

Sustainability Report 2016

HEIDELBERGCEMENT

Quick access

- 06 → Company & Business Model
- 11 → Strategy & Management
- 20 → Compliance & Integrity
- 26 → Product & Innovation
- 33 → Production & Supply Chain
- 45 → Employees & Employment
- 57 → Society & Corporate Responsibility
- 62 → Targets
- 67 → Key Figures



In dialogue

Dr Bernd Scheifele, Chairman of the Managing Board

Dr Scheifele, 2016 was an eventful year for HeidelbergCement. How will the acquisition of Italcementi, which was concluded in July 2016, affect the company?

Dr Bernd Scheifele: The acquisition of Italcementi, a leading international cement manufacturer, has significantly expanded our market position in North America, Europe, Africa, and Asia. The two companies complement one another perfectly. On the one hand, this is because their product areas and organisational structures are so similar; on the other, it is due to the fact that they serve different geographical regions that hardly overlap. This puts HeidelbergCement into an outstanding strategic position to be successful on the market in the long term.

Does that also apply to sustainability?

Dr Scheifele: The combined research and development capacities will open up new business opportunities for us, particularly with regard to sustainable construction. However, we still need to take action in some areas to bring sustainability management up to the same high level at all production sites. We will be working on this in the year ahead and beyond.

Another major issue besides the acquisition of Italcementi is the fact that our company is being subjected to new stakeholder demands. How will stakeholders influence HeidelbergCement's future sustainability strategy?

Dr Scheifele: Our main topics are still occupational safety and environmental protection. We can only conduct long-term business if we offer our employees safe workplaces and take on responsibility for the environment. Together with the cultivation of good neighbourly relations, these are the basic preconditions for our licence to operate as reflected in society's acceptance of our company and its business model.



We have combined these key topics and other important sustainability issues in the HeidelbergCement Sustainability Ambitions 2020. This programme, which is valid throughout the Group, defines the main components and objectives of our sustainability strategy until the year 2020. We are currently updating the programme in order to extend our sustainability strategy to the year 2030. It will also reflect the interests of our stakeholders with respect to sustainable supply chain management, a circular economy and sustainable products, for example.

Let us take a look at one of the key issues: safety at work. What did the company achieve in this respect last year, and what needs to be improved in 2017?

Dr Scheifele: Our stated objective is to minimise the risk of accidents and injuries. We were able to reduce the number and severity of accidents as well as the number of fatalities. However, we are still

not satisfied with the result. To permanently prevent accidents from occurring, we will have to further intensify our occupational safety efforts and introduce the HeidelbergCement standards at the production sites of the former Italcementi Group.

At HeidelbergCement, all levels of management are responsible for ensuring occupational health and safety. In 2017, we will roll out a Group-wide training initiative to once again emphasise the importance of the line managers as role models. Moreover, we will continue to integrate Italcementi into our occupational safety network. The consistent implementation and observance of the existing safety standards is a top priority in the plans of all of the Group's national subsidiaries – this is a precondition for the prevention of accidents.



We will have to further intensify our occupational safety efforts so that accidents can be prevented on a sustained basis. The rigorous adherence to our safety standards continues to be a top priority in 2017.

Another top priority at HeidelbergCement is climate protection. How is the company progressing with its efforts to reduce CO₂ emissions?

Dr Scheifele: Climate protection and, in particular, the reduction of CO₂ emissions play a key role at our company. We have committed ourselves to doing our share to limit global warming to no more than two degrees Celsius. Between 1990 and 2016, we reduced specific net CO₂ emissions by 22.6% to 598 kg CO₂/t cement. And if Italcementi is taken out of the equation, our emissions amounted to only 581 kg CO₂/t cement. We plan to lower CO₂ emissions further between now and 2030 – by at least 20 million tonnes of CO₂ per year as compared to 1990 levels. To achieve that, we are extensively researching future-oriented technologies for the storage of CO₂ or its use as a raw material.

That sounds very future-oriented. How innovative and sustainable is the product range at HeidelbergCement?

Dr Scheifele: We have made considerable progress in this respect in recent years. At our global research centre in Leimen, our researchers are working to develop technologies for increasing energy efficiency and reducing CO₂ emissions. Focal topics include the development of new types of clinker and the reduction of the clinker content in cement and concrete. Our researchers have even created a new clinker technology: Ternocem[®]. Due to its altered chemical composition and lower combustion temperatures, this technology results in CO₂ emissions that are roughly 30% lower than is the case with a conventional clinker, as well as energy savings of about 15%.

In addition, we are involved in a variety of research projects for the reuse of recycled building materials. We are already much further ahead in the Netherlands, where we have been marketing Ecocrete[®] since 2013. Ecocrete[®] is a type of concrete that contains reprocessed aggregates, which enable it to contribute to the country's circular economy.

Since the acquisition of Italcementi, we have been forging ahead with our research activities focusing on construction products at the state-of-the-art development centre i.lab in Bergamo. Our employees are working together with globally leading architects and construction companies to create customised solutions for pioneering building projects. An example of this is the cutting-edge concrete facade elements that are self-cleaning and reduce nitrogen oxide emissions.

Let us now take a look at the future of sustainability reporting. How well is the expanded Group prepared for new legislation such as the implementation act for the EU's CSR directive?

Dr Scheifele: We systematically prepare ourselves for new legislation and the associated reporting requirements well in advance. With regard to the implementation act for the EU's CSR directive, for example, we examined how far we already comply with the law's stipulations.



We have also taken measures to ensure that we meet our human rights-related responsibilities even more systematically. In the next step, we will collect and subsequently report key figures on the basis of a comprehensive human rights risk analysis. We are planning to incorporate the required non-financial declaration directly into the Annual Report for 2017 and to publish additional information in a separate report.

The new research centre i.lab focuses on product-related innovations. Here, we work together with leading architects to develop customised solutions for sustainable, cutting-edge concrete applications in particular.






Contents

How to find your way through the report

To make it easier for you to navigate through the report, we have added links to this PDF file. In the grey bar at the top edge of the page, you can jump to the individual chapters from any page.

The thin green bar shows you which chapter you are currently in. The icons operate similarly to those on a website:

-  Go forward/back
-  Table of contents
-  Starting page

You can also directly access the chapters from the table of contents. In each chapter, the column at the far left contains a linked overview of the sub-chapters. The following symbols in the text are also useful:

→ Link to the specified page or website

✓ **G4-19** A passage of text that contains statements concerning the GRI Materiality Matters indicators



- 06 → **Company & Business Model**
- 07 → Value chain
- 08 → Vertical integration as a growth driver
- 09 → Organisational structure
- 10 → Key business figures at a glance



- 11 → **Strategy & Management**
- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement
- 17 → Materiality analysis
- 19 → Organisational basis



- 20 → **Compliance & Integrity**
- 22 → Laws and standards
- 22 → Our compliance programme
- 23 → Our compliance organisation
- 23 → Compliance activities
- 25 → Compliance reporting system



- 26 → **Product & Innovation**
- 28 → Customer orientation and product development
- 28 → Research and technology



- 33 → **Production & Supply Chain**
- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 → Local environmental impact
- 43 → Management of supplier relations



- 45 → **Employees & Employment**
- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 → Occupational health and safety
- 52 → Human resources development
- 54 → Diversity management



- 57 → **Society & Corporate Responsibility**
- 59 → Creating local value
- 59 → Corporate citizenship
- 60 → Practical examples
- 61 → Local conflicts of interest



- 62 → **Targets**
- 63 → Strategy and management
- 64 → Product & innovation
- 64 → Production & supply chain
- 66 → Employees & employment



- 67 → **Key Figures**
- 68 → Strategy and management
- 70 → Product & innovation
- 70 → Production & supply chain
- 73 → Employees & employment
- 76 → About this report
- 77 → Imprint

Company & Business Model

- 07 → Value chain
- 08 → Vertical integration as a growth driver
- 09 → Organisational structure
- 10 → Key business figures at a glance



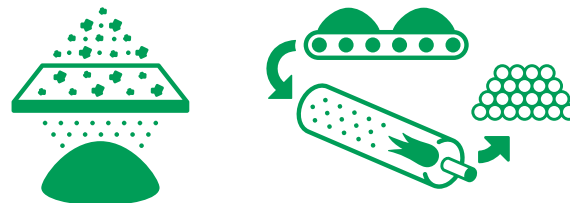
Value chain



Raw materials

- Extraction

We generally extract the raw materials that we need for the production of our construction materials – limestone for the production of cement as well as sand and gravel – from our own quarries.



Production

- Cement
- Aggregates
- Concrete
- Asphalt

Our business is based on the production of cement and aggregates, the two essential raw materials for manufacturing concrete.



Customers

- Public-sector projects
- Commercial projects
- Private customers

We supply our products for public-sector and commercial projects as well as to private customers.

Research and Development

- CO₂ reduction
- Development of alternative clinkers
- Product innovation
- Recycling



The aim of our research activities is to provide customers with innovative products and to minimise energy consumption and CO₂ emissions by improving processes and creating new recipes.

Procurement

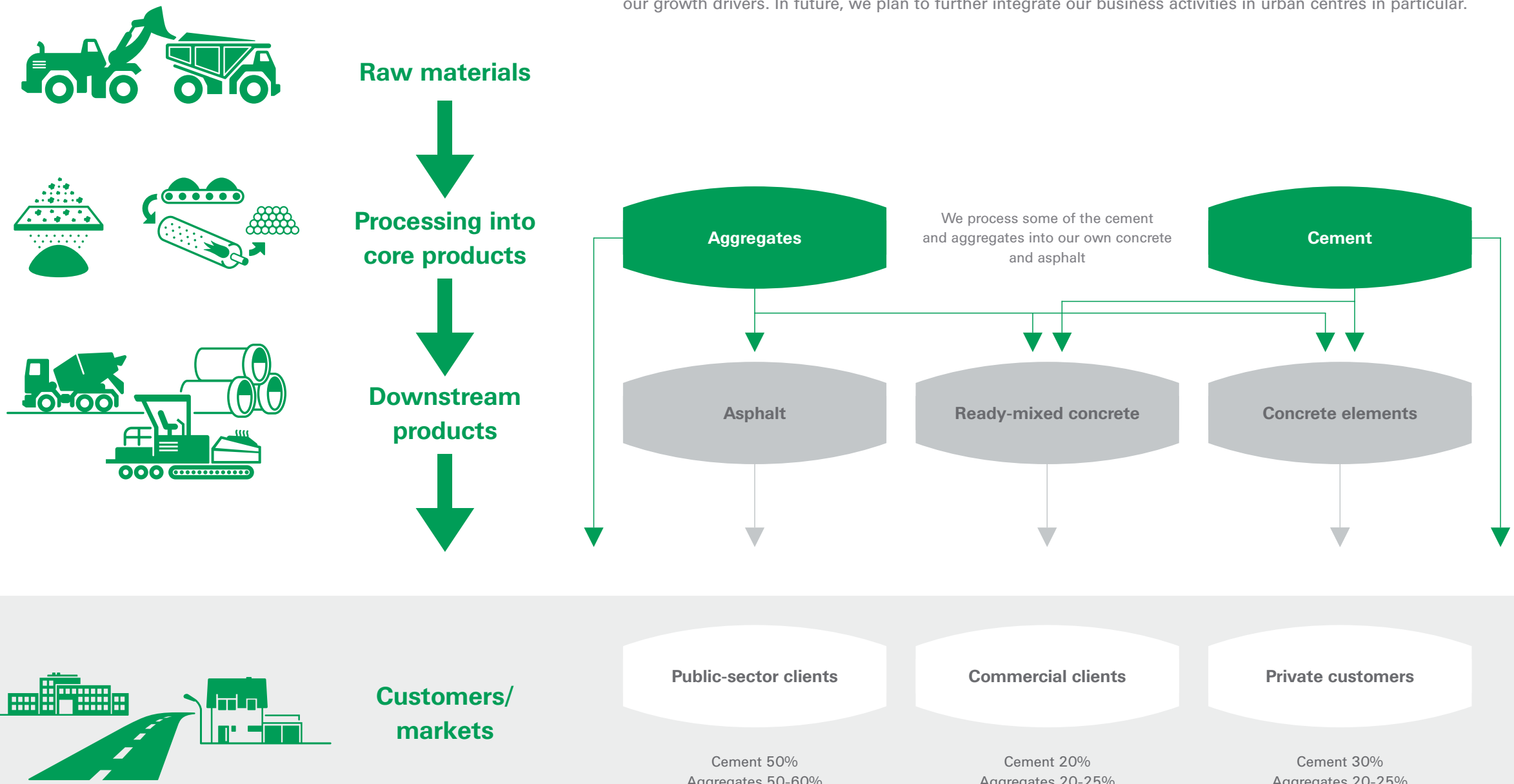
- Raw materials
- Energy
- Logistics
- Maintenance



In 2016, HeidelbergCement procured goods and services with a total value of just under €10 billion, with 30% being spent on energy and raw materials.

Vertical integration as a growth driver

HeidelbergCement is one of the world's largest companies for building materials. The core activities of HeidelbergCement encompass the production and distribution of cement and aggregates, the two essential raw materials for concrete. The downstream activities primarily include the production of ready-mixed concrete as well as the manufacture of asphalt and other building products. This vertical integration strategy is one of our growth drivers. In future, we plan to further integrate our business activities in urban centres in particular.

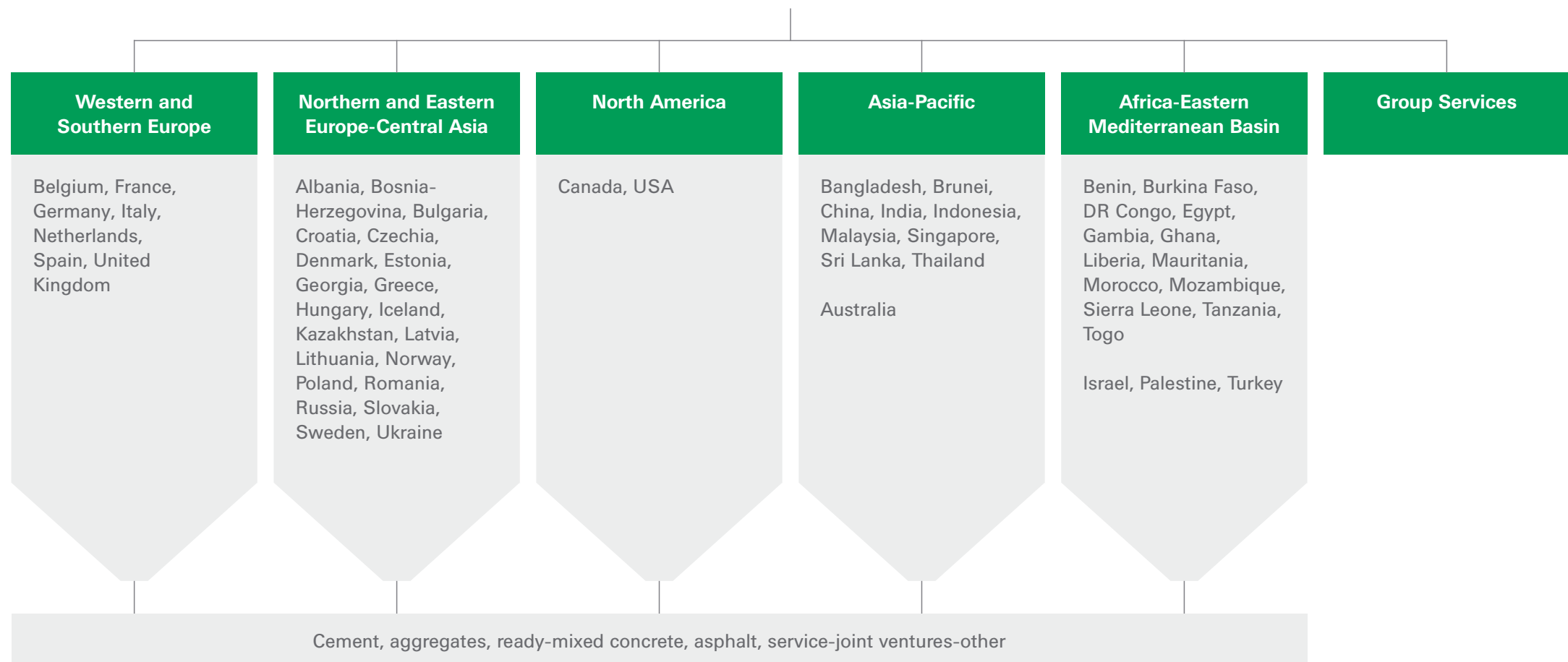


Organisational structure

The former Italcementi Group has been part of HeidelbergCement since 1 July 2016. The two companies complement one another almost perfectly. The integration of Italcementi has given HeidelbergCement a strong market position in North America, Southern Europe, North Africa, and Asia. HeidelbergCement now operates in around 60 countries worldwide. The merger consolidates our position as one of the leading global producers of construction materials. In our core areas of business, we are the world's leading supplier of aggregates, the second-largest supplier of cement, and the third-largest supplier of ready-mixed concrete.



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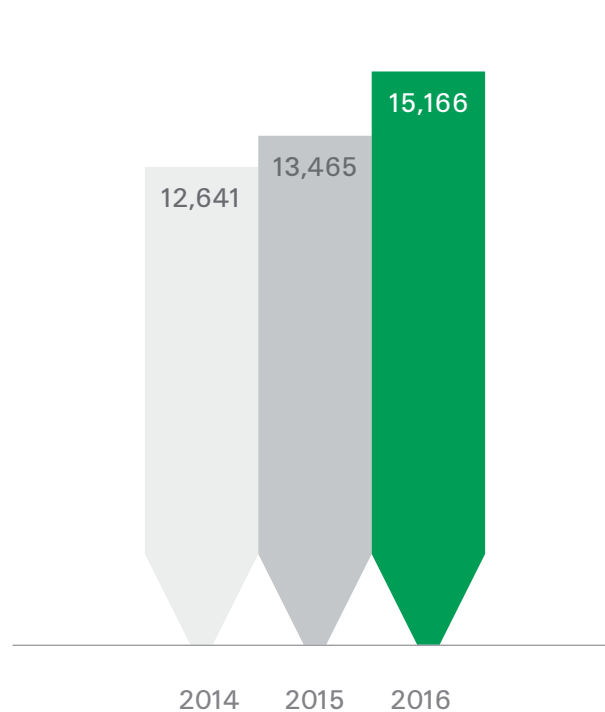


Key business figures at a glance

+12.6%

Total Group revenue

Increase from 2015 to 2016*
Figures in € millions

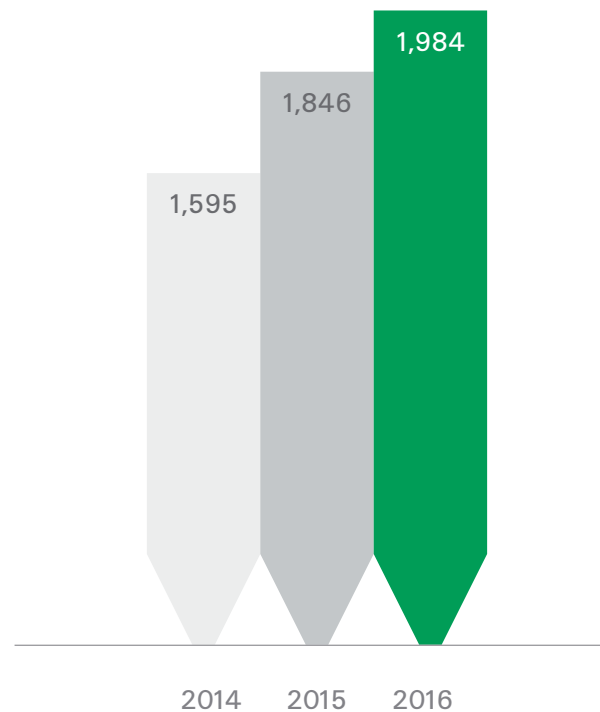


The 12.6% increase in revenue was primarily due to the consolidation of Italcementi. Revenue was influenced by negative exchange-rate effects due to the devaluation of several currencies compared to the euro.

+7.5%

Result from current operations

Increase from 2015 to 2016*
Figures in € millions

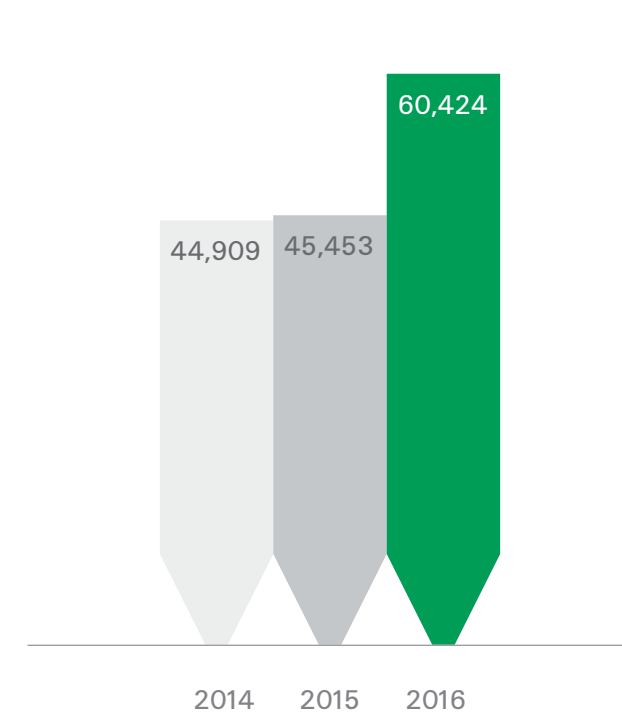


The 7.5% increase in result from current operations was the result of successful profit margin improvement programmes, the realisation of initial synergies from the integration and substantially lower energy costs.

+32.9%

Number of employees

Increase from 2015 to 2016**



The 32.9% increase in the number of employees is mainly due to the acquisition of Italcementi. The integration of these new employees is one of the focal points of our human resources work.

* Italcementi fully consolidated since 1 July 2016.

** Number of employees at the end of December.

Strategy & Management

- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement
- 17 → Materiality analysis
- 19 → Organisational basis



- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement
- 17 → Materiality analysis
- 19 → Organisational basis



We ask our stakeholders.

Economic success is not possible without **social and environmental responsibility**. They are also the basis of our sustainability strategy and our Sustainability Ambitions, for which we take the expectations of our stakeholders into account.



CO₂ reduction → p. 14

No more than 2 degrees Celsius

To help prevent global warming from increasing by more than two degrees Celsius compared to the level before the start of the Industrial Age, we are implementing a long-term, externally verified **plan** of CO₂ reduction measures.

Society → p. 15

A handbook

for **community relationship management** was approved by HeidelbergCement in 2016. The handbook helps the company locations engage in a stakeholder dialogue and makes the Group's charitable activities more systematic and transparent.

Material issues → p. 17

New key topics

were identified as a result of our stakeholder dialogue. They include the **recycling of construction materials** and **sustainable supply chain management**. These topics will be described in depth in this report, even though their relevance is not yet reflected in the materiality matrix.

13	Vision and mission
13	Challenges and strategy
15	→ Our stakeholder engagement
17	→ Materiality analysis
19	→ Organisational basis

For us, doing business means a lot more than just achieving outstanding financial results. That's because we also want to act in an environmentally and socially responsible manner. This understanding of our company serves as the basis of our sustainability strategy and the resulting Sustainability Ambitions. To further develop the Ambitions, we also take the expectations of our stakeholders into account.

Vision and mission

We want to continue to grow. However, in the long term we will only be able to achieve our business goals if we generate added value for society as a whole. We conserve natural resources, as they form the basis of our business activities. Moreover, we take our social responsibility at the various company locations and towards our employees seriously. We want to provide our employees with a secure income and good qualifications in the long term. In our production activities, we focus particularly on ensuring the health and safety of our employees. We want our customers to benefit from the high quality of our products and a close partnership. We maintain respectful relations with our suppliers and expect them to comply with our sustainability standards.

Our business activities are characterised by commercial prudence, the rule of law, and integrity. We promote value creation at our locations and help to increase prosperity and the quality of life in emerging economies in particular. By boosting growth, we achieve appropriate dividends and increase the value of the company for our shareholders. Growth and good returns are also the preconditions for benefiting the environment by means of investments in cutting-edge technologies and Group-wide environmental management systems.

Challenges and strategy

While we are minimising the risks for our business and exploiting new opportunities, we are at the same time developing solutions for environmental, social, and societal challenges. This work focuses on the following topic areas:

- **Occupational safety:** Because we are a manufacturing company, occupational health and safety are a top priority at HeidelbergCement. We employ targeted measures to improve technical and organisational safety standards and make people more aware of workplace safety issues. Here, we focus not only on our own employees but also on those from external companies and third parties.
- **Securing raw materials and conserving resources:** Our business operations are dependent on having long-term access to mineral-based raw materials in the vicinity of our plants. Such resources are finite and their local exploitation often leads to conflicts of interest. We therefore view the sustainable securing of raw materials and conservation of resources as a key strategic task. Our strategy for resource conservation in cement production also involves the use of alternative raw materials and fuels. Water protection and water management are playing an increasingly important role in our business operations as well. Water is scarce in many parts of the world and climate change is exacerbating the situation. Even though the construction materials industry consumes relatively little water compared to other sectors, the scarcity of fresh water at several of our locations presents a challenge to the company. In response, in 2015 we began to record our water consumption and implement measures for reducing consumption wherever water scarcity is especially acute.

13 → Vision and mission

13 Challenges and strategy

15 → Our stakeholder engagement

17 → Materiality analysis

19 → Organisational basis

- **Nature conservation and species protection:** Our raw material extraction and quarrying activities temporarily disrupt the surrounding water supplies, land, flora, and fauna. However, through the non-intensive use of land we also create refuges for endangered animal and plant species. Although we are unable to compensate in the short term for these encroachments, we can offset them over the medium and long terms. Here, we place great store in the high-quality afteruse of our quarries in line with nature conservation principles, and to this end we seek to engage in a dialogue with local stakeholders and international nature conservation organisations.
- **Energy efficiency and climate protection:** The production of cement requires a lot of energy. From both an economic and an ecological standpoint, it is therefore imperative that we further increase our energy efficiency. Cement production by its nature also leads to a high level of CO₂ emissions. Our efforts to lower such emissions focus primarily on increasing our use of alternative CO₂-neutral raw materials and fuels. As a result, we have been able to continually reduce our CO₂ emissions over the past few years and we will continue to reduce them further in future. Along with our research on new types of cements with a lower CO₂ footprint, we are also investing in the development of methods for separating and exploiting the CO₂ emissions produced by our cement manufacturing operations. We also support international targets and initiatives for reducing CO₂ emissions and slowing the pace of global warming. To help achieve the 2-degree target agreed on during the COP 21 conference, we have drawn up a long-term plan of measures for reducing CO₂ and had it externally verified.

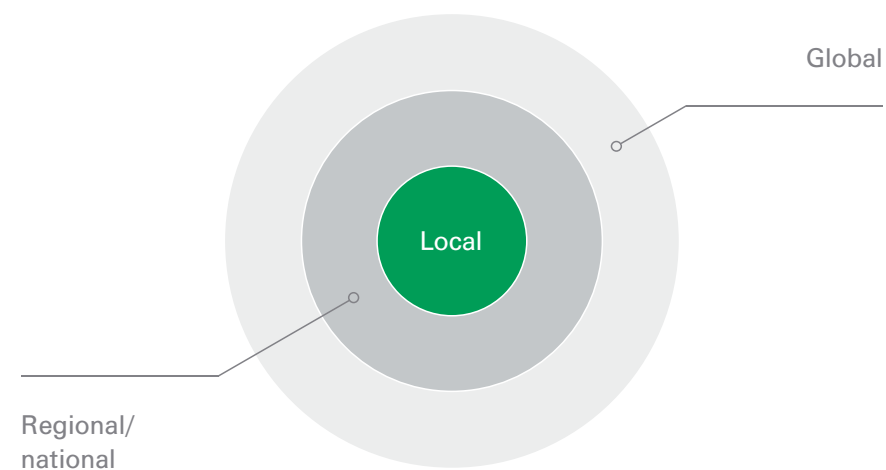


Our Sustainability Ambitions 2020

The HeidelbergCement Sustainability Ambitions 2020 describe our most important activities for promoting sustainability. This programme, which is valid throughout the Group, defines the main components and objectives of our sustainability strategy until the year 2020. We are currently updating the programme in order to extend our sustainability strategy to the year 2030. This work has been delayed because of the acquisition of Italcementi in July 2016. Our business opportunities and risks have changed due to our increased size, expanded geographical presence, and combined research and development activities. These changes will be taken into account in our Sustainability Ambitions 2030, which we will publish at the end of 2017. ✓ G4-22
→ www.heidelbergcement.com/en/sustainability-ambitions-2020

- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement**
- 17 → Materiality analysis
- 19 → Organisational basis

HeidelbergCement's stakeholder focus



Our stakeholder engagement

In view of the strongly local focus of our business operations, we can only be successful in the long term if we maintain good cooperative relationships with the various stakeholders in society. We seek to establish and maintain a dialogue based on trust with all relevant stakeholder groups – especially those on the local level but also with national and international stakeholder groups. The resulting exchange of ideas and opinions helps us identify critical issues at an early stage and gain greater acceptance for our activities. Each country organisation is responsible for establishing and maintaining its own dialogue with national and local stakeholders. The stakeholder dialogue on international level is managed by the Group departments for communication and sustainability. ✓ G4-18, G4-24, G4-25

Relations with local stakeholders

As most of our plants and quarries are situated near local communities, it is essential for us to continually maintain contact with local communities and government agencies and local organisations. Plant or facility management teams are generally responsible for such stakeholder relationships. Wherever necessary, they are supported by the national subsidiary's communication department. We take criticism expressed by our stakeholder groups seriously and we discuss with them the points they bring up. We have adopted new approaches in many places in order to reconcile the interests of the company with those of the local community. Along with personal discussions, we also make use of the entire range of modern information and dialogue media including newsletters and guidelines as well as different concepts of public participation. ✓ G4-24, G4-26

In 2016, the Group approved a handbook for community relationship management. This handbook regulates the company's relations with the communities in which it has facilities and aims to make the charitable activities of HeidelbergCement more systematic and transparent. A CSR expert group at Group level regularly brings together managers from all levels for discussing and documenting local activities and the various experiences the managers have had with regard to social responsibility and the stakeholder dialogue. ✓ G4-26

→ **Society: p. 57**

Stakeholder dialogue at national and international levels

HeidelbergCement is a member of both general and industry-specific associations that represent their members' interests vis-à-vis governments, businesses, and the public. These memberships promote an exchange with other companies and organisations and a common determination to achieve greater sustainability. The topics addressed focus on challenges specific to individual countries and industrial policy, particularly as regards the secure supply of raw materials, environmental protection, energy conservation, occupational health and safety, and social and labour issues.

- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement**
- 17 → Materiality analysis
- 19 → Organisational basis

As a Group with headquarters in Germany, we are a member of “econsense – Forum for Sustainable Development of German Business”. This network of global German companies views itself as a partner and an expert forum for dialogue with governments, the scientific community, media, and society. econsense seeks to shape and further develop corporate sustainability approaches. ✓ G4-24, G4-25

→ www.econsense.de/en

On the international level, we are involved in the Cement Sustainability Initiative (CSI), which seeks to create a more sustainable cement industry. The CSI always incorporates affected third parties into the process for developing standardised guidelines and protocols for the cement industry. Interested partners such as industry associations and non-governmental organisations are therefore involved in many projects. ✓ G4-24, G4-25

→ www.wbcscement.org

HeidelbergCement and its subsidiaries also work with Green Building Councils in 12 countries. The goal here is to jointly develop certification systems for sustainable construction and to make the design, construction, and operation of buildings more sustainable. ✓ G4-24, G4-25

→ **Sustainable construction: p. 31**

Dialogue with political decision-makers

Legislation in the European Union is increasingly impacting our business operations by addressing all aspects of sustainability. For this reason, HeidelbergCement has established a separate corporate function for political dialogue at the EU level. The manager responsible for this dialogue chiefly represents our interests in CEMBUREAU, the European Cement Association, which speaks for European cement manufacturers in discussions and negotiations with the EU and its various institutions. The key issues addressed by CEMBUREAU include the use of alternative raw materials and fuels, climate protection, emissions, biodiversity, and occupational health and safety. As a



member of the European Aggregates Association (UEPG), we also present our positions on aggregates to political decision-makers. Our interests concerning concrete are represented by the European Ready-Mixed Concrete Organisation (ERMCO) and the European Concrete Platform (ECP). ✓ G4-24, G4-25

Our lobbying activities are in accordance with transparent rules and represent the positions that HeidelbergCement takes in public.

Dialogue with analysts and investors who focus on sustainability issues

Dialogue with the capital markets is also becoming more and more important, as our shareholders and a growing number of financial analysts and rating agencies want to know how HeidelbergCement integrates the issue of sustainability into its corporate strategy. They also want to know how successful the company has been in this regard. The dialogue with capital-market stakeholder groups generally has a bilateral format. ✓ G4-24, G4-25

- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement
- 17 → Materiality analysis**
- 19 → Organisational basis

Materiality analysis

One of the main pillars of our sustainability strategy is the linking of our Sustainability Ambitions with the assessments of our stakeholders and the enhancement of this programme on the basis of the stakeholders' expectations. We use our materiality analysis to regularly determine how important the individual sustainability issues are for different stakeholder groups and the company itself. The analysis thus helps us identify and evaluate issues and trends that are important for our business success today, or could prove to be important in future. ✓ G4-18, G4-27

→ **Our stakeholder engagement: p. 15**

The last time we conducted a comprehensive materiality analysis at the Group level was in late 2014. For this assessment, we asked 57 of our most important external stakeholders from various countries to give us their opinions. The stakeholders surveyed included suppliers, investors, scientists, and representatives of government agencies and non-governmental organisations (NGOs). A total of 26 stakeholders agreed to take part in our survey, which included standardised and open-ended questions. For our internal assessment, we queried some 50 staff members from relevant business lines in all Group areas in the same manner. The topic list that was utilised here was based on our existing Sustainability Ambitions 2020 and the key issues defined

“ Ongoing open communication with our stakeholders helps us to understand their expectations and take up suggestions early on.

Stefanie Kaufmann, Sustainability Communications Manager

by the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD) after close and systematic consultations with numerous stakeholder groups and experts.

✓ G4-18, G4-24, G4-25, G4-26

To further refine our Sustainability Ambitions during the past two years, we have accompanied these measures with an ongoing dialogue with internal and external stakeholders. For example, in-house sustainability experts from a variety of business lines and Group areas met four times in order to discuss key sustainability issues and their inclusion in the new Sustainability Ambitions. In addition, we have engaged in dialogues with external stakeholders such as the nature conservation group BirdLife International as well as with stakeholders of our subsidiaries on the national level.

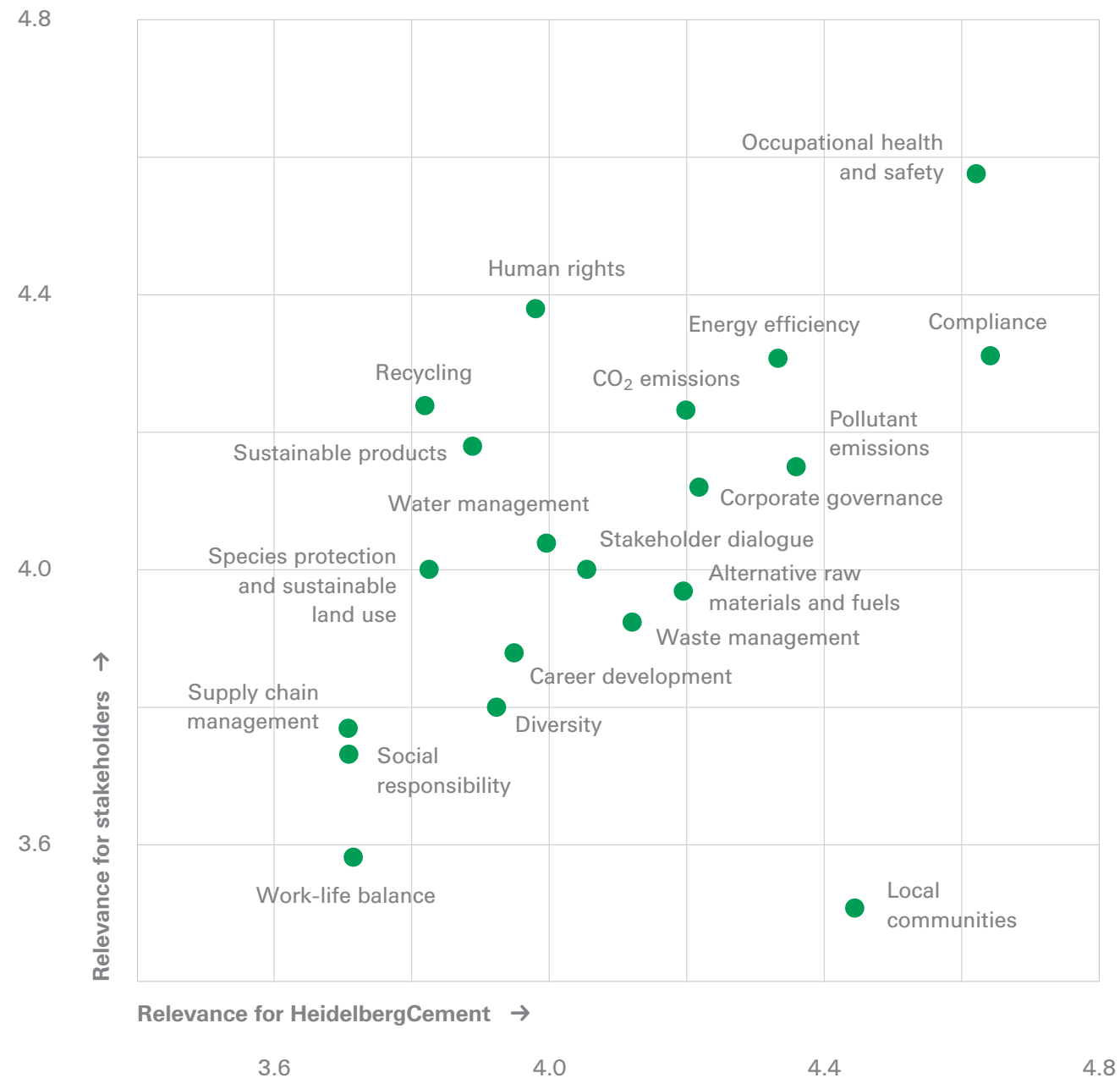
✓ G4-24, G4-25, G4-26

The importance of some issues has shifted as a result of the findings that we obtained from these stakeholder dialogues as well as due to changed political conditions and new legislation. For example, sustainable supply chain management has become more important for us and our stakeholders, as has the recycling of construction materials and the creation of sustainable products. ✓ G4-20, G4-21, G4-23, G4-27

The regulators on the European and national levels have intensified their focus on human rights issues and defined new reporting obligations. As a result, this topic has become even more relevant than it was before. Despite this, we have decided not to update the materiality matrix for the current report. Instead, we plan to review and possibly adjust our materiality matrix in late 2017. This will be done with the help of a stakeholder survey, among other things.

- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement
- 17 → Materiality analysis**
- 19 → Organisational basis

Stakeholder survey – Materiality matrix ✓ G4-19, G4-20, G4-21, G4-26, G4-27



Materiality matrix as of 2015. A review of the materiality matrix is planned, as part of a stakeholder survey, for completion by the end of 2017.

- 13 → Vision and mission
- 13 → Challenges and strategy
- 15 → Our stakeholder engagement
- 17 → Materiality analysis**
- 19 → Organisational basis**

We have also reorganised the chapters in this sustainability report in line with these changes. The production and product issues that were previously combined in the chapter on the environment have been split so that we can more extensively describe our efforts in the field of innovative, sustainability-oriented product development. This reorganisation of the chapters also makes it clear that our responsibility for the environment and society is focused on our production processes, but is not limited to them and also encompasses the supply chain. We have also added a chapter highlighting the relevance of legally compliant business activities that meet international standards. This chapter also addresses the issue of human rights. ✓ G4-23

→ [Report profile, p. 76](#)

Organisational basis

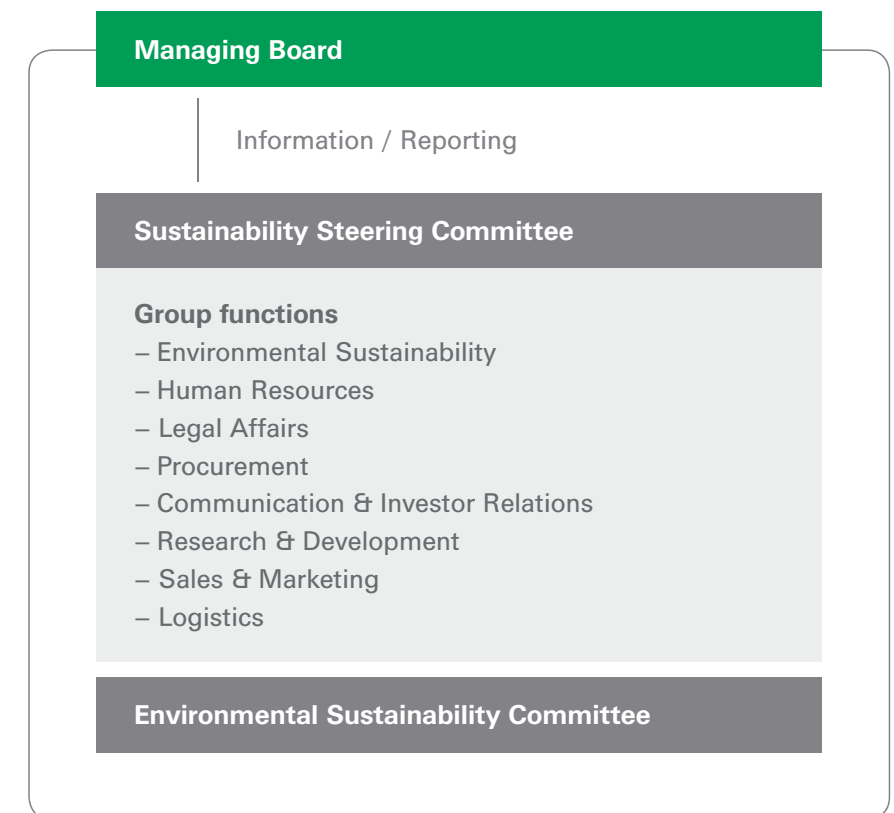
Effective management systems at our various business lines help to ensure a continual process of improvement in accordance with our sustainability strategy. Within the framework of these systems, we have defined areas of responsibility and created structures that support the effective implementation and monitoring of the measures we employ to achieve our sustainability targets.

The Sustainability Steering Committee, which reports to the Chairman of the Managing Board, manages and monitors our sustainability strategy. The interdisciplinary committee's members are chosen from throughout the Group and consist of the Managing Board member responsible for Environmental Sustainability and the Directors of the Group departments for Environmental Sustainability, Legal Affairs, Human Resources, Procurement, Logistics, Sales & Marketing, Research & Development, and Communication & Investor Relations. Operational responsibility for the achievement of sustainability targets and the implementation of the associated measures lies with the individual Group departments and the Group Environmental Sustainability Committee. This committee centrally manages the environmental management

activities of the entire HeidelbergCement Group. Besides occupational safety, environmental management plays a very important role within our sustainability strategy. For example, we conducted environmental audits at all business lines throughout the Group in 2016 and we plan to introduce certified environmental management systems at all of our cement plants worldwide between now and 2020.

→ [More on environmental management: p. 35](#)

Sustainability management at HeidelbergCement





Compliance & Integrity

- 22 → Laws and standards
- 22 → Our compliance programme
- 23 → Our compliance organisation
- 23 → Compliance activities
- 25 → Compliance reporting system



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- 22 → Our compliance programme
- 23 → Our compliance organisation
- 23 → Compliance activities
- 25 → Compliance reporting system



Integrity is more than just obeying the law.

Our **Group-wide Code of Conduct** requires all employees to adhere to our basic principles of responsible corporate governance, regardless of whether or not such principles have been written into law.



Management system → p. 23

Our Compliance Management System (CMS)

is continuously reviewed to determine if it **needs to be adjusted**. During the integration of Italcementi into the HeidelbergCement Group, we compared the two companies' CMS, enabling us to create an improved, joint CMS.

Human rights → p. 23

Human rights risk analysis

A new EU directive on CSR stipulates **expanded reporting requirements** with regard to human rights. In order to meet these requirements, we are working on a comprehensive human rights risk analysis.

Reporting system → p. 25

Three accusations of corruption

were received by our **compliance reporting system** in 2016. The claims pertained to Romania, Indonesia, and the USA. In one case, employees were dismissed, while another case was still pending at the time of the editorial deadline. The third case turned out to be unfounded.

22 Laws and standards

22 Our compliance programme

23 → Our compliance organisation

23 → Compliance activities

25 → Compliance reporting system

HeidelbergCement has dedicated itself to a responsible system of corporate governance. We aim to achieve our business objectives in accordance with applicable laws and international standards as well as with socially and environmentally responsible methods. This is the only way to ensure that our success will be sustainable.

Laws and standards

We respect and obey the applicable laws and regulations in all the countries in which we operate, and we regard them as the legal foundation of our business activities. As an internationally operating company, we are also obliged to adhere to global values and standards. As a result, we are committed to upholding the ILO's core labour standards, the OECD Guidelines for Multinational Enterprises and the UN's Universal Declaration of Human Rights. We expect our employees and business partners around the world to act in conformity with these essential guidelines and recommendations. That's why our leadership principles also reflect our commitment to the aforementioned standards. We commit our suppliers to these standards with our Supplier Code of Conduct.

Our management and monitoring structures comply with the laws governing stock corporations in Germany, the company's memorandum and articles of association, the rules of procedure of the Managing Board and the Supervisory Board and, with a few exceptions, the guidelines laid out in the German Corporate Governance Code.

Our compliance programme

Our compliance programme is based on a Group-wide Code of Conduct that requires all employees and managers to adhere to our basic principles of responsible corporate governance, regardless of whether or not such principles have been written into law.

It is particularly important that

- our employees and managers act with integrity and professionalism when dealing with customers, suppliers, government authorities, and business partners;
- conflicts of interest are consistently avoided and prevented;
- company property and assets are treated carefully and responsibly;
- confidential company and business information and personal data are treated carefully and responsibly;
- fair conditions and a workplace free of discrimination are ensured and fair discussions are conducted with employee representatives;
- safe and healthy workplaces are provided;
- natural resources are utilised responsibly and sparingly.

A key element of our compliance programme is our executives' non-tolerance of violations of applicable law (especially competition law and anti-corruption regulations), and their commitment to taking action against all those who commit such violations. Our compliance programme also includes internal measures and guidelines that provide more specific information on the relevant legal regulations. Measures here also include periodic training courses for our employees. For example, we have an e-learning module that addresses our Code of Conduct and provides basic information about compliance topics. Our electronic courses cover topics such as discrimination and harassment in the workplace, competition law and measures to prevent corruption. Around 10,000 employees were registered to use the e-learning module in the reporting year.

- 22 → Laws and standards
- 22 → Our compliance programme
- 23 Our compliance organisation**
- 23 Compliance activities**
- 25 → Compliance reporting system

Our compliance organisation

The Director Group Compliance, who heads our compliance organisation, reports directly to the Chairman of the Managing Board. Each country in which we operate also has its own Compliance Officer. Every manager is responsible for ensuring that employees comply with applicable laws and regulations, and of course the employees themselves are also responsible for their own compliance. Defined control mechanisms throughout the Group ensure that our compliance programme is implemented correctly. Such mechanisms include regular and special audits by our Internal Auditing department, as well as half-year compliance reports submitted by the Director Group Compliance to the Managing Board and the Supervisory Board's Audit Committee. In addition, every Managing Board member receives a report each quarter on major compliance issues in his region.

We closely monitor developments in the area of compliance and regularly review our programme in order to determine whether it needs to be adjusted. In 2016, the integration of Italcementi into the HeidelbergCement Group gave us the opportunity to compare the compliance management systems (CMS) of the two companies. The resulting findings were incorporated into the joint CMS and helped to improve it.

Compliance activities

During the reporting year, Group Compliance made a compliance risk assessment to determine whether the company's compliance-related focal topics are up to date. This risk assessment is based on structured interviews of the Group Directors and selected Managing Directors of our country organisations. It enabled us to identify the main compliance risks of the HeidelbergCement Group. The results confirmed the general validity of our compliance activities and also gave us valuable information about the areas where HeidelbergCement will have to intensify its compliance-related efforts in future. This applies to



the reporting of human rights protection measures as well as to the company's adjustment to tougher data protection requirements. The focus is on our activities in EU countries that are directly affected by the EU's new General Data Protection Regulation. The implementation of these measures is one of the main tasks for 2017 and is being jointly prepared by several specialist departments.

In 2016, HeidelbergCement made preparations to meet its responsibilities even more systematically with regard to the upholding of human rights. With external assistance in some cases, we improved the exchange of information and division of tasks between specialist departments and extensively took human rights issues into account during the planning of a new supplier management system in procurement. We also did this for the draft version of the Group's new long-term sustainability targets. Moreover, discussions are taking place at HeidelbergCement regarding the development of a Group position concerning human rights. We are also working on a comprehensive human rights risk analysis in order to prepare ourselves for the human rights reporting requirements that will result from the EU's new CSR directive. This analysis will serve as a basis for defining and recording appropriate key figures.

- 22 → Laws and standards
- 22 → Our compliance programme
- 23 → Our compliance organisation
- 23 Compliance activities**
- 25 → Compliance reporting system

Our Trade Sanctions Policy has been in effect since November 2014. Given the nature of our business model, which largely focuses on local activities and unproblematic products, there is no great risk that our company will violate the sanctions. Nevertheless, the business impact of such violations would be severe, due to fines and, even more importantly, to more difficult refinancing conditions should US banks no longer provide loans because of the strictness of US law in this regard. This policy requires all companies controlled by HeidelbergCement to check whether their business partners are on the sanction lists published by the EU and the USA. The Group Compliance department helps the country organisations implement the Trade Sanctions Policy by supplying data processing solutions in cooperation with Group IT and by delineating business processes that regulate the necessary activities following the evaluation of business partners. The actual assessment is made by the specialist departments (Sales, Procurement, Human Resources, Treasury) and by Accounting (screening of master data), which notify the local Compliance Officer if they discover anything unusual.

These processes and software support measures are now being introduced in the companies that were incorporated after the acquisition of Italcementi.



We continuously review our compliance programme to see if any adjustments need to be taken. One of the focal points in 2016 was the reporting requirements concerning human rights issues.

Hartmut Drescher, Compliance Manager

As a result of our own anti-corruption guideline, the UK Bribery Act, and the IDW PS 980 audit standard, we have worked together with external experts to develop a system for assessing and avoiding corruption risks and possible conflicts of interest. The system is divided into three stages. In the first stage, the system assesses the potential risks in a particular country organisation. Existing measures are then applied to limit such potential risks. In the last step, the system determines whether additional measures might be required. This assessment results in a plan of measures for each country. The implementation of these measures is monitored by Group Compliance. The assessments will be conducted every three years.

The anti-corruption guideline specifies our principles with regard to the proper conduct towards business partners and the prevention of conflicts of interest. These principles are also stated in our Code of Conduct. The Code especially regulates the handling of gifts, donations, and sponsorships. One focus here is on the correct interaction with government officials and the special care that must be taken when commissioning consultants.

In addition to such aspects, we continue to focus on occupational safety and environmental legislation. This approach reflects the characteristics and special aspects of a heavy industry that extracts raw materials and generally operates on a local level with its production and sale of homogeneous bulk goods.

Extensive efforts are also made to ensure compliance with internal procurement stipulations, the ban on insider trading and the regulations governing capital markets, data security, and equal opportunity for all employees. The respective specialist departments are responsible for all of these compliance-related areas. To this end, they have published corresponding guidelines, ensure the issues are properly communicated, and conduct training courses.

- 22 → Laws and standards
- 22 → Our compliance programme
- 23 → Our compliance organisation
- 23 → Compliance activities
- 25 → Compliance reporting system**

Compliance reporting system

Our compliance reporting system offers both employees and external parties the opportunity to report compliance violations. This system also includes criteria for violations of human rights and core labour standards such as anti-discrimination and anti-child labour regulations. The system encompasses a variety of channels through which suspected compliance violations can be addressed, ranging from reports sent directly to specifically authorised contact partners to information submitted through our whistle-blower hotline. All such reports are handled anonymously if desired. Our Compliance Incident Reporting & Case Management Guideline contains instructions and principles on how to report compliance-related matters, process and investigate complaints, and protect the individuals who report infringements.

We examine every report we receive. We take appropriate disciplinary action in cases of proven misconduct. These measures can range from reprimands to dismissal. We also initiate civil action and press criminal charges, if necessary. In addition to taking corrective action, we implement preventive measures in order to reduce the likelihood of recurrences in the future.

Most of the reported violations in the year under review involved employee issues and occupational safety. The whistleblower hotline received 46 reports, including three cases of alleged discrimination. No instances of child labour or forced labour were reported.



Three cases of alleged corruption were submitted through our compliance reporting system in 2016. The claims pertained to Romania, Indonesia, and the USA. One of these cases was confirmed and led to the dismissal of employees. The company was also investigating the possibility of taking legal action at the time of the editorial deadline. The investigation of the second case had not been completed at the time of the editorial deadline either, while the third case did not violate any anti-corruption regulations. No region proved to be particularly prone to corruption. However, from a structural standpoint it is apparent that the existing internal control mechanisms can be subverted if several employees purposefully work in concert. Three possible conflicts of interest were also reported. However, these claims either proved to be unfounded or were still under investigation at the time of the editorial deadline. Here as well, the two countries affected (Indonesia and the USA) are rated differently by Transparency International.



Product & Innovation

- 28 → Customer orientation and product development
- 28 → Research and technology



- 28 → Customer orientation and product development
- 28 → Research and technology



Innovation benefits the environment.

Our products must meet the **highest quality standards**. This includes an outstanding level of environmental compatibility. Our research and development units are working to ensure this and are also testing innovative processes and recipes.



Investments → p. 29

€116.6 million

were spent on **research and technology** in 2016. That's around €9 million more than in the previous year. This corresponds to 0.7% of revenue.

Alternative raw materials in clinker production → p. 30

8%

This **substitution rate** is achieved through the use of alternative raw materials in the clinker raw meal at the Rezzato plant in Italy. We want to increase this rate further in 2017.

Alternative raw materials in cement production → p. 31

12%

This **proportion of alternative raw materials** in cement manufacturing is an important step towards our goal of producing cement in the most environmentally compatible way possible. In 2016, we reduced the proportion of clinker in cement to under 75%.

- 28 **Customer orientation and product development**
- 28 **Research and technology**

Our customers have very high requirements with regard to our products and services. Our research and development (R&D) activities are oriented towards these requirements as we strive to innovate. In addition, improved processes and new cement and concrete recipes help minimise energy consumption and CO₂ emissions. As a result, they also reduce the effects on environment and costs.

Customer orientation and product development

Our close proximity to the markets enables us to provide our customers with extensive advice and develop our products in close cooperation with them. The responsible departments and employees are directly incorporated into the organisation of the respective national subsidiaries and develop cements, aggregates, and concretes that are optimally adapted to local needs. This development work is often carried out in close cooperation with the customers. However, our work does not end with the products, but also includes providing our customers with expert advice on their optimisation and use.

Customers who wish to file complaints can get in touch with their local contact partners, whereby all complaints – whether of a technical, logistical, or commercial nature – are forwarded directly to the appropriate department. The structural design and computer-supported implementation of our Complaint Management System is carried out worldwide in accordance with a predefined standard.

In order to better understand our customers and offer even greater utility, we are continuing to comprehensively survey our customers around the globe within the framework of our Group-wide Customer Excellence Programme (CEP). The results of this survey show us how we can focus even more strongly on the customer in our business operations. We use these findings and other market analyses to



develop plans for optimising our products and services and to further enhance the satisfaction of our customers. We treat all the customer data we collect confidentially and do not pass any information on to third parties.

Research and technology

We have combined the Group-wide research and development activities and the innovations produced by the cement, ready-mixed concrete, and aggregates business lines in our two research centres – within the HeidelbergCement Technology Center (HTC) in Leimen, Germany, and in Bergamo, Italy. Whereas the research and development work in Leimen focuses on the reduction of CO₂ emissions, increased resource efficiency, and lower production costs, the centre in Bergamo concentrates on the development of high-tech concrete applications and on new market opportunities.

In addition, technology centres support our national subsidiaries in the various Group areas. The Heidelberg Technology Center Global (HTC) is our competence centre for cement. The HTC assists our cement plants

28 → Customer orientation and product development
28 Research and technology

with technical issues, ranging from the securing of raw materials to process optimisation and control as well as quality assurance. This also applies to investment measures. The Competence Center Materials (CCM) provides similar assistance for aggregates and asphalt. The Competence Center Readymix (CCR) concentrates on the Group-wide optimisation of raw material and logistics costs in the ready-mixed concrete business line.

Total expenditure on research and technology amounted to €116.6 million in the reporting year (2015: €107.8 million), which corresponds to 0.7% of revenue. Personnel costs accounted for approximately three fourths of overall expenditure.

Costs for research and technology			
€ million	2014	2015	2016
Central R&D and innovation*	8.5	8.9	13.6
Technology and innovation	48.3	52.6	55.6
Customer-related development and technical service	42.8	46.2	47.4
Total	99.6	107.8	116.6

*Including capitalised amounts

The expenditure on research and technology is divided in line with the company's organisational structure. The area of Central R&D and innovation encompasses the costs for the development of basic technologies, while the costs for process innovations are assigned to the area of technology and innovation. The third section of the table contains the costs for the optimisation of products and applications in line with our customers' wishes.

In 2016, 1,063 employees (2015: 924) worked in the field of research and technology. The great importance of the areas of customer-focused development and advice as well as of technology and innovation is reflected not only in the costs but also in the number of employees. The following table shows the distribution of the workforce and its development in the past three years.

Employees in research and technology			
	2014	2015	2016
Central R&D and innovation	60	59	97
Technology and innovation	325	333	358
Customer-related development and technical service	491	531	608
Total	876	924	1,063

The innovation activities of HeidelbergCement focus on five main areas:

- **Products and applications:** Our research and development activities are geared strongly towards the market and our customers. The main priority here is the development and improvement of binders and concretes with optimised properties and innovative functionalities.
- **Cement production:** In the first half of 2016, the focus was on the continual improvement of processes and cost structures at all of the plants. This includes the cost-efficient substitution of fossil fuels and natural resources with alternative fuels and raw materials, as well as measures that reduce energy consumption in production. In the second half of the year, the focus was on the integration of the newly acquired Italcementi plants.
- **Aggregates:** In addition to continual efficiency improvements, the main development focus in 2016 was on digitalisation. The integration of operational, sales-related, and financial data into a key controlling tool increases transparency and makes it easier to coordinate production, sales, and quality assurance.

28 → Customer orientation and product development
 28 **Research and technology**

- **Optimisation across all business lines:** We are focusing on vertical integration in major metropolitan areas in particular. Extensive and sustained financial savings can be achieved through the coordinated optimisation of the product ranges, production processes, and logistics operations across the aggregates, ready-mixed concrete, and cement business lines. Moreover, our CO₂ emissions are reduced by a high level of transport efficiency. In addition, the exploitation of our complete raw materials portfolio in individual market regions enables us to optimise the material mix in our ready-mixed concrete plants to an extent that allows us to use our raw materials in the best possible manner. At the same time, we are able to guarantee a high level of concrete quality for our customers.
- **Development of cements and concretes with improved CO₂ footprints:** A key focus for us is to further develop composite cements with lower clinker content – even lower than required by today's standards, in fact. The reduction of clinker content is the most important factor for minimising energy consumption and CO₂ emissions and conserving natural resources. Finally, we are also conducting research into completely new binder systems that require no clinker. Such innovative alternative products are still in the development stage, and it will therefore take several years before they are ready for the market and wide deployment.

“ Sustainability and innovation go hand in hand. At present we are developing, with international partners, a construction method for concrete that could well revolutionise the storage of excess energy from offshore wind farms.

Eckhard Wagner, Team Leader Concrete & Application Development

Alternative raw materials for improving the CO₂ footprint

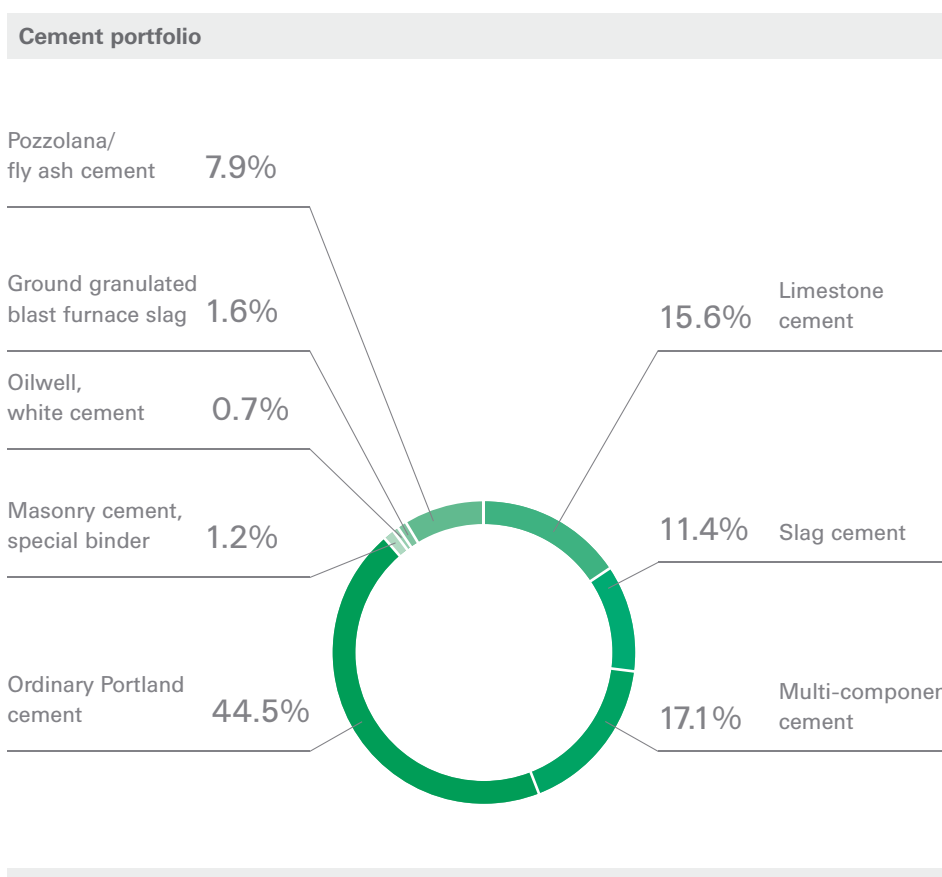
One of the most important measures for reducing CO₂ emissions in cement manufacturing involves the use of alternative raw materials that are produced as waste in other industries. A very large share of these secondary raw materials comes from the metalworking industry. Moreover, coal-fired power plants supply ash as well as synthetic gypsum. All of them are of a very uniform quality. The systematic assessment of the suitability of all raw materials used ensures a consistently high level of product quality.

HeidelbergCement generally uses alternative raw materials in two areas: in the combustion process for the production of clinker, which is the most important intermediate product in the manufacture of cement, and as additives that give cement special properties in order to reduce the content of CO₂-intensive clinker in cement.

To produce clinker, we use old foundry sand, for example, or lime sludge from drinking water purification systems in order to reduce the consumption of finite natural resources. The use of alternative raw materials in the raw meal at several Italcementi plants enabled HeidelbergCement to greatly increase its substitution rate. For example, 8% of the production raw materials at the new kiln line in Rezzato, Italy, were substituted with alternative materials and the goal is to increase this share even more in 2017.

When we develop new types of cement with a reduced proportion of clinker, we also use additives such as blast furnace slag from steel production operations, as well as fly ash, a by-product in coal-fired power plants. Moreover, we have used rock flour from local quarries as a secondary component for producing cement in Africa, for example, thus substituting imported clinker with local raw materials. In the Netherlands, meanwhile, we are investigating the possibility of using fine fractions from recycled concrete as a component in cement, in order to completely recycle concrete.

28 → Customer orientation and product development
 28 **Research and technology**



HeidelbergCement continues to introduce composite cements made with alternative raw materials, especially in countries where Portland cements still predominate. Huge amounts of alternative raw materials that have remained unused for decades are available in Eastern Europe and Central Asia in particular.

At Group level, the proportion of secondary raw materials in cement production was 12% during the reporting period; the amount of clinker in cement was reduced to under 75%.

Development of alternative clinker

With the discovery of a new reactive clinker phase, we have created the foundation for an alternative clinker technology (Ternocem®). The associated altered chemical composition and low combustion temper-

atures result in CO₂ emissions that are roughly 30% lower than is the case with a conventional clinker, as well as energy savings of about 15%. The basic technology is protected by several patents.

We produced more than 5,000 tonnes of Ternocem® clinker in a large-scale pilot test. This material is now being used for the development of cement and concrete so that the manufacturing concept can be optimised and in-depth experience can be gained concerning the use of Ternocem® cement in a broad range of applications, e.g. ready-mixed concrete, precast concrete parts, and concrete products.

We launched a multi-year research programme in 2015 to prepare the technology for the market. This programme receives extensive support from the EU-funded ECO-BINDER project. It will establish the conditions necessary for the future standardisation of products.

→ www.ecobinder-project.eu

Sustainable construction with concrete

As a founding member of the Concrete Sustainability Council, we have actively contributed to the development of a certification system for sustainably produced concrete. This system was introduced in early 2017 and takes into account social and environmental aspects along the entire value chain. This certification of concrete will probably enable our product and sector to receive more recognition from Green Building Councils in future as well as from government authorities when they award public construction projects.

We have also continued to work on the development of product solutions for energy-efficient buildings and cities. In 2016, we intensified our development of multi-purpose lightweight concrete with better thermal insulation. A cooperative project funded by the German Federal Ministry of Education and Research (BMBF) aims to develop innovative components such as monolithic wall systems. Unlike conventional external thermal insulation composite systems the lightweight concrete components will be cost-efficient and recyclable without leaving

28 → Customer orientation and product development

28 **Research and technology**

any significant amounts of waste behind. As a result, this lightweight concrete will help achieve Europe's ambitious energy and resource efficiency targets. In 2016, we had the opportunity to implement our ideas of sustainable construction in one of our new buildings: the HeidelbergCement Technology Center (HTC) in Leimen, Germany. This new office and lab building has received a gold certificate from the German Sustainable Building Council (DGNB) and meets the highest sustainability standards with regard to environmental protection, cost efficiency, sociocultural benefits, and technical quality. Energy consumption was greatly reduced by district heating, which is supplied to the offices through the highly efficient thermal activation of the building's concrete ceilings.

Recycling of construction materials

In line with the European Commission's circular economy targets, our German country organisation is managing a research project for the reuse of recycled construction materials. This project, known as R-Beton (resource-saving concrete), was initiated in 2015 by several cooperation partners and receives funding from the German federal government. The project's aim is the development of rules on how to use recycled aggregates. This includes the utilisation of reprocessed sand, which currently cannot be used in wet concrete in most countries.

“ The use of by-products from other industries for the production of clinker and cement or the recycling of concrete from demolished structures enable us to manufacture concrete more sustainably.

Dr. Christian Artelt, Sustainable Construction Manager



Our Dutch subsidiary Mebin, which produces ready-mixed concrete, has contributed its practical knowledge of recycling technologies and the use of recycled aggregates in wet concrete to the EU-funded Hiser project. This expertise was put to use in the new REWINN recycling plant in Amsterdam, which HeidelbergCement and the local demolition company Theo Pouw put into operation in 2016. In this way, we secure access to high-quality recycled aggregates for the production of Ecocrete[®], a type of concrete that contains reprocessed aggregates. Ecocrete[®] has been marketed in the Netherlands since 2013 and is making an important contribution to the country's circular economy.

→ www.r-beton.de (German only)

→ www.hiserproject.eu



Production & Supply Chain

- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 → Local environmental impact
- 43 → Management of supplier relations



- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 → Local environmental impact
- 43 → Management of supplier relations



We manufacture our products in a responsible manner.

All of our facilities around the world have strict rules for ensuring **sustainable, environmentally compatible production processes**. Our suppliers also have to commit themselves to a **Code of Conduct** that they are assessed by.



CO₂ emissions → p. 35

22.6%

fewer specific net CO₂ emissions compared to 1990. This reduction corresponds to 598 kg CO₂/t cement. Over the period to 2030, we are aiming to lower emissions by 30% as compared to 1990 levels (not including Italcementi).

Solar power → p. 37

A 250 kW solar power plant

went into operation in **Burkina Faso** in 2016. In addition to providing the production and packaging facilities with a secure power supply, the power plant reduces the costs of conventional electricity.

Alternative fuels → p. 38

70%

This level of alternative fuels is achieved at our cement plant in Gorazdze, Poland. In 2016, HeidelbergCement increased its proportion of alternative fuels to 23.5% (not including Italcementi).

35 Environmental management

35 Energy and climate protection

37 → Alternative fuels

38 → Land use and biodiversity

41 → Local environmental impact

43 → Management of supplier relations

Because we are a raw materials company, our sustainability strategy focuses on environmental responsibility, climate protection, and ensuring the permanent availability of resources. One of the key aims that result from this strategy is the creation of sustainable production processes at all of our locations worldwide. However, we also want to sharpen our suppliers' awareness of our standards. That's why a Code of Conduct forms the basis of all of our partnerships and our contractors have to commit themselves to upholding this code.

Environmental management

In an effort to place environmental protection on a firmer footing at our production facilities and achieve continual improvements in this area, we plan to introduce certified environmental management systems at all of our cement plants worldwide by 2020. We will focus here on the ISO 14001 international standard and will also use recognised national standards. At the end of 2016, 75% of our integrated cement plants were operating with a certified environmental management system (not including Italcementi).

In line with the stipulations in our Sustainability Ambitions 2020, we conducted environmental audits at all business lines throughout the Group in 2016. Our goal is to analyse all of our locations in this manner by 2020. The audits conducted to date have led to the development of several measures to improve our environmental performance. These measures have now been successfully implemented. No violations of environmental protection laws that would have led to significant fines or non-financial penalties were reported during the reporting year.

Energy and climate protection

Due to the high temperatures needed to burn limestone, the production of cement consumes a lot of energy and thus causes combustion-related CO₂ emissions. When the raw material is heated to over 800°C, it is de-acidified, which leads to further, process-related CO₂ emissions.

As a result, climate protection and the reduction of CO₂ emissions, in particular, play a key role at our company. We have committed ourselves to do our bit to limiting global warming to no more than two degrees Celsius. To achieve this goal, we are actively forging ahead with the development of future-oriented technologies. We reinforced our ambitions in 2015 by joining the LCTPi (Low Carbon Technology Partnership initiative). In 2016, we presented our climate protection measures and innovative approaches at the UN Climate Change Conference in Marrakesh. As an energy-intensive company, we have been diligently striving for many years to reduce our CO₂ emissions. Between 1990 and 2016, we reduced specific net CO₂ emissions by 22.6% to 598 kg CO₂/t cement. Over the period to 2030, we are aiming to lower these emissions by a further 30% as compared to 1990 levels (not including Italcementi).

However, the climate protection-related values are different from those in 2015. On the one hand, in line with our Group reporting of sales volumes and revenue, joint ventures are no longer included. On the other hand, the key figures for climate protection have slightly worsened since 1 July 2016 due to the integration of Italcementi, which has not performed as well as HeidelbergCement with regard to climate protection.

- 35 → Environmental management
- 35 Energy and climate protection**
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 → Local environmental impact
- 43 → Management of supplier relations

Climate protection			
	2014	2015	2016
Specific net CO ₂ emissions (kg CO ₂ /t cement)	603	595	598
Alternative fuel rate	22.8%	22.7%	21.4%
Clinker ratio	74.9%	74.1%	74.4%

Thanks to our success and our transparent reporting, CDP (formerly the Carbon Disclosure Project) has included us in its Climate A List. This distinction confirms that we are among the world’s leading players when it comes to measures and strategies for combating climate change. In addition, HeidelbergCement was once again declared a Sector Leader Energy & Materials in the DACH region (Germany, Austria, Switzerland) as well as an Index/Country Leader DAX. The CDP represents more than 820 institutional investors with US\$100 trillion under management.

→ www.cdp.net/en

Participation in the EU’s emissions trading system

HeidelbergCement currently has 57 facilities in 16 countries that participate in the EU Emissions Trading Scheme (ETS). The debate regarding the reform of the EU ETS for Phase IV (2021–2030) continued in 2016. Even though many controversial topics were settled, no final decisions had been made by the end of the year. The three EU institutions – the European Commission, the European Parliament, and the member states – will now have to agree on a final regulation during the trilateral negotiations of 2017.

Emissions trading systems outside of Europe

Emissions trading systems are also being set up in regions outside of the EU. China, for example, is testing a variety of concepts in six of its provinces. One of these provinces is Guangdong. Because we operate a joint venture there, we closely monitor how the local emissions trading system is developing. However, the development of a national emissions trading system will be delayed in China until the end of 2017.

In the United States, California has had an emissions trading system, which we helped to develop, since 2013.

Innovations for climate protection

In 2015, we tested four different technologies for separating CO₂ from combustion exhaust gases at our plant in Brevik, Norway. On the basis of a preliminary study conducted in 2016, the Norwegian government has now decided to carry out a comprehensive feasibility study for the construction of a large-scale CO₂ separation facility at the same plant. The study will investigate whether 400,000 tonnes of CO₂ can be separated annually by an amine scrubber and stored underground. This facility would be the first major CCS (carbon capture and storage) plant in the cement industry.

→ www.norcem.no/en/carbon_capture

HeidelbergCement is participating in the EU-funded CEMCAP project for promoting the use of CO₂ separation technologies in the cement industry. Within the context of this project, we are working to further develop the oxy-fuel technology. The oxy-fuel method uses pure CO₂ rather than ambient air to cool off heated clinker. The gas is then fed into the combustion process through a rotary kiln. Pure oxygen is channelled into the rotary kiln for the combustion process. Because this combustion process also produces CO₂, a very pure stream of CO₂ exhaust gas is created from which only a small amount of gaseous impurities has to be removed. That makes the CO₂ much easier to use. We are currently working on the development of this technology on a pilot-plant scale at our facility in Hanover, Germany. To do so, we have installed a test cooler in order to determine whether clinker can be cooled with pure CO₂ without impairing process efficiency. This is one of the main preconditions for successfully using the oxy-fuel method in clinker production.

→ www.sintef.no/projectweb/cemcap

- 35 → Environmental management
- 35 Energy and climate protection**
- 37 Alternative fuels**
- 38 → Land use and biodiversity
- 41 → Local environmental impact
- 43 → Management of supplier relations



HeidelbergCement is also playing a major role in the LEILAC (Low Emissions Intensity Lime And Cement) project, which is also being funded by the EU. The goal here is to demonstrate the technological and economic feasibility of a process technology that helps separate the CO₂ that is released when the raw material is decarbonised in a very pure form. As scheduled, the first milestone was reached on 1 October 2016, when the basic design and concept of the innovative calcinator was defined and accordingly reported to the EU. In 2017, the construction plans will be drawn up in detail and the building of the calcinator will begin.

→ www.leilac.org.uk

In 2016, HeidelbergCement teamed up with the Department of Process Metallurgy and Metal Recycling at RWTH Aachen and the IASS in Potsdam to obtain funding from the German Federal Ministry of Education and Research for a three-year research project for the carbonation of minerals. The aim of this research project is to separate and store CO₂ with the help of natural and waste minerals in order to produce commercially usable construction materials.

Energy efficiency

In 2016, HeidelbergCement put a 250 kW solar power plant into operation in Burkina Faso. It generates electricity for the main systems of the Ouagadougou grinding plant and its packaging facility. This project was completed without any government subsidies. By means of this environmentally friendly power supply, we are not only reducing the costs of electricity but also protecting against blackouts in order to improve the available operating time of our production plant and the packaging facility.

The Environmental Protection Agency (EPA) has awarded the renowned ENERGY STAR® to six of our cement plants in the USA: Glens Falls (New York), Leeds (Alabama), Nazareth (Pennsylvania), Speed (Indiana), Union Bridge (Maryland), and Waco (Texas). The facilities were honoured for their above-average energy efficiency. In fact, the six facilities are among the most energy-efficient cement plants in the USA and fulfil the strict EPA criteria. The Union Bridge cement plant has received the ENERGY STAR® for the fourth time in a row, while the plants in Glens Falls, Leeds, and Nazareth have done so for the third time in succession.

Alternative fuels

Many waste materials and by-products from other industries serve as valuable raw materials for HeidelbergCement. We use these resources as alternatives to finite natural raw materials and fossil fuels in the production of cement. In this way, we are helping to conserve resources and reduce the problems that municipalities and industrial companies near our plants have with waste disposal. At the same time, these efforts are also reducing our CO₂ emissions, because the biomass which accounts for around 8% of the alternative fuel mix is classified as climate neutral.

35 → Environmental management

35 → Energy and climate protection

37 Alternative fuels

38 Land use and biodiversity

41 → Local environmental impact

43 → Management of supplier relations

Alternative fuels replace natural resources

In all of the countries in which HeidelbergCement produces clinker (the main component of cement), we investigate possibilities for using waste from municipalities, agriculture, and industry in an economically and environmentally responsible manner. In order to develop optimal solutions, we work together with regulatory authorities, waste producers, neighbours, employees, NGOs, and other stakeholders.

Despite the low price of coal, HeidelbergCement was able to increase its alternative fuel rate to 23.5% in 2016 (not including Italcementi). This increase was especially boosted by the countries in northern Europe, where we were able to use much more alternative fuels at all of the kiln lines. The increase was as high as 10% at some of the kilns, even though large amounts of alternative fuels were already being used before. Our Polish subsidiary also contributed substantially to the total result, thanks to an alternative fuel rate of 70% at its cement plant in Gorazdze.

We have also made efforts to increase the use of alternative fuels at the newly acquired Italcementi plants. In 2016, we achieved initial successes in France and Morocco, where around 15% of our energy needs are now met by old tires. In cooperation with waste producers, waste treatment companies and municipalities, we were able to develop a waste processing system in Morocco. Partnerships such as this one will be one of the main driving forces for improving the waste management industry in Morocco, and they were repeatedly mentioned during the UN Climate Change Conference COP22 in Marrakesh.

Following the integration of Italcementi, we will have to redefine the alternative fuel targets for our Group. The same applies to all of our other sustainability targets. We want to publish the reworked targets for 2030 by the end of 2017.

Use of hazardous wastes

The careful handling of hazardous wastes is a key element of every country's waste disposal infrastructure. For most types of hazardous waste, reuse in cement plants has proved to be a safe means of disposal and utilisation. The high temperatures (over 1,450 °C) and long incineration period in the kilns ensure that all harmful components are completely destroyed. This has been confirmed by measurements taken by independent state-certified institutes. At the same time, HeidelbergCement does not use certain types of waste, such as nuclear waste.

Land use and biodiversity

We only extract worthwhile deposits if they can be exploited in an environmentally compatible and economical manner. Before making any decision concerning the development of a new quarry or the expansion of an existing one, the company first conducts an extensive approval process in line with the corresponding laws and regulations. This process includes an environmental impact assessment and — if the affected area is of exceptional biological value — special biodiversity studies. In these studies, the priorities are set as follows: prevention, mitigation, compensation. We accordingly first check whether excavation work can be avoided or at least adjusted to local conditions in such a way that the ecosystem is not disrupted, that such disruptions are kept to a minimum, or that they can be reduced by means of corresponding compensatory measures.

- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity**
- 41 → Local environmental impact
- 43 → Management of supplier relations

Concepts for the limitation of land consumption

For environmental and economic reasons, we always strive to limit land consumption when planning our quarry and renaturation activities. As a matter of principle, the authorised raw material supply is always completely extracted in order to minimise land consumption. As a result, we prefer to expand existing quarries rather than develop new sites. Our production and plant facilities are also optimised so as to require the smallest possible amount of land area.

Biodiversity management at our quarries

Recultivation plans are now an integral part of approval processes. These plans define the goals and timetable for the reintegration of a quarry into the surrounding landscape. Even while a quarry is still in operation, we renaturate and recultivate those areas of the quarry that are no longer used.

As early as 2010, we began to collect and analyse information about the biodiversity of our quarries. In cooperation with our partner, BirdLife International, we conducted a study to determine how far our quarries are from nature reserves in Europe, Africa, and Asia. The study encompassed more than half of our active quarries worldwide.

“ Many of our sites provide an important refuge for rare species. To protect and enhance such species, we aim to implement biodiversity management plans at quarries of high ecological value.

Carolyn Jewell, Senior Expert Biodiversity & Natural Resources

We collect data on two key indicators at our quarries in Europe, Africa, and Asia:

- Proportion of active quarries with subsequent use plans
- Proportion of quarries in areas with a high level of biodiversity for which biodiversity management plans are being implemented.

Data for these two indicators was last recorded in 2015, when 85% of the cement-related quarries had restoration plans. The corresponding figure for aggregates quarries was 89%. By 2030 at the latest, we plan to increase this share to 100% in both areas.

In 2015, 74% of the quarries in areas with a high level of biodiversity were implementing biodiversity management plans at the cement business line, while the corresponding figure at the aggregates business line was 81%. As a result, there are approximately 200 biodiversity management plans in place today. We are steadily extending biodiversity monitoring to more and more quarries and are also implementing corresponding management plans.

Habitat protection

HeidelbergCement has been able to restore many different natural habitats by recultivating and renaturing former quarries. For example, we recultivated 300 hectares of endangered banksia forests in Western Australia and are currently renaturing a high-priority reed bed in the United Kingdom at a single location measuring up to 460 hectares. In order to effectively promote biological diversity, we became the first company in the construction materials sector to define uniform standards for renaturation, recultivation, and habitat management. These standards are combined in a guideline that is being implemented at our locations throughout Europe (a comparable handbook is also used in Asia and Oceania). The guideline focuses on the following types of habitats:

- Aquatic habitats: lakes, ponds, fens, and springs
- Terrestrial habitats: forests, grasslands, cliffs, and escarpments
- Anthropogenous habitats: settlements, farmland, and recreation areas.

- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity**
- 41 → Local environmental impact
- 43 → Management of supplier relations

This is especially true of habitats where many endangered species have settled and that are associated with the early stages of ecological succession. In Europe in particular, our quarries are now important refuges and stepping-stone biotopes for especially protected species such as the sand martin, the yellow-bellied toad, the eagle-owl, and the tree frog. In order to highlight the importance of quarries for the preservation of biodiversity, HeidelbergCement has published a series of books about various groups of species. The book published in 2016 focused on butterflies and other insects. HeidelbergCement takes part in numerous species protection programmes run by governmental and non-governmental institutions and thus supports local and international nature conservation efforts.

Cooperation with nature conservation organisations

We work with many local nature conservation organisations worldwide. Since 2012, we have also been cooperating with the largest international nature conservation organisation, BirdLife International. Our work with BirdLife International and our cooperation with its national partner organisations help us minimise our environmental impact and promote biodiversity in our quarries and the surrounding areas. An interactive map on the website of BirdLife provides information about our diverse range of joint projects on the local level:

→ www.birdlife.org/europe-and-central-asia/project/project-map

The acquisition of Italcementi has given us facilities in additional countries that we want to include in our cooperation with BirdLife International. At the same time, we want to continue to cooperate with nature conservation organisations that Italcementi had worked with. An example of this is the close cooperation of the facilities in France with the International Union for Conservation of Nature (IUCN). This collaboration has existed for many years and will be continued in the future.

→ www.birdlife.org

→ www.iucn.org

Quarry Life Award

In 2016, HeidelbergCement organised the Quarry Life Award for the third time. The research competition is targeted at scientists, university students, and non-governmental organisations as well as our neighbours in the communities where our facilities are located. All of these groups are invited to develop biodiversity projects for our company's quarries worldwide and, provided they qualify to participate in the competition, to implement them. In this way, we want to promote the investigation of the quarries' biological value as well as the development of new methods that would benefit scientists, government authorities, and our company.

In 2016, more than 490 applications were received, from which the juries selected 94 projects to compete for the award at the national and international levels. More than 300 researchers and many other interested individuals worked to implement these projects in 69 quarries and gravel pits in 21 countries. The projects were of outstandingly high quality and provided a wealth of information, data and specific recommendations on how we can improve biodiversity at our locations. The first prize, amounting to €30,000, was awarded to a Spanish team investigating the ecological connectivity of waterbodies in gravel quarries for semi-aquatic mammals, and explored how to enhance this connectivity for greater biodiversity gain.

→ www.quarrylifeaward.com

- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 → Local environmental impact**
- 43 → Management of supplier relations

Local environmental impact

Air pollution and noise

In addition to addressing the issues of dust and noise, Heidelberg-Cement faces a challenge in terms of the air pollutant emissions of the cement business line. Whereas dust and noise are emitted from different points in the production process, nitrogen oxides, sulphur oxides, heavy metals, and other airborne pollutants are mainly emitted from kilns. These pollutant emissions are regularly measured and checked to ensure the approval requirements are being met.

In 2016 we continued to make technical improvements to reduce the emissions of dust, nitrogen oxides (NO_x), and sulphur oxides (SO₂). In order to lower dust emissions, for example, we installed a fabric filter into the clinker cooler in Geseke, Germany. Moreover, an electric filter was replaced by a fabric filter at the Czech cement plant Radotin. Both of the plant's kilns are now equipped with state-of-the-art filters. To reduce dust emissions, we have also invested in new and additional fabric filters in the UK, China, and Bangladesh.

At the Ribblesdale cement plant in the UK, we upgraded the sulphur oxide scrubber in order to meet new energy efficiency standards. At the cement plant in Guangzhou, China, we put a new sulphur oxide gas scrubber into operation in order to reduce emissions in line with the latest standard.

Nitrogen oxide emissions were meanwhile cut in Lengfurt, Germany, by installing an SCR (selective catalytic reduction) system. The SCR system at the cement plant in Rezzato, Italy, has been in operation now for two years. It keeps emissions at the plant low while ensuring the highest levels of energy efficiency.

Reduction of specific emissions (g/t clinker)



-37.8%
2008-2016



-15.3%
2008-2016



-63.6%
2008-2016

In September 2015, the USA introduced new National Emission Standards for Hazardous Air Pollutants (NESHAP). In order to be able to meet them, we implemented measures for monitoring and reducing dust, mercury, hydrochloric acid, and hydrocarbon emissions at all of our plants in the USA in 2015. This also applies to the Italcementi plants in the USA. However, the measures have not been completely implemented at one of the Italcementi locations because the raw material used there varies greatly in its organic composition. This considerably complicates the monitoring and reduction of hydrocarbon emissions. We expect to implement the necessary measures during 2017.

In 2016, activities at our aggregates business line continued to focus on reducing noise and dust emissions. For example, we replaced the old primary crusher at the facility in Slapy, Czechia, resulting in greater efficiency and less noise as well as dust emissions. At the quarry in Bíl Kámen, we replaced the old screening plant with a new, more efficient and dust-proof system.

- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 → Local environmental impact**
- 43 → Management of supplier relations



In Hong Kong, we modernised the dust filters at our ready-mixed concrete plants so that they meet the new emissions limit of 10 mg/cbm. In addition, the main production facilities of the Sg Besi plant in Kuala Lumpur, Malaysia, have been completely enclosed since 2016. This reduces dust emissions and improves the plant's appearance.

Water management

HeidelbergCement has committed itself to the goal of mitigating the impact of its activities on natural water resources to the greatest extent possible. We comply with stringent environmental regulations to ensure that our raw material quarrying will not endanger local bodies of surface water and ground water resources.

In 2014, a global water-risk study supplied us with fundamental information for the creation of a Group-wide guideline concerning sustainable water management in the cement, aggregates, and ready-mixed concrete business lines. The study showed that 14.3% of our plants are located in regions that are officially defined as suffering from water scarcity, i.e. regions where less than 1,000 m³ of water is available per person each year. In response to this situation, we began developing individual water management plans for these facilities in 2015 and want to extend this measure to all of these plants by 2030. The

plans include concepts and measures for reducing water consumption in order to ensure the sustainable use of scarce water resources. In addition, the plans aim to involve external local stakeholders in order to ensure the water utilisation concepts promote the common good so that local water risks are minimised. We will begin this process at those locations where water scarcity is an especially urgent problem.

In recent years, we have also introduced a water reporting system at all of our company's cement plants. As a result, we have been able to report reliable consumption figures for the second year in a row. By the end of 2016, HeidelbergCement had also equipped half of its cement plants with water recycling systems. The specific water consumption amounted to roughly 300 litres per tonne of cement in 2016. This figure also includes the newly acquired Italcementi plants.

In 2015, we started to introduce these indicators at our aggregates and ready-mixed concrete business lines as well. However, we are only collecting this information in regions suffering from water stress, due to the large number of plants involved. In this context, water stress means that less than 1,700 m³ of water are available per person each year. This information will be collected at all of our plants in the affected regions by 2030.

To reduce water consumption, we launched measures at a variety of Group locations in 2016. At the Spy Hill quarry in Canada, for example, we relocated the water collection tanks to the lowest-lying areas of the site so that quarry water and rainwater can be optimally collected in order to reduce the use of fresh water.

- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 Local environmental impact**
- 43 Management of supplier relations**



At the ready-mixed concrete business line, the focus was on the recovery of process water and residual concrete. In Georgia, for example, we installed a recycling system in our new plant in Tbilisi. In Croatia, we built a new settling basin at the plant in Vinkovci and modernised the existing recycling system at the Donja Bistra plant. In Australia, we optimised our water recycling measures nationwide.

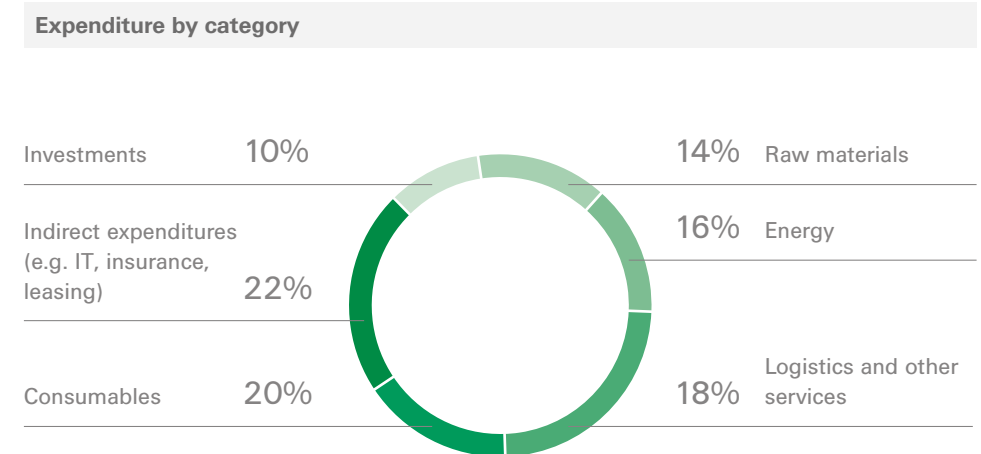
Waste materials

Our primary focus in terms of waste management concerns the kiln dust that is a by-product of clinker production. This dust has to be removed from the kiln systems at several facilities in order to prevent disruptions to proper kiln operations. We generally use the kiln dust as an alternative raw material in cement production, thereby improving our ecological efficiency. In some exceptional cases, the composition of the dust prevents us from being able to recycle it 100%. A second possibility for us is to use the kiln dust as a raw material for the production of special concrete. If no other option is available, it can be deposited in underground landfills in a controlled process. The local operating permit at each plant specifies the allowable amount of process-related waste products and how it is to be used.

Management of supplier relations

In 2016, HeidelbergCement procured goods and services with a total value of €9,968 million (2015: €9,045 million). This corresponds to a share of 66% of total revenue.

These costs are distributed among the various categories as follows:



HeidelbergCement strives to ensure compliance with sustainability standards in the supply chain. Group-wide procurement guidelines therefore provide clear instructions regarding supplier relationships and procurement activities. The most important tool for this purpose is the Supplier Code of Conduct. We consistently communicate this code to our global and local suppliers, who are obligated to act in line with the principles defined in the Code. The Code incorporates the key elements of the SA 8000 International Social Accountability Standard, the ISO 14001 international environmental standard and the principles of the International Labour Organisation (ILO). If a supplier fails to abide by the Code and does not correct a weakness or deficiency that has been identified, this can result in the termination of the contractual relationship.

- 35 → Environmental management
- 35 → Energy and climate protection
- 37 → Alternative fuels
- 38 → Land use and biodiversity
- 41 → Local environmental impact
- 43 Management of supplier relations**

Within the framework of a working group in the international Cement Sustainability Initiative (CSI), HeidelbergCement is also helping to establish a standardised approach to sustainable supply chain management in the cement industry. The working group has developed a joint catalogue of principles that are based on the UN Global Compact and ILO standards and are continually reviewed and improved. This Sustainable Supply Chain Management Guide encompasses the following topic areas:

- 1) Occupational health and safety
- 2) Working conditions
- 3) Freedom of association and protection against retaliation
- 4) Forced labour
- 5) Child labour
- 6) Anti-discrimination
- 7) Observance of environmental regulations
- 8) Environmental impact management
- 9) Bribery and corruption; measures against money laundering
- 10) Transparency and integrity

On the whole, HeidelbergCement made major progress in 2016 with regard to the systematic management and assessment of its suppliers. The basis for the continuous improvement of the supply chain's sustainability performance is provided by an online supplier management platform that has already been introduced in several countries and is currently being prepared for global rollout. This platform simplifies the systematic recording and consolidation of supplier data as well as its assessment in accordance with the sustainability aspects addressed in our Supplier Code of Conduct.

The roadmap for 2017

In 2017, we want to improve our supplier management not only by rolling out the online platform but also by pursuing three key objectives.

Firstly, HeidelbergCement will once again critically review its Supplier Code of Conduct. If any potential for improvement is discovered, the Code will be updated accordingly. Secondly, we will further optimise the supplier management platform by introducing automatic interfaces to externally accessible databases that monitor the suppliers' sustainability performance. In this way, we will incorporate external expertise for evaluating the suppliers on the basis of pre-defined criteria. Such external databases have already been successfully used in some of the major countries in which our Group does business and they will be introduced worldwide, beginning in 2017. Moreover, we will establish processes for the automated and targeted monitoring of supplier risks in certain regions or categories. Thirdly, we will develop a concept for standardised, physical supplier audits and on-site inspections. These measures will augment the automated controls and ensure that the sustainability standards and the Code are actually, transparently, and sustainably adhered to throughout the supply chain.



In 2016, we laid the groundwork for sustainable supplier management. In 2017, we now have to begin implementing the new standards and processes throughout the Group.

Dr. Thomas Krüger, Head of Supplier Management



Employees & Employment

- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 → Occupational health and safety
- 52 → Human resources development
- 54 → Diversity management



- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 → Occupational health and safety
- 52 → Human resources development
- 54 → Diversity management



Good work needs a positive environment.

Attractive working conditions are a key factor to our success. As a manufacturing company, we place top priority on occupational safety and protecting the health of our employees.



Growth → p. 49

60,424

women and men work for HeidelbergCement worldwide (2015: 45,453).

Training → p. 51

47%

of all training hours are undertaken in the area of occupational health and safety. At some of our locations, we train not only our own employees but also those of external companies.

Accident rate → p. 52

80%

of all locations were accident-free in 2016 (not including Italcementi). In future, we will intensify our support for preventative measures at locations with an elevated accident rate.

47	Principles
47	Integration of Italcementi
49	→ Employment and co-determination
49	→ Remuneration policy and work time regulation
50	→ Occupational health and safety
52	→ Human resources development
54	→ Diversity management

More than 60,000 women and men work for HeidelbergCement worldwide. Their achievements make us one of the leading companies in our sector. That's why it is crucial to provide them with good and attractive working conditions. As a manufacturing company, we place a high priority on occupational safety and the protection of our employees' health.

Principles

For us, a good human resources policy means having due and proper regard for our employees with their range of talents and wealth of experience. And it therefore means creating the best conditions for them to do their job with efficiency and dedication. This includes fair remuneration, tailor-made qualification opportunities, a non-discriminatory working environment and flexible conditions that allow them to reconcile professional and family demands. As a manufacturing company, we also place high priority on occupational safety and the protection of our employees' health. We are proud of the international workforce at our headquarters and in our technical centres in Heidelberg and Leimen, which comprises local managers and employees from over 40 countries. Our employees form the foundation of the worldwide success of HeidelbergCement.

Our Leadership Principles prescribe binding rules for personnel management. They concern, for example, respectful behaviour towards co-workers, employee development, and a commitment to our company's strong feedback culture. The main leadership principles are embedded in standard human resources processes and described in detail in HeidelbergCement's Human Resources Guidelines.

Law-abiding and ethical behaviour is a key requirement of good leadership and the conduct of each and every employee. This is why the Managing Board has approved a Code of Conduct that is binding throughout the Group. This Code specifies our values and the ethical and legal standards that apply at our company. In particular, this includes non-discriminatory employment conditions and an open and fair dialogue with employee representatives.

HeidelbergCement is also committed to upholding the ILO's Core Labour Standards, the OECD Guidelines for Multinational Enterprises, and the UN's Universal Declaration of Human Rights. We have also enshrined this commitment in our Leadership Principles. We expect our employees and our business associates worldwide to act in conformance with these key guidelines and recommendations.

Integration of Italcementi

Following the acquisition of Italcementi on 1 July 2016, a key area of focus for human resources has been to integrate the new employees. We view 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 order to discover how each corporate culture is perceived, we conducted a "cultural baselining" survey among the employees of Italcementi and HeidelbergCement. The results of the survey, which had a response rate of 79%, showed that there are very few differences between the way the cultures are perceived internally and externally. HeidelbergCement was seen as "fair" and "transparent" throughout the company. For us, this is an important indication that our policy of open communication during the acquisition has laid the foundations for successful integration.

- 47 → Principles
- 47 → Integration of Italcementi**
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 → Occupational health and safety
- 52 → Human resources development
- 54 → Diversity management



We conduct regular employee surveys – known as “pulse checks” – to gauge the degree of employee satisfaction with the integration process. Each survey is sent to over 2,000 employees in all the units and countries affected. The response rate has been consistently around 60%. At the last pulse check, in December 2016, over 90% of respondents said they recognised the economic benefits of the acquisition. The same proportion expects the integration process to be a success.

Responses to the pulse check survey also help us make fast and targeted improvements to the integration process. For example, 10% of the surveyed employees said they would prefer more-frequent in-house information on the integration process. In response, management has stepped up communications. In our employee magazine, we regularly inform employees of the results of the pulse check surveys and of progress in the integration process.

We also run intercultural training courses and team-building workshops to promote mutual understanding and integration. Under the banner of “Grow Together” various integration meetings with managers and specialists have been held for employees from Group functions in Heidelberg and Bergamo.

Organisational adaptations

In the reporting year, we have continued to adapt the organisational structure in the former Italcementi countries on the basis of our own well-established country structure. In the area of human resources, activities focused on the introduction of key processes on a Group-wide basis as of 1 January 2017 and on the integration of individual human resources departments within the global human resources organisation. Other key tasks at human resources were the closure of Italcementi locations with Group functions in Bergamo and Paris, and the relocation of key functions to Heidelberg. Moreover, in line with the reorganisation of Group areas, we have started the process of relocating regional functions from Brussels and Oslo to Heidelberg.

We have also taken a major step towards our goal of integrating highly qualified employees within the workforce at administrative headquarters and our technology centres in Heidelberg and Leimen, where 40 employees from Italcementi are now working.

This successful process of integration is also reflected in our European Works Council. A joint negotiating committee made up of representatives from the two European works councils of Italcementi and HeidelbergCement had already been established in September 2015. Its principal task was to conduct consultation and information procedures with company management and to prepare for the amalgamation of the two European works councils. Following new elections in August 2016, the new and enlarged European Works Council was constituted at the regular annual meeting in September 2016.

- 47 → Principles
- 47 → Integration of Italcementi
- 49 Employment and co-determination**
- 49 Remuneration policy and work time regulation**
- 50 → Occupational health and safety
- 52 → Human resources development
- 54 → Diversity management

Employment and co-determination

Development of workforce numbers worldwide

At the end of 2016, HeidelbergCement employed a total of 60,424 women and men (2015: 45,453). This increase of 14,971 employees was essentially due to the acquisition of Italcementi. Some 15,150 employees joined the Group as a result of the initial consolidation of Italcementi. In addition, the workforce in Australia increased by around 250 employees through the acquisition of the aggregates company Rocla Quarry Products and the insourcing of truck drivers. Due to our generally positive business development in the United Kingdom, Germany, Belgium, and the Netherlands, a further 420 employees joined our workforce. This was offset by the reduction of around 930 jobs, particularly in North America, Norway, Poland, Georgia, Kazakhstan, Indonesia, India, Malaysia, and sub-Saharan Africa.

Dialogue with employee committees

HeidelbergCement has a long tradition of employee co-determination, which has demonstrated its worth at our business locations in Germany. The employee committees at the individual locations constitute the Central Works Council and its associated committees for the company and for the Group Works Council. Moreover, employees are equally represented on the Supervisory Board.

Managers and employee representatives engage in a continuous, constructive dialogue on the European Works Council. The council supplements the information and consultation processes that take place on a local level in the various European countries.

In addition, there are labour unions and similar organisations in nearly all countries in which HeidelbergCement operates. As required by our Code of Conduct, we also engage in a fair and open dialogue with their representatives.

In the event of reorganisation or job cuts, we work in close consultation with employee representatives to achieve a socially acceptable solution. For example, we initially examine the possibility of transferring employees within the Group. If this proves impracticable, we try to cushion the individual impact by means of retraining, early-retirement schemes, outplacement, and severance payments. In the case of the closure of the Italcementi Group headquarters, for example, a comprehensive social plan was negotiated with employee representatives and trade unions. This comprised detailed provisions either for a transfer to Group headquarters in Heidelberg or to the Italian country organisation, or for severance from the company.

Remuneration policy and work time regulation

Our remuneration systems are based on performance and results, in accordance with the market standards for internationally operating companies in our sector. In addition to fixed salaries, which are specified by collective bargaining agreements or individual employment contracts, our employees also receive variable remuneration elements that depend on individual job performance and the success of the company.

We want the variable component to make up a large share of our managers' total remuneration package so that the connection between their personal performance and the company's success is directly reflected. For the period from 2016 to 2018/19, we have created a Group-wide, long-term bonus plan for the 190 executives from our top management level. This bonus plan pursues the same objective as the long-term bonus plan for the Managing Board.

The employees of our foreign subsidiaries profit from attractive remuneration systems that correspond to the conditions of the respective local labour markets. Collective regulations apply to more than half of the Group's employees.

- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation**
- 50 → Occupational health and safety**
- 52 → Human resources development
- 54 → Diversity management

Personnel costs and social benefits

Expenditures for wages, salaries, social security, pension contributions, and social assistance increased by 17.6% to €2,674 million (2015: €2,274 million). This corresponds to 17.6% of revenue (2015: 16.9%). The rise in personnel costs is essentially the result of the acquisition of Italcementi as of 1 July 2016 and of effects due to further changes in the scope of consolidation.

The amount of the contribution to the pension scheme at HeidelbergCement corresponds to accepted market standards. In Germany, we have created a matching model for the pension scheme, with contributions from the employer and the employees. In countries without statutory retirement or health insurance, we support our employees at least in line with local practices.

Work time regulation

In our work time regulation practices, we conform to the legal requirements in effect at our locations. We promote adherence to these regulations by means of our compliance system, which enables employees to individually report possible violations (passive monitoring). To promote flexible work time options, we offer models such as flexi-time, work time accounts, part-time positions, and leaves of absence to our employees in Germany. Older employees have the option of switching to pre-retirement part-time work. Part-time work currently accounts for 11.4% (2015: 11.0%) of all positions at HeidelbergCement AG and for 2.4% (2015: 2.2%) of the positions at the Group as a whole.

Occupational health and safety

Occupational health and safety have top priority at HeidelbergCement and are, in fact, two of our main corporate values. Our stated objective is to minimise the risk of accidents and injuries, and the risk of occupational illness, by means of effective preventative measures.



Our principles for protecting the workforce are specified in our Group Policy on Occupational Health and Safety.

→ www.heidelbergcement.com/en/occupational-health-and-safety

Group standards

In 2016, we further improved the Group's technical and organisational safety standards and strengthened the company's safety culture. In particular, we focused on work in enclosed spaces, such as silos, and formulated a new Group standard for this purpose. We have also used the harmonisation of standards in the wake of the acquisition of Italcementi to revise and modify all former Group requirements. Work management systems corresponding to, for example, the common international OHSAS 18001 standard have already been introduced at most of our plants. These systems require site managers to employ a structured approach involving plans, clear working rules, clearly defined responsibilities, and control procedures in order to ensure continuous improvement and to provide even more effective accident prevention. In 2016, we introduced management systems in accordance with OHSAS 18001 at further plants in Russia, Estonia, Lithuania, and Liberia, while other plants were able to renew their certification.

- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 Occupational health and safety**
- 52 → Human resources development
- 54 → Diversity management

Worldwide, 80% of our operational locations now have occupational health and safety management systems. Additional locations will follow in 2017. The locations newly acquired from Italcementi have all introduced an internal management system in recent years. This system meets the requirements of the International Labour Organization (ILO) and is regularly checked by internal auditors.

To enable us to identify and exploit further improvement potential, we have also conducted, in addition to the required management audits, a total of 64 Health & Safety Improvement Reviews worldwide at locations with elevated accident figures.

Occupational safety as a management task

Even though we have been continuously improving the technical and organisational aspects of occupational health and safety for many years now and have further reduced accident frequency, serious accidents, and even deaths continue to occur at our facilities, and the cause is often human error.

All of the management levels at HeidelbergCement are responsible for occupational health and safety. Line managers are expected to set an example in this area. To underline this fact, we shall once again be holding a Group-wide training initiative in 2017. At the same time, we emphasise in our Group Policy on Occupational Health and Safety that every employee, contractor, and visitor is responsible for complying with the occupational safety regulations.

Together with this Group guideline, we have also introduced a series of basic rules that are binding for all employees and contractors. These basic rules relate to actual accident black spots that are already covered by our Group standards but still demand constant vigilance. In 2016, these basic rules were the subject of a high-profile information campaign throughout the Group and were made part of the Group Safety Week. The aim here was to ensure that the people concerned remain aware of these risk areas and thereby to reduce the number of accidents, especially those involving fatalities.

Our Group-wide Safety Week, which is held every year at the end of September, has become an integral part of our company training activities. During this Safety Week, both our employees and our contractors receive occupational safety training and are made more aware of dangerous situations. In a host of local events, all of which are initiated and supported by line managers, we emphasise how important it is for everyone to work together in order to ensure occupational health and safety measures are effective. Among the various health and safety issues that were addressed by these events in 2016, local units focused particularly on work in enclosed spaces and safe driving.

We place a high priority on providing our employees with training and instruction in the field of occupational health and safety. This is reflected in the fact that 47% of all training hours are concerned with this topic and that a number of our larger locations have now set up special training centres where not only their own employees but also those from external companies are instructed.



Occupational safety is a management responsibility. However, all persons, whether employees, contractors, or visitors, are also required to ensure that they are aware of the risks involved in an activity so as to avoid danger to themselves and others.

Dr Klaus Hormann, Manager Group Health & Safety

- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 Occupational health and safety**
- 52 Human resources development**
- 54 → Diversity management

Accident management software

In 2015, we introduced software for the Group-wide registration of accidents. This has proved its worth, leading to greater transparency both for line managers and also for safety personnel. The software has replaced local programmes and simplified the analysis of accident causes. We also use it now to record and analyse near-accidents – especially those with the potential to be much more serious – so as to be able to take more appropriate corrective or preventative measures. We will further enhance the software so that it can be used for other applications as well.

Development of accident figures

Compared to 2015, accident frequency in our core business fell by 9% (not including Italcementi). Despite the reduction, we are still not satisfied with this result. In 2016, around 80% of all our locations were accident-free (excluding Italcementi locations), and many of them have remained so for a number of years. Overall, however, this improvement is too small. Taking into account the locations newly acquired from Italcementi as of 1 July 2016, accident frequency remained virtually unchanged from the previous year. Our priority task is therefore to provide more effective support for those locations at which accident frequency in 2016 either increased significantly compared to the previous year or are on a high level overall.

Compared to 2015, the number of fatalities fell in the reporting year (not including Italcementi). Nevertheless, we still had to report the death of two of our own employees in 2016, who lost their lives as a result of work accidents. In addition, we must also report the death of five employees from external companies. At former Italcementi locations there were fatalities involving two of our own employees and two from external companies. These fatalities are a very painful loss and clearly show that we still need to further intensify our efforts. We analyse every fatality in depth and the Managing Board discusses all such cases. Appropriate measures are then drawn up and shared throughout the Group in order to prevent similar accidents from happening at other locations.

Occupational illnesses

The general sick rate has been low at HeidelbergCement for many years, amounting to around 2% of all hours worked.

Most of the cases of occupational illness acknowledged in recent years have involved noise-induced hearing impairment. In addition, some employees suffered from back problems and other musculoskeletal disorders.

To prevent job-related illnesses, we check our work sites for exposure to factors hazardous to health and regularly conduct medical examinations of our employees. In countries with less-developed statutory health care systems, our subsidiaries offer comprehensive health check-ups for all employees and in some instances for their families. In regions where HIV/AIDS, Ebola, or malaria frequently occur, the local units have set up programmes to advise the employees and inform them of the risks. These services are mostly offered through our own medical stations or the medical staff of in-house hospitals.

Human resources development

Talent management

Qualified, motivated employees are a key prerequisite for the long-term success of our company. That's why our Group-wide human resources policy focuses on identifying and further developing highly talented individuals and competing with other companies to retain them. We use the HeidelbergCement competence model to do so. This model defines the professional and personal talents and skills that are crucial for our business success. It thus allows the respective supervisors to carry out systematic Group-wide evaluations of performance and potential on the basis of standardised criteria. It also serves as a basis for strategic executive development and effective succession

- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 → Occupational health and safety
- 52 → Human resources development**
- 54 → Diversity management

planning. Supervisors and employees hold structured appraisal interviews in which they discuss development opportunities and prospects. The dialogue is primarily geared towards senior and middle management, experts and future executives. It helps us to attain three goals:

- To fill key positions worldwide with top-quality candidates from within the company;
- To develop highly talented individuals in a targeted way;
- To bind employees to the Group over the long term by offering individual development planning programmes.

Training and career development

Sustainable human resources work means investing in the systematic training of our staff and thus in recruiting and training highly qualified young employees. In Germany as a whole, 5% of our employees are involved in training programmes (2015: 5%). Around 91% of the people who complete their traineeships are retained as permanent employees (2015: 80%).

Technical and mechanical skills are indispensable for ensuring that process engineering and maintenance activities are properly carried out at our plants. Besides professional training, we therefore offer master craftsman courses every year at the Verein Deutscher Zementwerke (VDZ). A number of years ago, we expanded our training programme through the addition of specially developed, multilingual VDZ e-learning courses on cement production.

In the reporting year, our Aggregates Academy continued to offer training and career development courses in the aggregates business. All in all, more than 270 training courses were held in 18 countries, ideally in the form of practically oriented instruction on site at our production locations. In 2016, the focus of training courses right across the company's hierarchy was on achieving continuous improvement in production processes. The Aggregates Academy, whose trainers are employees of our company, has also developed several e-learning modules and video clips as well as printed and electronic handbooks. These enable employees to learn on their own at their workplaces. We

have also introduced additional CREW training modules at our plants. These focus on optimising the use of resources, including ways of reducing fuel consumption when operating construction machinery.

Our Cement Academy, which is part of the HeidelbergCement Technology Center (HTC), offers seminars, training courses, and technical simulations for engineers from our cement plants worldwide. In the reporting year, the range of training at the Cement Academy was expanded through, for example, the addition of courses in maintenance at the master craftsman level. More than 600 employees from 43 countries took part in one of 38 training courses, which lasted up to a week. 50 of the participants were employees of Italcementi. In addition to these courses at the Cement Academy, we have also introduced the Cement Manufacturing Curriculum – an e-learning programme in several languages. More than 1,400 employees are already registered for this programme.

As a rule, the training materials and courses at both academies are offered in the employee's native language. The training measures are supported by local managers who themselves have been trained in adult education techniques in line with the "train the trainer" concept.



The mission of the Aggregates Academy is to promote technical training and knowledge sharing. It thereby supports continuous improvement at our aggregates sites and within our management team globally.

Sheronda Marenke, Aggregates Academy and Engineering Analyst

47	→ Principles
47	→ Integration of Italcementi
49	→ Employment and co-determination
49	→ Remuneration policy and work time regulation
50	→ Occupational health and safety
52	Human resources development
54	Diversity management

As was the case in the previous year, occupational safety was a key focus of our Group-wide training and career development programmes in 2016. Around 47% (2015: 50%) of all the training measures were devoted to this topic. Other focal points included specialist career development (31%; 2015: 30%) and advanced management training (5%; 2015: 6%). On average, each of the Group's full-time employees spent 26 hours (2015: 31 hours) on training measures.

Our extensive training and career development programmes cover nearly all areas of work and feature a practical and business-oriented curriculum that enables our employees to increase their skills in a targeted way.

Management training

The motivation and skills of our managers are key reasons why HeidelbergCement occupies such a strong position in the global competitive field. In order to prepare managers for their future assignments and challenges, we offer training courses that are specially tailored to the needs of our company. Training is provided in classic disciplines such as strategy, leadership, and management, and in technical issues in, for example, the area of engineering. The standardised course content ensures that everyone at the company develops a shared understanding of strategy, leadership, and integrated management.

Securing and promoting young talent

The promotion of future executives continued to be a very important objective during the reporting year. We always offer highly motivated and qualified college graduates international training programmes that focus on engineering, sales, finance, human resources, purchasing, and IT. In each year since 2013, HeidelbergCement has been awarded the seal of approval of the "Initiative für karrierefördernde und faire Trainee-Programme" in recognition of the excellence of its programme for the advancement of future executives. As a member of the Fair Company Initiative, we have committed ourselves since 2004 to create fair working conditions for interns and job starters, and have carried the Fair Company seal of approval since then.

In 2016, we hired a total of 256 (2015: 296) college graduates. At present, 875 (2015: 828) employees are participating in programmes that prepare them for higher-level tasks.

In 2011, we launched a pilot project in Europe and Central Asia that prepares high-quality engineers from the cement business line for higher-level engineering positions. After completing the introductory Engineer in Training programme, the participants then spend several years going through precisely defined rounds of technical training at various plants in Germany and abroad. This training is supplemented by additional courses in management and leadership. Since 2013, we have been expanding this programme to other Group areas, such as Africa and Asia.

At the end of 2015, the Heidelberg Young Professionals (HEYP) network was set up in Germany. The aim of this network, which is run by employees, is to promote the exchange of knowledge and information between different areas of the company and to support the personal and professional advancement of its members.

Diversity management

Generation management

Like other companies, HeidelbergCement is also faced with the consequences of demographic change. Around 12% (2015: 14%) of our employees are younger than 30. Most of our employees are aged 30 to 49; they constitute about 52% (2015: 51%) of the Group's total workforce. A total of 36% (2015: 35%) of our employees are over 50. This age group's share of the workforce will rise in many countries in future.

47	→ Principles
47	→ Integration of Italcementi
49	→ Employment and co-determination
49	→ Remuneration policy and work time regulation
50	→ Occupational health and safety
52	→ Human resources development
54	Diversity management

We are responding to this development with numerous regionally adapted measures that are intended to maintain the employees' ability to work and to promote cooperation between people of different generations. In Germany, for example, we have further expanded our range of health management services and consolidated them in our FIT for LIFE initiative. Besides encompassing a preventative programme for the early detection of illnesses and risk factors, the initiative primarily helps employees take a proactive approach to leading a healthy life. In 2016, the emphasis was on check-ups for skin cancer, flu vaccinations, special Health Days, and presentations on health-related issues. In future, our health management activities will continue to focus on preventing typical age-related health risks and raising employees' awareness of this issue. As a result, we particularly promote company sports activities for people of all ages.

Diversity as a success factor

When putting together teams of employees, it is our Group-wide human resources policy to place a priority on diversity. We see diversity as a management concept that brings together people with different cultures, personalities, skills, and experiences in such a way as to reflect the international and multiform character of our markets, our customer base and our business environment. We achieve this goal by:

- Appointing local country management in order to create an international leadership team;
- Maintaining an international workforce at corporate headquarters;
- Ensuring a complementary composition of the management and the various teams (nationality, skills, experience, age, gender, etc.);
- Ensuring the percentage of women in leadership positions is as high as women's share of our entire German workforce.

The goal is to recruit and promote highly qualified, top-performing employees worldwide and to harness their various social and professional skills so as to contribute to our company's business success.

The international character of our management team enables us to benefit from a varied spectrum of experiences in different cultures and thus to react more flexibly to global challenges and also satisfy the needs of local markets. Local managers hold around 76% of all of our senior management positions.

We make sure that employees from the countries in which we operate are represented in the workforce at our Group headquarters. We benefit greatly from their knowledge of local markets, and their presence makes it easier to work with colleagues on site. Of the 616 employees at our Group headquarters and the technology centres (Competence Center Materials and HeidelbergCement Technology Center) in Heidelberg and Leimen, 433 are from Germany and 183 are from 41 other countries all over the world.

In early 2013, we signed the Diversity Charter as an affirmation of all our activities in this area to date and as a public statement of our respect for diversity. To mark the German Diversity Day in 2016, we held a Diversity Week at our headquarters in Heidelberg, featuring a wide range of lectures, panel discussions, and workshops.

→ www.charta-der-vielfalt.de/en

Women in leadership positions

At our company, we believe diversity also means that when we are hiring to fill management positions, the ratio of women to men should reflect the corresponding ratio in our workforce as a whole. In 2016, women accounted for 13% of the total Group workforce and for 10% of senior managers.

In Germany, HeidelbergCement and other DAX-listed companies signed a voluntary commitment in 2011. As a result, we committed ourselves to more than double the share of women in management positions in Germany: from 7% in the base year of 2011 to 15% in 2020. In 2016, women accounted for 16% of our total workforce in Germany and held 7% of leadership positions in the top, senior, and middle management.

- 47 → Principles
- 47 → Integration of Italcementi
- 49 → Employment and co-determination
- 49 → Remuneration policy and work time regulation
- 50 → Occupational health and safety
- 52 → Human resources development
- 54 → Diversity management**



As of 2015, according to the law for the promotion of women in leadership positions, companies in Germany have to specify concrete targets for the two management levels below the Managing Board. The first of these two levels consists of those HeidelbergCement executives who report directly to the Managing Board, while the second level encompasses their employees with leadership responsibilities.

This means that by 30 June 2017, we want women to hold 14% of the positions on the first management level below the Managing Board and 15% of the positions on the second level. In 2015, when this target was formulated, women accounted for 15% of the total workforce.

In 2016 in Germany, women held 10% of the positions on the first management level below the Managing Board, as in the previous year; on the second level of management, the share also remained constant at 9%. This is due to an increase in the number of technical positions, for which the proportion of men is higher than that of women. Excluding Italcementi, the proportion of women on the first management level below the Managing Board was 12% in 2016, and 10% on the second level.

We have rigorously committed ourselves to the promotion of women in recent years and achieved notable successes in this area. In Germany as a whole, for example, the share of women in programmes for the advancement of future executives was 28% in 2016 (2015: 24%) and thus significantly higher than the percentage of women in the total workforce. The global initiative “NOW – Network of Women”, which was launched by HeidelbergCement in 2011, connects female employees around the world on a virtual and personal level and supports their career development as well as promoting women in general.

In addition, we have conducted analyses of equal pay for men and women in several large countries, including the USA and the United Kingdom, and also at our Group headquarters. The results show that for employees doing comparable jobs with comparable areas of responsibility there are no systematic differences in the level of pay for men and women.

Reconciling work and family

In competing for the best employees, we are making adjustments worldwide in line with changing lifestyles. To help our employees reconcile family and professional demands, we are implementing models such as flexitime, part-time work, and leaves of absence. Given the small size of our facilities, it has proved more effective to cooperate with external networks for the provision of support such as daycare centres, care for family members who require assistance, and summer camps for children. This enables our employees to benefit from easy access to a professional and flexible network at affordable costs. As part of our FIT for FAMILY initiative, we have formed partnerships with daycare centres for our location in Heidelberg. In this way, we can offer a number of daycare slots specifically for our employees.



Society & Corporate Responsibility

- 59 → Creating local value
- 59 → Corporate citizenship
- 60 → Practical examples
- 61 → Local conflicts of interest



- 59 → Creating local value
- 59 → Corporate citizenship
- 60 → Practical examples
- 61 → Local conflicts of interest



Think globally – act locally.

We have production locations almost everywhere around the globe. Through our business operations, we create **added value for local communities**. Furthermore, we are involved in **charitable projects at our business locations**.



Locations → p. 59

Around **90%**

of our **procurement volume** is invested in the immediate vicinity of our locations or within the respective countries. In this way, and through the creation of jobs, we promote economic development.

Corporate Responsibility → p. 59

Our social responsibility

focuses on three key areas: **construction projects, environmental protection, and education**.

Sponsorship → p. 60

For construction of a school

in **Koudougou** (Burkina Faso), our subsidiary Cimburkina donated 200 tonnes of cement. The school will provide teaching for 350 children, especially girls.

59 **Creating local value**
59 **Corporate citizenship**

60 → Practical examples

61 → Local conflicts of interest

As a global Group with strong regional business operations, we act according to the principle “Think globally, act locally”. Our business operations also create added value for the communities at our locations around the world. And we do more than simply conduct business in these communities; we also take measures that protect the environment and promote social progress.

Creating local value

Good cooperative relationships with the communities in the areas where we are active are indispensable for our business operations and also one of the keys to our business success. Here, we establish business contacts, capitalise on local know-how, and maintain a dialogue with our neighbours. Our materiality analysis has confirmed that good relations with local communities are extremely important, especially from the viewpoint of our internal stakeholders. That’s why we will take local communities into account to a greater extent in our revised Sustainability Ambitions.

→ **Materiality analysis: p. 17**

We aim to create value not only for our company but also for the communities in which we operate. Wherever possible, we therefore make sure that local employees are selected to manage operations at our locations. Over the past three years, local managers have held 76% of the senior management positions at our various sites. All of our plants work closely with local suppliers and service providers, and we invest around 90% of our procurement volume in the immediate vicinity of our plants or within the respective countries. In this way, and through the creation of jobs, we contribute to creating value at our locations and promote economic development by means of wages, investment, purchases, and taxes.

Corporate citizenship

As a company, we are also a part of society, and we benefit from the regional networks at our locations worldwide. We therefore also play an active role in addressing social issues.

This understanding of our role forms the basis for our Group-wide Corporate Citizenship Guideline, which lays down the general criteria and objectives relating to our social responsibility. We revised the guideline in 2015. We paid special attention here to corporate citizenship activities in conjunction with investment projects, as such activities could be misconstrued as an attempt to exert influence. The reworked guideline therefore expressly requires compliance with the relevant stipulations of our Anti-Corruption Guideline.

Our social responsibility focuses on three areas in which our core competencies enable us to benefit others the most and achieve noticeable improvements:

- Construction, architecture, and infrastructure: We offer practical assistance in construction projects by providing materials, time, financial assistance, and know-how.
- Environment, climate, and biodiversity: We support initiatives that address the most significant environmental impacts associated with our business operations.
- Education, training, and culture: Here, we tailor our activities to the specific needs of each region.

We have also defined certain evaluation criteria in order to ensure that these activities are both transparent and effective. We support projects, initiatives, and organisations that are active at our locations, or to which we have a direct link. We also make sure that the guidelines and principles of such organisations are in accordance with our own corporate philosophy.



- 59 → Creating local value
59 Corporate citizenship
60 Practical examples
 61 → Local conflicts of interest

The decisions regarding our support of projects in individual countries or at our locations are made decentrally by country managers on the basis of a predefined budget. These managers are also responsible for implementing and controlling projects as well as for local reporting. Given our many locations and the variety of activities that we support, it is not possible at present to make a statement as to the financial commitment of this involvement.

Our Group-wide CSR expert group has begun documenting our various corporate citizenship activities. On the basis of this work, the Group approved a community relationship management handbook in 2016. The purpose of this handbook is to systematically catalogue relations to local communities and charitable projects by the company and to make these more transparent. In particular, the aim is to strengthen the dialogue with local interest groups, especially in developing countries, and to create a sustainable socio-economic value for local communities at our locations.

The exact wording of our Corporate Citizenship Guideline:

→ www.heidelbergcement.com/society

“ Our business maxim is “Think globally – act locally”. The same philosophy applies to our social activities, which are based on clear guidelines but also allow scope for local needs.

Andreas Schaller, Director Group Communication & Investor Relations



Practical examples

Promoting education in Burkina Faso

In Burkina Faso our subsidiary Cimburkina has donated 200 tonnes of cement for the construction of a modern school in Koudougou. This new school will provide 350 children with access to a formal education. In particular, girls will profit from this provision of schooling. Given the high level of illiteracy in Burkina Faso and the poor state of many of its public schools, Cimburkina regards the promotion of education as one of its priority concerns.

The ecologically sustainable construction concept involves the use of local building materials, which ensure natural cooling and ventilation. Electricity is supplied by a solar power plant, and fresh water comes from a nearby well.

- 59 → Creating local value
59 → Corporate citizenship

60 Practical examples

61 Local conflicts of interest



Lehigh Hanson supports home building for families in need

In Johnston County, North Carolina, our US subsidiary Lehigh Hanson is supporting the organisation Habitat for Humanity, which builds houses for low-income families in the region. Over the past two years, a dedicated team of workers from the Princeton Quarry in North Carolina has been helping with construction work and has also donated, together with local management, US\$65,000 for the construction of a further house.

Local conflicts of interest

In recent years, allegations have been made that the business operations of a quarry belonging to our Israeli subsidiary and located in the area of the West Bank occupied and administered by Israel (Area C) are not in conformance with international standards. A lawsuit filed by an Israeli human rights organisation concerning the general cessation of aggregates mining by foreign companies in Israeli-occupied territory was, however, dismissed by the Supreme Court of Israel in a legally binding ruling on 26 December 2011. The quarrying of aggre-

gates was thus deemed as being in compliance with international law, since it brings benefits for the Palestinian population and makes hardly any impact on local resources.

The Palestinian people benefit economically from our quarrying activities, as these create valuable jobs in an area otherwise plagued by high unemployment. Palestinians from the occupied territories account for more than 60% of the workforce in our quarry in the West Bank, and the wages we pay them are many times higher than the local average.

We have carefully examined this issue with our local management team. Our subsidiary also takes care to ensure that Israeli and Palestinian employees are treated and paid equally. Here, we place high priority on close cooperation in intercultural teams that promote an exchange between our Israeli and Palestinian employees and thus understanding between these two groups in a conflict-ridden region. Moreover, our quarrying activities have virtually no impact on the existing raw material reserves in the region, which will last for several centuries.

We received all the required permits, without exception, before we commenced our quarrying activities. In addition, there has never been a single instance in which we continued our quarrying activities without permission, and no such instances will ever occur in future.

We respond in a transparent manner to all enquiries from non-governmental organisations and interest groups. Furthermore, we are holding a dialogue with individual investors on the development of this issue and are offering both face-to-face talks with local leaders and employees as well as tours of the facility.

Targets

- 63 → Strategy & management
- 64 → Product & innovation
- 64 → Production & supply chain
- 66 → Employees & employment



Strategy & management

Target	Measures	Achieved in 2016	Deadline	Status	Page
Partnerships and stakeholder dialogue					
Strategic involvement of stakeholders. ✓ G4-26	Expansion of contacts to stakeholders and intensification of dialogue on both local and Group levels.	In 2016, we introduced a community relationship management handbook throughout the Group. In addition, our CSR expert group has begun documenting our Group-wide activities in the area of corporate citizenship.	Ongoing	■	→ 60
Integration of sustainability criteria into decision-making processes in line with the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD).	Discussion of the criteria and requirements in the Sustainability Committee and in the Environmental Sustainability Committee. Integration of the CSI stipulations into the Group's own guidelines.	In 2016, the environmental and occupational safety indicators were once again subjected to an external audit in line with CSI stipulations.	Ongoing	■	→ 76
Implementation of the CSI guidelines.	Development of internal guidelines in line with CSI stipulations. Continuation of reporting on implementation of the CSI guidelines.	A reporting system for water management in the cement business line was implemented according to sector-specific CSI criteria. In 2016, we also pressed ahead with the introduction of reporting procedures at our aggregates and ready-mixed concrete business lines. However, key figures for the Group are not yet available in this area.	Ongoing	■	→ 42-43, 72
Sustainability management					
All cement plants are to operate with a certified environmental management system.	Implementation of an action plan for the Group-wide control and monitoring of the ongoing introduction of certified environmental management systems.	75% of all integrated cement plants worldwide operate with an environmental management system. In 2015, this figure was 74% (not including Italcementi).	2020	■	→ 35, 69
All facilities will undergo an environmental audit once every five years. The audit is to be carried out by either an external expert or a neutral auditor from within the company.	Implementation of an action plan for the Group-wide control and monitoring of the periodic audits.	In 2016, the environmental audits were not recorded in the course of the integration of Italcementi.	2020	■	→ 35, 69
Further development of the Group compliance programme and of Group compliance activities with regard to current developments.	Review of the compliance systems of HeidelbergCement and Italcementi along with improvement of the joint compliance management system. Review of existing compliance activities by means of compliance risk analysis.	Continuation of an improved joint compliance management system for the expanded HeidelbergCement Group. Identification of a need to adjust compliance activities in respect of data security and human rights due diligence.	Ongoing	■	→ 21, 23-24
Improvement of customer satisfaction.	Introduction of a Group-wide Customer Excellence Programme (CEP) to improve customer satisfaction and extend systematic customer satisfaction analyses.	Extension of the Group-wide Customer Excellence Programme (CEP) to 29 countries. Implementation of improvement measures.	Ongoing	■	→ 28
Competitiveness					
Continuous improvement of efficiency and margins in the cement and aggregates business lines.	Implementation of the Continuous Improvement Program (CIP) for cement (2015–2017) and of the CI Aggregates programme for aggregates (2016–2018) with the target of improving margins by €120 million in each business line over a three-year period.	The programmes proved very successful in 2016 and yielded results that exceeded expectations.	Ongoing	■	→ 10, AR 2016, p. 114
Innovation in the areas of alternative clinker technology, building material recycling and special concretes.	Targeted research and cooperation in the area of low-CO ₂ clinker technology, building material recycling and special concretes. Expansion of research capacity through the integration of Italcementi.	Commissioning of the REWINN recycling plant in Amsterdam, together with a local demolition company.	Ongoing	■	→ 32

■ Target achieved ■ Target partly achieved ■ Target not achieved □ New target

Product & innovation

Target	Measures	Achieved in 2016	Deadline	Status	Page
Sustainable construction					
Participation in national Green Building Councils in all countries where this is relevant to HeidelbergCement.	Training sessions and internal sharing of ideas on the topic of sustainable construction and the activities of the Green Building Councils.	HeidelbergCement is a member of 12 Green Building Councils worldwide.	2020	■	→ 16

Production & supply chain

Target	Measures	Achieved in 2016	Deadline	Status	Page
CO₂ emissions and alternative raw materials and fuels					
Reduction of the specific net CO ₂ emissions by 30% over the period from 1990 to 2030 (not including Italcementi).	Investment for research in the following areas: energy-efficient production processes, CO ₂ capture and use, composite cements with reduced clinker content, and new clinker technologies. Increased use of alternative fuels and biomass.	As of 2016: -22.6%	2030	□	→ 34-36, 70
Lowering clinker content of cement to 70%.	Development of new composite cements. Use of alternative raw materials.	As of 2016: 74.4% clinker (74.1% in 2015)	2020	■	→ 31, 71
Increasing the share of alternative fuels used to 30%.	Focus on three waste flows: sorted fractions of household and domestic waste with high calorific values, sewage sludge and hazardous wastes. Extension of this strategy to former Italcementi plants.	As of 2016: 21.4% alternative fuels (22.7% in 2015)	2020	■	→ 34, 38, 71
Increasing the share of biomass fuels used to 9%.	Increased use of waste such as dried sewage sludge and agricultural residues.	As of 2016: 7.5% biomass (8.2% in 2015)	2020	■	→ 71
Increasing the share of alternative raw materials in cement to 12%.	Use of additives, such as slag or old foundry sand.	As of 2016: 12.0% alternative raw materials (12.6% in 2015)	2020	■	→ 31, 71

■ Target achieved ■ Target partly achieved ■ Target not achieved □ New target

Production & supply chain

Target	Measures	Achieved in 2016	Deadline	Status	Page
Local environmental effects					
Monitoring of water consumption initially in the cement business line and implementation of measures to reduce consumption.	Development of first individual water management plans for cement plants. 50% of cement plants were equipped with water recycling facilities.	As of 2016: Specific water consumption 303.9 l/t cement	Ongoing	■	→ 42, 72
Measuring emissions of heavy metals, volatile organic compounds (VOC) and dioxins/furans at all locations.	Continuous emission measurements.	As of 2016: 77 kilns report on mercury emissions (2015: 90), 78 kilns report on dioxins/furans (2015: 78).	Ongoing	■	→ 41-42, 71
Lowering emissions per tonne of clinker (reference year: 2008): – Dust: by 35% – Nitrogen oxides: by 10% – Sulphur oxides: by 10%	Continuous optimisation and modernisation of processes (best available technology) in the cement plants.	As of 2016: – Dust: -63.6 % – Nitrogen oxides: -15.3% – Sulphur oxides: -37.8%	2020	■	→ 41-42, 71
After use and biodiversity management					
Restoration plans for 100% of the active quarries for cement and aggregates (in Europe, Africa and Asia).	Continuous expansion of restoration plans.	During 2016 the restoration plans were not registered in the course of the integration of Italcementi.	2020	■	→ 39, 72
Implementation of biodiversity management plans at 100% of quarries in areas with a high biological value (in Europe, Africa and Asia).	Development of training documentation and manuals; provision of corresponding training on site.	During 2016 the biodiversity management plans were not registered in the course of the integration of Italcementi.	2020	■	→ 39

■ Target achieved ■ Target partly achieved ■ Target not achieved □ New target

Employees & employment

Target	Measures	Achieved in 2015	Deadline	Status	Page
Occupational health and safety					
Reduction of accident frequency and the accident severity indicator to zero for Group employees.	Analysis of the causes of accidents for the entire Group. Targeted thematisation of the corporate policy on occupational health and safety along with the corresponding basic rules by means of Group-wide and local campaigns, including as part of the Group-wide Safety Week. Introduction of a new Group standard on working in enclosed spaces, along with appropriate communication activities and measures to raise awareness.	<ul style="list-style-type: none"> – Accident frequency in 2016: 2.2 (2015: 2.3) – Accident severity indicator in 2016: 98 (2015: 106) 	2020	■	→ 52, 75
Reduction of the number of fatalities to zero for Group employees.	Analysis of the causes of accidents for the entire Group. Targeted thematisation of the corporate policy on occupational health and safety along with the corresponding basic rules by means of Group-wide and local campaigns, including as part of the Group-wide Safety Week. Introduction of a new Group standard on working in enclosed spaces, along with appropriate communication activities and measures to raise awareness.	<ul style="list-style-type: none"> – Fatality rate in 2016: 0.7 (2015: 1.7) 	Ongoing	■	→ 52, 75
Diversity management					
Share of women in management positions (first level) in Germany: 14% Share of women in management positions (second level) in Germany: 15%	Targeted support of women by means of appropriate management programmes and programmes for the advancement of future executives.	<ul style="list-style-type: none"> – Share of women in management positions in Germany in 2016: 10% at first management level, 9% at second management level. – Share of women in programmes for the advancement of future executives in Germany in 2016: 28%. 	2017	■	→ 56, 74

■ Target achieved
 ■ Target partly achieved
 ■ Target not achieved
 New target

Key Figures

- 68 → Strategy & management
- 70 → Product & innovation
- 70 → Production & supply chain
- 73 → Employees & employment

After its acquisition by HeidelbergCement, the company Italcementi has been fully consolidated since 1 July 2016. Unless stated otherwise, all of the key figures for 2016 include Italcementi's business contribution since 1 July 2016.



Strategy & management

		2014	2015	2016	Unit	GRI	Assurance°
Revenue/result	Total Group revenue	12,614	13,465	15,166	€ million	G4-9, EC1	●
	Result from current operations before depreciation and amortisation	2,288	2,613	2,939	€ million	G4-EC1	●
	Result from current operations	1,595	1,846	1,984	€ million	G4-EC1	●
	Profit for the financial year	687	983	896	€ million	G4-EC1	●
	Group share of profit	486	800	706	€ million		●
	Dividend per share	0.75	1.3	1.6	€	G4-EC1	●
	Earnings per share	2.59	4.26	3.66	€	G4-EC1	●
Investments in tangible fixed assets	including maintenance, optimisation and environmental protection measures	941	908	1,040	€ million	G4-EC1, EN31	●
Amortisation		693	767	955	€ million		●
Balance sheet	Equity (including non-controlling interests)	14,245	15,976	17,873	€ million	G4-9	●
	Balance sheet total	28,133	28,374	37,154	€ million	G4-EC1	●
	Net debt	6,957	5,286	8,999	€ million		●
Material costs and other operating expenses		5,320	5,477	5,823	€ million	G4-EC1	●
Costs for research and technology		99.6	107.8	116.6	€ million	G4-EC1	●
Group sales	Cement and clinker:						
	– Western and Southern Europe	15.8	15.7	22.4	million t	G4-9	–
	– Northern and Eastern Europe-Central Asia	22.8	22.1	24.2	million t	G4-9	–
	– North America	12.1	12.3	14.6	million t	G4-9	–
	– Asia-Pacific	24.6	23.5	28.7	million t	G4-9	–
	– Africa-Eastern Mediterranean Basin	6.4	7.4	13.7	million t	G4-9	–
	– Total	81.8	81.1	103.8	million t	G4-9	●
	Aggregates:						
	– Western and Southern Europe	55.3	55.1	67.4	million t	G4-9	–
	– Northern and Eastern Europe-Central Asia	31.9	33.2	37.0	million t	G4-9	–
	– North America	110.5	116.6	118.8	million t	G4-9	–
	– Asia-Pacific	37.7	35.9	39.2	million t	G4-9	–
	– Africa-Eastern Mediterranean Basin	8.2	8.3	10.1	million t	G4-9	–
	– Total	243.6	249.2	272.0	million t	G4-9	●

→ For an overview of further key financial figures see: [Annual Report 2016, cover](#)

°External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

Strategy & management

		2014	2015	2016	Unit	GRI	Assurance°
Group sales	Asphalt:						
	– Western and Southern Europe	3.1	3.0	3.0	million t	G4-9	–
	– North America	3.6	3.7	4.0	million t	G4-9	–
	– Asia-Pacific	2.3	2.0	1.8	million t	G4-9	–
	– Africa-Eastern Mediterranean Basin	0.4	0.4	0.5	million t	G4-9	–
	– Total	9.3	9.1	9.4	million t	G4-9	●
	Ready-mixed concrete:						
	– Western and Southern Europe	11.0	11.1	15.0	million t	G4-9	–
	– Northern and Eastern Europe-Central Asia	5.3	5.6	6.2	million t	G4-9	–
	– North America	6.3	6.4	6.3	million t	G4-9	–
	– Asia-Pacific	11.4	10.9	11.0	million t	G4-9	–
	– Africa-Eastern Mediterranean Basin	2.7	2.7	3.7	million t	G4-9	–
	– Total	36.6	36.7	42.5	million t	G4-9	●
Cement type portfolio	– Ordinary Portland cement	–	36.6	44.5	%	G4-4	–
	– Limestone cement	–	10.8	15.6	%	G4-4	–
	– Pozzolana/fly ash cement	–	9.1	7.9	%	G4-4	–
	– Slag cement	–	16.9	11.4	%	G4-4	–
	– Multi-component cement	–	23.6	17.1	%	G4-4	–
	– Oilwell, white cement	–	0.8	0.7	%	G4-4	–
	– Masonry cement, special binder	–	0.6	1.2	%	G4-4	–
	– Ground granulated blast furnace slag	–	1.6	1.6	%	G4-4	–
Share of integrated cement plants with a certified environmental management system (not including Italcementi).		75	74	75	%		–
Production facilities in which independent environmental audits have been carried out within the last five years (not including Italcementi).	– Cement	35	55	–	%		–
	– Aggregates	74	69	–	%		–

°External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

Product & innovation

		2014	2015	2016	Unit	GRI	Assurance°
Sustainable construction	Sales of recycled aggregates	1.6	1.3	–	million t	G4-EN27	–
Membership in Green Building Councils	Number of memberships	11	12	12		G4-15	–

Production & supply chain

		1990	2014	2015	2016	Unit	GRI	Assurance°
Reduction in CO ₂ emissions	Cement business line:							
	– Absolute gross CO ₂ emissions	51.8	47.6	47.2	60.1	million t	G4-EN15	●
	– Absolute net CO ₂ emissions	50.4	44.6	44.2	56.6	million t	G4-EN15	●
	– Specific gross CO ₂ emissions (per tonne of cementitious material)	780.6	635.2	626.5	628.1	kg CO ₂ /t	G4-EN18	●
	– Specific net CO ₂ emissions (per tonne of cementitious material)	772.0	603.3	595.2	597.9	kg CO ₂ /t	G4-EN18	●
	– Indirect gross CO ₂ emissions	4.3	7.4	5.9	5.1	million t	G4-EN16	●
Energy/raw materials	Absolute energy consumption:							
	– Cement	283,482	245,301	241,826	305,012	TJ	G4-EN3	–
	– whereof clinker production	238,968	204,209	200,977	256,694	TJ	G4-EN3	●
	– Aggregates	N.A.	7,172	7,367	8,026	TJ	G4-EN3	–
	Specific energy consumption:							
	– Cement	4,339	3,321	3,256	3,221	MJ/t	G4-EN5	–
	– Clinker	4,309	3,752	3,694	3,661	MJ/t	G4-EN5	●
	– Aggregates	N.A.	32	32	31	MJ/t	G4-EN5	–
	Fuel mix for clinker production:							
	– Hard coal	60.8	57.5	56.5	51.0	%	G4-EN3	●
	– Lignite	0.0	2.9	2.7	2.2	%	G4-EN3	●
	– Petroleum coke	2.5	8.4	8.2	14.2	%	G4-EN3	●
	– Natural gas	23.4	7.0	9.3	9.7	%	G4-EN3	●
	– Light fuel oil	1.0	0.3	0.3	0.3	%	G4-EN3	●
	– Heavy fuel oil	5.5	0.5	0.2	1.1	%	G4-EN3	●
	– Other fossil fuels	3.6	0.6	0.3	0.2	%	G4-EN3	●
	– Alternative fossil fuels	3.0	14.5	14.5	13.9	%	G4-EN3	●
– Biomass	0.3	8.3	8.2	7.5	%	G4-EN3	●	
– Proportion of biomass in mix of alternative fuels	9.2	36.6	36.1	35.0	%	G4-EN3	●	

°External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

Production & supply chain

		1990	2014	2015	2016	Unit	GRI	Assurance°
Energy/raw materials	Alternative fuel mix for clinker production:							
	– Plastics	0.0	28.8	28.5	27.1	%	G4-EN3	●
	– Waste oil	39.0	1.8	2.3	5.1	%	G4-EN3	●
	– Used tyres	25.0	9.2	9.3	10.4	%	G4-EN3	●
	– Solvents	4.7	4.2	4.1	4.7	%	G4-EN3	●
	– Dried sewage sludge	0.0	3.4	3.5	2.8	%	G4-EN3	●
	– Meat and bone meal	0.0	5.1	4.6	3.8	%	G4-EN3	●
	– Agricultural waste and waste wood	0.0	4.7	3.9	3.9	%	G4-EN3	●
	– Other biomass	9.2	23.4	24.1	24.4	%	G4-EN3	●
	– Other alternative fuels	22.2	19.5	19.7	17.7	%	G4-EN3	●
	Proportion of alternative fuels (incl. biomass)	3.3	22.8	22.7	21.4	%	G4-EN3	●
	Clinker content in the cement	84.8	74.9	74.1	74.4	%	G4-EN1	●
	Proportion of alternative raw materials:							
– Clinker	N.A.	3.8	3.8	3.6	%	G4-EN2	–	
– Cement	N.A.	11.7	12.6	12.0	%	G4-EN2	–	
		2008	2014	2015	2016	Unit	GRI	Assurance°
Emissions	Absolute NO _x emissions	84,571	74,328	76,393	92,814	t	G4-EN21	●
	Specific NO _x emissions	1,585	1,369	1,405	1,343	g/t clinker	G4-EN21	●
	Absolute SO ₂ emissions	27,007	24,449	24,565	21,746	t	G4-EN21	●
	Specific SO ₂ emissions	506	450	452	315	g/t clinker	G4-EN21	●
	Absolute dust emissions	17,043	6,308	6,151	8,031	t	G4-EN21	●
	Specific dust emissions	319	116	113	116	g/t clinker	G4-EN21	●
	Proportion of clinker produced in kilns with continuous or discontinuous measurement of all emissions	65	78	78	86	%		●
	Proportion of clinker produced in kilns with continuous measurement of dust, NO _x and SO ₂ emissions	87	83	82	83	%	G4-EN21	●
	Mercury:*							
	– Specific emissions	N.A.	0.053	0.064	0.028	g/t clinker	G4-EN21	–
	– Number of kilns reporting	N.A.	84	90	77		G4-EN21	–
	Dioxins and furans*:							
	– Specific emissions	N.A.	0.061	0.029	0.018	µg TEQ/t clinker	G4-EN21	–
– Number of kilns reporting	N.A.	72	78	78		G4-EN21	–	

*Figures for mercury, dioxins and furans do not include Italcementi

°External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

Production & supply chain

		2014	2015	2016	Unit	GRI	Assurance [°]
Biodiversity and conservation of resources	Proportion of quarries in areas with a high biological value, with biodiversity management plan:						
	– Cement	79	74	–	%	G4-EN11	–
	– Aggregates	80	81	–	%	G4-EN11	–
	Proportion of active quarries with a restoration plan:						
	– Cement	83	85	–	%		–
	– Aggregates	89	89	–	%		–
Water management (cement)	Total water withdrawal	–	40.3	52.6	million m ³	G4-EN8	●
	By source:						
	– Surface water	–	26.7	27.9	million m ³	G4-EN8	–
	– Groundwater	–	4.4	7.3	million m ³	G4-EN8	–
	– Seawater	–	0.1	2.3	million m ³	G4-EN8	–
	– Public/private water supply	–	3.4	4.2	million m ³	G4-EN8	–
	– External wastewater	–	0.0	0.0	million m ³	G4-EN8	–
	– Quarry water	–	4.6	9.1	million m ³	G4-EN8, EN10	–
	– Collected rainwater	–	1.1	1.7	million m ³	G4-EN8, EN10	–
	Total water discharge/wastewater	–	16.7	23.6	million m ³	G4-EN22	–
	By place of discharge:						
	– Surface water	–	15.2	19.8	million m ³	G4-EN22	–
	– Groundwater	–	0.0	0.0	million m ³	G4-EN22	–
	– Seawater	–	0.6	2.7	million m ³	G4-EN22	–
	– External water treatment systems	–	0.2	0.6	million m ³	G4-EN22	–
	– Other discharge area	–	0.7	0.5	million m ³	G4-EN22	–
	Water consumption (water withdrawal minus wastewater discharge)	–	23.6	29.0	million m ³		–
	Quarry water not used	–	71.0	62.7	million m ³		–
	Specific water withdrawal for cement	–	529.9	551.2	l/t		●
	Specific water withdrawal for clinker	–	767.5	756.6	l/t		●
Specific water consumption for cement	–	310.3	303.9	l/t		–	
Specific water consumption for clinker	–	449.5	417.1	l/t		–	

[°]External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

Employees & employment

	2014	2015	2016	Unit	GRI	Assurance°
Employees and employment						
Number of employees as of 31 December:						
– Western and Southern Europe	9,577	9,560	15,781	Employees	G4-10, LA1	●
– Northern and Eastern Europe-Central Asia	11,474	12,598	13,107	Employees	G4-10, LA1	●
– North America	7,644	7,658	8,444	Employees	G4-10, LA1	●
– Asia-Pacific	13,482	13,029	14,956	Employees	G4-10, LA1	●
– Africa-Eastern Mediterranean Basin	2,653	2,527	7,602	Employees	G4-10, LA1	●
– Group Services	79	81	534	Employees	G4-10, LA1	●
– Total	44,909	45,453	60,424	Employees	G4-9, 10, LA1	●
Employee turnover*:						
– Western and Southern Europe	9	11	11	%	G4-LA1	–
– Northern and Eastern Europe-Central Asia	13	15	13	%	G4-LA1	–
– North America	14	13	14	%	G4-LA1	–
– Asia-Pacific	8	13	10	%	G4-LA1	–
– Africa-Eastern Mediterranean Basin	3	11	11	%	G4-LA1	–
– Total	10	13	12	%	G4-LA1	–
Personnel costs and social benefits:						
– Wages, salaries, social security costs	1,939.4	2,152.1	2,504.0	€ million	G4-EC1	●
– Costs for retirement benefits	86.4	97.0	138.3	€ million	G4-EC1	●
– Other personnel costs	24.1	25.1	31.2	€ million	G4-EC1	●
– Total	2,049.9	2,274.2	2,673.5	€ million	G4-EC1	●
Proportion of part-time employees (Group)	2.4	2.2	2.4	%	G4-10	–
Proportion of part-time employees (HeidelbergCement AG)	11.1	11.0	11.4	%	G4-10	●
Age structure (Group):						
– Younger than 30	14	14	12	%	G4-LA1	●
– 30-49	51	51	52	%	G4-LA1	●
– 50 and older	35	35	36	%	G4-LA1	●

*The figures for 2014 and 2015 have been recalculated due to the reorganisation of three Group areas

°External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

Employees & employment

	2014	2015	2016	Unit	GRI	Assurance°
Employees and employment						
Share of female employees (Group)	13	15	13	%	G4-10, LA12	●
Share of female employees in top management positions (Group)	9	9	10	%	G4-10, LA12	●
Share of female employees in programmes for the advancement of future executives (Group)	17	14	14	%	G4-10, LA12	–
Share of female employees (Germany)	14	15	16	%	G4-10, LA12	●
Share of female employees in top management positions (Germany)	8	8	7	%	G4-10, LA12	●
Share of female employees N-1 (Germany)	10	10	10	%	G4-10, LA12	●
Share of female employees N-2 (Germany)	7	9	9	%	G4-10, LA12	●
Share of female employees in programmes for the advancement of future executives (Germany)	21	24	28	%	G4-10, LA12	●
Share of local managers in senior management positions (Group)	80	80	76	%	G4-EC6	●
Proportion of disabled employees:						
– Germany	4.1	4.3	4.1	%	G4-LA12	–
– HeidelbergCement AG	4.8	4.9	4.6	%	G4-LA12	–
Training and career development						
Employees in programmes for the advancement of future executives	801	828	875	Individuals	G4-LA10	●
Training hours per employee	34	31	26	Hours	G4-LA9	–
Structure of training hours:						
– Management training	5	6	5	%	G4-LA10	●
– Soft skills training	6	4	5	%	G4-LA10	●
– Specialist training	36	30	31	%	G4-LA10	●
– Occupational safety training	43	50	47	%	G4-LA10	●
– Language courses	6	2	3	%	G4-LA10	●
– Other	4	8	9	%	G4-LA10	●
Percentage of trainees in Germany	5	5	5	%		●
Percentage of trainees retained as permanent employees in Germany	84	80	91	%		●

*Change from 2013 due to new development programmes, primarily in the technical area.

°External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

Employees & employment

		2014	2015	2016	Unit	GRI	Assurance [°]
Occupational health and safety	Accident frequency ¹⁾	2.1	2.3 ²⁾	2.2		G4-LA6	●
	Accident frequency, cement business line	1.7	1.4	1.4		G4-LA6	●
	Accident severity indicator ³⁾	91	106	98		G4-LA6	●
	Accident severity indicator, cement business line	77	81	72		G4-LA6	●
	Fatality rate ⁴⁾	1.0	1.7	0.7		G4-LA6	●
	Fatality rate, cement business line	1.4	1.6	1.4		G4-LA6	●
	Number of fatalities:						
	– Group employees	4	6	4	Individuals	G4-LA6	●
	– Employees of other companies	12	8	5	Individuals	G4-LA6	●
	– Third parties	2	3	2	Individuals	G4-LA6	●
	– Thereof outside our plants	0	2	1	Individuals	G4-LA6	●
	Accident frequency by region: ¹⁾						
	– Western and Southern Europe	5.6	4.9	5.2		G4-LA6	–
	– Northern and Eastern Europe-Central Asia	2.4	2.1	2.8		G4-LA6	–
	– North America	2.1	2.5	2.1		G4-LA6	–
	– Asia-Pacific	0.8	1.8	1.3		G4-LA6	–
	– Africa-Eastern Mediterranean Basin	1.2	0.8	2.5		G4-LA6	–
	Occupational illness rate ⁵⁾	1.03	0.57	0.58		G4-LA6	–
	Illness rate ⁶⁾	1.78	1.72	N.A.		G4-LA6	–
	Proportion of employees represented by H&S committees	99.4	97.0	99.8		G4-LA5	–
	Proportion of employees represented by H&S committees with trade union representation ⁷⁾	90.4	85.4	93.0		G4-LA5	–

¹⁾ Number of accidents involving Group employees with at least one lost working day per 1,000,000 hours worked for cement, ready-mixed concrete and aggregates

²⁾ Accident frequency adjusted for 2015 due to late reports.

³⁾ Number of working days lost due to accidents involving Group employees per 1,000,000 hours worked for cement, ready-mixed concrete and aggregates

⁴⁾ Number of fatalities of Group employees per 10,000 Group employees working for cement, ready-mixed concrete and aggregates

⁵⁾ Number of officially recognised occupational illnesses suffered by Group employees per 1,000,000 hours worked

⁶⁾ Proportion of working hours lost due to illness relative to the total number of working hours (excluding North America, as the general illness hours are not recorded there)

⁷⁾ The lower proportion is due to the lack of appropriate trade unions in several countries.

[°] External assurance of 2016 key figures in the framework of the Annual Report 2016 or according to our commitment to the Cement Sustainability Initiative (CSI)

About this report

HeidelbergCement is publishing a Group Sustainability Report for the eighth time. In this publication we explain how HeidelbergCement is fulfilling its economic, environmental and social responsibilities and report on the progress we have made in 2016 in the implementation of our Sustainability Ambitions. The report targets our employees, investors and analysts, business partners, as well as political players and non-governmental organisations. ✓ G4-18, G4-24

Report content and organisation

This sustainability report has been prepared according to the GRI G4 guidelines of the internationally recognized Global Reporting Initiative (GRI). The report conforms to the requirements of the “Core” option of the GRI G4 guidelines.

→ **Our complete GRI Index: www.heidelbergcement.com/GRI-index**

Our decisions concerning the most important sustainability themes for the articles in our report were guided by the GRI principles (materiality, inclusion of stakeholders, sustainability context, completeness). We continuously refine our reporting processes in line with these standards. ✓ G4-18

The importance of some of the topics shifted last year due to the results of our dialogue with our stakeholders as well as changed political framework conditions and new legislation. We have also reorganised the report’s chapters in line with these changes. The production and product issues that were previously combined in the chapter on the environment have now been split up. The new chapter “Product and innovation” describes our efforts with regard to innovative, sustainability-oriented product development. The chapter “Production and supply chain” makes it clear that our responsibility for the environment and society is not limited to a few production processes, but also encompasses the supply chain. In addition, we have created a separate chapter to take into account the relevance of legally compliant business operations that are based on international standards. This chapter also addresses the issue of human rights. ✓ G4-23

→ **Materiality analysis: pp. 17 f.**

Precise definition and methodology of the report

This Sustainability Report for 2016 deals with the business year 2016 of the HeidelbergCement Group. The business year ran from 1 January to 31 December. After its acquisition by HeidelbergCement, the company Italcementi has been fully consolidated since 1 July 2016. Unless stated otherwise, all of the figures in this Sustainability Report for 2016 include Italcementi’s business contribution since 1 July 2016. ✓ G4-22

The key economic figures included in this report correspond to those in the consolidated financial statements and the management report of HeidelbergCement’s Annual Report for 2016. This is also the case for the facts and figures concerning our workforce. In 2016, we adjusted the consolidation of the key environmental figures to the new international accounting standards, which have been valid since 2014. In accordance with this revenue consolidation process, joint ventures are no longer taken into account. This has also been applied retroactively. This step has led to changes in our key environmental figures. ✓ G4-17, G4-22

→ **You can find information about the indicator G4-17 in the Annual Report 2016, pp. 261–291**

We report our key figures for environmental performance and occupational safety according to the guidelines of the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD).

→ **The guidelines in their original wording: www.wbcscement.org/publications**

Some of the key figures on environmental protection and occupational safety from the cement business line were once again subject to an independent limited assurance and are now explicitly marked as such in this report. As a member of CSI, we are required to have these key figures reviewed. The review also fulfils the wish of our stakeholders to have key indicators independently verified. ✓ G4-27

The results of this audit can be found on our website:

→ **www.heidelbergcement.com/assurance**

Data collection

Methods and systems that have been defined Group-wide are used to collect data at our business locations. Internal reporting and consolidation of the data take place via centralised electronic KPI data management systems at the Group; here the key figures are checked for completeness and credibility. Uniform Group-wide definitions of all the relevant key figures, as well as process guidelines for the reporting processes, are available on the intranet.

Information about the editing process

This Sustainability Report is published in German and English. The editorial deadline was 31 May 2017. The previous Sustainability Report was published in July 2016. In line with the new annual reporting cycle, the next report will be published in 2018.

Disclaimer of liability

We have compiled the information and key figures contained in this report with extreme care. All of the contents of this report were examined by the employees responsible for this task. However, we cannot completely exclude the possibility that this report includes erroneous information. The report and the information contained in it do not constitute a test of compliance with the current laws, legal regulations or recognised sustainability practices in the industry.



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