACC discount rate was applied for the determination of the terminal value. The difference between the two WACC rates merely results from the downward adjustment for the perpetual growth rate in phase two. The credit spread as premium to the risk-free rate was derived from the rating of the homogenous peer group. The peer group is subjected to an annual review and adjusted, if necessary.

The following key assumptions were applied in the determination of the recoverable amount based on the value in use for the CGU.

Assumptions made in the calculation of impairment of goodwill

Group area / CGU [1]	Carrying amount of goodwill in €m		Weighted average cost of capital after taxes [2]		Perpetual growth rate	
	31 Dec. 2015	**31 Dec. 2016**	31 Dec. 2015	**31 Dec. 2016**	31 Dec. 2015	**31 Dec. 2016**
Western and Southern Europe	2,828.2	**3,215.9**	6.0 % - 7.6 %	**5.3 % - 7.6 %**	1.9 % - 2.2 %	**1.9 % - 2.2 %**
Benelux	596.9	**596.9**	6.3 %	**5.6 %**	1.9 %	**2.0 %**
France		**625.5**		**5.9 %**		**2.0 %**
United Kingdom	1,866.4	**1,627.6**	7.6 %	**6.6 %**	2.2 %	**2.2 %**
Northern and Eastern Europe-Central Asia	831.9	**875.8**	6.3 % - 24.3 %	**5.5 % - 24.0 %**	1.7 % - 5.5 %	**1.7 % - 5.5 %**
Bulgaria		**12.1**		**8.0 %**		**2.6 %**
North America	4,925.7	**5,685.7**	7.3 %	**7.1 %**	2.1 %	**2.2 %**
Asia-Pacific	1,360.9	**1,582.0**	5.3 % - 14.4 %	**4.4 % - 14.6 %**	0.8 % - 5.0 %	**0.8 % - 6.1 %**
Australia	1,025.9	**1,046.8**	7.8 %	**7.3 %**	2.5 %	**2.5 %**
India	83.1	**252.9**	13.1 %	**11.8 %**	5.0 %	**4.3 %**
Indonesia	93.5	**95.7**	14.4 %	**13.4 %**	4.0 %	**4.1 %**
Africa-Eastern Mediterranean Basin	198.9	**435.0**	7.6 % - 20.6 %	**6.9 % - 22.8 %**	2.0 % - 7.0 %	**1.9 % - 8.9 %**
DR Congo	41.8	**0.0**	15.1 %	**14.9 %**	5.0 %	**7.9 %**
Togo	11.3	**10.9**	12.9 %	**15.5 %**	2.5 %	**2.5 %**
Group Services	35.2	**33.7**	6.0 %	**5.3 %**	1.9 %	**1.9 %**
Total	10,180.6	**11,828.2**				

1) CGU = Cash-generating unit
2) Stated figure is the phase one WACC, before adjustment for growth. The second phase WACC, used to calculate the terminal value, is equal to the phase one WACC after adjustment for growth.

As a result of the impairment testing procedures performed, the Group recognised a total impairment of goodwill of €41.0 million. This impairment relates to the CGU DR Congo, where the carrying amount calculated with the value-in-use method, as described above, exceeded the recoverable amount of €98.0 million. The impairment mainly resulted from a significantly poorer development of results.

In the previous year, the goodwill in the CGU Russia with a carrying amount of €25.7 million was fully impaired, because the carrying amount exceeded the recoverable amount of €311.7 million. The impairment is based on a weighted average cost of capital of 15.5 % and a growth rate of 3.5 %.

For the CGUs Benelux, Bulgaria, India, and Togo, marginal changes in the sustainable growth rate or in the operational planning as the basis for cash flow estimates or the weighted average cost of capital could cause the carrying amount to exceed the recoverable amount. Management does not rule out such a development. With a reduction of the growth rate by 0.8 percentage points for the CGU India, 1.0 percentage points for the CGU Benelux, 1.1 percentage points for the CGU Bulgaria, and by 1.2 percentage points for the CGU Togo, the recoverable amount corresponds to the respective carrying amount. A decline in the planned results (EBIT) for each year of planning as well as in the terminal value of around four per cent for the CGU Togo, around six per cent for the CGU India, and around ten per cent for the CGU Bulgaria result in the carrying amount and the recoverable amount being equal. With an increase in the weighted average cost of capital of around 0.5 percentage points for the CGUs India and Togo and 0.6 percentage points for the CGU Bulgaria, as well as 0.7 percentage points for the CGU Benelux, the recoverable amount corresponds to the respective carrying amount.

Without the aforementioned changes, the recoverable amount exceeds the carrying amount of the CGU Benelux by €213.4 million, of the CGU Bulgaria by €17.8 million, of the CGU India by €54.4 million, and of the CGU Togo by €6.7 million on the reporting date.

With a reduction of 1.5 percentage points in the growth rate, a WACC increase of 1.1 percentage points, or a decline of 17.0 % in the planned results (EBIT) for each year of planning as well as in the terminal value, the recoverable amount for all other CGUs continues to lie above the carrying amount.

Other intangible assets

Mining rights, concessions, emission rights acquired as part of the Italcementi acquisition, and software are shown under other intangible assets. This item includes concessions with indefinite useful lives of €23.3 million. The carrying amount of intangible assets pledged as security amounts to €39.1 million (previous year: 43.2).

Spending on research and development of €116.6 million (previous year: 107.8) was recorded as an expense as it did not fulfil the recognition criteria for intangible assets.

33 Property, plant and equipment

Property, plant and equipment

€m	Land and buildings	Plant and machinery	Other operating equipment	Prepayments and assets under construction	Total
Cost					
1 January 2015	7,215.4	9,972.2	923.3	848.3	**18,959.1**
Currency translation	220.3	250.7	-13.0	-10.8	**447.3**
Change in consolidation scope	39.3	31.7	3.1	2.1	**76.1**
Additions	54.4	72.7	26.7	728.1	**881.9**
Disposals	-69.5	-113.6	-55.1	-0.5	**-238.7**
Reclassifications	165.8	400.3	66.5	-637.7	**-5.1**
Reclassifications to current assets	-0.6	-0.2	-6.1	0.3	**-6.5**
31 December 2015	7,625.1	10,613.9	945.4	929.7	**20,114.1**
Depreciation and impairment					
1 January 2015	2,450.1	6,376.9	638.9		**9,466.0**
Currency translation	40.2	168.1	2.5		**210.7**
Additions	178.2	495.3	63.5		**737.0**
Impairment	3.2	9.9	1.1		**14.1**
Disposals	-38.4	-95.9	-48.1		**-182.4**
Reclassifications	-5.1	-12.0	17.6		**0.5**
Reclassifications to current assets	-0.4	-0.2	-2.3		**-3.0**
31 December 2015	2,627.8	6,941.9	673.2		**10,243.0**
Carrying amount at 31 December 2015	**4,997.3**	**3,671.9**	**272.2**	**929.7**	**9,871.2**
Cost					
1 January 2016	7,625.1	10,613.9	945.4	929.7	**20,114.1**
Currency translation	-64.3	-0.3	-3.4	13.3	**-54.8**
Change in consolidation scope Italcementi	1,891.4	1,938.9	88.2	197.3	**4,115.9**
Change in consolidation scope other	-18.1	-68.3	-6.5	-14.4	**-107.2**
Additions	90.9	92.3	25.9	815.0	**1,024.1**
Disposals	-41.3	-177.2	-52.6	-2.1	**-273.3**
Reclassifications	206.9	504.8	61.9	-788.3	**-14.6**
Reclassifications to current assets	-34.8	-1.9	-4.5		**-41.2**
31 December 2016	9,655.7	12,902.1	1,054.5	1,150.7	**24,762.9**
Depreciation and impairment					
1 January 2016	2,627.8	6,941.9	673.2		**10,243.0**
Currency translation	-0.9	8.9	-3.0		**5.0**
Change in consolidation scope	-29.5	-81.1	-6.1		**-116.7**
Additions	219.4	622.6	69.3		**911.3**
Impairment	10.7	15.5	0.7	4.6	**31.5**
Reversal of impairment	-0.1	-3.5	0.0		**-3.6**
Disposals	-21.5	-159.8	-49.4		**-230.7**
Reclassifications	-4.4	-20.5	18.1		**-6.9**
Reclassifications to current assets	-29.6	-0.6	-4.3		**-34.5**
31 December 2016	2,772.0	7,323.3	698.5	4.6	**10,798.4**
Carrying amount at 31 December 2016	**6,883.7**	**5,578.8**	**355.9**	**1,146.0**	**13,964.5**

Property, plant and equipment includes €29.5 million (previous year: 13.8) of capitalised lease assets, of which €0.9 million (previous year: 0.0) relates to land and buildings, €20.8 million (previous year: 10.6) to plant and machinery, and €7.8 million (previous year: 3.2) to plant and office equipment.

The carrying amount of property, plant and equipment pledged as security amounts to €302.4 million (previous year: 5.1). Borrowing costs of €3.4 million (previous year: 1.6) were recognised. The average capitalisation rate applied was 4 % (previous year: 7 %). In the reporting year, impairment losses of €31.5 million were recognised; these are shown in the additional ordinary result and explained in Note 8.

34 Financial investments

This item includes investments in equity instruments acquired on the basis of long-term investment planning.

The US companies Hanson Permanente Cement, Inc. and Kaiser Gypsum Company, Inc. were deconsolidated on 30 September 2016 and shown as financial investments classified as available for sale at fair value. The fair value as at the reporting date is €265.8 million. Further details are given on page 204 f. under "Divestments in the reporting year". The carrying amount of the financial investments classified as available for sale at cost amounts to €112.7 million (previous year: 69.0).

35 Non-current receivables and derivative financial instruments

The following table shows the composition of the non-current receivables and derivative financial instruments.

Non-current receivables and derivative financial instruments		
€m	2015	**2016**
Loans	29.7	**87.6**
Derivative financial instruments	26.3	**0.9**
Other non-current operating receivables	332.3	**197.3**
Other non-current non-financial receivables	378.3	**583.9**
	766.6	**869.7**

The non-current derivative financial instruments relate to cross-currency interest rate swaps. Because of the separation into current and non-current components, the fair values were shown on both the assets side as well as the equity and liabilities side. Additional information on the derivative financial instruments is provided on page 251 f. Other non-current operating receivables include claims for reimbursement against insurance companies for environmental and third-party liability damages amounting to €124.2 million (previous year: 298.7). The other non-current non-financial receivables primarily include overfunding of pension funds as well as prepaid expenses.

The following table shows the due term structure of the non-current financial receivables.

Due terms of non-current financial receivables	Loans		Other non-current operating receivables		Total	
€m	2015	**2016**	2015	**2016**	2015	**2016**
Not impaired, not overdue	29.7	**76.3**	332.2	**194.4**	361.9	**270.7**
Not impaired, overdue 1 – 60 days		**0.1**	0.1	**0.1**	0.1	**0.2**
Not impaired, overdue > 360 days				**2.8**		**2.8**
Impaired		**11.2**				**11.2**
	29.7	**87.6**	332.3	**197.3**	362.0	**284.9**

As at the reporting date, there are no indications that the debtors of the receivables shown as not impaired and not overdue will not meet their payment obligations.

36 Inventories

In the reporting year, impairments of inventories of €28.7 million (previous year: 12.7) and reversals of impairment losses of €15.8 million (previous year: 6.4) were recognised.

37 Receivables and other assets

The following overview shows the composition of the other current operating receivables.

Other current operating receivables		
€m	2015	2016
Miscellaneous current operating receivables	281.0	**334.4**
Non-financial other assets	114.5	**216.2**
	395.5	**550.6**

The miscellaneous current operating receivables include claims for damages as well as claims for reimbursement against insurance companies for environmental and third-party liability damages amounting to €11.2 million (previous year: 72.4). The carrying amount for the reserve account covering credit losses of pre-financed trade receivables, which is reported in the cash and cash equivalents, amounts to €17.8 million (previous year: 16.2) and substantially represents the maximum exposure to loss from the continuing involvement to the amount of €21.3 million (previous year: 19.2). Non-financial other assets essentially include prepaid expenses.

The following table shows the due term structure of the current financial receivables.

Due terms of current financial receivables	Current interest-bearing receivables		Trade receivables		Miscellaneous current operating receivables		Total	
€m	2015	2016	2015	2016	2015	2016	2015	2016
Not impaired, not overdue	168.6	**107.8**	870.3	**1,173.8**	274.7	**320.8**	1,313.6	**1,602.4**
Not impaired, overdue 1 – 60 days		**0.5**	268.5	**314.5**	4.3	**6.7**	272.8	**321.7**
Not impaired, overdue 61 – 360 days		**0.1**	58.9	**88.7**	0.8	**4.5**	59.7	**93.3**
Not impaired, overdue > 360 days	0.1		9.8	**28.7**	0.1	**1.9**	10.0	**30.6**
Impaired			7.1	**198.4**	1.1	**0.5**	8.2	**198.9**
	168.7	**108.4**	1,214.6	**1,804.1**	281.0	**334.4**	1,664.3	**2,246.9**

As at the reporting date, there are no indications that the debtors of the receivables shown as not impaired and not overdue will not meet their payment obligations.

The valuation allowances on trade receivables have developed as follows:

Valuation allowances on trade receivables		
€m	2015	2016
Valuation allowances at 1 January	69.2	**72.4**
Additions	11.9	**20.8**
Reversal and use	-10.3	**-22.5**
Currency translation and other adjustments	1.6	**6.2**
Valuation allowances at 31 December	72.4	**76.8**

The valuation allowances are essentially based on historical default probabilities and due terms. They primarily relate to specific lump sum allowances.

38 Derivative financial instruments

The current derivatives with positive fair values primarily include foreign exchange swaps of €34.4 million (previous year: 49.0), currency swaps of €18.2 million (previous year: 0.0), cross-currency interest rate swaps of €7.2 million (previous year: 24.7), and interest rate swaps of €0.0 million (previous year: 1.2). Additional information on the derivative financial instruments is provided on page 251 f.

Notes to the balance sheet – Equity and liabilities

39 Subscribed share capital

As at the reporting date of 31 December 2016, the subscribed share capital amounts to €595,249,431. It is divided into 198,416,477 shares; the shares are no-par value bearer shares. The pro rata amount of each share is €3.00 which corresponds to a proportionate amount of the subscribed share capital.

In connection with the acquisition of the shares of Italcementi, HeidelbergCement AG carried out a capital increase by issuing new shares. The following table shows the change in the subscribed share capital since 1 January 2016.

Subscribed share capital

	Number of shares	Subscribed share capital in € '000s
1 January 2016	187,916,477	**563,749**
Capital increase by issuance of new shares	10,500,000	**31,500**
31 December 2016	198,416,477	**595,249**

Authorised Capital
As at 31 December 2016, there were two authorised capitals: namely, authorisation of the Managing Board and Supervisory Board to increase the capital by issuing new shares in return for cash contributions (Authorised Capital I), and authorisation of the Managing Board and Supervisory Board to increase the capital by issuing new shares in return for contributions in kind (Authorised Capital II). The authorised capitals are summarised below; the complete text of the authorisations can be found in the Articles of Association, which are published on our website www.heidelbergcement.com under "Company/Corporate Governance/Articles of Association".

Authorised Capital I
The Annual General Meeting held on 7 May 2015 authorised the Managing Board, with the consent of the Supervisory Board, to increase the Company's subscribed share capital by a total amount of up to €225,000,000 by issuing up to 75,000,000 new no-par value bearer shares in total in return for cash contributions on one or more occasions until 6 May 2020 (Authorised Capital I). The shareholders must be granted subscription rights. However, the Managing Board is authorised, in certain cases described in more detail in the authorisation, to exclude the subscription rights of shareholders in order to realise residual amounts, to service option or conversion rights, or to issue shares totalling up to 10 % of the subscribed share capital at a near-market price. As at 31 December 2016, the authorisation to issue new shares in return for cash contributions forming the basis of the Authorised Capital I had not been used.

Authorised Capital II

Furthermore, the Annual General Meeting of 7 May 2015 authorised the Managing Board, with the consent of the Supervisory Board, to increase the Company's subscribed share capital by a total amount of up to €56,374,941 by issuing up to 18,791,647 new no-par value bearer shares in total in return for contributions in kind on one or more occasions until 6 May 2020 (Authorised Capital II). The subscription right of shareholders is generally excluded in the case of capital increases in return for contributions in kind. The authorisation governs, in particular, the possibility of excluding the subscription right insofar as the capital increase in return for contributions in kind is performed for the purposes of acquisition of companies or to service option or conversion rights or in the context of implementing a dividend in kind / dividend option. In exercising this authorisation, the subscribed share capital was increased by €31,500,000 to €595,249,431 by resolution of the Managing Board of 22 June 2016 and with the consent of the Audit Committee, acting in place of the Supervisory Board, of 23 June 2016. 10,500,000 new shares, excluding the subscription rights of shareholders, were issued in the context of acquiring 45 % of all shares in Italcementi S.p.A. from Italmobiliare S.p.A. The implementation of the subscribed share capital increase was recorded in the commercial register on 7 July 2016. The Authorised Capital II decreased to €24,874,941 due to the exercise of the authorisation.

Conditional share capital

The conditional share capital described below existed as at 31 December 2016. The Annual General Meeting of 8 May 2013 decided to conditionally increase the subscribed share capital by a further amount of up to €168,000,000, divided into up to 56,000,000 new no-par value bearer shares (Conditional Share Capital 2013). The conditional capital increase serves to back the issuance of option or conversion rights, or option or conversion obligations on HeidelbergCement shares. The conditional capital increase is only carried out insofar as the Managing Board issues warrant or convertible bonds under the authorisation until 7 May 2018 and the bearers of option or conversion rights make use of their rights. Warrant or convertible bonds may also be issued with option or conversion obligations. The shareholders generally have a subscription right to newly issued warrant or convertible bonds. The authorisation governs specific cases in which the Managing Board may exclude the subscription right of shareholders to warrant or convertible bonds. The complete text of the conditional share capital can also be found in the Articles of Association, which are published on our website (www.heidelbergcement.com, under "Company/Corporate Governance/Articles of Association"). As at 31 December 2016, the authorisation to issue warrant or convertible bonds forming the basis of the Conditional Share Capital 2013 had not been used.

A corresponding volume limit as well as the deduction clauses ensure that the sum of all exclusions of subscription rights in the two existing Authorised Capitals and the Conditional Share Capital 2013 will not exceed a limit of 20 % of the subscribed share capital existing at the time the authorisation to exclude the subscription right comes into force.

As at the reporting date of 31 December 2016, the Company has no treasury shares. On 4 May 2016, the Annual General Meeting authorised the Company to acquire own shares up to 3 May 2021 once or several times, in whole or partial amounts, up to a total of 10 % of the share capital at the time for any permissible purpose within the scope of the legal restrictions. The authorisation may not be used for the purpose of trading in own shares. At no time more than 10 % of the respective share capital be attributable to the acquired own shares combined with other shares which the Company has already acquired and still possesses. The shares may be acquired via the stock exchange or by way of a public purchase offer or by means of a public call for the submission of offers to sell or by issuing rights to sell shares to the shareholders. The own shares acquired on the basis of the authorisation will be used by selling them via the stock exchange or in another suitable manner, whilst ensuring the equal treatment of shareholders, or for any other purposes permitted by law. Shareholders' subscription rights can be excluded in certain cases.

40 Share premium

The share premium was essentially created from the premium from capital increases. In the context of acquiring the shareholding in Italcementi, HeidelbergCement AG carried out a capital increase by issuing new shares. The development of the share premium since 1 January 2016 is shown in the following table.

Share premium

	Share premium in € '000s
1 January 2016	5,539,377
Capital increase by issuance of new shares	686,070
31 December 2016	6,225,447

41 Retained earnings

The following table shows the changes in ownership interests in subsidiaries that do not lead to a change in control.

Changes in ownership interests in subsidiaries

€m	Change in share	Change in revenue reserves	Change in non-controlling interests	Change in equity
Abetong AB Group, Sweden	2.4 %	7.3	-9.6	-2.3
La Cimentérie de Lukala S.A.R.L., DR Congo	-8.1 %	12.6	5.1	17.8
Others		10.8	-3.7	7.1
Total		30.8	-8.3	22.5

In the financial year, dividends of €244.3 million (€1.30 per share) were paid to shareholders of HeidelbergCement AG.

42 Other components of equity

The currency translation reserve decreased by €87.5 million in the reporting year.

43 Non-controlling interests

The change in non-controlling interests due to the changes in the scope of consolidation of €689.5 million resulted mainly from the first-time consolidation of Italcementi with €640.6 million, as well as of the Mibau Group with €36.8 million. The change in non-controlling interests due to the change in ownership interests in subsidiaries is explained in Note 41 Retained earnings.

Subsidiaries with material non-controlling interests

PT Indocement Tunggal Prakasa Tbk. ("Indocement"), Jakarta, Indonesia, is the material subsidiary with non-controlling interests in the HeidelbergCement Group. Indocement is a leading Indonesian manufacturer of high-quality cement and special cement products that are sold under the brand name "Tiga Roda". Indocement has several subsidiaries that produce ready-mixed concrete, aggregates, and trass. Non-controlling interests hold 49 % of the capital or voting rights in the Indocement Group, which is included in the Asia-Pacific Group area. The Indocement share is listed on the stock exchange in Jakarta, Indonesia.

Non-controlling interests in the equity of Indocement amount to €928.4 million (previous year: 799.3). The share of non-controlling interests in profit for the financial year totals €130.9 million (previous year: 142.7). In the 2016 financial year, Indocement paid dividends of €50.0 million (previous year: 167.6) to non-controlling interests.

The following tables summarise the key financial information of the Indocement Group excluding goodwill allocated to the CGU.

Statement of comprehensive income	Indocement Group	
€m	2015	2016
Revenue	1,191.2	**1,041.1**
Depreciation and amortisation	-60.8	**-62.0**
Result from current operations	340.4	**257.0**
Additional ordinary result	-0.3	
Result from participations	1.7	**1.2**
Earnings before interest and taxes (EBIT)	341.8	**258.2**
Interest income	49.3	**41.8**
Interest expenses	-0.7	**-0.5**
Other financial income and expenses	-3.5	**-3.6**
Profit before tax	386.9	**295.9**
Income taxes	-95.7	**-28.8**
Profit for the financial year	291.2	**267.1**
Other comprehensive income	39.3	**107.9**
Total comprehensive income	330.5	**375.0**

Assets and liabilities	Indocement Group	
€m	2015	2016
Intangible assets	1.1	**1.1**
Property, plant and equipment	993.9	**1,123.4**
Financial assets	6.9	**6.7**
Other non-current assets	12.2	**27.5**
Non-current assets	1,014.0	**1,158.8**
Cash and cash equivalents	577.7	**684.7**
Other current assets	291.4	**325.3**
Current assets	869.1	**1,010.0**
Total assets	1,883.1	**2,168.8**
Non-current financial liabilities	4.1	**2.6**
Non-current provisions	44.1	**51.3**
Other non-current liabilities	28.7	**0.3**
Non-current liabilities	76.9	**54.2**
Current financial liabilities	4.4	**5.3**
Current provisions	4.4	**6.6**
Trade payables	120.4	**145.8**
Other current liabilities	59.7	**76.2**
Current liabilities	189.0	**234.0**
Total liabilities	265.9	**288.2**

44 Pension provisions

Defined contribution plans

The sum of all pension expenses in connection with defined contribution plans amounted to €92.8 million (previous year: 63.4). In the 2016 financial year, the contributions to the social security programmes came to €63.9 million (previous year: 58.5).

Actuarial assumptions

The actuarial assumptions on which the calculations are based are summarised in the following table (weighted presentation).

Actuarial assumptions

in %	Group	North America	UK	Germany
31 December 2016				
Discount rate	**3.00 %**	3.86 %	2.65 %	1.60 %
Pension increase rate	**2.76 %**	-	2.91 %	1.75 %
Expected increase in health care costs	**5.83 %**	7.50 % - 5.00 %	8.00 %	-
31 December 2015				
Discount rate	**3.93 %**	4.58 %	3.80 %	2.40 %
Pension increase rate	**2.58 %**	-	2.72 %	1.75 %
Expected increase in health care costs	**6.95 %**	7.50 % - 5.00 %	9.00 %	-

The RP-2014 mortality tables published by the Society of Actuaries in 2014 were used in the valuations for the pension plans in the USA. For the Canadian pension plans, the CPM 2014 mortality tables were used. In the United Kingdom, different mortality tables based on the "S1" series have been taken into account. The mortality tables in the United Kingdom, the USA, and Canada have been modified to consider future improvements in life expectancy and in many cases are additionally adjusted based on company-specific experience. In Germany, the 2005 G mortality tables from Prof. Dr. Klaus Heubeck have been applied.

Overview of provisions for pensions for the different types of retirement benefit plans

The following tables show the obligations from defined benefit pension plans, including other long-term employee benefits plans and plans for health care costs, and their presentation in the balance sheet.

Types of post-employment benefit plans

€m	Group	North America	UK	Germany
31 December 2016				
Defined benefit pension plans	**604.7**	401.6	-462.0	418.6
Plans for health care costs	**292.8**	187.2	4.1	
	897.5	588.8	-457.9	418.6
31 December 2015				
Defined benefit pension plans	**543.3**	282.6	-311.6	415.7
Plans for health care costs	**183.5**	149.5	4.7	
	726.8	432.1	-306.9	415.7

Presentation in the balance sheet				
€m	Group	North America	UK	Germany
31 December 2016				
Non-current pension provisions	**1,284.6**	545.4	10.5	398.3
Current pension provisions	**102.7**	43.4	12.5	20.3
Other long-term operating receivables (overfunding of pension schemes)	**-489.8**		-480.9	
	897.5	588.8	-457.9	418.6
31 December 2015				
Non-current pension provisions	**974.2**	394.1	12.7	395.4
Current pension provisions	**91.3**	38.0	14.0	20.3
Other long-term operating receivables (overfunding of pension schemes)	**-338.7**		-333.6	
	726.8	432.1	-306.9	415.7

With regard to the overfunded pension plans in the United Kingdom for which a plan asset ceiling has not been applied, the surplus represents an economic benefit for HeidelbergCement in accordance with IAS 19.

In the following, a breakdown of the amounts relating to pension plans is shown exclusively for the three key Group areas and countries North America, the United Kingdom, and Germany. A breakdown of the amounts relating to plans for health care costs is not provided, as the vast majority of the liabilities and expenses are in North America.

Pension obligations and plan assets

In the 2016 financial year, pension obligations amounting to €4,891.2 million (previous year: 4,530.0) existed in the Group, which were essentially covered by plan assets. In addition, there were direct agreements of €713.6 million (previous year: 615.5). Obligations in the USA, Belgium, Canada, the United Kingdom, Indonesia, France, Morocco, and Ghana for health care costs of pension recipients amounted to €292.8 million (previous year: 183.5).

The following table shows the financing status of these plans and their presentation in the balance sheet.

Pension obligations and plan assets	Pension plans and plans for health care costs			thereof pension plans		
€m	Pension plans	Plans for health care costs	Group	North America	UK	Germany
31 December 2016						
Present value of funded obligations	4,891.2		**4,891.2**	1,608.5	3,025.0	65.7
Fair value of plan assets	-5,011.7		**-5,011.7**	-1,272.0	-3,500.9	-65.7
Recognised limitation acc. to IAS 19.64	11.6		**11.6**	0.9	10.1	
Fair value of plan assets after limitation acc. to IAS 19.64	-5,000.1		**-5,000.1**	-1,271.1	-3,490.8	-65.7
Deficit (+) / surplus (-)	-108.9		**-108.9**	337.4	-465.8	
Present value of unfunded obligations	713.6	292.8	**1,006.4**	64.2	3.8	418.6
Pension net liability (asset)	604.7	292.8	**897.5**	401.6	-462.0	418.6
31 December 2015						
Present value of funded obligations	4,530.0		**4,530.0**	1,409.0	2,936.8	12.3
Fair value of plan assets	-4,650.4		**-4,650.4**	-1,190.2	-3,296.6	-12.3
Recognised limitation acc. to IAS 19.64	48.2		**48.2**	3.3	44.9	
Fair value of plan assets after limitation acc. to IAS 19.64	-4,602.2		**-4,602.2**	-1,186.9	-3,251.7	-12.3
Deficit (+) / surplus (-)	-72.2		**-72.2**	222.1	-314.9	
Present value of unfunded obligations	615.5	183.5	**799.0**	60.5	3.3	415.7
Pension net liability (asset)	543.3	183.5	**726.8**	282.6	-311.6	415.7

The reconciliation of the net defined benefit liability (asset) was as follows.

Pension net liability (asset)	Pension plans and plans for health care costs			thereof pension plans		
€m	Pension plans	Plans for health care costs	Group	North America	UK	Germany
2016						
Pension net liability (asset) at 1 January	543.3	183.5	**726.8**	282.6	-311.6	415.7
Changes in consolidation scope	140.8	109.5	**250.3**	56.9		1.0
Pension expenses recognised in profit or loss	62.3	9.0	**71.3**	24.3	-6.3	17.3
Remeasurements recognised in other comprehensive income	-24.0	1.6	**-22.4**	50.5	-147.0	55.8
Cash flow in the period	-178.4	-17.3	**-195.7**	-28.4	-46.9	-71.2
Exchange rate changes	60.7	6.5	**67.2**	15.7	50.0	
Pension net liability (asset) at 31 December	604.7	292.8	**897.5**	401.6	462.0	418.6
2015						
Pension net liability (asset) at 1 January	680.7	209.8	**890.5**	256.4	-204.9	445.2
Changes in consolidation scope	-6.0		**-6.0**			0.1
Pension expenses recognised in profit or loss	48.0	8.5	**56.4**	5.7	-2.1	17.2
Remeasurements recognised in other comprehensive income	-73.5	-38.0	**-111.5**	22.4	-46.7	-26.2
Cash flow in the period	-123.0	-14.5	**-137.5**	-26.4	-48.2	-20.6
Exchange rate changes	17.1	17.7	**34.8**	24.5	-9.7	
Pension net liability (asset) at 31 December	543.3	183.5	**726.8**	282.6	-311.6	415.7

Following the acquisition of Italcementi, pension plans in the USA, France, Italy, Spain, Greece, Bulgaria, Egypt, Morocco, Kuwait, Saudi Arabia, India, and Thailand were transferred to HeidelbergCement. The defined benefit obligation (DBO) of these plans as of 1 July 2016 amounted to €246.0 million. Furthermore, HeidelbergCement took over associated plan assets of €106.1 million. In addition, obligations from plans for health care costs in the USA, Canada, France, and Morocco totalling €109.5 million were passed on to HeidelbergCement.

Breakdown of pension obligations

The following table shows the pension obligations divided in different member groups.

Defined benefit obligation by member groups	Pension plans and plans for health care costs			thereof pension plans		
€m	Pension plans	Plans for health care costs	**Group**	North America	UK	Germany
31 December 2016						
Active members	909.3	97.0	**1,006.3**	372.7	13.1	199.9
Deferred vested members	1,573.8	7.6	**1,581.4**	220.1	1,288.3	37.3
Pensioners	3,121.7	188.2	**3,309.9**	1,079.9	1,727.3	247.1
Total defined benefit obligation	5,604.8	292.8	**5,897.6**	1,672.7	3,028.7	484.3
31 December 2015						
Active members	802.1	44.2	**846.3**	383.0	34.5	169.1
Deferred vested members	1,380.3	8.4	**1,388.7**	126.7	1,202.0	24.1
Pensioners	2,963.1	130.9	**3,094.0**	959.8	1,703.6	234.8
Total defined benefit obligation	5,145.5	183.5	**5,329.0**	1,469.5	2,940.1	428.0

Amounts recognised in other comprehensive income

In the 2016 financial year, total actuarial losses from the defined benefit obligation (DBO) amounting to €682.9 million (previous year: gains of 251.3) have arisen mainly from the decrease of the discount rate on which the actuarial calculation is based. The weighted average discount rate as at the end of the year is 0.9 percentage points lower (previous year: 0.3 percentage points higher) than the weighted discount rate as at the end of the previous year. In key countries, the discount rate decreased by 0.7 percentage points (North America), 1.2 percentage points (United Kingdom), and 0.8 percentage points (Germany).

The actuarial gains and losses can be broken down into effects from experience adjustments resulting in gains of €6.1 million (previous year: 44.4), effects from changes in demographic assumptions resulting in gains of €57.3 million (previous year: 20.6), essentially attributable to the adjustment of demographic assumptions in the USA and assumptions relating to an improvement in future life expectancy in the United Kingdom, and effects from changes in financial assumptions resulting in losses of €746.3 million (previous year: gains of 186.3). The positive development of plan assets significantly counteracts this effect. In the 2016 financial year, return on plan assets exceeded the interest income by €671.9 million (previous year: fell-short by 139.4).

Changes in the effect of asset ceiling according to IAS 19.64 resulted in an amount of €33.4 million (previous year: -0.4).

Development in the income statement

The expenses for retirement benefits for the significant pension and healthcare plans can be summarised as follows.

Development in the income statement	Pension plans and plans for health care costs			thereof pension plans		
€m	Pension plans	Plans for health care costs	Group	North America	UK	Germany
31 December 2016						
Current service cost	33.3	2.4	**35.7**	2.6	2.8	8.8
Administrative expenses (not investment related) paid by the plan	13.6		**13.6**	11.3	2.3	
Net interest, thereof	19.0	8.5	**27.5**	12.6	-11.4	8.5
Interest cost on defined benefit obligation	183.5	8.5	**192.0**	61.5	98.2	10.0
Interest income on plan assets	-166.2		**-166.2**	-49.0	-111.1	-1.5
Interest income on asset ceiling	1.7		**1.7**	0.2	1.5	
Past service cost recognised	-2.6	-1.9	**-4.5**	-2.3		
Settlement gains/losses recognised	-1.0		**-1.0**			
Total expenses recognised in profit or loss	62.3	9.0	**71.3**	24.3	6.3	17.3
31 December 2015						
Current service cost	33.8	2.2	**36.0**	4.4	3.5	8.5
Administrative expenses (not investment related) paid by the plan	11.4		**11.4**	8.5	3.0	
Net interest, thereof	18.0	7.9	**25.9**	10.5	-8.6	8.7
Interest cost on defined benefit obligation	193.1	7.9	**201.0**	63.1	110.1	9.0
Interest income on plan assets	-176.9		**-176.9**	-52.7	-120.4	-0.3
Interest income on asset ceiling	1.8		**1.8**	0.1	1.7	
Past service cost recognised	-15.4	-1.6	**-17.0**	-18.0		
Settlement gains/losses recognised	0.1		**0.1**	0.3		
Total expenses recognised in profit or loss	48.0	8.5	**56.4**	5.7	-2.1	17.2

Of the total pension expenses from continuing operations of €71.3 million (previous year: 56.4), €43.8 million (previous year: 30.5) are shown in the personnel costs or in other operating expenses, and an amount of €27.5 million (previous year: 25.9) in other financial result.

In 2016, the Lehigh Retirement Pension Plan in the USA was amended so that member groups with vested rights (former members of the union plan) can be offered a capital payment from 1 April 2017. This resulted in a past service income of €2.3 million.

The actual return on plan assets amounted to €824.2 million (previous year: 26.0).

Sensitivity analysis of defined benefit obligations

Changes in the discount rate, pension increase rate, and the life expectancy affect the income statement and the pension obligations. The sensitivities to changes in assumptions as shown below are determined by changing one assumption as indicated and keeping all other assumptions constant. In reality, multiple assumptions may change at the same time, and the change of one parameter may result in a change of another parameter.

Sensitivity analysis of defined benefit obligations (pension plans)

€m		Total Group	North America	UK	Germany
31 December 2016					
Defined benefit obligation		**5,604.8**	1,672.7	3,028.7	484.3
Discount rate	increase by 1.0 %	**4,895.5**	1,529.3	2,569.4	417.9
	decrease by 1.0 %	**6,498.5**	1,843.2	3,617.0	570.4
Pension increase rate	increase by 0.25 %	**5,714.4**	1,672.7	3,119.8	498.7
	decrease by 0.25 %	**5,494.8**	1,672.7	2,936.4	470.6
Life expectancy	increase by 1 year	**5,816.0**	1,730.2	3,151.7	508.1
	decrease by 1 year	**5,393.7**	1,614.2	2,906.4	460.9
31 December 2015					
Defined benefit obligation		**5,145.5**	1,469.5	2,940.1	428.0
Discount rate	increase by 1.0 %	**4,471.4**	1,319.1	2,500.2	373.7
	decrease by 1.0 %	**5,996.3**	1,637.3	3,500.9	514.3
Pension increase rate	increase by 0.25 %	**5,251.1**	1,469.5	3,030.0	440.0
	decrease by 0.25 %	**5,046.7**	1,469.5	2,856.3	416.6
Life expectancy	increase by 1 year	**5,329.1**	1,514.3	3,052.8	447.8
	decrease by 1 year	**4,959.7**	1,424.9	2,825.0	408.0

Development of pension obligations and plan assets

The following table shows the development of the pension obligations and the plan assets.

Development of pension obligations and plan assets	Pension plans		Plans for health care costs		Total	
€m	2015	2016	2015	2016	2015	2016
Defined benefit obligation at 1 January	5,143.5	**5,145.5**	209.8	**183.5**	5,353.3	**5,329.0**
Change in consolidation scope	-5.9	**251.8**		**109.4**	-5.9	**361.2**
Current service cost	33.8	**33.3**	2.2	**2.4**	36.0	**35.7**
Interest cost	193.1	**183.5**	7.9	**8.5**	201.0	**192.0**
Employee contributions	1.5	**1.7**			1.5	**1.7**
Actuarial gains/losses	-213.3	**681.3**	-38.0	**1.6**	-251.3	**682.9**
Benefits paid by the company	-46.4	**-49.7**	-14.5	**-17.3**	-60.9	**-67.0**
Benefits paid by the fund	-241.7	**-280.1**			-241.7	**-280.1**
Taxes and premiums paid	-1.3	**-1.5**			-1.3	**-1.5**
Past service cost	-15.4	**-2.6**	-1.6	**-1.9**	-17.0	**-4.5**
Plan settlements	0.1	**-1.0**			0.1	**-1.0**
Exchange rate changes	297.5	**-357.4**	17.7	**6.6**	315.2	**-350.8**
Defined benefit obligation at 31 December	5,145.5	**5,604.8**	183.5	**292.8**	5,329.0	**5,897.6**
Funded obligation	4,530.0	**4,891.2**			4,530.0	**4,891.2**
Unfunded obligation	615.5	**713.6**	183.5	**292.8**	799.0	**1,006.4**
Fair value of plan assets at 1 January	4,506.6	**4,650.4**			4,506.6	**4,650.4**
Change in consolidation scope	0.1	**111.0**			0.1	**111.0**
Interest income	176.9	**166.2**			176.9	**166.2**
Return on plan assets (excluding interest income)	-139.4	**671.9**			-139.4	**671.9**
Administrative expenses (not investment related) paid by the plan	-11.4	**-13.6**			-11.4	**-13.6**
Employer contributions	75.3	**127.3**			75.3	**127.3**
Employee contributions	1.5	**1.7**			1.5	**1.7**
Benefits, taxes and premiums paid	-241.7	**-280.1**			-241.7	**-280.1**
Exchange rate changes	282.5	**-423.1**			282.5	**-423.1**
Fair value of plan assets at 31 December	4,650.4	**5,011.7**			4,650.4	**5,011.7**

HeidelbergCement paid €67.0 million (previous year: 60.9) directly to the pension recipients and €127.3 million (previous year: 75.3) as employer contributions to the plan assets. In 2017, HeidelbergCement expects to make pension payments of €63.2 million and employer contributions to the plan assets of €57.8 million. In the 2016 financial year, HeidelbergCement AG allocated a Group contractual trust agreement (CTA) with €51.2 million, in order to protect pension entitlements from insolvency.

The following table shows the expected benefits paid directly by HeidelbergCement or from the plan assets in the next ten years.

Expected benefit payments	Pension plans and plans for health care costs			thereof pension plans		
€m	Pension plans	Plans for health care costs	**Group**	North America	UK	Germany
31 December 2016						
in the following year	335.6	20.2	**355.8**	167.4	121.6	21.1
in the current year +2	308.2	19.8	**328.0**	135.5	125.1	20.7
in the current year +3	314.5	19.3	**333.8**	129.9	128.7	20.7
in the current year +4	302.3	18.8	**321.1**	123.6	132.4	21.8
in the current year +5	303.2	18.3	**321.5**	117.8	136.2	21.7
aggregated in the current year +6 through current year +10	1,527.7	83.2	**1,610.9**	515.6	742.5	105.2
Duration (in years)	14.5			9.4	17.9	15.9
31 December 2015						
in the following year	382.9	15.8	**398.7**	205.2	136.4	20.8
in the current year +2	300.5	15.1	**315.6**	117.4	140.1	20.7
in the current year +3	299.7	14.7	**314.4**	112.7	143.9	20.5
in the current year +4	307.4	14.1	**321.5**	109.4	147.8	20.6
in the current year +5	297.9	13.6	**311.5**	106.6	151.8	21.7
aggregated in the current year +6 through current year +10	1,509.1	60.8	**1,569.9**	476.4	822.6	105.4
Duration (in years)	15.1			11.4	17.6	14.5

Breakdown of plan assets

The plan assets originate primarily from North America with 25 % (previous year: 26 %) and the United Kingdom with 70 % (previous year: 71 %). The plan assets can be divided into the following categories:

Breakdown of plan assets				
€m	Group	North America	UK	Germany
31 December 2016				
Cash and cash equivalents	**217.2**	10.6	155.4	43.5
Equity instruments	**917.7**	333.0	526.5	6.8
Interest rate swaps	**281.3**		281.3	
Other derivatives	**30.7**	24.9	5.8	
Hedge funds	**3.5**			
Nominal government bonds	**1,322.0**	346.6	935.8	0.3
Nominal corporate bonds	**864.6**	508.2	345.9	1.5
Index linked bonds	**783.4**		782.1	
Real estate	**125.9**	2.1	111.4	
Insurance policies	**155.9**		123.8	
Other	**309.5**	46.6	232.9	13.6
Total	**5,011.7**	1,272.0	3,500.9	65.7
31 December 2015				
Cash and cash equivalents	**178.4**	55.3	118.8	
Equity instruments	**1,019.4**	313.2	656.5	
Interest rate swaps	**196.5**		196.5	
Other derivatives	**72.2**	72.6	-0.4	
Hedge funds	**1.2**			
Nominal government bonds	**1,133.2**	232.1	859.3	
Nominal corporate bonds	**831.0**	445.6	376.2	
Index linked bonds	**558.5**		557.1	
Real estate	**158.0**		145.5	
Insurance policies	**138.4**		122.6	
Other	**363.6**	71.4	264.5	12.3
Total	**4,650.4**	1,190.2	3,296.6	12.3

The investments in equity instruments can be further divided up as follows:

Division of equity instruments		
in %	2015	2016
North America	54 %	**56 %**
UK	8 %	**7 %**
Europe	15 %	**15 %**
Emerging Markets	7 %	**7 %**
Other	16 %	**15 %**

Certain non-monetary assets are based on appraisals that are not completed until the consolidated financial statements have been adopted by the Managing Board. In those cases, the most recent appraisal values are rolled forward with observed trends in the relevant markets to determine the best estimates at year end. The majority of the Group assets are based directly on quoted market prices for the invested assets or, in the case where investment funds are used, indirectly based on the quoted value of the underlying investments. Exceptions are that in the United Kingdom and Germany, a portion of the assets needs to be estimated as at the end of the year, as detailed asset information is not available or is not available in time until adoption of the consolidated financial statements by the Managing Board (about €123.7 million). In the United Kingdom, these asset values are estimated based on the most current information available. For the German deferred compensation plan, assets are assumed to be equal to the defined benefit obligation, as the benefits are fully funded.

The plan assets do not include any significant own financial instruments, property occupied by, or other assets used by HeidelbergCement.

As at 31 December 2016, the unrecognised assets due to the application of the asset ceiling as per IAS 19.64 amounted to €11.6 million (previous year: 48.2). The changes in the asset ceiling in 2016 are divided into interest income of €1.7 million, changes in the asset ceiling to be shown in other comprehensive income of €33.4 million, and exchange rate changes of €4.8 million.

Multi-employer pension plans

HeidelbergCement participates in multi-employer pension plans (MEPP), predominantly in the USA, which award some unionised employees fixed benefits after their retirement. These multi-employer pension plans are accounted for as defined contribution plans, as it is not possible to isolate the individual company components for these plans. The contributions are determined on the basis of collective bargaining. Contributions of €15.4 million (previous year: 14.5) were paid in 2016. The funding status of these pension plans could be affected by adverse developments in the capital markets due to demographic changes and increases in pension benefits. If one of the participating companies no longer pays contributions into the multi-employer pension plan, all other parties concerned will be held liable for the obligations that have not been covered. Contributions of €14.8 million are expected in 2017. The withdrawal liability of these plans as at 31 December 2016 would amount to €107.4 million (previous year: 91.0), should HeidelbergCement decide to withdraw. HeidelbergCement has provisions of €34.7 million (previous year: 60.4) for these liabilities, which are shown under miscellaneous other provisions.

45 Other provisions

The following table explains the development of other provisions.

Provisions

€m	Provisions for damages and environmental obligations	Other environmental provisions	Miscellaneous other provisions	Total
1 January 2016	583.6	363.5	410.9	**1,358.0**
Changes in consolidation scope	-311.3	174.0	397.4	**260.1**
Currency translation	-2.8	4.4	-13.6	**-12.0**
Reclassification		-0.9	-8.4	**-9.3**
Utilisation	-28.2	-44.2	-150.0	**-222.4**
Reduction	-46.9	-34.6	-46.5	**-128.0**
Addition	124.6	62.7	273.7	**461.0**
31 December 2016	319.0	524.9	863.5	**1,707.4**

The changes in the consolidation scope of damages and environmental obligations result from the deconsolidation of the US companies Hanson Permanente Cement, Inc. and Kaiser Gypsum Company, Inc. The changes in the consolidation scope of other environmental provisions and miscellaneous other provisions are essentially attributable to the first-time consolidation of Italcementi.

The reclassification line shows other reclassifications. The reduction line includes the release of unused provisions amounting to €79.4 million, the offsetting of obligations against the corresponding claims for reimbursement, and the offsetting of obligations in kind against other assets totalling €48.6 million.

The maturities of the provisions can be broken down as follows:

Maturities

€m	Provisions for damages and environmental obligations	Other environmental provisions	Miscellaneous other provisions	Total
Maturity ≤ 1 year	34.6	39.2	274.1	**347.9**
Maturity > 1 year ≤ 5 years	155.9	267.3	541.3	**964.5**
Maturity > 5 years	128.5	218.4	48.1	**395.0**
	319.0	524.9	863.5	**1,707.4**

Provisions for damages and environmental obligations
Provisions for damages and environmental obligations result from discontinued operations that were transferred to the HeidelbergCement Group as part of the takeover of the Hanson Group in 2007. The obligations are therefore not linked to the continuing operations of the HeidelbergCement Group.

The provisions for damages concern legal proceedings before US courts. The claims relate to health problems allegedly caused by the sale of products containing asbestos. The provisions to be formed are measured at the present value of the expected expenses, using reliable estimates of the development of costs for the next fifteen years. The environmental liability claims pertain to remediation obligations in connection with the sale of chemical products by a former Hanson participation.

The provisions are offset by claims for reimbursement against environmental and third-party liability insurers. As at 31 December 2016, the claims amount to €135.4 million (previous year: 371.1), of which €124.2 million (previous year: 298.7) is recorded under other non-current operating receivables and €11.2 million (previous year: 72.4) under other current operating receivables.

Other environmental provisions
The other environmental provisions include recultivation, environmental, and asset retirement obligations.

Recultivation obligations relate to legal and constructive obligations to backfill and restore raw material quarrying sites. The provisions recognised for these obligations are measured in accordance with the extraction progress on the basis of the best cost estimate for fulfilling the obligation. As at the reporting date, these provisions amounted to €274.7 million (previous year: 219.9).

Provisions for environmental obligations are recognised on the basis of contractual or official regulations and essentially include expenses connected with the cleaning up of contaminated areas and the remediation of extraction damages. The provisions are measured at the present value of the expected expenses. These provisions amount to a total of €177.2 million (previous year: 69.4).

The provisions for asset retirement obligations pertain to obligations arising in connection with the removal of installations (e.g. conveying systems at rented locations), so that a location can be restored to its contractually agreed or legally defined state after the end of its useful life. As at the reporting date, provisions for asset retirement obligations of €73.0 million (previous year: 74.2) had been recognised.

Miscellaneous other provisions

Miscellaneous other provisions particularly exist for restructuring obligations, other litigation risks, compensation obligations, and obligations to personnel.

The provisions for restructuring obligations concern expenses for various optimisation programmes, such as the closure of plants or relocation of activities. Provisions of €161.8 million (previous year: 30.3) had been recognised for this purpose as at the reporting date.

Because of pending legal action against the Group, provisions for litigation risks, including those relating to pending antitrust proceedings, amounting to €210.1 million (previous year: 34.3) were recognised in the balance sheet. These obligations are assessed as most likely, provided that other estimates do not lead to a fairer evaluation as a result of specific probability distributions.

Provisions for compensation obligations relate to the Group's obligations arising from occupational accidents. As at the reporting date, provisions of €94.9 million (previous year: 87.0) had been formed for this purpose.

Obligations to personnel include the provision for the long-term bonus plan (management and capital market component) of €76.8 million (previous year: 80.0), as well as provisions for multi-employer pension plans amounting to €34.7 million (previous year: 60.4).

Further provisions were additionally recognised for a variety of minor issues.

Impact of interest rate effects

Provisions are measured at their present value, which is determined using a pre-tax interest rate. For this purpose, HeidelbergCement uses the risk-free interest rate of government bonds from the respective countries, taking into account the relevant term. The risks specific to the liability are taken into account in the estimate of future cash outflows.

Interest rate effects of €3.7 million for provisions for damages and environmental obligations are included in the expenses from discontinued operations. Changes in the interest rate of €2.6 million and compounding of €8.0 million led to an increase in miscellaneous other provisions.

46 Liabilities

The following table shows the composition of the interest-bearing liabilities.

Interest-bearing liabilities

€m	2015	2016
Bonds payable	5,795.2	**9,505.4**
Bank loans	521.2	**1,242.6**
Other interest-bearing liabilities		
Miscellaneous interest-bearing liabilities	306.3	**121.8**
Liabilities from finance lease	12.0	**21.9**
Derivative financial instruments	46.7	**85.3**
Non-controlling interests with put options	30.0	**73.8**
	6,711.4	**11,050.8**

The following table provides an overview of the maturities of the interest-bearing liabilities.

Maturities of interest-bearing liabilities

€m	< 1 year	1–5 years	> 5 years	Total
31 December 2016				
Bonds payable	1,853.5	4,916.5	2,735.4	**9,505.4**
Bank loans	457.1	110.2	675.3	**1,242.6**
Miscellaneous interest-bearing liabilities	78.5	24.7	18.6	**121.8**
Liabilities from finance lease	9.9	12.0		**21.9**
Derivative financial instruments	77.8	7.5		**85.3**
Non-controlling interests with put options	51.3	22.5		**73.8**
	2,528.1	5,093.4	3,429.3	**11,050.8**
31 December 2015				
Bonds payable	1,109.4	4,164.0	521.8	**5,795.2**
Bank loans	397.4	121.9	1.9	**521.2**
Miscellaneous interest-bearing liabilities	297.6	2.7	6.0	**306.3**
Liabilities from finance lease	4.5	7.5		**12.0**
Derivative financial instruments	41.3	5.4		**46.7**
Non-controlling interests with put options	25.8	4.2		**30.0**
	1,876.0	4,305.7	529.7	**6,711.4**

The following table shows the reconciliation of the total future minimum lease payments with their present value for finance lease liabilities.

Minimum lease payments of finance leases

€m	< 1 year	1 - 5 years	Total
31 December 2016			
Present value of future minimum lease payments	9.9	12.0	**21.9**
Interest of future minimum lease payments	0.5	0.7	**1.2**
Future minimum lease payments	10.4	12.7	**23.1**
31 December 2015			
Present value of future minimum lease payments	4.5	7.5	**12.0**
Interest of future minimum lease payments	0.6	0.5	**1.1**
Future minimum lease payments	5.1	8.0	**13.1**

Further information on interest-bearing liabilities can be found in the Group financial management section of the Group Management Report on page 82 f. Explanations on the derivative financial instruments are provided on page 251 f.

Additional disclosures on financial instruments

The following table assigns the individual balance sheet items for the financial instruments to classes and measurement categories of IAS 39. In addition, the aggregate carrying amounts for each measurement category and the fair values for each class are depicted.

Carrying amounts, measurement and fair values by measurement categories

€m	Category of IAS 39 [1]	Amortised cost	Cost	Fair value with P/L effect	Fair value without P/L effect	Carrying amount	Fair value
31 December 2016							
Assets							
Financial investments – available for sale at cost	AfS		112.7			**112.7**	
Financial investments – available for sale at fair value	AfS				285.2	**285.2**	**285.2**
Loans and other interest-bearing receivables	LaR	196.0				**196.0**	**202.1**
Trade receivables and other operating receivables	LaR	2,335.8				**2,335.8**	**2,335.8**
Cash and cash equivalents	LaR	1,972.4				**1,972.4**	**1,972.4**
Derivatives – hedge accounting	Hedge				18.3	**18.3**	**18.3**
Derivatives – held for trading	HfT			42.5		**42.5**	**42.5**
Liabilities							
Bonds payable, bank loans, and miscellaneous financial liabilities	FLAC	10,869.8				**10,869.8**	**11,645.9**
Trade payables, liabilities relating to personnel, and miscellaneous operating liabilities	FLAC	3,855.8				**3,855.8**	**3,855.8**
Liabilities from finance lease	FLAC	21.9				**21.9**	**21.9**
Derivatives – hedge accounting	Hedge				0.3	**0.3**	**0.3**
Derivatives – held for trading	HfT			85.0		**85.0**	**85.0**
Non-controlling interests with put options	FLAC	73.8				**73.8**	**73.8**
31 December 2015							
Assets							
Financial investments – available for sale at cost	AfS		69.0			**69.0**	
Loans and other interest-bearing receivables	LaR	198.4				**198.4**	**199.4**
Trade receivables and other operating receivables	LaR	1,827.9				**1,827.9**	**1,827.9**
Cash and cash equivalents	LaR	1,350.5				**1,350.5**	**1,350.5**
Derivatives – hedge accounting	Hedge				18.4	**18.4**	**18.4**
Derivatives – held for trading	HfT			83.0		**83.0**	**83.0**
Liabilities							
Bonds payable, bank loans, and miscellaneous financial liabilities	FLAC	6,622.7				**6,622.7**	**7,248.3**
Trade payables, liabilities relating to personnel, and miscellaneous operating liabilities	FLAC	2,483.3				**2,483.3**	**2,483.3**
Liabilities from finance lease	FLAC	12.0				**12.0**	**12.0**
Derivatives – hedge accounting	Hedge				1.8	**1.8**	**1.8**
Derivatives – held for trading	HfT			44.9		**44.9**	**44.9**
Non-controlling interests with put options	FLAC	30.0				**30.0**	**30.0**

1) AfS: Available for sale, LaR: Loans and receivables, Hedge: Hedge accounting, HfT: Held for trading, FLAC: Financial liabilities at amortised cost

Financial investments available for sale at cost are equity investments measured at cost, for which no listed price on an active market exists and whose fair value cannot be reliably determined. Therefore, no fair value is indicated for these instruments.

The financial investments available for sale at fair value include the fair values of the participations Hanson Permanente Cement, Inc. and Kaiser Gypsum Company, Inc. Additional information on the definition of the fair values can be found on page 204 f. under "Divestments in the reporting year". Furthermore, financial investments amounting to €19.4 million for which the fair value was determined using the stock market price at the reporting date are recognised here. These financial investments were deposited as security for existing and future reinsurance services.

Derivative financial instruments, both those designated as hedging instruments and those held for trading, are measured at fair value. For these items, the fair value always corresponds to the carrying amount.

The fair values of the non-current loans, other non-current operating receivables, bank loans, finance lease liabilities, and other non-current interest-bearing and operating liabilities correspond to the present values of the future payments, taking into account the current interest parameters. The "Trade payables, liabilities relating to personnel, and miscellaneous operating liabilities" category cannot be immediately reconciled with the related balance sheet items, as these contain not only financial liabilities but also prepaid expenses and non-financial liabilities of €234.7 million (previous year: 153.2).

The fair values of the listed bonds correspond to the nominal values multiplied by the price quotations at the reporting date.

For the financial instruments with short-term maturities, the carrying amounts at the reporting date represent appropriate estimates of the fair values.

The following table shows the fair value hierarchy for the assets and liabilities, which are measured at fair value in the balance sheet.

Fair value hierarchy	31 December 2015			31 December 2016		
€m	Level 1	Level 2	Level 3	**Level 1**	**Level 2**	**Level 3**
Assets						
Financial investments – available for sale at fair value				**19.4**		**265.8**
Derivatives – hedge accounting		18.4			**18.3**	
Derivatives – held for trading		83.0			**42.5**	
Liabilities						
Derivatives – hedge accounting		1.8			**0.3**	
Derivatives – held for trading		44.9			**85.0**	

The following table shows the fair value hierarchies for the assets and liabilities, which are not measured at fair value in the balance sheet, but whose fair value is reported.

Fair value hierarchy	31 December 2015			31 December 2016		
€m	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Assets						
Loans and other interest-bearing receivables		199.4			**202.1**	
Trade receivables and other operating receivables		1,827.9			**2,360.8**	
Cash and cash equivalents	1,350.5			**1,972.4**		
Liabilities						
Bonds payable, bank loans, and miscellaneous financial liabilities	6,290.7	957.6		**10,013.7**	**1,632.2**	
Trade payables, liabilities relating to personnel, and miscellaneous operating liabilities		2,483.3			**3,855.8**	
Liabilities from finance lease		12.0			**21.9**	
Non-controlling interests with put options			30.0			**73.8**

For level 1, the fair value is calculated using prices quoted on an active market (unadjusted) for identical assets or liabilities to which HeidelbergCement has access on the reporting date. For level 2, the fair value is determined using a discounted cash flow model on the basis of input data that does not involve quoted prices classified in level 1, and which is directly or indirectly observable. The fair values of level 3 are calculated using measurement models that include factors that cannot be observed on the active market.

Non-controlling interests with put options in level 3 are liabilities that relate to put-options resulting from tender rights of non-controlling interests. The calculation of the fair value is based on the respective contractual agreements for compensation of the non-controlling interests in the event of a tender. These usually provide an approximation of the proportionate value of the company based on company-specific variables and multipliers. If the tender is only possible at a later point in time, the payoff amount is discounted using an appropriate market interest rate. For the German partnerships, the fair value is calculated using a discounted cash flow model. In this respect, the cash flows based on the companies' underlying plans were discounted with a risk-adjusted discount rate (WACC).

The assessment as to whether financial assets and liabilities, which are accounted for at fair value, are to be transferred between the levels of the fair value hierarchy will take place at the end of each reporting period. No reclassifications were carried out in the period under review.

The following table shows the net gains or losses from the financial instruments by measurement category.

Net gains or losses		
€m	2015	2016
Loans and receivables	-130.5	**66.4**
Financial investments – available for sale	-5.1	**8.6**
Financial instruments – held for trading	142.5	**-114.8**
Financial liabilities at amortised cost	-114.9	**-69.0**
	-108.0	**-108.8**

The net result from loans and receivables includes impairment losses as well as reversals of impairment losses of €-12.9 million (previous year: -3.7) and currency effects of €79.3 million (previous year: -126.8). The net result of financial investments available for sale includes valuation allowances amounting to €-4.7 million (previous year: -5.1) and currency effects of €13.3 million. The net result from the subsequent measurement of the financial instruments held for trading includes currency and interest effects. For interest-bearing liabilities carried at amortised costs, the net result primarily includes effects from currency translation of €-69.0 million (previous year: -115.1).

The following table shows the total interest income and expenses for the financial instruments not measured at fair value in profit or loss.

Total interest income and expense		
€m	2015	2016
Total interest income	72.9	**66.0**
Total interest expense	-471.7	**-450.8**
	-398.8	**-384.8**

The impairment losses of financial assets by class is depicted in the following table.

Impairment		
€m	2015	2016
Financial investments – available for sale at cost	-5.1	**-4.7**
Loans and other interest-bearing receivables	-1.7	
Trade receivables and other operating receivables	-12.9	**-23.0**
	-19.7	**-27.7**

Derivative financial instruments

The following table shows the nominal values and fair values of the derivative financial instruments.

Derivative financial instruments	31 December 2015		31 December 2016	
€m	Nominal value	Fair value [2]	Nominal value	Fair value [2]
Assets				
Cash flow hedges				
Currency swaps [1]	137.8	17.2	**139.9**	**18.2**
Commodity derivatives			**1.1**	**0.1**
Fair value hedges				
Interest rate swaps	690.6	1.2		
Hedges of a net investment				
Foreign exchange swaps	15.4	0.0	**4.8**	**0.0**
Derivatives held for trading				
Currency forwards	4.8	0.2	**9.7**	**0.1**
Foreign exchange swaps	2,099.9	48.9	**2,777.2**	**34.3**
Cross-currency interest rate swaps [3]	136.5	33.9	**33.3**	**8.1**
	3,084.9	101.4	**2,966.0**	**60.8**
Liabilities				
Cash flow hedges				
Currency forwards	1.6	0.1		
Currency swaps [1]		0.9		
Commodity derivatives	4.1	0.8	**2.9**	**0.3**
Derivatives held for trading				
Currency forwards	2.9	0.0	**11.2**	**0.1**
Foreign exchange swaps	2,687.6	32.8	**2,147.2**	**71.7**
Cross-currency interest rate swaps [3]	43.8	11.9	**65.2**	**12.9**
Commodity derivatives	1.6	0.2	**2.2**	**0.2**
	2,741.5	46.7	**2,228.7**	**85.3**

1) The nominal values of €139.9 million (previous year: 137.8) relates to currency swaps with positive fair values of €18.2 million (previous year: 16.3), which were designated as hedging instruments in a cash flow hedge.
2) The fair value specified with €0.0 is less than €50,000.
3) The nominal values of €33.3 million (previous year: 136.5) relates to cross-currency interest rate swaps with positive fair values of €7.2 million (previous year: 31.4), which are shown on the asset side in the amount of €7.2 million (previous year: 33.9) and on the liability side in the amount of €0.0 million (previous year: -2.5) because of separation into long-term and short-term components of the swaps. The nominal values of €65.2 million (previous year: 43.8) refers to cross-currency interest rate swaps with negative fair values of €-12.0 million (previous year: -9.4), which are shown on the asset side in the amount of €0.9 million (previous year: 0.0) and on the liability side in the amount of €-12.9 million (previous year: -9.4) because of separation into long-term and short-term components of the swaps.

Cash flow hedges

The currency swap open at the reporting date with a positive fair value of €18.2 million (previous year: 16.3) hedges the currency risk of the fixed interest-bearing CHF 150 million bond that matures in 2017. During the reporting period, €1.9 million (previous year: 16.7) was recognised directly in equity through other comprehensive income and €-2.2 million (previous year: -13.1) was released to profit or loss. The accrued interest of €-0.1 million (previous year: -0.1) included in the fair value was recognised in profit or loss in the interest result.

The commodity derivatives of €-0.2 million (previous year: -0.8) open at the reporting date hedge future electricity and gas oil prices and mature in the course of 2017. In the reporting year, valuation effects of €-0.1 million (previous year: 1.1) were recognised directly in equity through other comprehensive income. Effects of €-0.5 million (previous year: -1.5) included in equity were reclassified to profit or loss.

The contractually set future payments in foreign currency resulting from long-term investment projects are hedged by appropriate cash holdings in foreign currencies. During the reporting period, currency effects of €-0.4 million (previous year: 1.6) were recognised directly in equity through other comprehensive income. In the context of the payment of instalments during the reporting period, €-0.3 million (previous year: -6.9) of the amount recognised in the other comprehensive income was reclassified directly from other comprehensive income to assets under construction.

There is no significant ineffectiveness in the cash flow hedges.

Fair value hedges

The interest rate swaps due in 2016 hedged the interest rate risks of fixed interest-bearing loans. The change in fair value adjusted for accrued interest of €0.2 million (previous year: -0.6) was recognised in profit or loss in the other financial result. A corresponding fair value adjustment of €-0.2 million (previous year: 0.4) was made for the loans, which was also shown in the hedging result.

The derivatives contracted by HeidelbergCement are sometimes subject to legally enforceable netting agreements (ISDA Agreement or German Master Agreement for Financial Derivatives), which, however, do not permit netting of receivables and liabilities in the balance sheet in accordance with IAS 32.42. The right to offset only exists in the case of delayed payment or if a contracting party becomes insolvent. The presentation in the balance sheet is therefore shown on a gross basis. As at the reporting date, derivatives with a positive carrying amount of €60.8 million (previous year: 101.4) and corresponding derivatives with a negative carrying amount of €-85.3 million (previous year: -46.7) were subject to netting agreements. Taking these agreements into consideration, a calculated netting amount of €25.3 million (previous year: 24.2) would result at the reporting date. Accordingly, the derivatives would have positive net carrying amounts of €35.5 million (previous year: 77.2) and negative net carrying amounts of €-60.0 million (previous year: -22.5). Other contractual arrangements for netting financial assets and liabilities do not exist.

Risks from financial instruments

With regards to its assets, liabilities, firm commitments, and planned transactions, HeidelbergCement is particularly exposed to risks arising from changes in foreign exchange rates, interest rates, and market and stock market prices. These market price risks might have a negative impact on the financial position and performance of the Group. The Group manages these risks primarily as part of its ongoing business and financing activities and, when required, by using derivative financial instruments. The main aspects of the financial policy are determined by the Managing Board.

The Group Treasury department is responsible for the implementation of the financial policy and ongoing risk management. The Group Treasury department acts on the basis of existing guidelines, which bindingly determine the decision criteria, competences, responsibilities, and processes for managing the financial risks.

Certain transactions also require the prior approval of the Managing Board. The Group Treasury department informs the Managing Board on an ongoing basis about the amount and scope of the current risk exposure and current market developments on the global financial markets. The Group Internal Audit department monitors the observance of the guidelines mentioned above and the corresponding legal framework by means of targeted auditing.

Credit risk

HeidelbergCement is exposed to credit risk through its operating activities and certain financial transactions. The credit risk stands for the risk that a contracting party unexpectedly does not fulfil, or only partially fulfils, the obligations agreed when signing a financial instruments contract. The Group limits its credit risk by only concluding contracts for financial assets and derivative financial instruments with partners that have a first-class credit rating.

Credit rating

The rating agencies Moody's, Standard & Poor's, and Fitch Ratings assess the creditworthiness of HeidelbergCement as Baa3/P-3 (Outlook Stable), BBB-/A-3 (Outlook Stable), and BBB-/F3 (Outlook Stable) as at the end of 2016. Any potential downgrading of the ratings awarded by the rating agencies could have a negative impact on HeidelbergCement's cost of capital and refinancing options.

Cash and cash equivalents

This item essentially comprises cash and cash equivalents. The Group is exposed to losses arising from credit risk in connection with the investment of cash and cash equivalents if contracting parties do not fulfil their obligations. HeidelbergCement manages the resulting risk position by diversification of contracting parties. Cash and cash equivalents are invested in selected companies, banks, and financial institutions following a thorough credit analysis. Currently, no cash or cash equivalents are overdue or impaired as a result of defaults. The maximum credit risk of cash and cash equivalents corresponds to the carrying amount.

Trade receivables

Trade receivables result mainly from the sale of cement, concrete, and aggregates. In operating activities, the outstanding debts are monitored on an ongoing basis. Default risks are taken into account by means of specific valuation allowances and specific lump sum allowances. The maximum risk position from trade receivables corresponds to the carrying amount.

Other receivables and assets

The credit risk position from other receivables and assets corresponds to the carrying amount of these instruments. HeidelbergCement regards this credit risk as insignificant.

Derivative financial instruments

Derivative financial instruments are generally used to reduce risks. In the course of its business activity, HeidelbergCement is exposed to interest rate, currency, and energy price risks. For accounting purposes, a significant portion of the derivatives are not accounted as hedging instruments in accordance with IAS 39, but as instruments in the held-for-trading category. However, from a commercial perspective, the changes in the fair values of these instruments represent an economically effective hedge within the context of the Group strategy. The maximum credit risk of this item corresponds to the fair value of the derivative financial instruments that have a positive fair value and are shown as financial assets at the reporting date. A cross-currency interest rate swap was contracted to hedge the fair value risk and was designated as a hedging instrument in accordance with IAS 39. In order to reduce default risks, the hedging transactions are generally concluded only with leading financial institutions that have a first-class credit rating. The contracting parties enjoy very good credit ratings, awarded by external rating agencies such as Moody's, Standard & Poor's, or Fitch Ratings. There are currently no past-due derivative financial instruments in the portfolio.

Liquidity risk

The liquidity risk describes the risk of a company not being able to fulfil its financial obligations to a sufficient degree. To manage HeidelbergCement's liquidity, the Group maintains sufficient cash and cash equivalents as well as extensive credit lines with banks, besides the cash inflow from operating activities. The operating liquidity management includes a daily reconciliation of cash and cash equivalents. The Group Treasury department acts as an in-house bank. This allows liquidity surpluses and requirements to be managed in accordance with the needs of the entire Group and of individual Group companies.

As at the end of the year, HeidelbergCement still has as yet undrawn, confirmed credit lines of €2.8 billion available in order to secure liquidity, in addition to available cash and cash equivalents. An open-ended framework agreement for the issue of short-term bearer bonds (commercial papers) of €1.5 billion is available to cover short-term liquidity peaks. Within the context of the programme, individual tranches with different terms will be issued at different times depending on the market situation. As at the end of 2016, none of the commercial papers issued by HeidelbergCement AG were outstanding. Further information on liquidity risks can be found in the Management Report, Risk and opportunity report chapter on page 126 f.

As the financial contracts of HeidelbergCement do not contain any clauses that trigger a repayment obligation in the event of the credit rating being downgraded, the maturity structure will remain unaffected even if the credit assessments change. Margin calls that could lead to an outflow of liquidity are not agreed in any of the main financial instruments. All derivative financial instruments are contracted on the basis of existing framework agreements that contain netting agreements for the purpose of reducing credit and liquidity risks.

The following maturity overview shows how the cash flows of the liabilities as at 31 December 2016 affect the Group's liquidity position. The overview describes the progress of:

- undiscounted repayments and interest payments for bonds payable
- undiscounted liabilities and interest payments to banks
- undiscounted other liabilities
- undiscounted contractually agreed payments for derivative financial instruments, as a total for the year.

The trade payables are assigned to short-term maturities (within a year). For variable interest payments, the current interest rate is taken as a basis. Payments in foreign currency are translated using the exchange rate at year end.

Cash flows of interest-bearing liabilities and derivative financial instruments

€m	Carrying amount 31 Dec. 2016	Cash flows 2017	Cash flows 2018	Cash flows 2019	Cash flows 2020	Cash flows 2021-2026
Bonds payable	**9,505.5**	2,044.0	1,818.3	1,230.6	1,948.9	3,476.2
Bank loans	**1,242.6**	470.0	64.6	37.2	35.5	726.9
Other interest-bearing liabilities	**121.8**	86.3	24.0	1.5	1.5	31.0
Derivatives with positive fair value						
Cash flow hedges	**18.3**	133.6				
Hedges of a net investment	**0.0**	4.8				
Derivatives held for trading	**42.5**	2,807.2				
Derivatives with negative fair value						
Cash flow hedges	**0.3**	2.9				
Derivatives held for trading	**85.0**	2,240.4	27.6	22.3	20.7	18.4

Cash flows of interest-bearing liabilities and derivative financial instruments

€m	Carrying amount 31 Dec. 2015	Cash flows 2016	Cash flows 2017	Cash flows 2018	Cash flows 2019	Cash flows 2020-2025
Bonds payable	**5,795.2**	1,339.4	1,398.2	1,190.5	1,136.0	1,620.4
Bank loans	**521.2**	422.5	11.0	20.4	119.6	8.1
Other interest-bearing liabilities	**306.3**	297.8	7.9	0.9		
Derivatives with positive fair value						
Cash flow hedges	**17.2**	10.9	132,5			
Fair value hedges	**1.2**	41.0				
Hedges of a net investment	**0.0**	15.4				
Derivatives held for trading	**83.0**	2,147.5	29.3	22.6		
Derivatives with negative fair value						
Cash flow hedges	**1.8**	5.9				
Derivatives held for trading	**44.9**	2,704.5	4.8	4.8	22.2	38.8

The inflow of liquidity amounting to €252.1 million (previous year: 388.0) from cross-currency interest rate swaps and €4,971.4 million (previous year: 4,810.7) arising from current foreign exchange transactions and other derivatives have not been taken into account in the table.

The undiscounted contractual cash flows of the finance lease liabilities are shown in a separate table on page 246.

Interest rate risk

Interest rate risks exist as a result of potential changes in the market interest rate and may lead to a change in fair value in the case of fixed interest-bearing financial instruments and to fluctuations in interest payments in the case of variable interest-bearing financial instruments. The Managing Board and Supervisory Board of HeidelbergCement AG have decided against hedging the variable interest-bearing financial instruments. This strategy is based on the historically strong correlation between increasing profits and rising interest rates. For financial instruments with fixed interest that are measured at amortised cost, interest rate risks have no impact on the result and equity.

If the market interest rate level across all currencies had been 100 basis points higher (lower) on 31 December 2016, the net interest cost of the HeidelbergCement Group taking into account the variable interest-bearing assets and liabilities would have fallen (risen) by €3.9 million (previous year: 1.6).

Currency risk

HeidelbergCement's currency risk results from its investing, financing, and operating activities. Risks from foreign currencies are generally hedged, insofar as they affect the Group's cash flow. Currency forwards and foreign exchange swaps are used in the elimination of existing currency risks.

Through the in-house banking activities of HeidelbergCement AG, the borrowing and investment of liquidity of the subsidiaries leads to currency positions that are generally hedged by means of external foreign exchange swap transactions, which are appropriate in terms of maturities and amounts. Consequently, currency fluctuations in connection with the in-house banking activities usually have no impact on profit or loss or equity. Unhedged items only exist in isolated cases, such as where currencies are not convertible.

The following table shows the hypothetical impact on the financial result assuming a 10 % increase or decrease in the value of the foreign currency against the respective functional currency, whereby the positive values represent revenue and the negative values an expense in the income statement.

Sensitivity analysis of currency risk	Increase in the value of the foreign currency by 10%		Decrease in the value of the foreign currency by 10%	
€m	31 Dec. 2015	31 Dec. 2016	31 Dec. 2015	31 Dec. 2016
EGP/EUR		**2.0**		**-2.0**
USD/GEL	-9.7	**-10.0**	9.7	**10.0**
USD/GHS	1.1	**0.9**	-1.1	**-0.9**
USD/NOK	2.1		-2.1	
USD/KZT	-1.5	**-1.9**	1.5	**1.9**

By contrast, foreign currency risks that do not affect the Group's cash flows (i.e. the risks resulting from the translation of the assets and liabilities of foreign subsidiaries into the Group reporting currency) generally remain unhedged. However, if necessary, HeidelbergCement can also hedge this foreign currency risk.

Other disclosures

Capital management

The objective of capital management is to ensure sufficient liquidity for the Group at all times. Therefore, the Group makes use of external and internal financing opportunities (see Management Report, Group financial management chapter on page 80 f.). The net debt as well as the dynamic gearing ratio, which corresponds to the ratio of net debt to the result from current operations before depreciation and amortisation, are of fundamental importance to the monitoring of the Group's capital.

Net debt/RCOBD		
€m	31 Dec. 2015	31 Dec. 2016
Cash, derivative financial instruments and short-term financial investments	1,425.5	**2,051.7**
Interest-bearing liabilities	6,711.4	**11,050.8**
Net debt	5,286.0	**8,999.1**
Result from current operations before depreciation and amortisation (RCOBD)	2,612.7	**2,939.4**
Net debt/RCOBD	2.02	**3.06**

In connection with credit agreements, we agreed to comply with various financial covenants, which were all met in the reporting period. The most important key financial ratios are the ratio of net debt to EBITDA and the interest coverage ratio. The EBITDA key figure is derived from the credit agreements and therefore differs from the result from current operations before depreciation and amortisation key figure as it takes elements of the additional ordinary result and effects from first-time consolidations and deconsolidations into consideration. Further explanations are given in the Management report on page 81.

Within the context of the Group planning, compliance with the credit agreements is monitored consistently, with notifications issued to the creditors on a quarterly basis. In the event of a breach of the covenants, the creditors could, under certain conditions, accelerate corresponding loans irrespective of the contractually agreed terms.

Contingent liabilities

As at the reporting date, contingent liabilities amounted to €416.6 million (previous year: 328.8), which are essentially related to tax and legal risks. The timing of the possible cash outflows for the contingent liabilities is uncertain because they depend on various external factors that remain outside HeidelbergCement's control. The application of taxation regulations might not yet be determined at the time that tax refund claims and liabilities are calculated. The calculation of tax items is based on the regulations most likely to be applied in each case. Nevertheless, the fiscal authorities may be of a deviating opinion, which may give rise to additional tax liabilities.

Other financial obligations

The following table shows the other financial commitments of the HeidelbergCement Group.

Other financial commitments

€m	31 Dec. 2015	31 Dec. 2016
Future minimum lease payments under non-cancellable operating leases		
Due within one year	163.2	**239.0**
Due between one and five years	354.0	**552.2**
Due after five years	321.7	**482.5**
	838.9	**1,273.7**
Other financial commitments for planned investments in property, plant and equipment and financial assets	288.2	**391.3**

Other financial commitments are listed with their nominal values. The future leasing obligations refer primarily to property and other assets used by HeidelbergCement.

Related parties disclosures

IAS 24 requires a statement concerning the most important relationships with related companies and persons that may exert a considerable influence on HeidelbergCement AG; the former are accounted for as joint ventures or associates, the latter hold key positions as members of the management.

As at 31 December 2016, Mr Ludwig Merckle, Ulm, holds via Vemos 2 Holding GmbH, a company under his control, 25.52 % of the voting rights in HeidelbergCement AG.

HeidelbergCement AG provided services with a net amount of €87,800 (previous year: 115,600) to PHOENIX Pharmahandel GmbH & Co KG, Mannheim, a company of the Merckle Group.

Revenue and other sales with joint ventures amounted to €67.0 million (previous year: 53.0). Raw materials, goods, and other services with a value of €281.9 million (previous year: 264.9) were procured from these joint ventures. A total of €8.2 million (previous year: 6.5) was generated in financial and other services. Receivables of €129.2 million (previous year: 122.6) and liabilities of €48.6 million (previous year: 99.9) exist in connection with these activities and financial transactions.

In addition, capital increases of €1.2 million (previous year: 11.4) were carried out for joint ventures. Repayment of capital from joint ventures to the parent company amounted to €45.7 million (previous year: 0.6). In the 2016 financial year, guarantees of €1.2 million (previous year: 0.7) were outstanding to joint ventures.

Business transactions with associates include revenue and other sales amounting to €66.9 million (previous year: 17.6), the procurement of goods and services amounting to €8.4 million (previous year: 11.9), and services provided amounting to €0.8 million (previous year: 0.3). Receivables of €32.2 million (previous year: 26.1) and liabilities of €14.1 million (previous year: 13.1) exist in connection with these activities and financial transactions.

In addition, capital increases of €0.4 million (previous year: 1.8) were carried out at associates in 2016. As in the previous year, no guarantees were outstanding to associates in the 2016 financial year.

As at 31 December 2016, receivables of €14.4 million (previous year: 24.3) and liabilities of €11.7 million (previous year: 11.4) exist in connection with transactions with non-consolidated subsidiaries.

Managing Board and Supervisory Board

We refer to the details given in the Corporate Governance chapter of the Management Report on pages 147 f.

The fixed remuneration of the Managing Board increased in comparison with the previous year to €6.5 million (previous year: 5.3) due to the expansion of the Managing Board and the transition period. The sum of short-term variable remuneration elements remained unchanged in comparison with the previous year at €8.6 million (previous year: 8.6). It consisted of the annual bonus in the amount of €8.8 million (previous year: 8.8), of which €0.2 million (previous year: 0.2) was offset against other remuneration elements.

Other remuneration elements totaled €1.2 million (previous year: 0.5). They consisted of payments for committee activities at subsidiaries of HeidelbergCement AG and taxable fringe benefits, particularly consisting of the provision of company cars, mobile phones, and communication tools, the reimbursement of expenses, insurance- and assignment-related benefits such as bearing the costs of home flights.

The members of the Managing Board are participating in the long-term bonus plan 2016-2018/19, granted in 2016. The target values for the plan, rounded to the nearest € '000, are €2,250,000 for Dr. Bernd Scheifele, €1,219,000 for Dr. Dominik von Achten, €969,000 for Dr. Lorenz Näger, and €875,000 for Dr. Albert Scheuer. For the retiring members of the Managing Board, Daniel Gauthier and Andreas Kern, the target value will be reduced by half as per the agreement due to their retirement on 30 June 2016 and amounts to €438,000 each. For the new members of the Managing Board, the target value is determined pro rata from 1 February 2016 and amounts to €949,000 for Kevin Gluskie and €731,000 for Hakan Gurdal and Jon Morrish, respectively.

The plan comprises two equally weighted components: the management component and the capital market component. The target value of each component, rounded to the nearest € '000, amounts to €1,125,000 for Dr. Bernd Scheifele, €609,000 for Dr. Dominik von Achten, €484,000 for Dr. Lorenz Näger, €438,000 for Dr. Albert Scheuer as well as €219,000 for Daniel Gauthier and Andreas Kern each. For Kevin Gluskie the pro rata calculation results in a target value for the management component of €473,000 and for the capital market component of €476,000. For Hakan Gurdal and Jon Morrish the pro rata calculation results in a target value for the management component of €364,000 and for the capital market component of €367,000 each. The reference price for the capital market component amounts to €69.91. This equates to 16,092 performance share units (PSUs) for Dr. Bernd Scheifele, 8,717 PSUs for Dr. Dominik von Achten, 6,929 PSUs for Dr. Lorenz Näger, 6,258 PSUs for Dr. Albert Scheuer, 3,129 PSUs for Daniel Gauthier and Andreas Kern each, 6,814 PSUs for Kevin Gluskie as well as 5,250 PSUs for Hakan Gurdal and Jon Morrish each.

In accordance with § 314, section 1, no. 6a, sentence 4 of the German Commercial Code (HGB), the fair value at the grant date must be indicated for the capital market components. For Dr. Bernd Scheifele this amounts to €1,826,000, for Dr. Dominik von Achten to €989,000 for Dr. Lorenz Näger to €786,000, for Dr. Albert Scheuer to €710,000, for Daniel Gauthier and Andreas Kern to €355,000 each, for Kevin Gluskie to €773,000 as well as for Hakan Gurdal and Jon Morrish to €596,000 each.

The total remuneration according to DRS 17 amounted to €29.9 million (previous year: 23.4). For the calculation according to DRS 17, we refer to the explanations on page 154 f. in the Corporate Governance chapter of the Management Report.

Expenses relating to the long-term capital market components of the last four issued and current long-term bonus plans in accordance with IFRS 2.51a amounted to €9.0 million (previous year: 12.2). Of this amount, €2,502,000 (previous year: 3,377,000) apply to Dr. Bernd Scheifele, €1,501,000 (previous year: 2,156,000) to Dr. Dominik von Achten, €1,201,000 (previous year: 1,704,000) to Dr. Lorenz Näger, €1,134,000 (previous year: 1,657,000) to Dr. Albert Scheuer as well as €1,021,000 (previous year: 1,657,000) to Daniel Gauthier and Andreas Kern each. Furthermore, for the members of the Managing Board appointed as of 2016, €234,000 applies to Kevin Gluskie as well as €177,000 to Hakan Gurdal and Jon Morrish, respectively. The expenses recognized relating to the long-term management component came to €7.0 million (previous year: 6.9).

Additions to the provisions for pension obligations (current service cost) for the current members of the Managing Board amounted to €2.4 million (previous year: 2.6). The present values of the defined benefit obligation amounted to €47.5 million (previous year: 37.5).

For the members of the Managing Board appointed as of 2016, the existing contractual entitlements from long-term bonus and pension plans from prior positions within the HeidelbergCement Group were continued. These entitlements are serviced according to the original plan conditions. The corresponding expenses in the business year amounted to €0.8 million from long-term bonus plans and €0.1 million from pension plans.

Total remuneration of the Managing Board in accordance with IAS 24 came to €35.6 million in 2016 (previous year: 36.1).

Loans granted to Mr. Jon Morrish by HeidelbergCement AG prior to his service as member of the Managing Board of HeidelbergCement AG continued into the business year and were fully repaid on 20 December 2016. The value of the loans including accrued interest was GBP 467,713. The interest rate was 4.0 %.

Payments to former members of the Managing Board and their surviving dependents amounted to €3.9 million in the business year (previous year: 3.2). This includes payments to Daniel Gauthier and Andreas Kern since 1 July 2016 for a contractually agreed compensation for a two year post contractual restraint, which amounted to €350,000 each in the business year 2016. Provisions for pension obligations to former members of the Managing Board amounted to €26.8 million (previous year: 26.2). This does not include the pension obligation for Daniel Gauthier and Andreas Kern which are disclosed in the Corporate Governance chapter of the Management Report on pages 156 individually in the current business year.

The total Supervisory Board remuneration (excluding value added tax) for the 2016 business year amounted to €1,426,705 (previous year: 1,471,000). Employee representatives of the Supervisory Board who are employees of the HeidelbergCement Group also received remuneration in accordance with their contracts of employment, the level of which corresponded to an equitable remuneration for their relevant functions and tasks within the Group.

Furthermore, companies of the HeidelbergCement Group have not carried out reportable transactions of any kind with members of the Supervisory Board or members of the Managing Board as persons in key positions or with companies in whose executive or governing bodies these persons are represented.

Statement of compliance with the German Corporate Governance Codex
The statement of compliance with the German Corporate Governance Code as required by § 161 of the German Stock Company Act was submitted by the Managing Board and the Supervisory Board of HeidelbergCement AG and made available on the internet (www.heidelbergcement.com under "Company/Corporate Governance/Declaration of Corporate Governance").

Auditor's fees

The auditor Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft received fees of €7.7 million (previous year: 7.4) in the financial year.

Auditor's fees

€m	2015	2016
Audit services [1]	4.2	**4.6**
Other assurance services	0.2	**0.3**
Tax services	2.8	**2.7**
Other services	0.2	**0.1**
	7.4	**7.7**

1) Thereof for the previous year: 2015: €0.2 million, 2016: €0.0 million

Events occurring after the close of the 2016 financial year

On 18 January 2017, HeidelbergCement issued a Eurobond with an issue volume of €750 million and a four-year term ending on 18 January 2021 in the course of its €10 billion EMTN programme. The bond bears a fixed coupon of 0.500 % p.a. The issue price was at 99.822 %, resulting in a yield to maturity of 0.545 %. The bond is unsecured and ranks pari passu with all other financial liabilities. The terms and conditions of the bond include the same change of control clause as the bonds and debt certificates marked (3) in the type of clause column in the table on page 91. The issue proceeds will be used for general corporate financing purposes and for the repayment of upcoming maturities.

Approval by the Supervisory Board

The consolidated financial statements were prepared by the Managing Board and adopted on 15 March 2017. They were then submitted to the Supervisory Board for approval.

List of shareholdings of HeidelbergCement Group and HeidelbergCement AG as at 31 December 2016 (§ 313, section 2, resp. § 285, no. 11 of the German Commercial Code (HGB)

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Subsidiaries						
Western and Southern Europe						
A.R.C. (Western) Limited	Maidenhead, GBR		100.00	2015	8.3	0.0
Al Manar Cement Holding S.a.s.	Puteaux, FRA		100.00	2015	0.6	0.1
Amey Group Limited (The)	Maidenhead, GBR		100.00	2015	17.3	0.0
Amey Roadstone International Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Appleby Group Limited	Maidenhead, GBR		100.00	2015	36.6	0.7
ARC Aggregates Limited	Maidenhead, GBR		100.00	2015	4.4	0.0
ARC Building Limited	Maidenhead, GBR		100.00	2015	-24.4	0.0
ARC Concrete (Anglia) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
ARC Concrete Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
ARC Holdings Limited	Maidenhead, GBR		100.00	2015	0.2	0.0
ARC Land Holdings Limited	Maidenhead, GBR		100.00	2015	0.4	0.0
ARC Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
ARC Property Investments Limited	Maidenhead, GBR		100.00	2015	53.1	0.0
ARC Slimline Limited	Maidenhead, GBR		100.00	2015	-4.3	0.0
ARC South Wales Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
ARC South Wales Mortar Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
ARC South Wales Quarries Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
ARC South Wales Surfacing Limited	Maidenhead, GBR		100.00	2015	0.4	0.0
ARC Wales Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Áridos Sanz S.L.U.	Valladolid, ESP		100.00	2015	5.4	-0.1
Attendflower Limited	Maidenhead, GBR		100.00	2015	1,357.2	0.0
B.V. Betoncentrale De Schelde	Bergen op Zoom, NLD		66.67	2015	-1.0	0.1
B.V. Betonmortelcentrale 'BEMA'	Alkmaar, NLD		66.67	2015	-0.4	-0.8
Banbury Alton Limited	Maidenhead, GBR		100.00	2015	-0.4	0.0
BASAG Baustoff Handels AG	Brugg, CHE		100.00	2015	0.3	0.2
Bath and Portland Stone (Holdings) Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Baustoffwerke Dresden GmbH & Co. KG [3]	Dresden, DEU		51.00	2015	0.6	1.4
Beazer Limited	Maidenhead, GBR		100.00	2015	8.5	0.1
Beazer Services Limited	Douglas, IMN		100.00	2015	1.6	0.0
Beforebeam Limited	Maidenhead, GBR		100.00	2015	542.9	0.0
Beforeblend Limited	Maidenhead, GBR		100.00	2015	276.5	0.0
Berec Holdings B.V.	Amsterdam, NLD		100.00	2015	187.7	0.0
Beton Baguette Marcel S.A.	Bruxelles, BEL		85.46	2015	2.4	-0.2
Béton Contrôle de l'Adour S.a.s. [1]	Bayonne, FRA		35.99	2015	1.9	0.1
Béton Contrôle du Pays Basque S.a.s.	Bayonne, FRA		59.98	2015	4.8	-0.1
Bickleylake Limited	Maidenhead, GBR		100.00	2015	313.4	0.0
Birchwood Concrete Products Limited	Maidenhead, GBR		100.00	2015	216.2	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Birchwood Omnia Limited	Maidenhead, GBR		100.00	2015	1,693.0	152.4
Bonny Holding Ltd.	Irish Town, GIB		93.94	2015	0.3	0.0
Boons Granite Quarries Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
BravoBloc S.r.l.	Bergamo, ITA		100.00	2015	-0.2	-1.0
BravoEnergy S.r.l.	Bergamo, ITA		100.00	2015	0.4	0.2
Brazier Aggregates Limited	Maidenhead, GBR		100.00	2015	2.2	0.0
Bristol Sand and Gravel Company Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
British Agricultural Services Limited	Maidenhead, GBR		100.00	2015	486.9	3.0
British Ever Ready Limited	Maidenhead, GBR		100.00	2015	32.8	0.0
Buckland Sand & Silica Company Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Bulldog Company Limited	St. Peter Port, GGY		100.00	2015	52.4	-3.1
C.B.R. Finance S.A.	Luxembourg, LUX		100.00	2015	7.4	-0.2
C.T.G. S.p.A.	Bergamo, ITA		100.00	2015	3.0	1.5
Calcestruzzi S.p.A.	Bergamo, ITA		100.00	2015	2.4	-22.5
Calumite Limited	Maidenhead, GBR		51.00	2015	2.7	2.3
Cantera El Hoyon, S.A.U.	Madrid, ESP		100.00	2015	4.0	0.0
Canteras Mecánicas Cárcaba, S.A.U.	Oviedo, ESP		100.00	2015	8.2	-0.3
Carimat Béton S.A.	Bruxelles, BEL		85.00	2015	0.9	-0.1
Castle Building Products Limited	Maidenhead, GBR		100.00	2015	-0.6	0.0
Castle Cement (Chatburn) Limited	Maidenhead, GBR		100.00	2015	0.2	0.0
Castle Cement (Clyde) Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Castle Cement (Ketton) Limited	Maidenhead, GBR		100.00	2015	30.6	0.0
Castle Cement (Padeswood) Limited	Maidenhead, GBR		100.00	2015	8.1	0.0
Castle Cement (Pitstone) Limited	Maidenhead, GBR		100.00	2015	13.2	0.0
Castle Cement (Ribblesdale) Limited	Maidenhead, GBR		100.00	2015	28.6	0.0
Castle Cement Limited	Maidenhead, GBR		100.00	2016	364.8	62.0
Castle Lime Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Castle Pension Scheme Trustees Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
CaucasusCement Holding B.V.	’s-Hertogenbosch, NLD		75.00	2015	95.5	0.0
CBR Baltic B.V.	’s-Hertogenbosch, NLD		100.00	2015	206.1	35.0
CBR International Services S.A.	Bruxelles, BEL		100.00	2016	1,479.5	29.0
CBR Portland B.V.	’s-Hertogenbosch, NLD		100.00	2015	212.2	0.0
Cem Invest Ltd [1]	Irish Town, GIB		46.97	2015	2.8	5.0
Cementrum I B.V.	’s-Hertogenbosch, NLD		100.00	2015	144.4	0.1
Centro Administrativo y de Servicios de Malaga S.A.	Malaga, ESP		99.94	2015	0.5	-0.1
CGF Capital B.V.	Amsterdam, NLD		100.00	2015	0.1	0.0
CHB Exeter Limited	Maidenhead, GBR		100.00	2015	1.6	0.0
CHB Group Limited	Maidenhead, GBR		100.00	2015	911.8	0.0
CHB P H R Limited	Maidenhead, GBR		100.00	2015	-0.9	0.4
CHB Products Limited	Maidenhead, GBR		100.00	2015	2,714.4	0.0
Chemical Manufacture and Refining Limited	Maidenhead, GBR		100.00	2015	7.4	0.0
Chester Road Sand and Gravel Company Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Cie pour l’Investissement Financier en Inde S.a.s	Puteaux, FRA		100.00	2015	34.9	0.0
Ciment du Littoral S.a.s.	Bassens, FRA		100.00	2015	-3.4	-1.5

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Ciments Calcia	Guerville, FRA		100.00	2015	986.4	29.9
Ciments Français S.a.s.	Puteaux, FRA		100.00	2015	2,463.6	128.5
CIMFRA (China) Limited S.a.s.	Puteaux, FRA		100.00	2015	37.1	12.6
Ciminter S.A. [5]	Luxembourg, LUX		100.00	-	-	-
City of London Heliport Limited	Maidenhead, GBR		55.56	2015	-2.4	0.0
Civil and Marine (Holdings) Limited	Maidenhead, GBR		100.00	2015	48.6	0.7
Civil and Marine Limited	Maidenhead, GBR		100.00	2016	326.2	37.2
Civil and Marine Slag Cement Limited	Maidenhead, GBR		100.00	2015	82.8	0.0
Claughton Manor Brick Limited (The)	Maidenhead, GBR		100.00	2015	0.3	0.0
Clyde Cement Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Cocimar S.a.s.	Puteaux, FRA		100.00	2015	205.8	50.8
Codesib S.a.s.	Puteaux, FRA		100.00	2015	54.8	-0.1
Coln Gravel Company Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Compagnie Financière et de Participations S.a.s.	Puteaux, FRA		100.00	2015	19.8	0.8
Compania General de Canteras, S.A.	Malaga, ESP		99.35	2015	29.6	0.3
Conbloc Limited	Maidenhead, GBR		100.00	2015	-0.1	0.0
Conglomerantes Hidraulicos Especiales S.L.	Malaga, ESP		84.95	2016	1.1	0.0
Contiga Holding GmbH	Flensburg, DEU		60.00	2015	1.3	1.3
Contiga Tinglev Montage GmbH	Altlandsberg, DEU		60.00	2015	0.0	0.0
Creative Land Developers Limited [1]	Maidenhead, GBR		50.00	2015	-0.5	0.0
Crispway Limited	Maidenhead, GBR		100.00	2015	0.5	0.0
Cromhall Quarries, Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Cumbrian Industrials Limited	Maidenhead, GBR		100.00	2015	10.4	0.0
D. & H. Sand Supplies Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Delmorgal Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Desimpel Brick Limited	Maidenhead, GBR		100.00	2015	3.5	0.0
Devon Concrete Works, Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Dragages du Pont de St Leger S.a.s.	Saint-Léger, FRA		60.00	2015	4.6	0.2
Dragages Transports & Travaux Maritimes S.a.s. [1]	La Rochelle, FRA		50.00	2015	13.6	0.4
DUPAMIJ Holding GmbH [5]	Kalkar, DEU		88.00	-	-	-
E & S Retail Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
E Sub Limited	Maidenhead, GBR		100.00	2015	8.2	0.0
Effectengage Limited	Maidenhead, GBR		100.00	2015	358.5	0.0
ENCI B.V.	Maastricht, NLD		100.00	2016	121.6	3.0
ENCI Holding N.V.	's-Hertogenbosch, NLD		100.00	2015	518.0	26.0
Ensign Park Limited [1]	Maidenhead, GBR		50.00	2015	-2.2	0.0
Essroc Netherlands Coöperatief U.A. [5]	's-Hertogenbosch, NLD		100.00	-	-	-
Eurarco France S.A.	Frambois, FRA		64.99	2015	6.6	1.0
Exakt Kiesaufbereitung GmbH	Paderborn, DEU		100.00	2015	1.2	0.1
F.C. Precast Concrete Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Ferrersand Aggregates Limited	Maidenhead, GBR		100.00	2015	1.9	0.0
Fruitbat Company	Maidenhead, GBR		100.00	2015	0.0	0.0
Fulber Limited	St. Peter Port, GGY		100.00	2015	289.1	-0.1
Garonne Labo (SARL) [1]	Damazan, FRA		40.05	2015	0.0	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Granulats de la Drôme S.a.s.	Saint-Jean-de-Védas, FRA		51.01	2015	2.8	-0.1
Granulats Ouest - GO S.a.s.	Saint-Herblain, FRA		100.00	2015	4.5	0.2
Greenways Environmental and Waste Management Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Greenwoods (St. Ives) Limited	Maidenhead, GBR		100.00	2015	2.4	0.0
Gruppo Italsfusi S.r.l.	Bergamo, ITA		100.00	2015	0.5	0.3
GSM S.a.s.	Guerville, FRA		100.00	2015	91.4	8.3
Guidelink	Maidenhead, GBR		99.99	2015	0.2	0.0
Habfield Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Hanson (BB) Limited	Maidenhead, GBR		100.00	2015	0.6	0.0
Hanson (BBIN02) Limited	Maidenhead, GBR		100.00	2015	35.3	0.0
Hanson (CGF) (No.1) Limited	Maidenhead, GBR		100.00	2015	4,068.0	0.0
Hanson (CGF) (No2) Limited	Maidenhead, GBR		100.00	2015	5,431.6	0.0
Hanson (CGF) Finance Limited	Maidenhead, GBR		100.00	2015	1,133.2	0.0
Hanson (CGF) Holdings Limited	Maidenhead, GBR		100.00	2015	318.2	0.0
Hanson (CSBC) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Hanson (ER - No 5) Limited	Maidenhead, GBR		100.00	2015	489.5	0.0
Hanson (ER-No 10) Limited	Maidenhead, GBR		100.00	2015	345.1	0.0
Hanson (ER-No 8) Limited	Maidenhead, GBR		100.00	2015	0.4	0.0
Hanson (ER-No 9) Limited	Maidenhead, GBR		100.00	2015	4.6	0.0
Hanson (F) Limited	Maidenhead, GBR		100.00	2015	6.8	0.0
Hanson (FH) Limited	Maidenhead, GBR		100.00	2015	4.5	0.0
Hanson (FP) Limited	Maidenhead, GBR		100.00	2015	8,673.5	0.0
Hanson (LBC) Limited	Maidenhead, GBR		100.00	2015	29.8	0.0
Hanson (LBE) Limited	Maidenhead, GBR		100.00	2015	2.9	0.0
Hanson (MR) Limited	Maidenhead, GBR		99.99	2015	2,979.6	0.0
Hanson (NAIL) Limited	Maidenhead, GBR		100.00	2015	7.3	0.0
Hanson (RBMC) Limited	Maidenhead, GBR		100.00	2015	8.1	0.0
Hanson (SH) Limited	Maidenhead, GBR		100.00	2015	65.2	4.3
Hanson Aggregates (North) Limited	Maidenhead, GBR		100.00	2015	54.7	0.0
Hanson Aggregates Holding Nederland B.V.	Amsterdam, NLD		100.00	2015	3.6	0.2
Hanson Aggregates Limited	Maidenhead, GBR		100.00	2015	111.1	0.0
Hanson Aggregates Marine Limited	Maidenhead, GBR		100.00	2015	129.2	6.1
Hanson Aggregates Nederland B.V.	Amsterdam, NLD		100.00	2015	-0.6	0.2
Hanson Aggregates South Wales Holdings Limited	Maidenhead, GBR		100.00	2015	9.2	0.0
Hanson Aggregates South Wales Limited	Maidenhead, GBR		100.00	2015	52.6	0.0
Hanson Aggregates UK Limited	Maidenhead, GBR		100.00	2015	2,714.6	0.0
Hanson America Holdings (1) Limited	Maidenhead, GBR		100.00	2015	2,580.9	0.0
Hanson America Holdings (2) Limited	Maidenhead, GBR		100.00	2015	646.3	0.0
Hanson America Holdings (3) Limited	Maidenhead, GBR		100.00	2015	638.8	0.0
Hanson America Holdings (4) Limited	Maidenhead, GBR		100.00	2015	139.8	-50.0
Hanson Aruba Limited	St. Peter Port, GGY		99.99	2015	1,943.8	0.0
Hanson Bath and Portland Stone Limited	Maidenhead, GBR		100.00	2015	-2.9	0.0
Hanson Batteries Limited	Maidenhead, GBR		100.00	2015	62.7	0.0
Hanson Blocks North Limited	Maidenhead, GBR		100.00	2015	17.9	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year[6]	Equity in € million[7]	Net income in € million[8]
Hanson Brick Ltd	Maidenhead, GBR		100.00	2015	0.3	0.0
Hanson Building Materials Europe Limited	Maidenhead, GBR		100.00	2015	3,059.3	0.0
Hanson Building Materials Limited	Maidenhead, GBR		100.00	2015	4,326.3	2.6
Hanson Building Products (2003) Limited	Maidenhead, GBR		100.00	2015	2,110.8	0.1
Hanson Building Products Limited	St. Helier, JE		100.00	2015	0.1	0.0
Hanson Canada Limited	Maidenhead, GBR		100.00	2015	1.2	0.0
Hanson Clay Products Limited	Maidenhead, GBR		100.00	2015	20.6	0.0
Hanson Concrete Products Limited	Maidenhead, GBR		100.00	2015	70.1	0.0
Hanson Crewing Services Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Hanson Devon Limited	Shannon, IRL		100.00	2015	4,847.1	-0.2
Hanson Facing Bricks Limited	Maidenhead, GBR		100.00	2015	336.6	0.0
Hanson Finance (2003) Limited	Maidenhead, GBR		100.00	2015	634.6	-1.0
Hanson Finance Limited	Maidenhead, GBR		100.00	2015	969.9	-32.9
Hanson Financial Services Limited	Maidenhead, GBR		100.00	2015	134.5	0.0
Hanson Fletton Bricks Limited	Maidenhead, GBR		100.00	2015	42.8	0.0
Hanson Foods Limited	Maidenhead, GBR		100.00	2015	230.0	0.0
Hanson FP Holdings B.V.	Amsterdam, NLD		100.00	2015	394.3	1.5
Hanson Funding (G) Limited	Maidenhead, GBR		100.00	2015	235.8	0.0
Hanson Germany GmbH & Co. KG[3]	Leinatal, DEU		100.00	2015	0.8	0.3
Hanson Gerrard Limited	St. Peter Port, GGY		100.00	2015	-0.3	-0.1
Hanson H4 Limited	Maidenhead, GBR		100.00	2015	2,102.0	0.0
Hanson H5	Maidenhead, GBR		100.00	2015	0.1	0.0
Hanson Hedging (Dollars) (1) Limited	Maidenhead, GBR		100.00	2015	263.7	0.0
Hanson Hedging (Dollars) (2) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Hanson Hispania, S.A.U.	Madrid, ESP		100.00	2016	93.7	-8.6
Hanson Holdings (1) Limited	Maidenhead, GBR		100.00	2015	51,223.2	0.0
Hanson Holdings (2) Limited	Maidenhead, GBR		100.00	2015	1,353.4	-11.2
Hanson Holdings (3) Limited	Maidenhead, GBR		100.00	2015	1,125.0	0.0
Hanson Holdings Limited	Maidenhead, GBR		100.00	2015	2,850.7	17.8
Hanson Industrial (Engineering Holdings) Limited	Maidenhead, GBR		100.00	2015	7.4	0.0
Hanson Industrial Limited	Maidenhead, GBR		100.00	2015	212.8	0.0
Hanson International Holdings Limited	Maidenhead, GBR		100.00	2015	15,339.0	24.4
Hanson Island Management Limited	St. Peter Port, GGY		100.00	2015	-0.2	-0.2
Hanson Land Development Limited	Maidenhead, GBR		100.00	2015	-40.1	0.0
Hanson Limited	Maidenhead, GBR		100.00	2016	7,513.6	-31.8
Hanson Marine Holdings Limited	Maidenhead, GBR		100.00	2015	3.4	0.0
Hanson Marine Limited	Maidenhead, GBR		100.00	2015	38.1	0.8
Hanson Overseas Corporation Limited	Maidenhead, GBR		100.00	2015	2,561.2	0.0
Hanson Overseas Holdings Limited	Maidenhead, GBR		100.00	2015	24,254.1	3.0
Hanson Packed Products Limited	Maidenhead, GBR		100.00	2016	352.0	18.3
Hanson Peabody Limited	Maidenhead, GBR		100.00	2015	1,361.8	0.0
Hanson Pioneer España, S.L.U.	Madrid, ESP		100.00	2015	467.5	-11.4
Hanson Quarry Products Europe Limited	Maidenhead, GBR		100.00	2015	46,680.6	67.5
Hanson Quarry Products Holdings Limited	Maidenhead, GBR		100.00	2015	56.6	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Hanson Quarry Products Overseas Limited	Maidenhead, GBR		100.00	2015	2.7	0.0
Hanson Quarry Products Trade Finance Limited	Maidenhead, GBR		100.00	2015	4.0	0.0
Hanson Quarry Products Transport Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Hanson Quarry Products Ventures Limited	Maidenhead, GBR		100.00	2015	61.8	1.6
Hanson Recycling Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Hanson Retail Limited	Maidenhead, GBR		100.00	2015	531.3	5.2
Hanson Ship Management Ltd	St. Peter Port, GGY		100.00	2015	-0.1	-0.2
Hanson Thermalite Limited	Maidenhead, GBR		100.00	2015	56.6	0.0
Hanson TIS Holdings Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Hanson TIS Limited	Maidenhead, GBR		100.00	2015	-3.5	0.0
Hanson Trust Limited	Maidenhead, GBR		100.00	2015	132.1	0.0
Hanson Trustees Limited	Maidenhead, GBR		100.00	2015	-1.9	0.0
Harrisons Limeworks Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Hartsholme Property Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
HB Hotels Limited	Maidenhead, GBR		100.00	2015	-0.8	0.0
HC Asia Holding GmbH	Heidelberg, DEU	100.00	100.00	2015	66.1	9.9
HC Fuels Limited	London, GBR		100.00	2015	12.0	0.1
HC Green Trading Limited	St. Julian's, MLT		100.00	2015	0.0	0.7
HC Hanson Holding B.V.	's-Hertogenbosch, NLD		100.00	2015	326.6	0.0
HC Italia SRL	Rome, ITA		100.00	2015	0.1	0.0
HC Trading B.V.	's-Hertogenbosch, NLD		100.00	2015	-3.6	-0.5
HC Trading Malta Limited	St. Julian's, MLT		100.00	2015	0.0	14.9
HCT Holding Malta Limited	St. Julian's, MLT	100.00	100.00	2015	124.1	25.3
HeidelbergCement BP Limited	Maidenhead, GBR		100.00	2016	0.1	0.0
HeidelbergCement Canada Holding Limited	Maidenhead, GBR		100.00	2015	3,066.4	79.3
HeidelbergCement Central Europe East Holding B.V.	's-Hertogenbosch, NLD		100.00	2015	1,338.9	71.4
HeidelbergCement Euro I Limited	Maidenhead, GBR		100.00	2015	600.3	15.5
HeidelbergCement Euro II Limited	Maidenhead, GBR		100.00	2015	930.0	24.0
HeidelbergCement Euro III Limited	Maidenhead, GBR		100.00	2015	776.0	16.0
HeidelbergCement Finance Luxembourg S.A.	Luxembourg, LUX		100.00	2016	12.1	107.0
HeidelbergCement France S.A.S.	Thourotte, FRA		100.00	2015	48.0	0.0
HeidelbergCement Grundstücksgesellschaft mbH & Co. KG [3]	Heidelberg, DEU	100.00	100.00	2015	17.5	1.3
HeidelbergCement Holding Coöperatief U.A.	's-Hertogenbosch, NLD		100.00	2015	1,125.4	35.4
HeidelbergCement Holding S.à r.l.	Luxembourg, LUX		100.00	2015	20,122.1	76.5
HeidelbergCement Holdings Limited	Maidenhead, GBR	100.00	100.00	2015	2.7	0.0
HeidelbergCement International Holding GmbH	Heidelberg, DEU	100.00	100.00	2015	12,824.7	-
HeidelbergCement Mediterranean Basin Holdings S.L.	Madrid, ESP		100.00	2015	303.9	29.2
HeidelbergCement Netherlands Holding B.V.	's-Hertogenbosch, NLD	14.54	100.00	2015	800.9	21.8
HeidelbergCement UK Holding II Limited	Maidenhead, GBR		100.00	2015	15,293.4	261.8
HeidelbergCement UK Holding Limited	Maidenhead, GBR		100.00	2015	11,047.5	-481.3
HeidelbergCement UK Limited	Maidenhead, GBR	100.00	100.00	2016	94.0	0.0
HeidelbergCement, Funk & Kapphan Grundstücksgesellschaft GmbH & Co. KG [3]	Heidelberg, DEU	79.91	79.91	2015	11.6	0.1
Heidelberger Beton Donau-Naab GmbH & Co. KG [3]	Burglengenfeld, DEU		81.67	2015	1.5	1.4
Heidelberger Beton GmbH	Heidelberg, DEU	100.00	100.00	2015	102.5	16.2

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Heidelberger Beton Schwandorf GmbH & Co. KG [3]	Schwandorf, DEU		81.67	2015	0.6	0.4
Heidelberger Betonelemente GmbH & Co. KG [3]	Chemnitz, DEU		83.00	2015	5.0	4.0
Heidelberger Betonpumpen Rhein-Main-Nahe GmbH & Co. KG [3]	Bad Kreuznach, DEU		93.77	2015	0.6	0.6
Heidelberger Kalksandstein GmbH	Durmersheim, DEU		100.00	2015	14.5	0.0
Heidelberger Kalksandstein Grundstücks- und Beteiligungs- GmbH & Co. KG [3]	Durmersheim, DEU		100.00	2015	17.5	4.0
Heidelberger Kieswerke Niederrhein GmbH	Essen, DEU		100.00	2015	0.9	0.0
Heidelberger Kieswerke Rhein-Ruhr GmbH	Essen, DEU		100.00	2015	4.6	0.8
Heidelberger KS Beteiligungen Deutschland GmbH & Co. KG [3]	Heidelberg, DEU		100.00	2015	4.6	1.2
Heidelberger Sand und Kies GmbH	Heidelberg, DEU	6.00	100.00	2015	83.5	16.1
Heidelberger Sand und Kies Handel & Logistik GmbH	Essen, DEU		100.00	2015	0.0	0.1
HIPS (Trustees) Limited	Bedford, GBR		100.00	2015	0.0	0.0
HK Holdings (No 2) Limited	Maidenhead, GBR		100.00	2015	87.3	0.0
HK Holdings (No.1) Limited	Maidenhead, GBR		100.00	2015	37.9	0.0
HKS Hunziker Kalksandstein AG	Brugg, CHE		100.00	2015	8.3	2.1
Holms Sand & Gravel Company (1985) (The)	Maidenhead, GBR		100.00	2015	0.0	0.0
Holms Sand & Gravel Company Limited (The)	Maidenhead, GBR		100.00	2015	0.0	0.0
Homes (East Anglia) Limited	Maidenhead, GBR		100.00	2015	0.2	0.0
Hormigones y Áridos, S.A.U.	Bilbao, ESP		100.00	2015	0.7	-0.9
Hormigones y Minas S.A.	Malaga, ESP		99.94	2015	31.2	-1.1
Housemotor Limited	Maidenhead, GBR		100.00	2015	2,095.1	0.0
Houseprice Limited	Maidenhead, GBR		100.00	2015	795.5	0.0
Houserate Limited	Maidenhead, GBR		100.00	2015	2,398.1	146.7
HPL Albany House Developments Limited [1]	Maidenhead, GBR		50.00	2015	-0.7	0.0
HPL Estates Limited	Maidenhead, GBR		100.00	2015	4.8	0.0
HPL Investments Limited	Maidenhead, GBR		100.00	2015	547.3	0.0
HPL Properties Limited	Maidenhead, GBR		100.00	2015	54.0	0.0
HPL Property Limited	Maidenhead, GBR		100.00	2015	55.7	0.0
HPL West London Developments Limited [1]	Maidenhead, GBR		50.00	2015	-0.3	0.0
Hurst and Sandler Limited	Maidenhead, GBR		100.00	2015	6.3	0.0
Immobilière des Technodes S.a.s.	Guerville, FRA		100.00	2015	9.8	0.7
Imperial Foods Holdings Limited	Maidenhead, GBR		100.00	2015	0.8	0.0
Imperial Group Limited	Maidenhead, GBR		100.00	2015	21.1	0.0
Imperial Seafoods Limited	Maidenhead, GBR		100.00	2015	1.6	0.0
Ing. Sala S.p.A.	Sorisole, ITA		100.00	2015	1.2	-0.8
Interbulk Trading (IBT) S.A.	Lugano, CHE		100.00	2015	92.9	2.6
Intercom S.r.l.	Bergamo, ITA		100.00	2015	9.1	0.1
Investcim S.a.s.	Puteaux, FRA		100.00	2015	110.4	0.3
Irvine - Whitlock Limited	Maidenhead, GBR		100.00	2016	-7.9	-1.2
Italcementi S.p.A.	Bergamo, ITA		100.00	2015	1,684.9	-38.3
Italcementi Finance S.A.	Puteaux, FRA		100.00	2015	22.2	1.6
Italcementi Ingegneria S.r.l.	Bergamo, ITA		100.00	2015	7.2	-2.6
J A Crabtree & Co Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
J. Riera, S.A.	Barcelona, ESP		100.00	2015	4.0	-0.8
James Grant & Company (West) Limited	Edinburgh, GBR		100.00	2015	3.0	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Judkins Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
K.M. Property Development Company Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
KalininCement Holding B.V.	ʼs-Hertogenbosch, NLD		74.90	2015	3.8	0.0
Kalksandsteinwerke Birkenmeier Gesellschaft mit beschränkter Haftung	Breisach am Rhein, DEU		100.00	2015	2.3	0.2
Kazakhstan Cement Holding B.V.	ʼs-Hertogenbosch, NLD		100.00	2015	85.2	-0.1
Kerpen & Kerpen GmbH & Co. KG [3]	Polch, DEU	70.00	100.00	2015	5.5	-4.2
Ketton Cement Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Kieswerk Maas-Roeloffs GmbH & Co KG [5]	Kalkar, DEU		88.00	-	-	-
Kieswerk Maas-Roeloffs Verwaltungsgesellschaft mbH [5]	Kalkar, DEU		84.48	-	-	-
Kieswerke Andresen GmbH	Damsdorf, DEU		100.00	2015	1.0	0.0
Kingston Minerals Limited	Maidenhead, GBR		100.00	2015	0.2	0.0
Kivel Properties Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
L.B. (Stewartby) Limited	Maidenhead, GBR		100.00	2015	68.3	0.0
Leca (Great Britain) Limited	Maidenhead, GBR		100.00	2015	1.1	0.0
Lehigh B.V.	ʼs-Hertogenbosch, NLD		100.00	2015	10,915.1	-14.4
Lehigh UK Limited	Maidenhead, GBR		100.00	2016	15,873.6	-1.7
Les Sabliers de l'Odet S.a.s. [1]	Quimper, FRA		50.00	2015	4.4	1.9
Lindustries Limited	Edinburgh, GBR		100.00	2015	60.4	0.0
Lithonplus GmbH & Co. KG [3]	Lingenfeld, DEU		60.00	2015	31.1	-0.6
Localdouble Limited	Maidenhead, GBR		100.00	2015	873.7	0.0
M E Sub Limited	Maidenhead, GBR		100.00	2015	23.9	0.0
Mantle & Llay Limited	Maidenhead, GBR		100.00	2015	-0.1	0.0
Marnee Limited	Maidenhead, GBR		100.00	2015	72.9	0.0
Marples Ridgway Limited	Maidenhead, GBR		100.00	2015	-5.3	0.0
Marples Ridgway Overseas Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Matériaux et Béton du Nord S.à r.l.	Halluin, FRA		100.00	2015	0.3	0.0
Mebin B.V.	ʼs-Hertogenbosch, NLD		100.00	2016	66.8	-11.0
Mebin Leeuwarden B.V.	Leeuwarden, NLD		79.79	2015	1.2	0.1
Menaf S.a.s.	Puteaux, FRA		100.00	2015	330.9	69.1
Meppeler Betoncentrale B.V.	Meppel, NLD		66.67	2015	-0.1	-0.1
Mibau Baustoffhandel GmbH	Cadenberge, DEU		60.00	2015	1.4	0.0
Mibau Holding GmbH	Cadenberge, DEU		60.00	2015	50.3	1.2
Mibau Nederland B.V.	Venlo, NLD		60.00	2015	1.2	0.2
Mibau Nederland Holding B.V.	Venlo, NLD		60.00	2015	1.3	0.0
Midland Quarry Products Limited	Maidenhead, GBR		100.00	2016	151.9	28.3
Milton Hall (Southend) Brick Company Limited (The)	Maidenhead, GBR		100.00	2015	1.8	0.0
Minster Quarries Limited	Maidenhead, GBR		100.00	2015	-1.7	0.0
Mixconcrete Holdings Limited	Maidenhead, GBR		100.00	2015	5.3	0.0
Mixconcrete Limited	Maidenhead, GBR		100.00	2015	-2.4	0.0
Mold Tar Macadam Co.Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Morebeat Limited	Maidenhead, GBR		100.00	2015	166.3	0.0
Motioneager Limited	Maidenhead, GBR		100.00	2015	289.0	0.0
National Brick Company Limited	Maidenhead, GBR		100.00	2015	3.4	0.0
National Star Brick and Tile Holdings Limited	Maidenhead, GBR		100.00	2015	2.9	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
National Star Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
NedCem Holding B.V.	's-Hertogenbosch, NLD		66.67	2015	0.8	0.0
Nuova Sacelit S.r.l.	Sorisole, ITA		100.00	2015	6.1	3.5
P. & B. J. Dallimore Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Paderborner Transport-Beton-Gesellschaft mit beschränkter Haftung & Co. K.G. [3]	Geseke, DEU		87.50	2015	0.8	0.3
Palatina Insurance Ltd.	St. Julian's, MLT		100.00	2015	46.0	2.9
Paperbefore Limited	Maidenhead, GBR		100.00	2015	408.4	0.0
Parcib S.a.s.	Puteaux, FRA		100.00	2015	-4.1	-4.1
Pencrete Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Penfolds Builders Merchants Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Picon Overseas Limited	St. Peter Port, GGY		100.00	2015	204.4	18.8
Piedras y Derivados, S.A.U.	Barcelona, ESP		100.00	2015	18.6	0.0
PILC Limited	St. Peter Port, GGY		100.00	2015	21.9	0.0
Pimco 2945 Limited	Maidenhead, GBR		100.00	2015	5.5	0.0
Pinden Plant & Processing Co. Limited (The)	Maidenhead, GBR		100.00	2015	7.6	0.0
Pioneer Aggregates (UK) Limited	Maidenhead, GBR		100.00	2015	4.8	0.0
Pioneer Asphalts (U.K.) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Pioneer Concrete (U.K.) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Pioneer Concrete Development Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Pioneer Concrete Holdings Limited	Maidenhead, GBR		100.00	2015	158.0	0.0
Pioneer International Group Holdings Limited	Maidenhead, GBR		100.00	2015	1,201.7	0.0
Pioneer International Investments Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Pioneer Investments UK Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Pioneer Overseas Investments Limited	St. Peter Port, GGY		100.00	2015	132.2	0.0
Pioneer Willment Concrete Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Premix Concrete Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Purfleet Aggregates Limited	Maidenhead, GBR		100.00	2015	-0.3	-0.1
Recem S.A.	Luxembourg, LUX		100.00	2015	2.9	0.0
Redshow Limited	Maidenhead, GBR		100.00	2015	149.2	0.0
Rezincote (1995) Limited	Maidenhead, GBR		100.00	2015	-0.6	0.0
Ribblesdale Cement Limited	Maidenhead, GBR		100.00	2015	3.3	0.0
Roads Reconstruction Limited	Maidenhead, GBR		100.00	2015	11.7	0.0
Rostocker Zementumschlagsgesellschaft mbH	Rostock, DEU		60.00	2015	0.1	0.0
Rouennaise de Transformation S.a.s.	Grand-Couronne, FRA		100.00	2015	4.3	0.1
Roussel-Stichelbout Beton S.A.	Mouscron, BEL		100.00	2015	1.1	-0.5
S Sub Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
S Z G - Saarländische Zementgesellschaft mit beschränkter Haftung	Saarbrücken, DEU		100.00	2015	0.6	0.1
S.A. Cimenteries CBR	Bruxelles, BEL	0.00	100.00	2015	663.4	-62.6
Sabine Limited	St. Peter Port, GGY		100.00	2015	289.1	-0.1
Sablimaris S.a.s. [1]	La Rochelle, FRA		50.00	2015	8.4	0.9
Sagrex B.V.	's-Hertogenbosch, NLD		100.00	2015	1.4	1.0
Sagrex France S.A.S.	Harnes, FRA		100.00	2015	3.8	0.2
Sagrex Holding B.V.	's-Hertogenbosch, NLD		100.00	2015	20.2	0.8
Sagrex Productie B.V.	's-Hertogenbosch, NLD		100.00	2015	8.0	1.2

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year[6]	Equity in € million[7]	Net income in € million[8]
Sailtown Limited	Maidenhead, GBR		100.00	2015	972.2	26.3
Saint Hubert Investments S.à r.l.	Luxembourg, LUX		100.00	2015	448.8	-0.1
SAMA S.r.l. - in liquidazione[4]	Bergamo, ITA		100.00	2015	0.6	-0.9
Samuel Wilkinson & Sons Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Sand Supplies (Western) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Sandwerke Biesern GmbH	Penig, DEU		100.00	2015	8.4	0.0
Saunders (Ipswich) Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Sax S.a.s.	Guerville, FRA		100.00	2015	2.7	0.0
Scancem Energy and Recovery Limited	Maidenhead, GBR		100.00	2015	22.0	0.0
Scancem International Limited	Maidenhead, GBR		100.00	2015	24.2	0.0
Scancem Recovery Limited	Maidenhead, GBR		100.00	2015	23.0	0.7
Scancem Supply Limited	Maidenhead, GBR		100.00	2015	-2.5	0.0
SCE de la Grange d'Etaule	Gray, FRA		100.00	2015	0.0	0.0
Seagoe Concrete Products Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Second City Properties Limited	Maidenhead, GBR		100.00	2015	15.7	0.0
Shapedirect Limited	Maidenhead, GBR		100.00	2015	8,300.9	34.0
SJP 1 Limited	Maidenhead, GBR		100.00	2015	-0.1	0.0
Slotcount Limited	Maidenhead, GBR		100.00	2015	2,157.3	0.0
Small Lots (Mix-It) Limited	Maidenhead, GBR		100.00	2015	14.6	0.0
SMW Sand und Mörtelwerk GmbH & Co. KG[3]	Königs Wusterhausen, DEU		100.00	2015	0.9	0.7
Sociedad Financiera y Minera, S.A.	Malaga, ESP		99.94	2016	297.1	-10.9
Société Internationale Italcementi (Luxembourg) S.A.	Luxembourg, LUX		100.00	2015	16.0	3.1
Socli S.a.s.	Loures-Barousse, FRA		100.00	2015	7.0	0.5
Solrec Limited	Maidenhead, GBR		100.00	2015	11.3	0.0
SQ Corporation Limited	Maidenhead, GBR		100.00	2015	3,293.1	0.0
SQ Finance No 2 Limited	Maidenhead, GBR		100.00	2015	3,408.5	0.0
St Edouard S.à r.l.	Luxembourg, LUX		99.99	2015	3,027.0	0.0
ST JUDE S.à r.l.	Luxembourg, LUX		100.00	2015	2,714.2	0.0
ST LUKE S.à r.l.	Luxembourg, LUX		100.00	2015	13.3	0.0
ST MARIUS S.à r.l.	Luxembourg, LUX		100.00	2015	890.5	0.0
ST NICOLAS S.à r.l.	Luxembourg, LUX		100.00	2015	1,297.3	0.0
St Pierre S.à r.l.	Luxembourg, LUX		99.99	2015	0.6	0.0
Stema Shipping (UK) Limited	Tilbury, GBR		60.00	2015	2.5	0.6
Stema Shipping France	Le Treport, FRA		60.00	2015	0.9	-0.1
Stephen Toulson & Sons Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Stewartby Housing Association, Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Supamix Limited	Maidenhead, GBR		100.00	2015	7.6	0.0
Technodes S.a.s.	Guerville, FRA		100.00	2015	1.3	-2.5
Tercim S.a.s.	Puteaux, FRA		100.00	2015	68.7	13.6
The Purfleet Ship to Shore Conveyor Company Limited	Maidenhead, GBR		100.00	2015	0.1	0.0
Thistleton Quarries Limited	Maidenhead, GBR		100.00	2015	-1.9	0.0
Tillotson Commercial Motors Limited	Maidenhead, GBR		100.00	2015	-25.3	0.0
Tillotson Commercial Vehicles Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Tilmanstone Brick Limited	Maidenhead, GBR		100.00	2015	9.6	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Timesound	Maidenhead, GBR		100.00	2015	0.7	0.0
Tinglev Elementfabrik GmbH	Altlandsberg, DEU		60.00	2015	2.3	-0.7
TLQ Limited	Edinburgh, GBR		100.00	2015	0.0	0.0
TMC Pioneer Aggregates Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Tratel Affrètement S.a.s.	Guerville, FRA		100.00	2015	11.5	1.3
Tratel S.a.s.	Guerville, FRA		100.00	2015	14.3	1.9
Tunnel Cement Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
U.D.S. Holdings B.V.	Amsterdam, NLD		100.00	2015	612.8	0.0
UDS (No 10)	Maidenhead, GBR		100.00	2015	0.0	0.0
UDS (No 3) Limited	Maidenhead, GBR		100.00	2015	7.7	0.0
UDS Corporation Limited	Maidenhead, GBR		100.00	2015	494.9	0.0
UDS Finance Limited	Maidenhead, GBR		100.00	2015	55.3	0.0
UDS Group Limited	Maidenhead, GBR		100.00	2015	149.0	0.0
UDS Holdings (1) Limited	Maidenhead, GBR		100.00	2015	252.7	0.0
UGI Group Limited	Maidenhead, GBR		100.00	2015	130.7	0.0
Unibéton S.a.s.	Guerville, FRA		100.00	2015	20.5	-35.7
Unibéton-Var S.a.s.	Lambesc, FRA		100.00	2015	1.7	0.2
United Gas Industries Limited	Maidenhead, GBR		100.00	2015	15.8	0.0
Uniwerbéton S.a.s.	Heillecourt, FRA		70.00	2015	0.3	0.0
V.E.A. Limited	St. Peter Port, GGY		100.00	2015	216.4	0.4
V.O.F. 'Bouwdok Barendrecht'	Barendrecht, NLD		60.01	2015	0.0	-0.1
Ventore S.L.	Malaga, ESP		99.94	2015	0.1	0.0
Viewgrove Investments Limited	Maidenhead, GBR		100.00	2015	8,673.5	0.0
Visionfocus Limited	Maidenhead, GBR		100.00	2015	489.1	0.0
Visionrefine Limited	Maidenhead, GBR		100.00	2015	-0.4	0.0
Welbecson Group Limited	Maidenhead, GBR		100.00	2015	-0.2	0.0
WIKA Sand und Kies GmbH & Co. KG [3]	Stade, DEU		100.00	2015	7.6	1.3
Wineholm Limited	Maidenhead, GBR		100.00	2015	-2.8	0.0

Subsidiaries						
Northern and Eastern Europe-Central Asia						
Abetong AB	Växjö, SWE		60.00	2015	14.4	11.8
AS Abetong	Oslo, NOR		60.00	2015	0.6	0.0
BayKaz Beton LLP	Almaty, KAZ		100.00	2015	13.0	-0.1
BEKTAS Group LLP	Almaty, KAZ		100.00	2015	4.7	-0.7
Beton.Ata LLP	Almaty, KAZ		75.38	2016	1.3	-0.1
Betong Sör AS	Oslo, NOR		67.50	2015	0.8	0.1
Betongindustri AB	Stockholm, SWE		100.00	2015	4.2	0.1
Betonpumpy a doprava SK a.s.	Bratislava, SVK		100.00	2015	0.3	0.1
BETOTECH, s.r.o.	Beroun, CZE		91.50	2015	0.6	0.0
Björgun ehf	Reykjavík, ISL		53.00	2015	7.1	1.5
BM Valla ehf	Reykjavík, ISL		53.00	2015	5.6	1.8
Bukhtarma Cement Company LLP	Oktyabrskiy village, KAZ		100.00	2015	30.7	-5.3
Calumite s.r.o.	Ostrava, CZE		51.00	2015	5.7	1.4

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year[6]	Equity in € million[7]	Net income in € million[8]
Carpat Beton Servicii Pompe SRL	Bucharest, ROU		100.00	2015	1.4	-0.5
Carpat Cemtrans S.R.L.	Bucharest, ROU		100.00	2015	4.4	0.5
CaspiCement Limited Liability Partnership	Shetpe, KAZ		100.00	2015	45.8	-25.3
Caspinerud Limited Liability Partnership	Aktau, KAZ		75.10	2015	2.3	-5.0
Cementa AB	Stockholm, SWE		100.00	2015	47.1	0.2
Cementa Fastighets AB	Stockholm, SWE		100.00	2015	0.0	0.0
Cementa sp. z o. o.	Warsaw, POL		100.00	2015	-0.3	-0.2
Českomoravský beton, a.s.	Beroun, CZE		100.00	2015	23.0	3.9
Českomoravský cement, a.s.	Mokrá-Horákov, CZE		100.00	2016	87.8	36.1
Českomoravský štěrk, a.s.	Mokrá-Horákov, CZE		100.00	2015	52.7	6.9
Contiga AB	Norrtälje, SWE		60.00	2015	4.6	0.9
Contiga AS	Moss, NOR		60.00	2015	4.9	-0.7
Contiga Holding AB	Norrtälje, SWE		60.00	2015	8.6	0.0
Contiga Holding AS	Oslo, NOR		60.00	2015	29.6	1.6
Contiga Tinglev A/S	Tinglev, DNK		57.00	2015	6.7	0.1
Devnya Business Center EAD	Devnya, BGR		99.91	2015	0.2	0.0
Devnya Cement AD	Devnya, BGR		99.91	2015	213.2	15.2
DK Beton A/S	Ringsted, DNK		100.00	2015	11.9	1.7
DK Cement A/S	Copenhagen, DNK		100.00	2015	6.8	0.6
Eignarhaldsfélagið Hornsteinn ehf.	Reykjavík, ISL		53.00	2015	8.5	0.0
Fastighets AB Limhamns Kalkbrott	Stockholm, SWE		100.00	2015	2.5	0.0
Fastighets AB Lövholmen	Stockholm, SWE		100.00	2015	0.2	0.1
Garkalnes Grants SIA	Riga, LVA		100.00	2015	5.3	0.6
Górażdże Beton Sp. z o.o.	Chorula, POL		100.00	2015	16.0	-4.2
Górażdże Cement S.A.	Chorula, POL		100.00	2015	230.9	31.3
Górażdże Kruszywa Sp. z o.o.	Chorula, POL		100.00	2015	28.0	0.3
Halyps Building Materials S.A.	Aspropyrgos, GRC		99.89	2015	67.2	-5.4
Hanson Iceland EHF	Reykjavík, ISL		100.00	2015	2,713.4	-0.1
HC Betons SIA	Riga, LVA		100.00	2015	1.4	-0.8
HC Betoon AS, Estonia	Tallinn, EST		100.00	2015	5.7	-0.3
HeidelbergBeton Ukraine Limited Liability Company	Dnipro, UKR		99.97	2015	1.7	0.1
HeidelbergCement Africa Holding Kommanditbolag[5]	Stockholm, SWE		100.00	-	-	-
HeidelbergCement Danmark A/S	Ringsted, DNK		100.00	2015	50.2	0.0
HeidelbergCement Iceland EHF	Reykjavík, ISL		100.00	2015	0.6	0.4
HeidelbergCement Miljö AB	Stockholm, SWE		100.00	2015	1.9	0.0
HeidelbergCement Northern Europe AB	Stockholm, SWE		100.00	2015	1,394.7	162.7
HeidelbergCement Northern Europe Pumps & Trucks A/S	Ringsted, DNK		100.00	2015	1.7	0.9
HeidelbergCement Norway a.s.	Oslo, NOR		100.00	2015	202.9	-33.6
HeidelbergCement Romania SA	Bucharest, ROU		100.00	2016	209.0	31.1
HeidelbergCement Sweden AB	Stockholm, SWE		100.00	2015	322.5	156.9
HeidelbergCement Ukraine Public Joint Stock Company	Dnipro, UKR		99.83	2016	-42.7	-34.9
HeidelbergGranit Ukraine Limited Liability Company	Dnipro, UKR		100.00	2015	0.4	-0.9
Italmed Cement Company Ltd.	Limassol, CYP		99.88	2015	40.2	4.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Kamenivo Slovakia a.s.	Bytča-Hrabové, SVK		100.00	2015	2.0	0.5
KSL Limited Liability Company	Busheve, UKR		100.00	2015	0.4	-0.6
Kunda Nordic Tsement AS	Kunda, EST		75.00	2015	48.0	-14.2
Limited Liability Company HeidelbergBeton Georgia	Tbilisi, GEO		100.00	2015	5.7	-0.3
Limited Liability Company HeidelbergCement Caucasus	Tbilisi, GEO		100.00	2015	-0.1	-0.1
Limited Liability Company HeidelbergCement Georgia	Tbilisi, GEO		75.00	2016	-8.5	-5.6
Limited Liability Company Kartuli Cementi	Tbilisi, GEO		100.00	2015	7.8	-5.0
Limited Liability Company Terjola-Quarry	Tbilisi, GEO		100.00	2015	0.4	-0.5
LLC 'HeidelbergCement Rus'	Podolsk, RUS		100.00	2015	80.8	-24.8
Lyulyaka Materials EAD	Devnya, BGR		99.91	2015	0.7	0.0
Magnatool AB	Malmö, SWE		75.00	2015	0.0	-
Mibau Polska Sp. z o.o.	Gdansk, POL		60.00	2015	0.4	0.1
Norbetong AS	Oslo, NOR		100.00	2015	60.6	2.1
Norbetong Pumping AS	Oslo, NOR		75.50	2015	0.1	-0.1
Norcem AS	Oslo, NOR		100.00	2015	41.9	0.7
Nordic Precast Group AB	Stockholm, SWE		60.00	2015	150.2	-0.1
Norsk Stein A/S	Jelsa, NOR		60.00	2015	46.0	2.8
NorStone AS	Oslo, NOR		100.00	2015	16.9	0.3
OOO "Norcem Kola"	Murmansk, RUS		100.00	2015	0.0	-0.7
OOO KaliningradCement	Kaliningrad, RUS		74.90	2015	0.0	-0.3
Open Joint Stock Company Gurovo-Beton	Novogurovskiy, RUS		100.00	2015	0.5	0.2
Open Joint-Stock Company Slantsy Cement Plant "Cesla"	Slantsy, RUS		99.81	2015	1.0	-3.2
Precon Polska Sp.z.o.o.	Warsaw, POL		60.00	2015	4.8	0.3
Protenna AB	Stockholm, SWE		75.00	2015	28.4	0.0
Reci Eesti A/S	Tallinn, EST		100.00	2015	0.3	0.0
Recyfuel SRL	Bucharest, ROU		100.00	2015	0.3	0.1
Renor AS	Aurskog, NOR		100.00	2015	2.6	-0.1
Rybalsky Quarry Limited Liability Company	Dnipro, UKR		100.00	2015	0.3	-0.1
Sand- & Grusaktiebolag Jehander	Stockholm, SWE		100.00	2015	11.4	0.1
Scancem Central Africa Holding 1 AB	Stockholm, SWE		100.00	2015	17.6	0.0
Scancem Central Africa Holding 2 AB	Stockholm, SWE		100.00	2015	17.5	-
Scancem Central Africa Holding 3 AB	Stockholm, SWE		100.00	2015	14.5	0.0
Scancem Central Africa Holding 4 AB	Stockholm, SWE		100.00	2015	14.5	-
Scancem East OY AB	Helsinki, FIN		100.00	2015	6.3	0.0
Scancem International DA	Oslo, NOR		93.94	2015	403.3	77.7
Sementsverksmidjan ehf	Reykjavík, ISL		53.00	2015	2.2	0.4
ShymkentCement JSC	Shymkent, KAZ		99.84	2016	-28.8	-2.2
SIA BALTIC SAULE	Riga, LVA		100.00	2015	4.7	0.1
SIA SBC [1]	Marupe, LVA		29.40	2015	3.1	0.3
SIA SBC Finance [1]	Marupe, LVA		29.40	2015	0.5	0.1
SIA SBC Property [1]	Marupe, LVA		29.40	2015	2.2	0.2
Splitt Chartering Aps	Aabenraa, DNK		60.00	2015	2.5	2.6
SSC Lithuania UAB [5]	Vilnius, LTU		100.00	-	-	-

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Stema Shipping A/S	Aabenraa, DNK		60.00	2015	76.4	0.0
TBG BETONMIX a. s.	Brno, CZE		66.00	2015	8.7	1.6
TBG BETONPUMPY MORAVA s.r.o.	Brno, CZE		84.90	2015	0.6	0.1
TBG SEVEROZÁPADNÍ ČECHY s.r.o.	Chomutov, CZE		66.00	2015	2.7	0.2
TBG Východní Čechy s.r.o.	Mladé Buky, CZE		70.04	2015	2.2	0.4
TBG VYSOČINA s.r.o.	Kožichovice, CZE		59.40	2015	2.7	0.3
TBG ZNOJMO s. r. o.	Dyje, CZE		66.00	2015	1.4	0.1
UAB Gerdukas	Vilnius, LTU		70.00	2015	2.0	0.0
UAB HC Betonas	Kaunas, LTU		100.00	2015	0.0	-0.1
UAB Heidelberg Cement Klaipeda	Klaipeda, LTU		100.00	2015	2.3	0.9
Vulkan Cement AD	Dimitrovgrad, BGR		98.59	2015	41.2	-1.7
Subsidiaries						
North America						
116 Sisquoc Property LLC	Wilmington, USA		100.00	2015	0.0	0.0
4601 Tacoma Property LLC [5]	Wilmington, USA		100.00	-	-	-
755 Portland Property LLC [5]	Wilmington, USA		100.00	-	-	-
8364 Fordyce Property LLC [5]	Wilmington, USA		100.00	-	-	-
Amangani SA	Panama City, PAN		100.00	2015	-0.3	-0.1
Amcord, Inc.	Dover, USA		100.00	2015	8.0	0.0
Anche Holdings Inc	Panama City, PAN		100.00	2015	1,944.2	0.0
Asian Carriers Inc.	Panama City, PAN		100.00	2015	37.9	0.1
Astravance Corp.	Panama City, PAN		100.00	2015	59,754.2	0.0
Beazer East, Inc.	Wilmington, USA		100.00	2015	234.8	-4.3
Cadman (Black Diamond), Inc.	Olympia, USA		100.00	2015	8.6	-0.1
Cadman (Rock), Inc.	Olympia, USA		100.00	2015	17.2	2.1
Cadman (Seattle), Inc.	Olympia, USA		100.00	2015	67.4	5.5
Cadman, Inc.	Olympia, USA		100.00	2015	55.4	2.0
Calaveras Materials Inc.	Sacramento, USA		100.00	2015	94.1	-1.0
Calaveras-Standard Materials, Inc.	Sacramento, USA		100.00	2015	33.0	-0.2
Cambridge Aggregates Inc. [5]	Cambridge, CAN		60.00	-	-	-
Campbell Concrete & Materials LLC	Austin, USA		100.00	2016	52.7	9.9
Campbell Transportation Services LLC [5]	Austin, USA		100.00	-	-	-
Cavenham Forest Industries LLC	Wilmington, USA		100.00	2015	9.5	-2.1
Cindercrete Mining Supplies Ltd. [1]	Regina, CAN		43.75	2015	4.5	0.7
Cindercrete Products Limited	Regina, CAN		87.50	2015	48.3	3.7
Civil and Marine Inc.	Wilmington, USA		100.00	2015	45.3	0.7
Commercial Aggregates Transportation and Sales, LLC	Wilmington, USA		100.00	2015	2.6	0.1
Constar LLC	Wilmington, USA		100.00	2015	282.6	10.4
Continental Florida Materials Inc.	Tallahassee, USA		100.00	2016	95.9	3.8
Cowichan Corporation	Panama City, PAN		100.00	2015	2,709.8	-0.1
Essex NA Holdings LLC	Wilmington, USA		100.00	2015	48.5	0.0
Essroc Canada ULC [5]	Mississauga, CAN		100.00	-	-	-
Essroc Cement Corp. [5]	Nazareth, USA		100.00	-	-	-

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Essroc Corp. [5]	Nazareth, USA		100.00	-	-	-
Essroc Ready Mix Corp. [5]	Nazareth, USA		100.00	-	-	-
Essroc San Juan Inc. [5]	Dorado, PRI		100.00	-	-	-
Ferndale Ready Mix & Gravel, Inc.	Olympia, USA		100.00	2015	19.3	0.7
Greyrock, LLC [5]	Nazareth, USA		100.00	-	-	-
Gulf Coast Stabilized Materials LLC	Austin, USA		100.00	2015	58.5	14.8
Gypsum Carrier Inc	Panama City, PAN		100.00	2015	73.6	-0.1
Hampshire Properties LLC	Austin, USA		100.00	2015	0.8	0.0
HAMW Minerals, Inc.	Wilmington, USA		100.00	2015	7.7	0.0
Hanson Aggregates LLC	Wilmington, USA		100.00	2016	1,037.8	79.4
Hanson Aggregates BMC, Inc.	Harrisburg, USA		100.00	2016	313.0	11.5
Hanson Aggregates Davon LLC	Columbus, USA		100.00	2015	98.5	-4.4
Hanson Aggregates East LLC	Wilmington, USA		100.00	2015	0.0	0.0
Hanson Aggregates Mid-Pacific, Inc.	Wilmington, USA		100.00	2016	293.1	3.9
Hanson Aggregates Midwest LLC	Frankfort, USA		100.00	2016	499.2	57.5
Hanson Aggregates New York LLC	Albany, USA		100.00	2016	542.6	38.7
Hanson Aggregates Pacific Southwest, Inc.	Wilmington, USA		100.00	2015	147.8	10.2
Hanson Aggregates Pennsylvania LLC	Wilmington, USA		100.00	2016	355.4	26.9
Hanson Aggregates Southeast LLC	Wilmington, USA		100.00	2016	751.9	52.4
Hanson Aggregates WRP, Inc.	Wilmington, USA		100.00	2015	77.6	3.2
Hanson BC Limited	Hamilton, BMU		100.00	2015	1,404.8	0.0
Hanson Building Materials America LLC	Wilmington, USA		100.00	2015	833.7	-0.8
Hanson Green Limited	Hamilton, BMU		100.00	2015	0.1	0.0
Hanson Hardscape Products LLC	Wilmington, USA		100.00	2015	0.0	0.0
Hanson Marine Finance, Inc.	Sacramento, USA		100.00	2015	0.5	0.2
Hanson Marine Operations, Inc.	Sacramento, USA		100.00	2015	11.5	2.0
Hanson Structural Precast, Inc.	Los Angeles, USA		100.00	2015	4.3	0.0
HBMA Holdings LLC	Wilmington, USA		100.00	2015	4,302.0	8.8
HBP Mineral Holdings LLC	Wilmington, USA		100.00	2015	2.0	0.0
HBP Property Holdings LLC	Wilmington, USA		100.00	2015	39.2	4.9
HC Trading International Inc.	Nassau, BHS		100.00	2015	-5.6	-1.0
HNA Investments	Wilmington, USA		100.00	2015	4,695.0	0.0
KH 1 Inc.	Dover, USA		100.00	2015	238.4	0.0
Lehigh Cement Company LLC	Wilmington, USA		100.00	2016	1,236.1	131.7
Lehigh Hanson Materials Limited	Calgary, CAN		100.00	2016	1,291.8	18.6
Lehigh Hanson Receivables LLC	Wilmington, USA		100.00	2015	9.5	-0.1
Lehigh Hanson Services LLC	Wilmington, USA		100.00	2015	0.0	0.0
Lehigh Hanson, Inc.	Wilmington, USA		100.00	2016	11,662.7	-373.5
Lehigh Northwest Cement Company	Olympia, USA		100.00	2015	159.4	3.6
Lehigh Northwest Marine, LLC	Wilmington, USA		100.00	2015	2.9	0.0
Lehigh Portland Holdings, LLC	Wilmington, USA		100.00	2015	0.3	0.1
Lehigh Portland Investments, LLC	Wilmington, USA		100.00	2015	127.5	36.6
Lehigh Realty Company	Richmond, USA		100.00	2015	2.0	0.0
Lehigh Southwest Cement Company	Sacramento, USA		100.00	2016	353.1	24.2

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year[6]	Equity in € million[7]	Net income in € million[8]
Lehigh White Cement Company	Harrisburg, USA		51.00	2016	65.8	23.7
LHI Duomo Holdings LLC[5]	Wilmington, USA		100.00	-	-	-
Material Service Corporation	Wilmington, USA		100.00	2016	155.4	27.0
Mineral and Land Resources Corporation	Wilmington, USA		100.00	2015	32.7	0.5
Mission Valley Rock Co.	Sacramento, USA		100.00	2015	106.4	1.7
PCAz Leasing, Inc.	Phoenix, USA		100.00	2015	-4.9	-0.1
Pioneer International Overseas Corporation	Tortola, VGB		100.00	2015	160.0	0.2
Rimarcal Corporation	Panama City, PAN		100.00	2015	3,161.7	26.3
Sherman Industries LLC	Wilmington, USA		100.00	2015	43.9	-5.3
Shrewsbury Properties LLC	Austin, USA		100.00	2015	0.7	0.0
Sinclair General Corporation	Panama City, PAN		100.00	2015	9,630.1	146.8
South Valley Materials, Inc.	Sacramento, USA		100.00	2015	14.6	-2.4
Standard Concrete Products, Inc.	Sacramento, USA		100.00	2015	11.7	-1.0
Three Rivers Management, Inc.	Wilmington, USA		100.00	2015	-0.4	0.0
Tomahawk, Inc.[5]	Wilmington, USA		100.00	-	-	-
Vestur Insurance (Bermuda) Ltd	Hamilton, BMU		100.00	2015	0.1	-0.1
Subsidiaries						
Asia-Pacific						
Asia Cement Energy Conservation Co., Ltd.[1]	Bangkok, THA		39.53	2015	42.8	5.7
Asia Cement Products Co., Ltd.[1]	Bangkok, THA		39.53	2015	2.2	-0.6
Asia Cement Public Co., Ltd.[1]	Bangkok, THA		39.53	2015	298.3	33.2
Bitumix Granite Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	2.2	-0.1
Butra HeidelbergCement Sdn. Bhd.	Bandar Seri Begawan , BRN		70.00	2015	12.7	4.8
Calga Sands Pty Ltd[5]	New South Wales, AUS		100.00	-	-	-
CGF Pty Limited	New South Wales, AUS		100.00	2015	168.2	0.0
Christies Stone Quarries Pty Ltd	South Australia, AUS		100.00	2015	0.0	0.0
COCHIN Cements Ltd.	Kottyam, IND		98.72	2016	-0.8	-0.5
Concrete Materials Laboratory Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.1	0.1
Consolidated Quarries Pty Ltd.	Victoria, AUS		100.00	2015	0.0	0.0
Excel Quarries Pty Limited	Queensland, AUS		100.00	2015	0.1	0.0
Fairfield Pre-Mix Concrete Pty Ltd	Victoria, AUS		100.00	2015	0.1	0.0
Galli Quarries Pty Limited	Victoria, AUS		100.00	2015	25.0	-0.1
Gerak Harapan Sdn Bhd	Kuala Lumpur, MYS		70.00	2015	0.7	0.2
Gulbarga Cement Limited	Bangalore, IND		100.00	2015	51.3	-1.0
Hanson Australia (Holdings) Proprietary Limited	Victoria, AUS		100.00	2016	2,227.9	1.9
Hanson Australia Cement (2) Pty Ltd	New South Wales, AUS		100.00	2015	14.5	13.8
Hanson Australia Cement Pty Limited	New South Wales, AUS		100.00	2015	16.2	13.8
Hanson Australia Funding Limited	New South Wales, AUS		100.00	2015	0.0	0.0
Hanson Australia Investments Pty Limited	New South Wales, AUS		100.00	2015	70.1	13.2
Hanson Australia Pty Limited	New South Wales, AUS		100.00	2015	907.0	229.5
Hanson Building Materials (S) Pte Ltd	Singapore, SGP		100.00	2015	-0.3	0.0
Hanson Building Materials Cartage Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.3	0.1

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Hanson Building Materials Industries Sdn Bhd [4]	Kuala Lumpur, MYS		100.00	2015	0.1	0.0
Hanson Building Materials Malaysia Sdn Bhd	Kuala Lumpur, MYS		100.00	2016	24.7	2.0
Hanson Building Materials Manufacturing Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.5	0.1
Hanson Building Materials Production Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	12.1	0.3
Hanson Building Materials Transport Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.2	0.0
Hanson Building Materials-KTPC Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.3	0.0
Hanson Building Materials-KTPC-PBPM Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	1.1	0.0
Hanson Building Materials-PBPM Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.2	0.0
Hanson Cement Holdings Pty Ltd	Victoria, AUS		100.00	2015	22.5	9.1
Hanson Concrete (M) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.5	0.3
Hanson Construction Materials Pty Ltd	Queensland, AUS		100.00	2016	58.8	26.5
Hanson Finance Australia Ltd	Australian Capital Territory, AUS		100.00	2015	108.7	-15.6
Hanson Holdings (M) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	8.2	4.0
Hanson Holdings Australia Pty Ltd [5]	Victoria, AUS		100.00	-	-	-
Hanson Investment Holdings Pte Ltd	Singapore, SGP		100.00	2015	35.9	0.1
Hanson Landfill Services Pty Ltd	Victoria, AUS		100.00	2015	25.8	5.0
Hanson Pacific (S) Pte Limited	Singapore, SGP		100.00	2015	-7.2	0.0
Hanson Precast Pty Ltd	New South Wales, AUS		100.00	2015	-4.2	1.6
Hanson Pty Limited	Victoria, AUS		100.00	2015	2,709.7	209.7
Hanson Quarries Victoria Pty Limited	New South Wales, AUS		100.00	2015	0.4	0.0
Hanson Quarry Products (Batu Pahat) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.1	-
Hanson Quarry Products (EA) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.3	0.2
Hanson Quarry Products (Holdings) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	43.8	21.3
Hanson Quarry Products (Kuantan) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.1	0.0
Hanson Quarry Products (Kulai) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	9.4	0.9
Hanson Quarry Products (Land) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	3.9	0.4
Hanson Quarry Products (Masai) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.8	0.2
Hanson Quarry Products (Northern) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.2	0.0
Hanson Quarry Products (Pengerang) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.9	0.1
Hanson Quarry Products (Perak) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.5	0.1
Hanson Quarry Products (Premix) Sdn Bhd [4]	Kuala Lumpur, MYS		100.00	2015	0.6	0.0
Hanson Quarry Products (Rawang) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.5	0.3
Hanson Quarry Products (Segamat) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.0	0.0
Hanson Quarry Products (Tempoyak) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	-1.2	-0.1
Hanson Quarry Products (Terengganu) Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.5	0.0
Hanson Quarry Products Sdn Bhd	Kuala Lumpur, MYS		100.00	2016	36.7	10.6
HCT Services Asia Pte. Ltd.	Singapore, SGP		100.00	2015	0.7	0.1
HeidelbergCement Asia Pte Ltd	Singapore, SGP		100.00	2015	7.5	0.3
HeidelbergCement Bangladesh Limited	Chittagong, BGD		60.66	2016	65.2	16.8
HeidelbergCement Holding HK Limited	Hong Kong, HKG		100.00	2015	61.1	13.1
HeidelbergCement India Limited	Gurgaon, IND		69.39	2016	116.7	5.2
HeidelbergCement Myanmar Company Limited	Naypyitaw, MMR		100.00	2016	-0.4	-0.2
Hymix Australia Pty Ltd	New South Wales, AUS		100.00	2016	97.4	21.7

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Jalaprathan Cement Public Co., Ltd. [1]	Bangkok, THA		35.12	2015	60.1	8.9
Jalaprathan Concrete Co., Ltd. [1]	Bangkok, THA		35.12	2015	8.4	0.7
Meghna Energy Limited	Dhaka, BGD		100.00	2015	6.7	0.7
Naga Property Co., Ltd. [1]	Bangkok, THA		35.12	2015	0.2	0.0
Pioneer Concrete (Hong Kong) Limited	Hong Kong, HKG		100.00	2015	2.9	1.2
Pioneer Concrete (Tasmania) Proprietary Limited	Tasmania, AUS		100.00	2015	5.6	0.0
Pioneer Concrete (WA) Pty Ltd	Western Australia, AUS		100.00	2015	0.0	0.0
Pioneer Concrete Services (Malaysia) S/B [5]	Kuala Lumpur, MYS		100.00	-	-	-
Pioneer International (Labuan) Ltd	Labuan, MYS		100.00	2015	0.5	0.0
Pioneer International Holdings Pty Ltd	New South Wales, AUS		100.00	2015	1,112.1	23.9
Pioneer North Queensland Pty Ltd	Queensland, AUS		100.00	2015	21.3	0.0
Plentong Granite Industries Sdn Bhd	Kuala Lumpur, MYS		70.00	2015	2.5	1.4
PT Bahana Indonor	Jakarta, IDN		50.98	2015	12.5	2.0
PT Bhakti Sari Perkasa Abadi	Jakarta, IDN		50.98	2015	0.2	0.0
PT Dian Abadi Perkasa	Jakarta, IDN		50.98	2015	65.5	10.4
PT Indocement Tunggal Prakarsa Tbk.	Jakarta, IDN		51.00	2016	1,795.8	258.6
PT Indomix Perkasa	Jakarta, IDN		51.00	2015	32.4	0.0
PT Lentera Abadi Sejahtera	Jakarta, IDN		51.00	2015	0.0	0.0
PT Lintas Bahana Abadi	Jakarta, IDN		50.98	2015	4.1	0.5
PT Makmur Abadi Perkasa Mandiri	Jakarta, IDN		51.00	2015	0.0	0.0
PT Mandiri Sejahtera Sentra	Purwakarta, IDN		50.98	2015	21.1	-0.4
PT Mineral Industri Sukabumi	Sukabumi, IDN		50.98	2015	1.5	0.1
PT Multi Bangun Galaxy	Lombok, IDN		50.98	2015	0.2	0.0
PT Pionirbeton Industri	Jakarta, IDN		51.00	2015	30.0	1.3
PT Sahabat Mulia Sakti	Semarang, IDN		50.98	2015	-0.1	0.0
PT Sari Bhakti Sejati	Jakarta, IDN		51.00	2015	3.3	0.0
PT Tarabatuh Manunggal	South Tangerang, IDN		50.98	2015	5.9	0.6
PT Terang Prakarsa Cipta	Jakarta, IDN		51.00	2015	3.5	0.1
Rajang Perkasa Sdn Bhd	Kuala Lumpur, MYS		60.00	2015	0.4	0.4
Realistic Sensation Sdn Bhd	Kuala Lumpur, MYS		69.98	2015	1.1	0.0
Seas Co., Ltd. [5]	Bangkok, THA		100.00	-	-	-
Singha Cement (Private) Limited	Colombo, LKA		99.94	2015	4.5	-0.2
Sitapuram Power Limited	Hyderabad, IND		50.99	2015	12.7	-1.7
Sofinaz Holdings Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	0.3	0.0
South Coast Basalt Pty Ltd	New South Wales, AUS		100.00	2015	-0.6	-0.8
Tanah Merah Quarry Sdn Bhd	Kuala Lumpur, MYS		100.00	2015	-2.6	0.2
Valscot Pty Limited	New South Wales, AUS		100.00	2015	0.0	0.0
Vaniyuth Co., Ltd. [1] [5]	Bangkok, THA		48.80	-	-	-
Waterfall Quarries Pty Limited	Victoria, AUS		100.00	2015	0.0	0.0
West Coast Premix Pty Ltd	Victoria, AUS		100.00	2015	0.1	0.0
Yalkara Contracting Pty Ltd	Queensland, AUS		100.00	2015	6.8	0.1
Zuari Cement Ltd.	Bangalore, IND		100.00	2015	183.9	6.9

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Subsidiaries						
Africa-Eastern Mediterranean Basin						
ACH Investments Limited [5]	Ebene, MUS		100.00	-	-	-
Africim S.A.	Casablanca, MAR		62.33	2015	1.9	0.0
Al Mahaliya Ready Mix Concrete W.L.L. [1]	Safat, KWT		13.23	2015	11.7	-0.1
Austral Cimentos Sofala, SA	Maputo, MOZ		100.00	2015	-5.3	-3.3
Calcim S.A.	Cotonou, BEN		93.94	2015	0.9	0.7
Cimbenin SA	Cotonou, BEN		82.62	2015	13.2	4.1
CimBurkina S.A.	Ouagadougou, BFA		75.15	2015	6.6	0.0
Ciments du Maroc S.A.	Casablanca, MAR		62.33	2015	134.0	94.2
Ciments du Togo SA	Lome, TGO		93.60	2016	25.5	6.4
DECOM Egyptian Co for Development of Building Materials S.A.E. [1]	Cairo, EGY		26.46	2015	10.0	2.7
Gacem Company Limited [5]	Serrekunda, GMB		80.00	-	-	-
Ghacem Ltd.	Accra, GHA		87.46	2016	76.5	43.9
GRANUBENIN SA avec CA [5]	Cotonou, BEN		93.85	-	-	-
Gulf Ready Mix Concrete Company W.L.L. [1]	Kuwait, KWT		13.25	2015	2.0	0.2
Hanson (Israel) Ltd	Ramat Gan, ISR		99.98	2016	222.4	17.0
Hanson Quarry Products (Israel) Ltd	Ramat Gan, ISR		99.98	2015	198.0	12.9
Hanson Yam Limited Partnership	Ramat Gan, ISR		99.98	2015	2.9	-0.1
HC Madagascar	Antananarivo, MDG		100.00	2015	-0.1	-0.1
HC Trading FZE	Dubai, ARE		100.00	2015	0.5	0.1
Heidelberg Cement Afrique Service	Lome, TGO		88.57	2015	0.0	0.0
HeidelbergCement Mediterranean Basin Holdings S.L.U. Palestine Ltd. [5]	Ramallah, PSE		100.00	-	-	-
Helwan Cement Co.	Helwan, EGY		50.64	2015	195.9	-1.0
Hilal Cement Company KSCC [1]	Safat, KWT		25.95	2015	44.9	1.0
Industrie Sakia El Hamra "Indusaha" S.A.	Laayoune, MAR		56.72	2015	7.6	15.7
Interbulk Egypt for Export S.A.E.	Cairo, EGY		100.00	2015	0.3	0.1
Interlacs S.A.R.L.	Lubumbashi, COD		85.00	2015	5.1	-1.7
International City for Concrete Ltd.	Jeddah, SAU		75.44	2015	14.0	-2.5
Kuwait German Company for RMC W.L.L. [1]	Kuwait, KWT		13.36	2015	0.9	-0.2
La Cimenterie de Lukala S.A.R.L.	Kinshasa, COD		76.95	2015	20.3	-1.5
La Societe GRANUTOGO SA	Lome, TGO		93.85	2015	1.5	-0.5
Liberia Cement Corporation Ltd.	Monrovia, LBR		76.72	2015	15.9	4.6
Mauritano-Française des Ciments S.A. [5]	Nouakchott, MRT		56.96	-	-	-
Pioneer Beton Muva Umachzavot Ltd	Ramat Gan, ISR		99.98	2015	0.2	0.0
Procimar S.A.	Casablanca, MAR		100.00	2015	3.5	8.0
Scantogo Mines SA	Lome, TGO		84.45	2015	-2.1	1.7
Sierra Leone Cement Corp. Ltd.	Freetown, SLE		46.97	2015	0.0	0.0
Suez Bags Company S.A.E. [1]	Cairo, EGY		28.91	2015	15.2	2.9
Suez Cement Company S.A.E.	Cairo, EGY		50.88	2015	680.0	42.2
Suez for Import & Export Co S.A.E. [1]	Cairo, EGY		49.60	2015	0.0	0.0
Suez for Transportation & Trade S.A.E. [1]	Cairo, EGY		49.60	2015	2.0	0.4
Tadir Readymix Concrete (1965) Ltd	Ramat Gan, ISR		100.00	2015	0.0	-

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Teracem Limited [5]	Accra, GHA		100.00	-	-	-
Tourah Portland Cement Company S.A.E. [1]	Cairo, EGY		39.45	2015	55.5	-25.6
TPCC Tanzania Portland Cement Company Ltd.	Dar Es Salaam, TZA		65.05	2016	83.4	16.0
Universal Company for Ready Mix Concrete Production S.A.E. [1]	Cairo, EGY		26.46	2015	35.7	4.5
West Africa Quarries Limited	Accra, GHA		87.46	2015	0.2	-0.2
Joint Operations						
Western and Southern Europe						
Atlantica de Graneles y Moliendas S.A.	Vizcaya, ESP		49.97	2015	-20.6	-0.7
Les Quatre Termes S.a.s.	Salon de Provence, FRA		50.00	2015	0.0	0.0
Les Sables de Mezieres S.a.s	Saint-Pierre-des-Corps, FRA		50.00	2015	0.1	0.0
Sas des Gresillons (S.a.s.)	Clamart, FRA		35.00	2015	0.5	0.1
SCI du Colombier	Rungis, FRA		63.00	2015	0.0	0.0
Société d'Extraction et d'aménagement de la Plaine de Marolles SEAPM S.a.s.	Avon, FRA		56.40	2015	0.7	-0.3
Société Foncière de la Petite Seine S.a.s.	Saint-Sauveur-lès-Bray, FRA		42.25	2015	-0.1	0.1
UTE Port [5]	Barcelona, ESP		50.00	-	-	-
Joint Operations						
North America						
Terrell Materials LLC	Austin, USA		50.00	2015	6.4	1.0
Two Rivers Cement LLC	Dover, USA		50.00	2015	19.5	-0.8
Joint Operations						
Asia-Pacific						
Lytton Unincorporated Joint Venture	Queensland, AUS		50.00	2015	0.0	0.0
Joint Ventures						
Western and Southern Europe						
ABE Deponie GmbH	Damsdorf, DEU		50.00	2015	1.8	0.1
bihek GmbH	Breisach am Rhein, DEU		40.00	2015	0.2	0.0
Carrières Bresse Bourgogne S.A.	Épervans, FRA		33.27	2015	7.5	0.5
Dragages et Carrières S.A.	Épervans, FRA		50.00	2015	3.6	0.6
Fraimbois Granulats S.à r.l.	Moncel-lès-Lunéville, FRA		50.00	2015	0.1	0.0
GAM Greifswalder Asphaltmischwerke GmbH & Co. KG	Greifswald, DEU		30.00	2015	0.3	-
GAM Greifswalder Asphaltmischwerke VerwaltungsGmbH	Greifswald, DEU		30.00	2015	0.0	0.3
H.H. & D.E. Drew Limited	New Milton, GBR		49.00	2015	16.3	1.3
Hafen- und Lagergesellschaft Greifswald mbH	Greifswald, DEU		30.00	2015	0.2	0.0
Hanse-Asphalt Gesellschaft mbH	Rostock, DEU		30.00	2015	1.7	0.7
Heidelberger Beton Aschaffenburg GmbH & Co. KG [2]	Aschaffenburg, DEU		70.95	2015	0.3	0.3
Heidelberger Beton Aue-Schwarzenberg GmbH & Co. KG [2]	Schwarzenberg, DEU		90.00	2015	0.2	0.0
Heidelberger Beton Donau-Iller GmbH & Co. KG [2]	Elchingen, DEU		80.48	2015	0.8	0.1
Heidelberger Beton Elster-Spree GmbH & Co. KG [2]	Cottbus, DEU		60.00	2015	0.6	0.1
Heidelberger Beton Franken GmbH & Co. KG [2]	Fürth, DEU		90.00	2015	0.5	0.9
Heidelberger Beton Kurpfalz GmbH & Co. KG [2]	Eppelheim, DEU		51.11	2015	3.5	0.3

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Heidelberger Betonpumpen Simonis GmbH & Co. KG [2]	Ubstadt-Weiher, DEU		57.37	2015	2.5	0.5
Humber Sand and Gravel Limited	Egham, GBR		50.00	2015	-1.0	-0.1
Joyce Green Aggregates Limited	Dartford, GBR		50.00	2015	0.0	0.0
Les Calcaires Girondins S.a.s.	Cenon, FRA		50.00	2015	1.1	-0.1
Les Graves de l'Estuaire S.a.s	Le Havre, FRA		50.00	2015	1.9	-0.8
Mantuana Inerti S.r.l.	Mantova, ITA		50.00	2015	2.2	0.0
Mendip Rail Limited	Markfield, GBR		50.00	2015	3.2	0.2
North Tyne Roadstone Limited	Wolverhampton, GBR		50.00	2015	-0.1	-0.4
Padyear Limited	Maidenhead, GBR		50.00	2015	-0.2	0.0
Rewinn B.V.	Amsterdam, NLD		50.00	2015	1.6	0.1
SCL S.A.	Heillecourt, FRA		49.96	2015	-0.1	-0.2
Smiths Concrete Limited	Oxford, GBR		49.00	2015	12.9	1.1
Sodramaris S.N.C.	La Rochelle, FRA		50.00	2015	11.7	-1.8
SPS S.a.s.	Pont de l'Arche, FRA		50.00	2015	6.3	-0.9
Société des Calcaires de Souppes-sur-Loing - SCSL S.N.C.	Souppes-sur-Loing, FRA		50.00	2015	2.8	-0.1
TBG Ilm-Beton GmbH & Co. KG [2]	Arnstadt, DEU		55.00	2015	0.7	0.0
TBG Transportbeton GmbH & Co. KG Naabbeton	Nabburg, DEU		50.00	2015	1.6	1.6
TBG Transportbeton Mittweida GmbH & Co KG [5]	Mittweida, DEU		40.00	-	-	-
TBG Transportbeton Oder-Spree GmbH & Co. KG	Wriezen, DEU		50.00	2015	1.5	0.3
Trapobet Transportbeton GmbH Kaiserslautern Kommanditgesellschaft	Kaiserslautern, DEU		50.00	2015	1.0	1.0
Valoise S.a.s. [2]	Pierrelaye, FRA		60.00	2015	-0.2	-0.3
WIKING Baustoff- und Transport GmbH & Co. Kommanditgesellschaft	Geseke, DEU		50.00	2015	0.5	0.2
Joint Ventures						
Northern and Eastern Europe-Central Asia						
Betong Øst AS	Kongsvinger, NOR		50.00	2015	5.5	3.6
BT Topbeton Sp. z o.o.	Gorzów Wielkopolski, POL		50.00	2015	6.9	1.1
CEMET S.A.	Warsaw, POL		42.91	2015	15.5	2.7
Closed Joint Stock Company "Mineral Resources Company"	Ishimbay, RUS		50.00	2015	0.5	0.7
Duna-Dráva Cement Kft.	Vác, HUN		50.00	2016	187.4	12.3
PÍSKOVNY MORAVA spol. s r.o.	Němčičky, CZE		50.00	2015	1.7	0.3
Pražské betonpumpy a doprava s.r.o.	Praha, CZE		50.00	2015	1.5	0.1
TBG Doprastav, a.s.	Pezinok, SVK		50.00	2015	4.0	0.1
TBG METROSTAV s.r.o.	Praha, CZE		50.00	2015	15.3	0.8
TBG Plzeň Transportbeton s.r.o. [2]	Beroun, CZE		50.10	2015	1.6	0.3
TBG SWIETELSKY s.r.o. [2]	České Budějovice, CZE		51.00	2015	0.7	0.1
Vltavské štěrkopísky, s.r.o.	Chlumín, CZE		50.00	2015	3.9	0.4
Joint Ventures						
North America						
Allied Cement Company, d/b/a CPC Terminals (Limited Partnership Interest) [5]	Austin, USA		50.00	-	-	-
American Stone Company [5]	Raleigh, USA		50.00	-	-	-
BP General Partner Ltd. [5]	Winnipeg, CAN		50.00	-	-	-
Building Products & Concrete Supply Limited Partnership	Winnipeg, CAN		50.00	2015	5.0	1.2

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
California Commercial Asphalt, LLC	Wilmington, USA		50.00	2015	29.9	1.4
China Century Cement Ltd.	Hamilton, BMU		50.00	2015	35.5	2.4
CPC Terminals, Inc [5]	Sacramento, USA		50.00	-	-	-
Red Bluff Sand & Gravel, L.L.C. [5]	Montgomery, USA		50.00	-	-	-
Texas Lehigh Cement Company LP	Austin, USA		50.00	2016	42.1	36.6
Upland Ready Mix Ltd.	Campbell River, CAN		50.00	2015	0.0	0.0
Joint Ventures						
Asia-Pacific						
Alliance Construction Materials Ltd	Hong Kong, HKG		50.00	2015	35.7	37.6
Cement Australia Holdings Pty Ltd	New South Wales, AUS		50.00	2015	449.5	65.7
Cement Australia Partnership	New South Wales, AUS		50.00	2015	82.5	76.6
Cement Australia Pty Limited	Victoria, AUS		50.00	2015	0.0	0.0
Easy Point Industrial Ltd.	Hong Kong, HKG		50.00	2015	-0.4	0.0
Jidong Heidelberg (Fufeng) Cement Company Limited	Baoji, CHN		48.11	2015	76.2	4.7
Jidong Heidelberg (Jingyang) Cement Company Limited	Xianyang City, CHN		50.00	2015	72.0	4.9
M&H Quarries Partnership	Victoria, AUS		50.00	2015	-1.7	-0.2
Metromix Pty Limited	New South Wales, AUS		50.00	2015	15.7	2.8
Penrith Lakes Development Corporation Limited	New South Wales, AUS		20.00	2016	-128.9	18.2
Squareal Cement Ltd	Hong Kong, HKG		50.00	2015	35.6	-3.9
Technically Designed Concrete Partnership	Western Australia, AUS		50.00	2016	2.6	-0.1
West Australian Landfill Services Pty Ltd	Victoria, AUS		50.00	2015	3.1	2.5
Western Suburbs Concrete Partnership	New South Wales, AUS		50.00	2016	4.2	5.2
Joint Ventures						
Africa-Eastern Mediterranean Basin						
Akçansa Çimento Sanayi ve Ticaret A.S.	Istanbul, TUR		39.72	2015	266.4	90.6
Italcementi for Cement Manufacturing - Libyan J.S.C. [5]	Tripoli, LBY		50.00	-	-	-
Suez Lime S.A.E.	Cairo, EGY		25.32	2015	0.4	0.0
Associates						
Western and Southern Europe						
Béton Contrôle des Abers S.a.s.	Lannilis, FRA		34.00	2015	4.6	0.2
Betonmortel Grevelingen B.V.	Zierikzee, NLD		50.00	2015	0.4	-0.1
Betonmortelcentrale De Mark B.V.	Oud- en Nieuw Gastel, NLD		28.57	2015	0.8	0.2
Betonmortelfabriek Tilburg Bemoti B.V.	Tilburg, NLD		38.67	2015	0.4	0.0
Betonpumpen-Service Niedersachsen GmbH & Co. KG	Hannover, DEU		50.00	2015	0.2	0.2
Betotech GmbH, Baustofftechnisches Labor [2]	Eppelheim, DEU		59.98	2015	0.1	0.0
Betotech GmbH, Baustofftechnisches Labor [2]	Nabburg, DEU		70.74	2015	0.2	0.0
Betuwe Beton Holding B.V.	Tiel, NLD		50.00	2015	4.7	0.3
Cementi della Lucania - F.lli Marroccoli fu Michele S.p.A.	Potenza, ITA		30.00	2015	5.4	0.0
Cugla B.V.	Breda, NLD		50.00	2015	5.0	2.1
Demula N.V.	Laarne, BEL		50.00	2015	0.7	0.6

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Dijon Béton S.A.	Saint-Apollinaire, FRA		15.00	2015	10.2	-0.9
Donau Kies GmbH & Co. KG [2]	Fürstenzell, DEU		75.00	2015	5.3	0.4
DONAU MÖRTEL - GmbH & Co. KG	Neuburg a. Inn, DEU		50.00	2015	0.4	0.1
GENAMO Gesellschaft zur Entwicklung des Naherholungsgebietes Misburg-Ost mbH	Hannover, DEU	50.00	50.00	2015	0.1	0.0
Generalcave S.r.l. - in liquidazione [4]	Fiumicino, ITA		50.00	2015	0.0	0.0
Hafenbetriebsgesellschaft mbH & Co KG Stade	Stade, DEU		50.00	2015	0.5	0.2
Heidelberger Beton GmbH & Co Stuttgart KG	Remseck a. N., DEU		50.00	2015	0.5	0.1
Heidelberger Beton Grenzland GmbH & Co. KG	Marktredwitz, DEU		50.00	2015	1.2	1.7
Heidelberger Beton Inntal GmbH & Co. KG [2]	Altötting, DEU		68.39	2015	0.6	1.4
Heidelberger Beton Karlsruhe GmbH &Co. KG	Karlsruhe, DEU		44.44	2015	0.2	-0.4
Heidelberger Fließestrich Südwest GmbH [2]	Eppelheim, DEU		64.17	2015	0.3	0.1
Hessisches Bausteinwerk Dr. Blasberg GmbH & Co. KG	Mörfelden-Walldorf, DEU		47.08	2015	3.5	2.2
ISAR-DONAU MÖRTEL-GmbH & Co. KG	Passau, DEU		33.33	2015	0.4	0.1
KANN Beton GmbH & Co KG	Bendorf, DEU		50.00	2015	0.9	-0.7
Kieswerke Flemmingen GmbH [2]	Penig, DEU		54.00	2015	2.2	0.1
Kieswerke Kieser GmbH & Co. KG [2]	Gotha, DEU		51.00	2015	0.3	0.1
Kronimus Aktiengesellschaft	Iffezheim, DEU	24.90	24.90	2015	22.6	0.7
Kronimus SAS	Metz, FRA		43.60	2015	4.2	0.0
KVB Kies- Vertrieb GmbH & Co. KG	Karlsdorf-Neuthard, DEU		24.46	2015	0.1	0.0
Materiaux Traites du Hainaut S.A.	Antoing, BEL		50.00	2015	0.5	-0.2
MERMANS BETON N.V.	Arendonk, BEL		50.00	2015	0.2	0.0
Misburger Hafengesellschaft mit beschränkter Haftung	Hannover, DEU	39.66	39.66	2015	0.6	0.2
Mittelschwäbische Transport- und Frischbeton- Gesellschaft mit beschränkter Haftung & Co. Kommanditgesellschaft	Thannhausen, DEU		34.21	2015	0.3	0.1
NCD Nederlandse Cement Deelnemingsmaatschappij B.V. [4]	Nieuwegein, NLD	36.88	36.88	2015	0.6	0.0
Nederlands Cement Transport Cetra B.V.	Uithoorn, NLD		50.00	2015	2.3	0.4
Peene Kies GmbH	Jarmen, DEU		24.90	2015	4.1	0.2
Raunheimer Quarzsand GmbH & Co. KG	Raunheim, DEU		50.00	2015	1.6	0.2
Raunheimer Sand- und Kiesgewinnung Blasberg GmbH & Co. KG	Raunheim, DEU		23.53	2015	0.5	0.5
RECIBETON S.A.	Liège, BEL		42.73	2015	0.0	0.0
S.A.F.R.A. S.r.l. - in liquidazione [4]	Bologna, ITA		33.33	2015	1.3	-1.3
San Francesco S.c.a.r.l.	Perugia, ITA		45.71	2015	4.1	-0.3
SBU Sandwerke Dresden GmbH	Dresden, DEU		24.00	2015	2.4	-0.1
Schwaben Mörtel GmbH u. Co. KG	Stuttgart, DEU		30.00	2015	0.5	0.1
Stinkal S.a.s.	Ferques, FRA		35.00	2015	-7.4	-2.1
Südbayerisches Portland-Zementwerk Gebr. Wiesböck & Co. GmbH	Rohrdorf, DEU	23.90	23.90	2015	367.5	26.6
TBG Bayerwald Transportbeton GmbH & Co. KG	Fürstenzell, DEU		50.00	2015	0.2	0.0
TBG Deggendorfer Transportbeton GmbH	Deggendorf, DEU		33.33	2015	1.6	0.5
TBG Pegnitz-Beton GmbH & Co. KG	Hersbruck, DEU		28.00	2015	0.1	0.1
TBG Transportbeton Caprano GmbH & Co. KG	Heidelberg, DEU		50.00	2015	0.1	0.0
TBG Transportbeton GmbH & Co. KG Betonpumpendienst [2]	Nabburg, DEU		52.54	2015	0.8	0.8
TBG Transportbeton GmbH & Co.KG Lohr-Beton	Lohr am Main, DEU		50.00	2015	0.2	0.3
TBG Transportbeton Rhein-Donau-Raum GmbH & Co.KG	Singen, DEU		36.90	2015	0.3	0.3

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
TBG Transportbeton Schleiz GmbH & Co. KG i.L. [4] [5]	Schleiz, DEU		50.00	-	-	-
TBG Transportbeton Selb GmbH & Co. KG	Selb, DEU		33.33	2015	0.5	0.3
TBG Transportbeton Werner GmbH & Co. KG	Dietfurt a.d. Altmühl, DEU		40.83	2015	0.1	0.2
TBM Transportbeton-Gesellschaft mbH Marienfeld & Co. KG [2]	Marienfeld, DEU		85.94	2015	0.1	0.1
Transbeton Gesellschaft mit beschränkter Haftung & Co Kommanditgesellschaft	Löhne, DEU		27.23	2015	1.8	1.2
V.o.F. Betoncentrale West-Brabant	Oud-Gastel, NLD		50.00	2015	-0.1	-1.1
Van Zanten Holding B.V.	Leek, NLD		25.00	2015	2.1	0.6
Vlissingse Transportbeton Onderneming B.V.	Vlissingen, NLD		50.00	2015	1.4	0.1
Woerdense Betonmortel Centrale B.V.	Woerden, NLD		50.00	2015	0.0	0.0
Zement- und Kalkwerke Otterbein GmbH & Co. KG	Müs, DEU	38.10	38.10	2015	2.4	0.1
Associates						
Northern and Eastern Europe-Central Asia						
BETONIKA plus s.r.o.	Lužec nad Vltavou, CZE		33.33	2015	3.1	0.2
Centrum Technologiczne Betotech Sp. z o.o. [2]	Dąbrowa Górnicza, POL		100.00	2015	0.3	0.1
Devnya Finance AD	Devnya, BGR		49.96	2015	2.5	0.0
LOMY MOŘINA spol. s r.o.	Mořina, CZE		48.95	2015	13.4	1.0
PREFA Grygov a.s. [2]	Grygov, CZE		54.00	2015	2.8	0.1
Sola Betong AS	Tananger, NOR		33.33	2015	2.9	0.3
SP Bohemia, k.s. [2]	Kraluv Dvur, CZE		75.00	2015	7.3	0.3
Tangen Eiendom AS	Brevik, NOR		50.00	2015	2.7	0.2
TBG Louny s.r.o.	Louny, CZE		33.33	2015	0.9	0.1
TBG PKS a.s.	Žďár nad Sázavou, CZE		29.70	2015	1.9	0.1
Vassiliko Cement Works Ltd.	Nicosia, CYP		25.96	2015	225.1	13.1
Associates						
North America						
Cemstone Products Company [5]	St. Paul, USA		49.45	-	-	-
Cemstone Ready-Mix, Inc. [5]	Madison, USA		44.01	-	-	-
Chandler Concrete/Piedmont, Inc.	Raleigh, USA		33.33	2015	0.0	0.0
Chaney Enterprises Limited Partnership [5]	Olympia, USA		25.00	-	-	-
KHB Venture LLC [5]	Boston, USA		33.33	-	-	-
RF Properties East, LLC [5]	Baltimore, USA		25.00	-	-	-
RF Properties, LLC [5]	Baltimore, USA		25.00	-	-	-
Southstar Limited Partnership [5]	Annapolis, USA		25.00	-	-	-
Sustainable Land Use, LLC [5]	Baltimore, USA		25.00	-	-	-
Twin City Concrete Products Co. [5]	St. Paul, USA		33.63	-	-	-
Associates						
Asia-Pacific						
PT Bhakti Sari Perkasa Bersama	Jakarta, IDN		15.30	2015	0.1	0.0
PT Cibinong Center Industrial Estate	Bogor, IDN		25.50	2015	5.7	1.8
PT Pama Indo Mining	Jakarta, IDN		20.39	2015	4.9	1.5

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Associates						
Africa-Eastern Mediterranean Basin						
Asment Temara S.A.	Témara, MAR		37.01	2015	45.9	8.9
Fortia Cement S.A.	Lome, TGO		46.97	2015	10.4	0.2
Tecno Gravel Egypt S.A.E.	Cairo, EGY		22.89	2015	3.7	0.7

The following subsidiaries are reflected in the consolidated financial statements at cost (available for sale at cost) due to their immateriality.

Immaterial subsidiaries						
Western and Southern Europe						
Azienda Agricola Lodoletta S.r.l.	Bergamo, ITA		75.00	2015	0.6	0.1
Betotech Baustofflabor GmbH	Heidelberg, DEU	100.00	100.00	2015	0.3	0.0
CEMLAPIS Warstein Verwaltungsgesellschaft mbH	Warstein, DEU	100.00	100.00	2015	0.0	0.0
Donau Kies Verwaltungs GmbH	Fürstenzell, DEU		75.00	2015	0.0	0.0
Ecoinerti S.r.l. - in liquidazione [4]	Macerata, ITA		100.00	2015	0.1	0.0
Entreprise Lorraine d'Agriculture - ELDA S.à r.l.	Heillecourt, FRA		100.00	2015	0.1	0.0
Etablissement F.S. Bivois SARL	Strasbourg, FRA		60.00	2015	0.1	-0.3
Euroc (U.K.) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
Greystone Ambient & Style GmbH & Co. KG	Lingenfeld, DEU		60.00	2015	0.1	-0.1
Greystone Ambient & Style Verwaltungsgesellschaft mbH	Lingenfeld, DEU		60.00	2015	0.0	0.0
Hanson Aggregates Verwaltungs-GmbH	Leinatal, DEU		100.00	2015	0.1	0.0
HeidelbergCement Construction Materials Italia S.r.l. [5]	Milan, ITA	100.00	100.00	-	-	-
HeidelbergCement Grundstücksverwaltungsgesellschaft mbH	Heidelberg, DEU	100.00	100.00	2015	0.1	0.0
HeidelbergCement Shared Services GmbH	Leimen, DEU	100.00	100.00	2015	0.1	0.0
HeidelbergCement Technology Center GmbH	Heidelberg, DEU		100.00	2015	0.0	-
HeidelbergCement, Funk & Kapphan Grundstücksverwaltungsgesellschaft mbH	Heidelberg, DEU	80.00	80.00	2015	0.0	0.0
Heidelberger Beton Aschaffenburg Verwaltungs-GmbH	Aschaffenburg, DEU		70.74	2015	0.0	0.0
Heidelberger Beton Aue-Schwarzenberg Verwaltungs-GmbH	Schwarzenberg, DEU		100.00	2015	0.0	0.0
Heidelberger Beton Donau-Naab Verwaltungsgesellschaft mbH	Burglengenfeld, DEU		81.67	2015	0.0	0.0
Heidelberger Beton Inntal Verwaltungs-GmbH	Altötting, DEU		68.39	2015	0.0	-0.1
Heidelberger Beton Personal-Service GmbH	Heidelberg, DEU		100.00	2015	0.1	0.0
Heidelberger Betonelemente Verwaltungs-GmbH	Chemnitz, DEU		83.00	2015	0.0	0.0
Heidelberger Betonpumpen Rhein-Main-Nahe Verwaltungs-GmbH	Bad Kreuznach, DEU		93.74	2015	0.0	0.0
Heidelberger Kalksandstein Grundstücks- und Beteiligungs-Verwaltungs-GmbH	Durmersheim, DEU		100.00	2015	0.0	0.0
Heidelberger KS Beteiligungen Deutschland Verwaltungsgesellschaft mbH	Heidelberg, DEU		100.00	2015	0.0	0.0
I.T.S. Toogood SPRL	Sint-Genesius-Rode, BEL		100.00	2015	0.1	0.1
Interoc (UK) Limited	Maidenhead, GBR		100.00	2015	0.0	0.0
K&K Verwaltungs-GmbH	Polch, DEU	70.00	100.00	2015	0.1	0.0
Kalko B.V.	's-Hertogenbosch, NLD		100.00	2015	0.0	0.0
Kieswerke Kieser Verwaltungs-GmbH	Gotha, DEU		51.00	2015	0.0	0.0
KS-QUADRO Bausysteme GmbH	Durmersheim, DEU		100.00	2015	0.1	0.0
Lindustries (D) Limited [5]	London, GBR		100.00	-	-	-
Lithonplus Verwaltungs-GmbH	Lingenfeld, DEU		60.00	2015	0.0	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Matériaux de Boran S.A.	Boran-sur-Oise, FRA		99.80	2015	0.1	0.0
NOHA Norddeutsche Hafenumschlagsgesellschaft mbH	Cadenberge, DEU		60.00	2015	0.1	-
Paderborner Transport-Beton-Gesellschaft mit beschränkter Haftung	Paderborn, DEU		75.00	2015	0.0	0.0
Rederij Cement-Tankvaart B.V.	Amsterdam, NLD		66.66	2015	4.7	0.6
SCI Bicowal	Strasbourg, FRA		60.00	2015	0.0	0.0
SCI de Balloy	Avon, FRA		100.00	2015	0.0	0.0
SMW Sand und Mörtelwerk Verwaltungs-GmbH	Königs Wusterhausen, DEU		100.00	2015	0.0	0.0
Société Civile d'Exploitation Agricole de l'Avesnois	Guerville, FRA		80.00	2015	0.0	0.0
SPRL Ferme de Wisempierre	Saint-Maur-Ere, BEL		100.00	2015	3.3	0.0
TBG Ilm-Beton Verwaltungs-GmbH	Arnstadt, DEU		55.00	2015	0.0	0.0
TBG Transportbeton Reichenbach Verwaltungs-GmbH	Reichenbach, DEU		70.00	2015	0.0	0.0
TBG WIKA-Beton Verwaltungs-GmbH	Stade, DEU		100.00	2015	0.0	0.0
TBM Transportbeton-Gesellschaft mit beschränkter Haftung Marienfeld	Harsewinkel, DEU		85.94	2015	0.0	0.0
Verwaltungsgesellschaft Baustoffwerke Dresden mbH	Dresden, DEU		51.00	2015	0.2	0.0
WIKA Sand und Kies Verwaltungs-GmbH	Stade, DEU		100.00	2015	0.0	0.0
WTG Walhalla Transportbeton GmbH & Co. KG	Regensburg, DEU		81.67	2015	0.4	0.2
Immaterial subsidiaries						
Northern and Eastern Europe-Central Asia						
8 Vershin LLP	Almaty, KAZ		100.00	2015	0.2	0.0
Agromir Sp. z o.o. [5]	Chorula, POL		100.00	-	-	-
Agrowelt Sp. z o.o.	Chorula, POL		100.00	2015	0.7	0.0
Azer-E.S. Limited Liability Company	Baku, AZE	100.00	100.00	2015	0.0	0.0
Bukhtarma TeploEnergo LLP	Oktyabrskiy village, KAZ		100.00	2015	-1.1	0.0
Bukhtarma Vodokanal LLP	Oktyabrskiy village, KAZ		100.00	2015	-0.2	0.0
Center Cement Plus Limited Liability Partnership	Astana, KAZ		100.00	2015	1.2	0.1
Donau Kies Bohemia Verwaltungs, s.r.o.	Pilsen, CZE		75.00	2015	0.0	0.0
Eurotech Cement S.h.p.k.	Durrës, ALB		92.40	2015	-2.2	-0.5
Fastighets AB Lövholmen 1 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 10 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 11 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 2 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 3 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 4 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 5 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 6 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 7 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 8 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets AB Lövholmen 9 [5]	Stockholm, SWE		100.00	-	-	-
Fastighets Söder om Kalkbrottet 1 AB [5]	Malmö, SWE		100.00	-	-	-
Fastighets Söder om Kalkbrottet 2 AB [5]	Malmö, SWE		100.00	-	-	-
Fastighets Söder om Kalkbrottet 3 AB [5]	Malmö, SWE		100.00	-	-	-
Fastighets Söder om Kalkbrottet 4 AB [5]	Malmö, SWE		100.00	-	-	-

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Fastighets Söder om Kalkbrottet Holding AB [5]	Malmö, SWE		100.00	-	-	-
Geo Nieruchomości Sp. z o.o.	Chorula, POL		100.00	2015	0.1	0.0
Heidelberg Vostok-Cement LLP	Almaty, KAZ		100.00	2015	0.5	0.0
HeidelbergCement Services - LLP	Almaty, KAZ		100.00	2015	0.1	0.0
MIXT Sp. z o.o.	Chorula, POL		100.00	2015	0.7	0.0
OOO HC Yug	Strelica, RUS		100.00	2015	0.0	0.1
Podgrodzie Sp. z o.o.	Wroclaw, POL		100.00	2015	3.4	-0.1
Polgrunt Sp. z o.o.	Chorula, POL		100.00	2015	0.0	0.0
SABIA spol. s r.o.	Bohusovice nad Ori, CZE		60.00	2015	0.2	0.0
Shqiperia Cement Company Shpk [5]	Tirana, ALB		100.00	-	-	-
TRANS-SERVIS,spol. s r.o.	Králův Dvůr, CZE		100.00	2015	2.4	0.2
VAPIS stavební hmoty s.r.o.	Praha, CZE		51.00	2015	0.2	0.0
Immaterial subsidiaries						
North America						
Cadman Holding Co., Inc. [5]	Olympia, USA		100.00	-	-	-
Carroll Canyon Property LLC [5]	Wilmington, USA		100.00	-	-	-
Cementi Meridionali Ltd. [5]	Tortola, VGB		100.00	-	-	-
EPC VA 121, LLC [5]	Richmond, USA		100.00	-	-	-
HA Properties IN, LLC [5]	Indianapolis, USA		100.00	-	-	-
HA Properties KY, LLC [5]	Frankfort, USA		100.00	-	-	-
HA Properties NY II, LLC [5]	Albany, USA		100.00	-	-	-
HA Properties NY, LLC [5]	Albany, USA		100.00	-	-	-
HA Properties SC, LLC [5]	Greenville, USA		100.00	-	-	-
Hanson (ER-No 16) Inc. [5]	Wilmington, USA		100.00	-	-	-
Hanson Aggregates Contracting, Inc. [5]	Sacramento, USA		100.00	-	-	-
Hanson Aggregates Properties TX, LLC [5]	Austin, USA		100.00	-	-	-
Hanson Finance America, Inc. [5]	Wilmington, USA		100.00	-	-	-
HP&P SE Properties SC LLC [5]	Columbia, USA		100.00	-	-	-
HP&P SE Properties VA LLC [5]	Richmond, USA		100.00	-	-	-
HSC Cocoa Property Reserve, LLC [5]	Tallahassee, USA		100.00	-	-	-
HSPP Properties BMC Ohio LLC [5]	Olympia, USA		100.00	-	-	-
HSPP Properties Ohio LLC [5]	Columbus, USA		100.00	-	-	-
HSPP Properties PMA Ohio LLC [5]	Olympia, USA		100.00	-	-	-
HSPP Properties Tennessee LLC [5]	Nashville, USA		100.00	-	-	-
Industrial Del Fresno SA [5]	Mexico City, MEX		76.00	-	-	-
Kidde Industries, Inc. [5]	Wilmington, USA		100.00	-	-	-
Lehigh Northeast Cement Company [5]	Albany, USA		100.00	-	-	-
Lehigh Portland New York LLC [5]	Albany, USA		100.00	-	-	-
Lucas Coal Company, Inc [5]	Harrisburg, USA		100.00	-	-	-
Magnum Minerals, Inc. [5]	Harrisburg, USA		100.00	-	-	-
Mediterranean Carriers, Inc. [5]	Panama City, PAN		100.00	-	-	-
Piedras y Arenas Baja SA de CV [5]	Tijuana, MEX		100.00	-	-	-

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [6]	Equity in € million [7]	Net income in € million [8]
Plum Run Lake, LLC [5]	Columbus, USA		100.00	-	-	-
PUSH NA Holdings, Inc. [5]	Wilmington, USA		100.00	-	-	-
Sherman-Abetong, Inc. [5]	Montgomery, USA		100.00	-	-	-
South Coast Materials Company [5]	Sacramento, USA		100.00	-	-	-
SunCrete Rooftile, Inc. [5]	Sacramento, USA		100.00	-	-	-
Total Limited [5]	Wilmington, USA		100.00	-	-	-
Immaterial subsidiaries						
Asia-Pacific						
PT Jaya Berdikari Cipta [5]	Jakarta, IDN		51.00	-	-	-
PT Tiro Abadi Perkasa [5]	Jakarta, IDN		50.98	-	-	-
Vesprapat Holding Co., Ltd. [1) 4) 5]	Bangkok, THA		49.00	-	-	-
Immaterial subsidiaries						
Africa-Eastern Mediterranean Basin						
Agadir Atlantique S.à r.l.	Casablanca, MAR		62.29	2015	0.0	0.0
C.N.A. - Cimentos Nacionais de Angola S.A. [5]	Luanda, AGO		52.61	-	-	-
Cimento de Bissau, Limitada [5]	Bissau, GNB		99.00	-	-	-
Intercom Libya F.Z.C.	Misrata, LBY		100.00	2015	-0.1	3.2
Terra Cimentos LDA [5]	Maputo, MOZ		100.00	-	-	-

The following joint ventures and associates are accounted for at cost (available for sale at cost) due to their immateriality.

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year	Equity in € million	Net income in € million
Immaterial joint ventures and associates						
Western and Southern Europe						
Alzagri NV	Brugge, BEL		50.00	2015	0.8	-0.2
Baustoff- und Umschlags-GmbH	Mosbach, DEU		38.23	2015	0.2	0.0
Béton Contrôle de l'Elorn S.à r.l.	Landerneau, FRA		21.76	2015	1.7	0.1
Betonpumpen-Service Niedersachsen Verwaltungs-GmbH	Hannover, DEU		50.00	2015	0.0	0.0
C. & G. Concrete Limited [4) 5]	Leeds, GBR		23.48	-	-	-
Calcaires de la Rive Gauche I SPRL	Obourg, BEL		35.00	2015	5.4	-0.2
Cava delle Capannelle S.r.l.	Bergamo, ITA		49.00	2015	0.6	0.0
Commerciale Inerti S.r.l. [5]	Lodi, ITA		33.33	-	-	-
DONAU MÖRTEL-Verwaltungs-GmbH	Passau, DEU		50.00	2015	0.0	0.0
Dunkerque Ajouts SNC	Grande-Synthe, FRA		33.75	2015	2.8	0.1
Ernst Marschall GmbH & Co. KG Kies- und Schotterwerke	Kressbronn, DEU		19.96	2015	4.0	0.6
Eurocalizas S.L. [5]	Santander, ESP		33.31	-	-	-
Fertigbeton (FBU) GmbH & Co Kommanditgesellschaft Unterwittbach [2]	Unterwittbach, DEU		57.14	2015	0.2	0.1
Gebrüder Willersinn Industriesandwerk Verwaltungsgesellschaft mit beschränkter Haftung [5]	Raunheim, DEU		33.33	-	-	-
GIE des Terres de Mayocq	Le Crotoy, FRA		32.50	2015	0.0	0.0
GIE GM [2]	Versailles, FRA		63.00	2015	0.0	0.0
GIE Sud Atlantique	La Rochelle, FRA		25.00	2015	0.0	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Granulats Marins de Normandie GIE [5]	Le Havre, FRA		32.50	-	-	-
Hafenbetriebs- und Beteiligungs-GmbH, Stade	Stade, DEU		50.00	2015	0.1	0.0
Haitz Betonwerk GmbH & Co. KG	Au am Rhein, DEU		21.05	2015	0.4	0.0
Haitz Betonwerk Verwaltungs-GmbH	Au am Rhein, DEU		21.08	2015	0.1	0.0
Heidelberger Beton Donau-Iller Verwaltungs-GmbH [2]	Unterelchingen, DEU		80.65	2015	0.1	0.0
Heidelberger Beton Elster-Spree Verwaltungs-GmbH [2]	Cottbus, DEU		60.00	2015	0.0	0.0
Heidelberger Beton Franken Geschäftsführungs-GmbH [2]	Fürth, DEU		90.00	2015	0.0	0.0
Heidelberger Beton Gersdorf GmbH & Co. KG	Gersdorf, DEU		50.00	2015	0.1	0.1
Heidelberger Beton Gersdorf Verwaltungs- und Beteiligungs-GmbH	Gersdorf, DEU		50.00	2015	0.0	0.0
Heidelberger Beton Grenzland Verwaltungs-GmbH	Marktredwitz, DEU		50.00	2015	0.0	0.0
Heidelberger Beton Karlsruhe Verwaltungs-GmbH	Karlsruhe, DEU		44.44	2015	0.0	0.0
Heidelberger Beton Kurpfalz Verwaltungs-GmbH [2]	Eppelheim, DEU		51.11	2015	0.0	0.0
Heidelberger Beton Verwaltungs GmbH Stuttgart	Remseck a. N., DEU		50.00	2015	0.0	0.0
Heidelberger Betonpumpen Simonis Verwaltungs-GmbH [2]	Ubstadt-Weiher, DEU		57.32	2015	0.0	0.0
Hormigones Mecanizados, S.A.	Palma de Mallorca, ESP		33.33	2015	0.2	0.0
Hormigones Olatzi S.A [5]	Olazagutia, ESP		24.99	-	-	-
Hormigones Txingudi S.A.	San Sebastián, ESP		33.31	2015	0.1	0.0
ISAR-DONAU MÖRTEL-Verwaltungs-GmbH	Plattling, DEU		33.33	2015	0.0	0.0
Kalksandstein-Service Rhein-Main-Neckar GmbH [2] [5]	Ludwigshafen, DEU		59.30	-	-	-
Kalksandsteinwerk Amberg GmbH & Co. KG [2]	Ebermannsdorf, DEU		50.10	2015	1.6	0.3
Kalksandsteinwerk Amberg Verwaltungs-GmbH [2]	Ebermannsdorf, DEU		50.10	2015	0.1	0.0
KANN Beton Verwaltungsgesellschaft mbH	Bendorf, DEU		50.00	2015	0.0	0.0
Kieswerk Langsdorf GmbH [2]	Langsdorf, DEU		62.45	2015	1.7	0.1
KVB Verwaltungs- und Beteiligungs-GmbH	Karlsdorf-Neuthard, DEU		24.41	2015	0.0	0.0
Les Calcaires Sud Charentes SCI	Cherves-Richemont, FRA		34.00	2015	0.0	0.0
Lippe-Kies GmbH & Co. KG	Delbrück, DEU		50.00	2015	0.2	0.0
Lippe-Kies Verwaltungs GmbH	Delbrück, DEU		50.00	2015	0.0	0.0
Maritime Logistics Agency S.r.l. [5]	Milan, ITA		25.00	-	-	-
Medcem S.r.l.	Naples, ITA		50.00	2015	4.9	-2.1
Mittelschwäbische Transport- und Frischbeton Gesellschaft mit beschränkter Haftung	Thannhausen, DEU		35.96	2015	0.0	0.0
MTB Maritime Trading & Brokerage S.r.l.	Genova, ITA		33.33	2015	1.1	-0.2
Münchner Mörtel GmbH & Co. KG	München, DEU		20.00	2015	0.1	0.1
Münchner Mörtel Verwaltungsges. mbH	München, DEU		20.00	2015	0.0	0.0
MWK Kies Verwaltungs-GmbH	Kressbronn, DEU		20.00	2015	0.0	0.0
Neuciclaje S.A.	Bilbao, ESP		29.98	2015	1.5	0.0
Nordhafen Stade-Bützfleth Verwaltungsgesellschaft mbH	Stade, DEU		20.00	2015	0.0	0.0
Novhorvi S.A. [5]	Vitoria, ESP		24.99	-	-	-
Otterbein Gesellschaft mit beschränkter Haftung	Großenlüder, DEU	20.00	20.00	2015	0.0	0.0
Prometeo Lucania S.r.l.	Alessandria, ITA		24.00	2015	0.1	0.0
Recybel S.A.	Bruxelles, BEL		25.50	2015	0.1	0.0
Recyfuel S.A.	Bruxelles, BEL		50.00	2015	14.2	0.6
Reederei B & B Beteiligungs GmbH [5]	Cadenberge, DEU		50.00	-	-	-
Schwaben-Mörtel Beteiligungs GmbH	Stuttgart, DEU		30.00	2015	0.0	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
SCI de Barbeau [5]	Gray-Sur-Seine, FRA		49.00	-	-	-
SCI des Granets	Cayeux-sur-mer, FRA		33.33	2015	0.0	0.0
SCI Les Calcaires de Taponnat [5]	Cherves-Richemont, FRA		50.00	-	-	-
SCRL du Port Autonome du Centre et de l'Ouest	Louvière, BEL		2.39	2015	24.5	-0.2
Société Civile Bachant le Grand Bonval [2]	Guerville, FRA		80.00	2015	0.0	0.0
TBG Bayerwald Verwaltungs-GmbH	Fürstenzell, DEU		50.00	2015	0.0	0.0
TBG Pegnitz-Beton Verwaltungsgesellschaft mbH	Hersbruck, DEU		28.00	2015	0.0	0.0
TBG Pinzl GmbH & Co. KG	Simbach a. Inn, DEU		34.20	2015	0.1	0.3
TBG Pinzl Verwaltung GmbH	Simbach a. Inn, DEU		34.20	2015	0.0	0.0
TBG Transportbeton Caprano Verwaltungs-GmbH	Heidelberg, DEU		50.00	2015	0.0	0.0
TBG Transportbeton Gesellschaft mit beschränkter Haftung	Schwäbisch Hall, DEU		25.00	2015	0.0	0.0
TBG Transportbeton Gesellschaft mit beschränkter Haftung & Co. KG. Hohenlohe	Schwäbisch Hall, DEU		25.00	2015	0.3	0.2
TBG Transportbeton Lohr Verwaltungsgesellschaft mbH	Lohr am Main, DEU		50.00	2015	0.0	0.0
TBG Transportbeton Mittweida Verwaltungs-GmbH [5]	Mittweida, DEU		40.00	-	-	-
TBG Transportbeton Oder-Spree Verwaltungs-GmbH	Wriezen, DEU		50.00	2015	0.0	0.0
TBG Transportbeton Reichenbach GmbH & Co. KG [2]	Reichenbach, DEU		70.00	2015	0.7	-0.1
TBG Transportbeton Rhein-Donau-Raum Verwaltungs-GmbH	Singen, DEU		36.90	2015	0.0	0.0
TBG Transportbeton Schleiz Verwaltungs-GmbH i.L. [4] [5]	Schleiz, DEU		50.00	-	-	-
TBG Transportbeton Selb Verwaltungsgesellschaft mbH	Selb, DEU		33.33	2015	0.0	0.0
TBG Transportbeton Verwaltungsgesellschaft mbH [5]	Nabburg, DEU		50.00	-	-	-
TBG Transportbeton Werner Verwaltungsgesellschaft mbH	Dietfurt a.d. Altmühl, DEU		40.83	2015	0.0	0.0
TBG Transportbeton Westpfalz GmbH & Co. KG	Pirmasens, DEU		50.00	2015	0.3	0.1
TBG Transportbeton Westpfalz Verwaltungs GmbH	Pirmasens, DEU		50.00	2015	0.0	0.0
TBG Zusam-Beton GmbH & Co. KG	Dinkelscherben, DEU		37.20	2015	0.6	0.3
Tournai Ternaire S.A.	Tournai, BEL		50.00	2015	0.0	-0.1
Transbeton Gesellschaft mit beschränkter Haftung	Löhne, DEU		27.23	2015	0.0	0.0
Transportbeton Johann Braun Geschäftsführungs GmbH	Tröstau, DEU		37.75	2015	0.0	0.0
Transportbeton Johann Braun GmbH & Co. KG	Tröstau, DEU		37.75	2015	0.1	0.5
Transportbeton Meschede Gesellschaft mit beschränkter Haftung	Meschede, DEU		44.81	2015	0.0	0.0
Transportbeton Meschede GmbH & Co. KG	Meschede, DEU		44.81	2015	0.1	0.1
Urzeit Weide GbR	Schelklingen, DEU	50.00	50.00	2015	0.0	0.0
Verwaltungsgesellschaft mit beschränkter Haftung TRAPOBET Transportbeton Kaiserslautern	Kaiserslautern, DEU		50.00	2015	0.0	0.0
WIKING Baustoff- und Transport Gesellschaft mit beschränkter Haftung	Soest, DEU		50.00	2015	0.0	0.0
Immaterial joint ventures and associates						
Northern and Eastern Europe-Central Asia						
AB Akmenės Cementas	Naujoji Akmene, LTU		8.65	2015	65.8	-4.9
AB Stebo	Göteborg, SWE		50.00	2015	0.1	0.0
AB Strömstadsbetong	Göteborg, SWE		33.00	2015	0.0	-
AB Strömstadsbetong & Co Kommanditbolag	Göteborg, SWE		33.00	2015	0.6	0.1
Bukhtarma Teplo Tranzit LLP	New Bukhtarma village, KAZ		20.00	2015	-0.1	-
Dobrotitsa BSK AD	Dobrich, BGR		26.38	2015	-0.4	-0.2
Velkolom Čertovy schody, akciová společnost	Tmaň, CZE		50.00	2015	6.7	0.1

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [6]	Equity in € million [7]	Net income in € million [8]
Immaterial joint ventures and associates						
North America						
Groupe Ciment Quebec Inc. [5]	Saint-Basile, CAN		50.00	-	-	-
Innocon Inc. [5]	Richmond Hill, CAN		50.00	-	-	-
Innocon Partnership [5]	Richmond Hill, CAN		50.00	-	-	-
Newbury Development Associates, LP [5]	Bridgeville, USA		35.00	-	-	-
Newbury Development Management, LLC [5]	Bridgeville, USA		35.00	-	-	-
Immaterial joint ventures and associates						
Asia-Pacific						
Diversified Function Sdn Bhd	Kuala Lumpur, MYS		50.00	2015	0.0	0.0
Kulai Batu Quarry Sdn Bhd [4) 5]	Kuala Lumpur, MYS		50.00	-	-	-
Pomphen Prathan Company Limited [4) 5]	Bangkok, THA		49.70	-	-	-
PT Makmur Lestari Indonesia [5]	Jakarta, IDN		24.91	-	-	-
Sanggul Suria Sdn Bhd	Kuala Lumpur, MYS		45.00	2015	0.0	0.0
Immaterial joint ventures and associates						
Africa-Eastern Mediterranean Basin						
Ceval GIE [5]	Casablanca, MAR		24.84	-	-	-
Maestro Drymix S.A.	Casablanca, MAR		31.16	2015	0.5	0.0
Union Cement Norcem C.o. (W.L.L.) [5]	Ras Al Khaimah, ARE		40.00	-	-	-

1) Controlling influence through contractual arrangements and/or legal regulations
2) Absence of controlling influence through contractual arrangements and/or legal regulations
3) The company makes use of the exemption from disclosure obligations in accordance with § 264b of the German Commercial Code (HGB).
4) In liquidation
5) Information on equity and earnings is omitted pursuant to Section 286 Subsection 3 Sentence 1 No. 1 of the HGB if such information is of minor relevance for a fair presentation of the financial position, cash flows and profitability of HeidelbergCement AG.
6) Last fiscal year for which financial statements are available.
7) Translated with the closing rate of the fiscal year for which financial statements are available.
8) Translated with the average rate of the fiscal year for which financial statements are available.

Heidelberg, 15 March 2017

HeidelbergCement AG

The Managing Board

Audit opinion

We have audited the consolidated financial statements prepared by HeidelbergCement AG, Heidelberg, comprising the income statement, the statement of comprehensive income, the statement of cash flows, the balance sheet and the statement of changes in equity and the notes to the consolidated financial statements, together with the combined management report of the HeidelbergCement Group and HeidelbergCement AG for the financial year from 1 January to 31 December 2016. The preparation of the consolidated financial statements and the combined management report in accordance with IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB ("Handelsgesetzbuch": German Commercial Code) and the supplementary provisions of the Articles of Association of the parent company is the responsibility of the Company's management. Our responsibility is to express an opinion on the consolidated financial statements and the combined management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with Sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the financial position and performance in the consolidated financial statements in accordance with the applicable financial reporting framework and in the combined management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the combined management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the combined management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs as adopted by the EU, the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB and the supplementary provisions of the Articles of Association of the parent company and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The combined management report is consistent with the consolidated financial statements, complies with the legal requirements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Stuttgart, 15 March 2017

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Somes	Viering
Wirtschaftsprüferin	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Responsibility statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position, and profit or loss of the Group, and the Group management report, which has been combined with the management report of HeidelbergCement AG, includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Heidelberg, 15 March 2017

HeidelbergCement AG

The Managing Board

Dr. Bernd Scheifele

Dr. Dominik von Achten

Kevin Gluskie

Hakan Gurdal

Jon Morrish

Dr. Lorenz Näger

Dr. Albert Scheuer

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Additional information

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Back Cover: Cement capacities as well as aggregates reserves and resources

Group/Global functions and Country Managers

Group/Global functions

Group functions	
Day, Gareth	Director Group Strategy & Development and Cementitious Materials
Gärtner, Dr. Wolfram	Director Group Legal (acting)
Kozelka, Rolf	Director Group Tax
Lentz, Dennis	Director Group Information Technology
Ploss, Dr. Ines	Director Group Purchasing
Sauerland, Dr. Carsten	Director Group Reporting, Controlling & Consolidation
Schaller, Andreas	Director Group Communication & Investor Relations
Schnurr, Andreas	Director Group Human Resources and Group Compliance
Schwind, Klaus	Director Group Shared Service Center
Sukanto, Tju Lie	Director Group Internal Audit
Toborek, Anna	Director Group Corporate Finance
Vandenberghe, Marc	Director Group Insurance & Corporate Risk Management
Weig, Severin	Director Group Treasury
Global Heidelberg Technology Center (HTC)	
Gupta, Akhilesh	Director Global HTC
Bertola, Arnaldo	President HTC North America
Breyer, Robert	Director HTC Northern and Eastern Europe-Central Asia
Clausi, Antonio	Director HTC Africa-Eastern Mediterranean Basin
Conrads, Axel	Director HTC Western and Southern Europe
Defalque, Juan-Francisco	Director HTC Asia-Pacific
Global Research & Development	
Dienemann, Dr. Wolfgang	Director Global Research & Development
Global Product Innovation	
Borgarello, Enrico	Director Global Product Innovation
Global Competence Center Materials (CCM)	
Smith, Chuck	Director Global Competence Center Materials
Global Competence Center Readymix (CCR)	
Pearson, Tony	Director Global Competence Center Readymix
Global Environmental Sustainability	
Lukas, Peter	Director Global Environmental Sustainability
Global Logistics	
Middendorf, Kay	Director Global Logistics
Global Market Intelligence & Sales Processes	
Hogan, David	Director Global Market Intelligence & Sales Processes
Global Product Marketing	
Zaffaroni, Fortunato	Director Global Product Marketing
HC Trading	
Adigüzel, Emir	Chief Executive Officer International Trade (HC Trading)

Country Managers

Western and Southern Europe		
Belgium/Netherlands	Streicher, Christoph	General Manager Belgium/Netherlands
France/Belgium/Netherlands	Junon, Jean-Marc	General Manager France/Belgium/Netherlands
Germany	Knell, Christian	General Manager Germany
Italy	Callieri, Roberto	General Manager Italy
Spain	Ortiz, Jesús	General Manager Spain
United Kingdom	Cooper, Daniel	Chief Executive Officer UK

Northern and Eastern Europe-Central Asia		
Denmark/Estonia/Iceland/Latvia/Lithuania/Norway/Sweden	Brantenberg, Giv	General Manager Northern Europe
Bosnia & Herzegovina/Croatia	Muidža, Branimir	General Manager Bosnia & Herzegovina/Croatia
Bulgaria/Greece/Albania	Costa, Stefano	General Manager Bulgaria/Greece/Albania
Czech Republic	Chuděj, Karel	General Manager Czech Republic
Georgia	Hampel, Michael	General Manager Georgia
Hungary	Szarkándi, János	General Manager Hungary
Kazakhstan	Kempe, Roman	General Manager Kazakhstan
Poland	Jelito, Ernest	General Manager Poland
Romania	Aldea, Dr. Florian	General Manager Romania
Russia	Polendakov, Mihail	General Manager Russia
Ukraine	Thiede, Silvio	General Manager Ukraine

North America	
Dolan, Dennis	Regional President North
Heller, Glenn	Regional President South
Saragusa, Kari	Regional President West
Ward, Chris	Regional President Canada

Asia–Pacific		
Australia	Schacht, Phil	Chief Executive Officer Australia
Bangladesh/Brunei	Ugarte, Marcelino	General Manager Bangladesh & Brunei
China	Jamar, Jean-Claude	Chief Executive Officer China
India	Cooper, Jamshed	Chief Executive Officer and Managing Director India
Indonesia	Kartawijaya, Christian	Chief Executive Officer Indonesia
Malaysia	Thornton, John	General Manager Malaysia
Thailand	Dealberti, Claudio	General Manager Thailand

Africa-Eastern Mediterranean Basin		
Egypt	Magrina, José Maria	General Manager Egypt
Ghana/Liberia/Sierra Leone/Gambia	Gåde, Morten	General Manager Ghana/Liberia/Sierra Leone/Gambia
Israel	Priel, Eliezer	General Manager Israel
Morocco/Mauritania	Francis, Nabil	General Manager Morocco/Mauritania
Tanzania/Mozambique/DR Congo/South Africa	Rodriguez, Alfonso	General Manager Tanzania/Mozambique/DR Congo/South Africa
Togo/Benin/Burkina Faso	Rygh, Endre	General Manager Togo/Benin/Burkina Faso
Turkey	Sarier, Şahap	General Manager Turkey

Glossary

Aggregates
Aggregates in the form of sand, gravel and crushed rock are used principally for concrete manufacturing or for road construction and maintenance.

Alternative fuels
Combustible substances and materials used in place of fossil fuels in the clinker-burning process.

Alternative raw materials
By-products or waste from other industries, whose chemical components make them suitable substitutes for natural raw materials. Alternative raw materials are used both in the production of clinker, the most important intermediate product in cement production, and as additives in cement grinding, in order to conserve natural raw material resources and reduce the proportion of energy-intensive clinker in cement, the end product.

Asphalt
Asphalt is manufactured from a mixture of graded aggregates, sand, filler and bitumen. It is used primarily for road construction and maintenance.

Biodiversity
Biodiversity or biological diversity is the genetic diversity within species, diversity between species and diversity of ecosystems.

Blast furnace slag
Finely ground, glassy by-product from steel production. Additive for cement.

Cement
Cement is a hydraulic binder, i.e. a finely ground inorganic material that sets and hardens by chemical interaction with water and that is capable of doing so also under water. Cement is mainly used to produce concrete. It binds the sand and gravel into a solid mass.

Cement mill
Cement grinding is the final stage of the cement manufacturing process. In cement mills, the clinker is ground into cement, with the addition of gypsum and anhydrite, as well as other additives, such as limestone, blast furnace slag or fly ash, depending on the type of cement.

Cement Sustainability Initiative
HeidelbergCement is a founding member of the Cement Sustainability Initiative (CSI), an association of 25 leading cement manufacturers worldwide to promote sustainable development under the auspices of the World Business Council for Sustainable Development (WBCSD).

Clinker (cement clinker)
Intermediate product in the cement production process that is made by heating a finely-ground raw material mixture to around 1,450° C in the cement kiln. For the manufacture of cement, the greyish-black clinker nodules are extremely finely ground. Clinker is the main ingredient in most cement types.

Commercial Paper
Bearer notes issued by companies within the framework of a Commercial Paper Programme (CP Programme) to meet short-term financing needs.

Composite cement
In composite cements, a proportion of the clinker is replaced with alternative raw materials, usually by-products from other industries, such as blast furnace slag or fly ash. Decreasing the proportion of energy-intensive clinker in cement is of critical importance for reducing energy consumption and CO_2 emissions as well as for preserving natural raw materials.

Concrete
Building material that is manufactured by mixing cement, aggregates (gravel, sand or crushed stone) and water.

Dynamic gearing ratio
Ratio of net debt to result from current operations before depreciation and amortisation (RCOBD).

EMTN programme
An EMTN (Euro Medium Term Note) programme represents a framework agreement made between the company and the banks appointed to be dealers. HeidelbergCement has the option of issuing debenture bonds up to a total volume of €10 billion under its EMTN programme.

Fly ash
Solid, particulate combustion residue from coal-fired power plants. Additive for cement.

Grinding plant
A grinding plant is a cement production facility without clinker-burning process. Delivered clinker and selected additives, depending on the type of cement, are ground into cement. Grinding plants are particularly operated at locations where suitable raw material deposits for cement production are not available.

Net debt
The sum of all non-current and current financial liabilities minus cash and cash equivalents and short-term derivatives.

Rating (credit rating).
Classification of the credit standing of debt instruments and their issuers. Specialised agencies such as Moody's Investors Service, Fitch Ratings, and S&P Global Rating produce such ratings. Ratings range from AAA or Aaa as the highest credit standing to C or D as the lowest.

Ready-mixed concrete
Concrete that is manufactured in a ready-mixed concrete facility and transported to the building site using ready-mix trucks.

Result from current operations before / after depreciation and amortisation
The result from current operations before depreciation and amortisation (RCOBD) and result from current operations (RCO) correspond to the operating income before depreciation (OIBD) and operating income (OI) reported in previous years. The change of name occurred due to the application of an ESMA directive (European Securities and Markets Authority).

Sustainability
Sustainable development signifies a development that fulfils the economic, ecological and social needs of people alive today without endangering the ability of future generations to fulfil their own needs.

Syndicated loan
Large-sized loan which is distributed ("syndicated") among several lenders for the purpose of risk spreading.

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Copies of the 2016 financial statements of HeidelbergCement AG and further information are available on request. Kindly find this Annual Report and further information about HeidelbergCement on the Internet: www.heidelbergcement.com.

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← HeidelbergCement in the world – cement capacities as well as aggregates reserves and resources

Financial calendar 2017	
Interim Financial Report January to March 2017	10 May 2017
Annual General Meeting	10 May 2017
Half-Year Financial Report January to June 2017	1 August 2017
Interim Financial Report January to September 2017	8 November 2017

HeidelbergCement in the world – cement capacities as well as aggregates reserves and resources

Cement capacities [1]	Million tonnes
Western and Southern Europe	
Belgium	4.0
France	7.7
Germany	11.0
Italy	11.1
Netherlands	4.4
Spain	2.6
United Kingdom	6.3
	47.1
Northern and Eastern Europe-Central Asia	
Bulgaria	2.2
Czechia	2.6
Estonia	1.2
Georgia	2.1
Greece	0.8
Kazakhstan	4.0
Norway	1.8
Poland	5.4
Romania	6.4
Russia	5.4
Sweden	3.2
Ukraine	4.2
	39.3
North America	
Canada	3.3
USA	13.5
	16.8
Asia-Pacific	
Bangladesh	2.5
Brunei	0.4
India	12.4
Indonesia	24.9
Thailand	5.9
	46.1
Africa-Eastern Mediterranean Basin	
Benin	0.4
Burkina Faso	0.8
DR Congo	0.5
Egypt	11.5
Ghana	4.4
Liberia	0.5
Mauritania	0.3
Morocco	4.8
Mozambique	0.4
Sierra Leone	0.6
Tanzania	2.1
Togo	0.7
	27.0
Total HeidelbergCement	176.3

1) Operational capacities based on 80 % calendar time utilisation

Cement capacities of joint ventures [2]	Million tonnes
Australia	2.7
Bosnia-Herzegovina	0.4
China	8.0
Hungary	1.7
Turkey	3.8
USA (Texas)	0.6
Total joint ventures	17.2
HeidelbergCement incl. joint ventures	193.5

2) Cement capacities according to our ownership

Aggregates reserves and resources [3]			
Billion tonnes	Reserves	Resources	Total
Western and Southern Europe	1.6	2.0	**3.6**
Northern and Eastern Europe-Central Asia	0.8	0.6	**1.4**
North America	4.3	7.9	**12.2**
Asia-Pacific	1.4	1.4	**2.8**
Africa-Eastern Mediterranean Basin	0.04	0.06	**0.1**
HeidelbergCement total	8.1	12.0	**20.1**

3) Defined in the PERC Reporting Standard for mineral reserves and resources, see page 132 f. in the Risk report.

HeidelbergCement
is member of:

World Business Council for
Sustainable Development

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