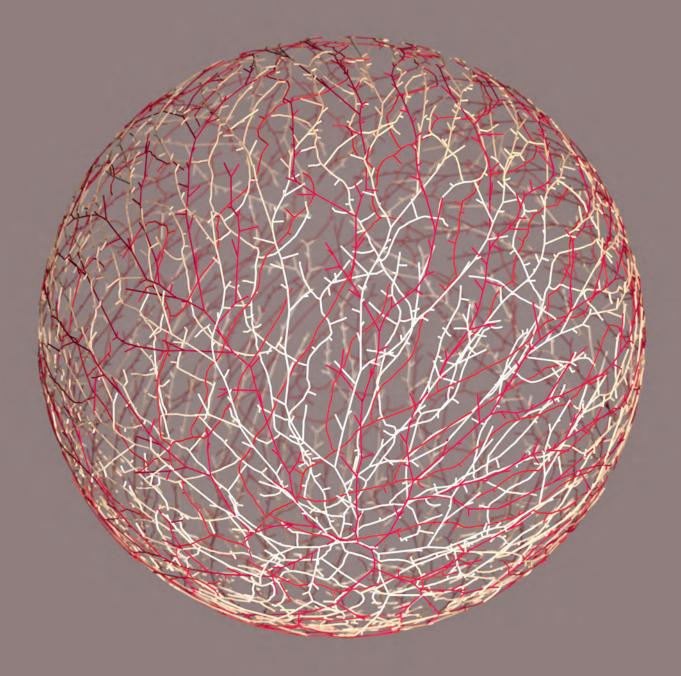
# wienerberger

# Smart Solutions



**Sustainability Report 2016** 

## **Quantitative Targets of the Wienerberger Sustainability Roadmap 2020**

Target definitions	Dead-lines set		Performance	
Employees		2014	2015	2016
Safety of our employees				
Group level: Zero accidents	Every year	12*	8*	7*
Health of our employees				
Group level: Rollout of respirable crystalline silica measurements to > 95% of ceramic plants by 2020	2020	98%	98%	Target met in 2015
Production				
Energy efficiency				
North America <sup>1)</sup> : Reduction of natural gas consumption at selected production sites by 5% per site as compared to 2015	2016	Not applicable	Reference year	4%
Clay Building Materials Europe: Reduction of specific energy consumption by 20% as compared to 2010	2020	13%	8%	10%
Pipelife $^{2)}$ : Reduction of specific energy consumption in production by 20% as compared to 2010	2020	2%	5%	2%
Climate action				
North America <sup>1)</sup> : Conversion of all main production sites from coal to natural gas	2016	Not applicable	50%	80%
Steinzeug-Keramo: Compensation of 5% of the annual CO <sub>2</sub> emissions generated in a plant through climate protection projects	2017	>5%	>5%	>5%
Clay Building Materials Europe: Reduction of specific CO <sub>2</sub> emissions from primary energy sources by 20% as compared to 2010	2020	5%	0%	2%
Pipelife $^2$ : Reduction of specific indirect ${\rm CO_2}$ emissions from electricity in production by 20% compared to 2010	2020	Not applicable	17%	17%
Water				
Pipelife <sup>2)</sup> : Reduction of water consumption from public networks to 0.55 m <sup>3</sup> per ton produced	2020	0.62 m³/ton	0.66 m³/ton	0.81 m³/ton
Resource efficiency and waste management				
Semmelrock: Reduction of scrap rate by 50% as compared to 2014	2017	Reference value	19.1%	34.0%
Products				
Innovative products				
Clay Building Materials Europe: 25% share of innovative products in revenues	Every year	Not applicable	27%	26%
North America: 50% share of innovative products in revenues	2017	Not applicable	46%	49%
Pipelife: 20% share of innovative products in revenues	Every year	Not applicable	21%	20%
Semmelrock: 30% share of innovative products in revenues	Every year	Not applicable	39%	37%
Steinzeug-Keramo: 35% share of innovative products in revenues	Every year	Not applicable	41%	39%
Recyclability, recycling and re-use				
Pipelife <sup>2)</sup> : Increase of the share of recycling material per ton of products produced to 70 kg	2020	58.9 kg/ton	64.6 kg/ton	64.6 kg/ton
Social responsibility				
Business Ethics & Compliance				
Group level: Zero incidents of corruption	Every year	0	0	0

<sup>1)</sup> North America: excl. Pipelife production site // 2) Pipelife: incl. production site in North America
\* Accident frequency defined as a reporting unit: Number of occupational accidents/number of hours worked x 1,000,000; including agency and temporary workers as well as employees under term contracts.

Status
In 2016 accident frequency was reduced in all operating segments, the best performing segments reporting values of close to 23% and 31% compared to the previous year. To our greatest regret, two fatal accidents occurred during the reporting year (one of them in a 50% subsidiary). We are consistently pursuing our zero accidents target.
The target was met by the Wienerberger Group, including Tondach Gleinstätten, in 2015. Measures to protect our employees against respirable crystalline silica are being continued.
In 2016 the consumption of natural gas at selected production sites was reduced by 4% compared to 2015. It was due to the conversion of these sites from high-emission energy sources to natural gas that the planned 5% reduction target could not fully be met in 2016.
In 2016 specific energy consumption in production was almost 10.5% below the value reported in 2010.
In 2016 specific energy consumption in production was 2% below the reference value of 2010. The increase in specific energy consumption compared to 2015 is due to lower capacity utilization at some production lines and changes in the product mix.
In 2016 80% of the production lines at all main production sites were converted from coal to natural gas. Converting all main production sites was not possible due to higher customer demand
Within the framework of Cradle to Cradle® recertification in 2016, 5% of the CO <sub>2</sub> emissions generated in the respective plant were compensated.
In 2016 specific $CO_2$ emissions from primary energy sources in production amounted to 98% of the value reported in 2013.
For comparison's sake, the national conversion factors for indirect ${\rm CO_2}$ emissions in 2015 were used.
Water consumption in plastic pipe production increased in 2016 as a result of singular events. Specific water consumption from public networks accounted for 15.8% of specific total water consumption in this product group.
In 2016 the scrap rate amounted to 3.1%, compared to 4.7% in 2014.
In 2016 the business-unit-specific quantitative target regarding the contribution of innovative products to revenues was met.
In 2016 the definition of innovative products was adopted and a new business-unit- specific target was defined.
In 2016 the business-unit-specific quantitative target regarding the contribution of innovative products to revenues was met.
In 2016 the business-unit-specific quantitative target regarding the contribution of innovative products to revenues was met.
In 2016 the business-unit-specific quantitative target regarding the contribution of innovative products to revenues was met.
On account of the product mix, the percentage of recycling material used per ton of products produced in 2016 remained the same as in 2015.
As in previous years, no charges were brought against Wienerberger for suspected corruption nor had any penalties to be paid in 2016.

Our Sustainability Roadmap 2020 is a selfimposed commitment to continuously improve our ecological, social, societal and ecological performance across the entire value creation process of the Wienerberger Group (diagram on page 26/27).

Essentially, this process is based on four major value chains: tiles and bricks, ceramic pipes, plastic pipes and concrete pavers. Along these value chains, about 500 stakeholders specified those aspects and challenges which they regard as most important for the Wienerberger Group and its impacts on society (detailed process description on page 28/29). The results of this materiality analysis have been aggregated in our first Group-wide materiality matrix (diagram on page 30/31).

The aspects and challenges which our stakeholders viewed as most important for the Wienerberger Group served as input for the sustainability program for the period from 2016 to 2020 – our Sustainability Roadmap 2020 (details on age 32) The Roadmap specifies the quantitative targets we want to achieve every year, such as zero accidents or zero incidents of corruption at Group level, or by 2020, at the latest.

The table on this page shows the extent to which we met our quantitative targets by 31/12/2016. For a more detailed overview, including further explanations, please refer to page 36/37.

# **Mission Statement**

## Our Vision

We want to be the most highly regarded producer of building materials and infrastructure solutions and the preferred employer in our markets. We share our values, our knowledge, our experience and our success.

## Our Mission

We improve people's quality of life by providing outstanding, sustainable building material and infrastructure solutions.



## Our Goal

The primary goal of our entrepreneurial activities is to achieve a sustainable increase in the value of the company in accordance with ecological, social and economic principles.

## Our Values

Expertise – Passion – Integrity and Respect –
Customer Orientation – Entrepreneurship –
Quality – Responsibility

Our values form the basis of our entrepreneurial activities.
We live by our values and share them in our day-to-day cooperation.

# Smart Solutions

Sustainable Solutions
Demand Holistic Thinking and Acting

For years, Wienerberger has made every effort to integrate classic financial optimization with a style of corporate governance guided by sustainability targets. A holistic and integrated approach provides the basis for our successful corporate strategy and our self-imposed commitment to continuously improve our ecological, social, societal and economic performance. We are consistently pursuing the ambitious targets laid down in our Sustainability Roadmap 2020. We are convinced that, in the long term, companies acting in full awareness of their responsibility, contributing to the improvement of people's quality of life today and ensuring the wellbeing of future generations, will be among the more successful ones.

2 Key Indicators

2014

# Key Indicators – Wienerberger Group

Water consumption

in total revenues

Water from public networks

Share of innovative products

Corporate data		restated <sup>1)</sup>	2015	2016	Chg. in %
Revenues	in MEUR	2,834.5	2,972.4	2,973.8	0
EBITDA	in MEUR	317.2	369.7	404.3	+9
EBIT	in MEUR	-165.1	163.1	190.6	+17
Profit after tax	in MEUR	-229.7	69.8	115.3	+65
Free cash flow	in MEUR	134.0	135.1	246.5	+82
Net debt	in MEUR	621.5	534.1	631.6	+18
Gearing	in %	31.3	26.0	34.2	-
Employees		2014	2015 <sup>2)</sup>	2016	Chg. in %
Ø Employees as at 31/12	Full-time equivalents (FTE)	13,930	15,813	15,990	+1.1
Accident frequency	Number of occupational accidents / number of hours worked x 1,000,000	12.3	8.0	6.5	-18.4
Accident severity	Accident-related sick-leave days / number of hours worked x 1,000,000	340	209	177	-15.5
Ø Sick-leave days / employee 3)	in days	9.2	9.1	9.6	+5.6
Ø Training hours / employee 4)	in hours	14.4	15.5	12.7	-18.0
Ø Training costs / employee	in €	235	211	228	+7.8
Percentage of women	in %, relative to FTE	13.5	13.5	13.6	-
Employee turnover 3)	in %	8.4	9.2	9.0	-
Production					
Total energy consumption 5) 6)	in GWh	6,632	7,628	7,591	-0.5
Specific energy consumption 5)	Index in % based on kWh/ton (2013 = 100%)	95.4	101.3	100.0	-1.3
Total CO <sub>2</sub> emissions <sup>6) 7)</sup>	in kilo tons	1,847	2,064	2,046	-0.9
Specific CO <sub>2</sub> emissions <sup>7) 8) 9) 10)</sup>	Index in % based on kg CO <sub>2</sub> /ton (2013 = 100%)	96.3	99.4	96.1	-3.3

in million  $m^3$ 

3.7

39.3

24.9

4.0

34.3

26.9

General comments applying to all parts of the 2016 Sustainability Report: Rates of change against previous years are calculated on the basis of non-rounded values for all non-financial indicators. // Free cash flow equals cash flow from operating activities minus cash flow from investing activities plus growth capex. // For calculation methods, see the corresponding chapters of the 2016 Sustainability Report. The reporting limits are the same as for the Annual Report. // Rounding differences may be due to electronic data processing // n.a. ... not available (data not collected or not comparable in three-year trend) // n.c. ... not comparable (data not comparable in three-year trend due to new definitions)

<sup>1)</sup> The figures for 2014 were restated according to IAS 8. // 2) Tondach Gleinstätten included as of 2015. // 3) Excluding North America (figures not fully comparable due to special local regulations). // 4) Internal and external initial and further training measures per employee. International training events not included. In 2014 the numbers of hours spent in training were shown as rounded figures; as of 2015, the calculations are based on accurate values. // 5) Total energy consumption comprises energy consumed in production, excluding administration, except in countries where separate accounting is not possible. // 6) Due to the integration of concrete roof tiles CBME in Great Britain, the figures for 2015 were restated. Due to the integration of concrete and calcium silicate products in North America, the figures were restated to show a three-year trend. // 7) Exclusively direct CO<sub>2</sub> emissions from production. // 8) Specific CO<sub>2</sub> emissions exclusively refer to fuel emissions. // 9) Due to the updating of the master data for CBME production volumes, the figures for 2015 were restated. // 10) At Steinzeug-Keramo the reference value for the production volume was changed from kiln capacity to net additions to stocks and the figures were restated to show a three-year trend.

Key Indicators

# **Key Non-Financial Indicators by Product Group**

Tiles and bricks		2014	2015 <sup>2)</sup>	2016	Chg. in %
Employees as at 31/12	Headcount	9,530	11,495	11,654	+1.4
Accident frequency	Number of occupational accidents / number of hours worked x 1,000,000	12.7	8.0	6.2	-22.6
Percentage of women	in %, relative to FTE	12.7	12.9	13.2	-
Employee turnover 3)	in %	7.5	8.9	8.0	-
Specific energy consumption <sup>5) 6) 9)</sup>					
Clay blocks	Index in % based on kWh/ton (2010 = 100%)	79.1	80.2	79.3	-1.1
Roof tiles	Index in % based on kWh/ton (2010 = 100%)	94.5	87.0	85.8	-1.3
Facing bricks	Index in % based on kWh/ton (2010 = 100%)	99.8	102.2	104.3	+2.0
Specific CO <sub>2</sub> emissions <sup>6) 8) 9)</sup>					
Clay blocks	Index in % based on kg $CO_2$ /ton (2013 = 100%)	91.6	93.2	92.1	-1.1
Roof tiles	Index in % based on kg $CO_2$ /ton (2013 = 100%)	95.1	88.0	87.1	-1.0
Facing bricks	Index in % based on kg $CO_2$ /ton (2013 = 100%)	98.0	95.2	95.0	-0.2
Specific water consumption <sup>6) 9)</sup>	in m³/ton	0.16	0.15	0.15	+0.3
Share of innovative products in total revenues	in %	n.c.	29.4	28.8	-
Ceramic pipes					
Employees as at 31/12	Headcount	553	612	561	-8.3
Accident frequency	Number of occupational accidents / number of hours worked x 1,000,000	45.1	34.3	32.5	-5.4
Percentage of women	in %, relative to FTE	9.6	8.5	7.8	-
Employee turnover	in %	0.8	2.8	7.1	-
Specific energy consumption <sup>5)</sup>	Index in % based on kWh/ton (2013 = 100%)	99.4	103.1	111.5	+8.1
Specific CO <sub>2</sub> emissions <sup>8)</sup>	Index in % based on kg CO <sub>2</sub> /ton (2013 = 100%)	100.7	105.4	111.9	+6.1
Specific water consumption <sup>10)</sup>	in m³/ton	0.23	0.23	0.26	+15.0
Share of innovative products in total revenues	in %	n.c.	40.7	39.4	-
Plastic pipes					
Employees as at 31/12	Headcount	2,510	2,481	2,577	+3.9
Accident frequency	Number of occupational accidents / number of hours worked x 1,000,000	5.9	3.3	3.9	+18.4
Percentage of women	in %, relative to FTE	14.7	15.3	14.9	
Employee turnover	in %	9.7	10.8	11.4	
Specific energy consumption 5)	Index in % based on kWh/ton (2010 = 100%)	98.0	94.6	98.2	+3.8
Specific indirect CO <sub>2</sub> emissions from electricity	Index in % based on kg $CO_2$ /ton (2010 = 100%)	n.a.	83.0	83.0	0.0
Specific water consumption	in m³/ton	4.13	4.70	5.11	+8.7
Share of innovative products in total revenues	in %	n.c.	21.0	20.0	-
Concrete pavers					
Employees as at 31/12	Headcount	964	987	976	-1.1
Accident frequency	Number of occupational accidents / number of hours worked x 1,000,000	8.8	5.1	4.4	-13.5
Percentage of women	in %, relative to FTE	15.9	15.3	14.9	
Employee turnover	in %	9.8	11.7	15.3	
Specific energy consumption 5)	Index in % based on kWh/ton (2010 = 100%)	89.0	88.9	93.1	+4.8
Specific water consumption	in m³/ton	0.05	0.05	0.06	+7.5
Share of innovative products in total revenues	in %	n.c.	39.0	36.9	_

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# Introduction by the Chief Executive Officer



Heimo Scheuch, Chief Executive Officer Wienerberger AG

## Ladies and Gentlemen:

We have the courage to take a new approach. The Wienerberger Group is the technology and innovation leader of its sector of industry. Looking toward the future, we are ready to embark on a course of continuous further development. This is our way of addressing the challenges confronting us in an environment of ongoing transformation. The essential issue for us is to put the right questions – and to find adequate answers. This is how Wienerberger generates "Smart Solutions".

The world is facing major challenges: preserving peace, fighting against poverty and hunger, providing food, drinking water and energy for a growing world population, supporting and integrating refugees and displaced persons, generating sustainable economic growth while ensuring humane working conditions, health and education for all, reducing inequalities within and between countries, limiting the volume of greenhouse gas emissions and adjusting to climate change, adopting responsible

consumption patterns in view of the growing scarcity of resources, preserving eco-systems, coping with urbanization and strengthening the resilience of urban communities. The United Nations have incorporated these challenges in their 2030 Agenda for Sustainable Development and defined 17 Sustainable Development Goals to be reached by 2030. As the technology and innovation leader of our industry, we consider it our duty to contribute to the achievement of these goals, especially in view of the fact that many of the challenges referred to, such as climate change, the scarcity of resources, humane working conditions, urbanization and demographic change, directly or indirectly concern Wienerberger.

Climate change demands that we fight against its root causes and adjust to its consequences. The main cause is well known: the rise in greenhouse gases present in the atmosphere as a result of the world's increasing consumption of fossil sources of energy, above all oil and coal. Our products are highly energy-intensive: in 2016,

Wienerberger's total energy consumption amounted to approx. 7,590 GWh. We are making consistent efforts to reduce our energy consumption and to rely, above all, on energy sources generating the lowest possible volume of specific  $\mathrm{CO}_2$  emissions. Our goal is to achieve a 20% reduction in the specific energy consumption of our major business units by 2020, as compared to 2010.

In 2016, we succeeded in reducing our specific energy consumption by 1.3% from the previous year's level, and the specific CO<sub>2</sub> emissions from our ceramic production came down by 3.3%. We are going to consistently pursue this course.

At the same time, we are developing forward-looking smart solutions that should enable us to better cope with the consequences of climate change, such as the increasing frequency of extreme rainstorms. In 2016, for instance, we completed a lighthouse project for the construction of tornado-proof houses in Tuscaloosa, Alabama, in cooperation with Habitat for Humanity.

Today, more than half of the world population lives in cities; by 2050, according to a UN study, it will be two thirds. If so many people are to live together peacefully in a confined space, healthy, affordable and socially acceptable housing as well as functioning infrastructure solutions are indispensable. Wienerberger is continuously working to develop new, innovative products, system solutions and services for these applications. In this context, we regard an innovation-oriented corporate culture and proximity to our customers as crucial factors of success. In 2016, we invested close to 1% of our revenues in research and development and in future-oriented products. As a strong partner in new residential construction, renovation and infrastructure, we generated 27% of our revenues through innovative products. All our business units achieved or outperformed their individual targets. We intend to further pursue this course in the years to come.

Wienerberger currently employs a workforce of almost 16,000 people. They are the key to the successful

future development of our company. Our objective is to be the preferred employer in our markets. We attribute great value to diversity and equal opportunities, a motivating work environment, the consistent involvement of our employees, a culture of open communication, and attractive initial and further training options.

Thanks to our Group-wide safety standard and the individual safety programs of our business units, we were able to reduce the frequency of accidents by 18.4% and the severity of accidents by 15.5% in the Wienerberger Group, as compared to the previous year. Despite our efforts, one fatal occupational accident each occurred in the Wienerberger Group and in a 50% subsidiary of Wienerberger's. We deeply regret these accidents. We have further intensified our efforts to improve the safety of our employees.

As an industrial producer, ensuring occupational health and safety for all our employees is our top priority. Zero accidents throughout the Group is our yearly target.

Cultural diversity and decentralized structures characterize Wienerberger's corporate identity. We regard regionally recruited teams as a crucial factor of our success. In our human resources planning, we therefore make every effort to employ local staff and executives, which enables us to gain a better understanding of the local market and to consider the specificities of the region in decisions taken at Group level. It is our policy to give preference to women for new appointments to senior management and executive positions, provided the candidates' qualifications are equal. In 2016, 12% of Wienerberger's senior management positions were held by women, which corresponds to a 50% increase over the previous year's level. The satisfaction and motivation of our employees are the basic prerequisites for positive human resources development. The average length of service with the company remained high at 13 years in 2016. We regard this as a strong vote of confidence in the Wienerberger Group from our employees. The ongoing employee survey will be rolled



out to all local companies of the Wienerberger Group by 2018; its results will provide the basis for measures to further improve the degree of employee satisfaction.

In a world of digital transformation, Wienerberger is directly affected by issues of data usage and data security. Digitalization concerns every segment of our company and covers the entire range of our value chain. At present, we are working on the implementation of our digital agenda. It covers a broad range of topics, from product development to webshop marketing, from production processes to supply chain management, from customer apps to integrated 3D planning in real time. Within the framework of our digital agenda, we are working intensively on projects for all our product groups. We are opening up new fields of business and playing a leading role in the digital transformation of our industry. As regards data security, we apply strict rules to protect the interests of our customers, employees and suppliers.

In our production, we see great opportunities in networking and in advanced technologies, as this enables us to meet individual requirements at short notice and to adjust to our customers' needs.

When we signed the UN Global Compact in 2003, we officially acknowledged our responsibility as a corporate citizen. We actively promote business ethics, we see to it that the ten principles of the UN Global Compact are consistently implemented, and we advocate "good corporate citizenship" throughout the Wienerberger Group. Our 2016 Communication on Progress in respect of the UN Global Compact is reproduced on pages 96 to 100.

In the coming years, we will continue to work intensively on the achievement of our targets and the implementation of the corresponding measures. I will be pleased if you continue to follow our progress.

Yours // At





# Wienerberger at a Glance

## Company Profile

Wienerberger is an international supplier of innovative building material and infrastructure solutions with headquarters in Vienna. We are the only multinational producer of clay blocks, facing bricks and clay roof tiles, pipe systems made of plastics and ceramics, and concrete and clay pavers. As at 31/12/2016, Wienerberger operated 198 production sites in 30 countries of the world and exported its products to international markets. We are the worldwide market leader in bricks and the No. 1 producer of clay roof tiles in Europe. Moreover, we are among the leading suppliers of pipe systems in Europe and concrete pavers in Central and Eastern Europe.

## History of the Company

Wienerberger was founded in 1819 by Alois Miesbach in the Wienerberg district on the southern outskirts of Vienna. In 1869, this Austrian brick manufacturer became one of the first companies to be listed on the Vienna Stock Exchange. Wienerberger is a free float company with 100% of its shares being publicly traded. For details on the shareholder structure, please refer to the 2016 Annual Report.

The company took its first step towards internationalization with the takeover of the Oltmanns Group in 1986, which was followed by a successful expansion into Eastern Europe, France and the Benelux countries during the 1990s. At about the same time, Pipelife (plastic pipes) was established as a joint venture and the Group diversified its activities to include ceramic pipes and concrete pavers.

After a further period of expansion in Europe, the Wienerberger Group developed into a global player with the takeover of General Shale in the USA in 1999. Another strategic milestone was set in 2003 with the Group's entry into the roofing systems market through the acquisition of Koramic and the steady expansion of this business in the following years. With the full takeover of Semmelrock (2010), Steinzeug-Keramo (2011), Pipelife (2012) and Tondach Gleinstätten (2014), Wienerberger

completed its transformation into an international supplier of building material systems comprising the Clay Building Materials Division, the Pipes & Pavers Europe Division and the North America Division.

## **Mission Statement**

It is our vision to be the most highly regarded producer of building material and infrastructure solutions and the preferred employer in our markets. Our mission is to improve people's quality of life by providing outstanding, sustainable building material and infrastructure solutions. The primary goal of our entrepreneurial activities is to achieve a sustainable increase in the value of the company in accordance with ecological, social and economic principles. Day after day, approximately 16,000 employees are making every effort to translate this vision into reality through their commitment and their professional approach. This excellent cooperation is based on a firmly rooted corporate culture, which is characterized by shared values expertise, passion, integrity and respect, customer orientation, entrepreneurship, quality and responsibility – and provides the foundation for our organization.

## Strategy and Targets for 2020

Our corporate strategy is determined by our vision and our mission. Three core areas of strategic importance have been identified as essential for Wienerberger's sustainable success: organic growth, operational excellence and value-creating growth investments.

In order to generate organic growth, we focus on innovations, deepened customer relations and a profound knowledge of local markets, as well as the development and implementation of digital solutions across our entire value chain. We want to create lasting value for all our customers by providing durable, flexible and innovative building material and infrastructure solutions. To this end, we are continuously at work to improve and further develop our products and system solutions for all fields of application. Our development priorities include the responsible use of raw materials and other resources,



experimenting with new materials and more efficient production processes, and innovations in the application, use and reuse of our products. We are making every effort to adjust these developments to the needs of our customers. Through our innovations we not only meet the increasing demand for tailor-made solutions, but also offer solutions to cope with the growing complexity of the design and execution of construction projects. In this context, we take the individual needs of specific customer groups, stakeholders and decision-makers into account, offering comprehensive advisory services and supporting projects from the planning phase to execution. Within the framework of our digital agenda, we increasingly rely on digital and mobile solutions for fast exchanges of data and information. Thus, we are playing a leading role in the digital transformation of our industry.

The optimization of our production processes and our organizational structures also supports our economic and ecological objectives. Our Operational Excellence Program enables us to achieve cost savings and reduce the input of resources.

Value-creating investments serve the strategic goals of exploring new fields of business and achieving deeper market penetrating in existing operating segments. These investments include corporate acquisitions, the take-over of individual plants and capacity extensions.

Wienerberger's target for 2020 is to generate consolidated revenues of € 4 billion and EBITDA of over € 600 million. We expect organic growth to be in the range of 3% to 4% a year, based on volume increases and improved average prices. We also hope to realize contributions to earnings through value-creating growth investments. Support for both components comes from our Operational Excellence Program, which by 2020 will result in a sustainable reduction of our fixed costs in the amount of approx. € 10 million per year.

## Corporate Governance at Wienerberger

Strict principles of good governance and transparency as well as the continuous development of an efficient corporate control system form the basis of corporate governance at Wienerberger. In 2016, Wienerberger complied with all rules and recommendations of the Austrian Corporate Governance Code. Moreover, internal guidelines applicable throughout the Group, such as a compliance code to prevent insider trading and a code of conduct for lobbying activities, provide a framework for all the Group's activities. A Compliance Officer, supported by a deputy, has been appointed to monitor compliance. For a detailed presentation of the activities relating to corporate governance at Wienerberger in the reporting year, please refer to the chapter "Management Approach" and the 2016 Annual Report. Our corporate governance principles are communicated in detail on the Wienerberger website.

#### The Year 2016 in Review

Residential construction in Europe was characterized by diverging regional developments and a slightly positive overall trend in 2016. In the Clay Building Materials Europe Division we were able to take advantage of this market environment and increase our sales volumes at slightly improved average prices, which resulted in higher revenues and a rise in EBITDA. In the Pipes & Pavers Europe Division, however, we recorded a decline in revenues and earnings, which was mainly due to two effects. On the one hand, delays in tendering for infrastructure projects in Eastern Europe co-funded by the EU had a negative impact on all our operating segments; on the other hand, our plastic pipe activities suffered from sluggish demand in international project business. In the North America Division, our brick business benefited from livelier housing construction activities in the USA and Canada, where substantially higher sales volumes resulted in organic revenue and earnings growth. At the same time, however, the Division's plastic pipe business recorded a decline in earnings due to lower average prices.



Overall, the Wienerberger Group generated a significant increase in EBITDA by 9% to € 404.3 million in 2016, while its total revenues remained stable at € 2,973.8 million. Positive contributions from the consolidation of minor acquisitions contrasted with negative foreign exchange effects. Owing to the Group's strong operational performance, its net profit increased from € 36.5 million in 2015 to € 82.0 million in 2016, with free cash flow up by 82% to € 246.5 million in the reporting year. Due to the reclassification of the 2007 hybrid bond from equity to debt in connection with the announcement of the buyback transaction, Wienerberger's net debt rose by 18% to € 631.6 million. Based on the strong performance of the Group and the positive outlook for the

current year, the dividend paid out for 2016 was increased by 35% to  $\leq$  0.27 per share.

In 2016, a dividend of  $\in$  0.20 per share, corresponding to a total of  $\in$  23.4 million, was paid out from the Group's 2015 net profit. The hybrid coupon paid out came to  $\in$  32.5 million, and an amount of  $\in$  6.0 million was spent for a pro-rata buyback of the hybrid bond. Payments to public bodies, comprising taxes on income and other taxes (excluding deferred taxes) rose to  $\in$  60.5 million, as compared to  $\in$  48.9 million in the previous year, on account of the improvement in earnings and the resulting increase of the tax burden.

Financial flows to stakeholders $in \in million$	2014 1)	2015	2016	Chg. in %
Corporate revenues <sup>2)</sup>	2,871.6	3,028.4	3,042.9	0
Operating expenses 3)	-2,150.7	-1,876.0	-1,861.7	-1
Wages, salaries and benefits 4)	-679.1	-756.9	-751.8	-1
Payments to providers of equity 5)	-57.9	-38.5	-61.9	+61
Payments to providers of borrowed capital	-60.1	-45.8	-33.6	-27
Payments to public bodies <sup>6)</sup>	-40.5	-48.9	-60.5	+24

1) The figures for 2014 were restated in accordance with IAS 8. // 2) Revenues and other operating income // 3) Cost of goods sold, selling expenses, administrative expenses and other operating expenses, excluding wages, salaries and benefits, depreciation and amortization, impairments, and taxes other than taxes on income // 4) Excluding temporary workers and company cars; including employee-related restructuring costs // 5) Hybrid coupon and dividend recognized in the year of payment // 6) Excluding deferred taxes

General note: The first three lines are expense- and/or income-based; the last three lines are cash transactions.

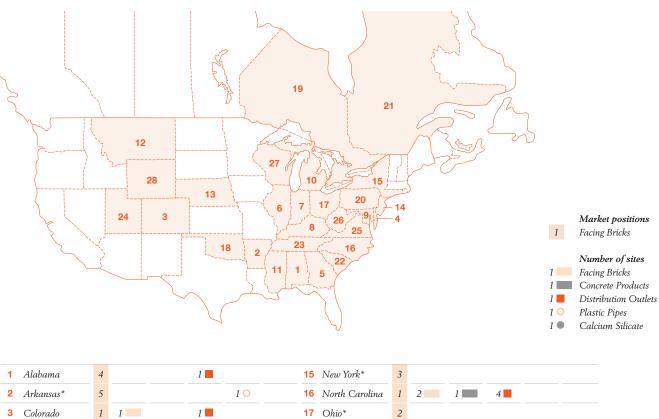


## **Production Sites and Market Positions**

Wienerberger is the only multinational producer of bricks, roof tiles, concrete pavers and pipe systems with a total of 198 production sites in 30 countries and activities in international export markets. We are the world's largest

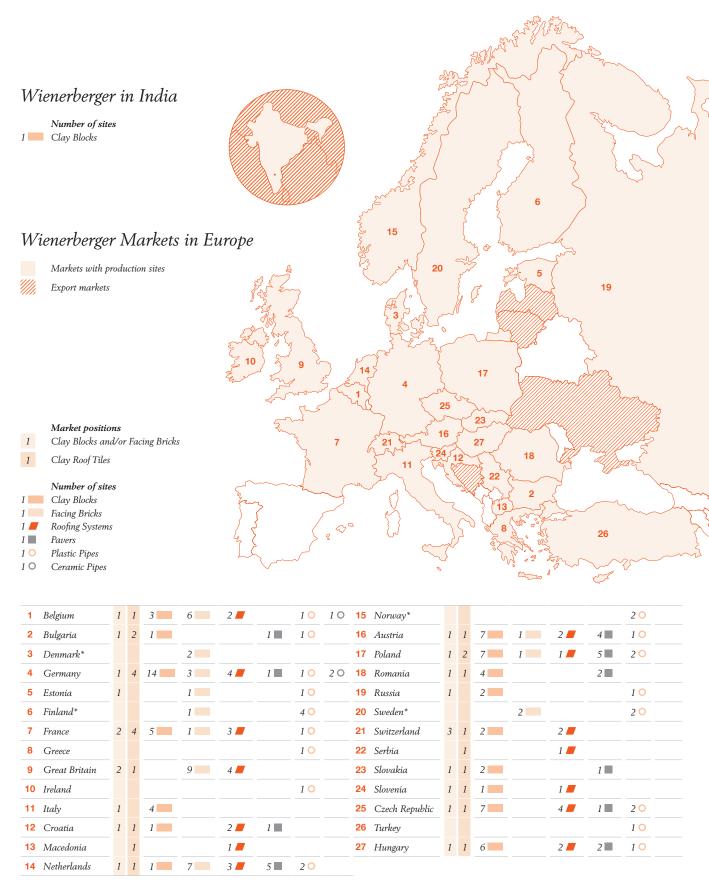
producer of bricks and No. 1 in the clay roof tile market in Europe. Furthermore we hold leading positions in pipe systems in Europe and concrete pavers in Central-East Europe.

## Wienerberger Markets in North America

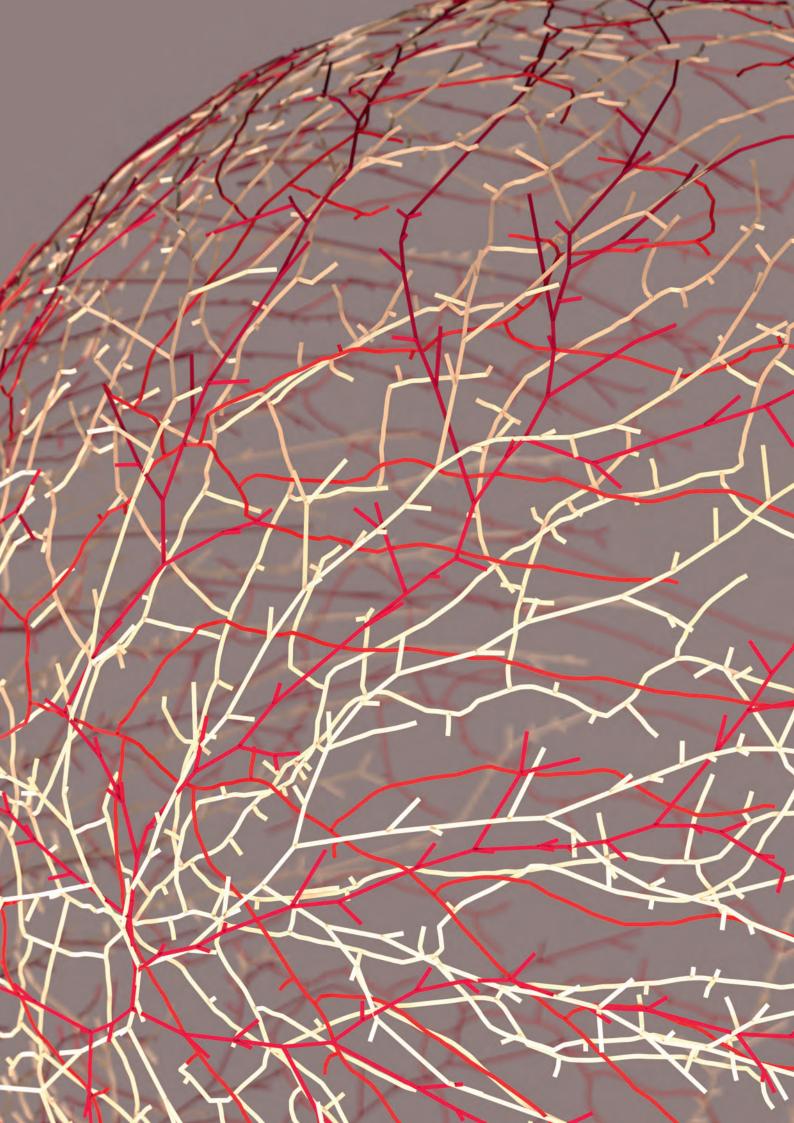


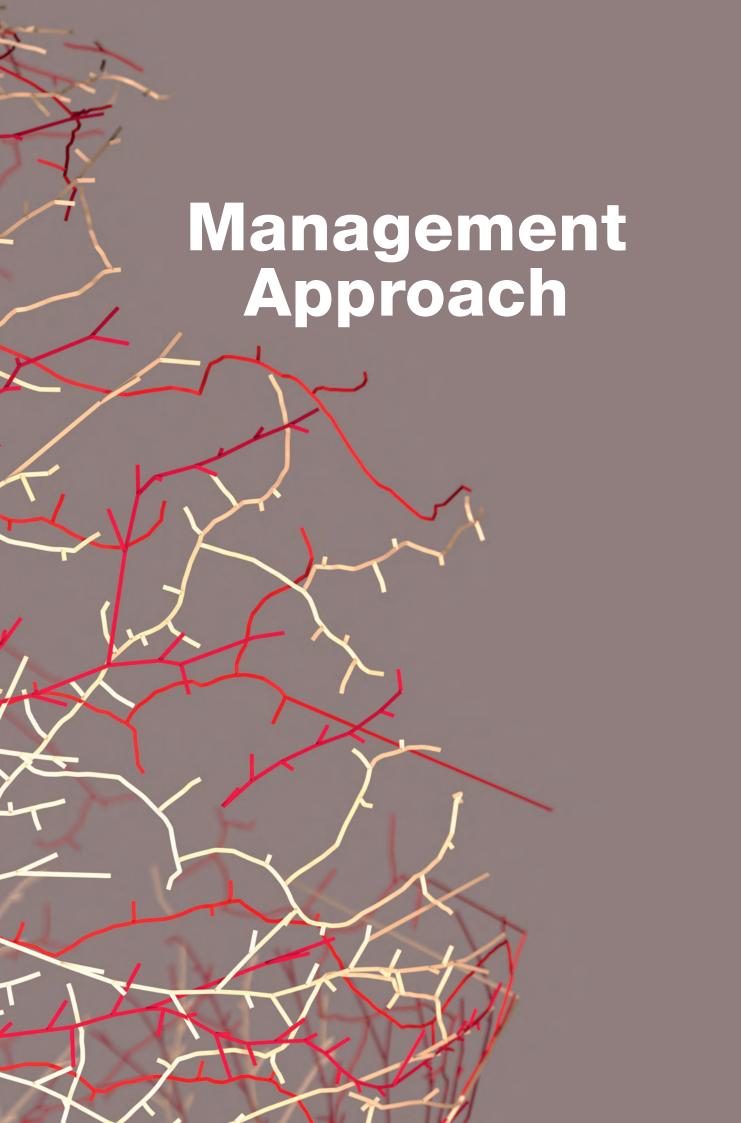
1	Alabama	4		1		15	New York*	3				
2	Arkansas*	5			1 🔾	16	North Carolina	1	2	1	4	
3	Colorado	1	1	1		17	Ohio*	2				
4	Delaware*	5				18	Oklahoma*	6				
5	Georgia	1	2			19	Ontario					1 •
6	Illinois	3		2		20	Pennsylvania*	3				
7	Indiana	1	1	2		21	Quebec					1 •
8	Kentucky	1		2		22	South Carolina	4			1	
9	Maryland*	2				23	Tennessee	1	1	1	6	
10	Michigan	2		2		24	Utah*	2				
11	Mississippi*	6				25	Virginia	1	1		1	
12	Montana	1		1		26	West Virginia*	1				
13	Nebraska*	6				27	Wisconsin*	5				
14	New Jersey*	3				28	Wyoming	1			1	

<sup>\*</sup> Markets are served through exports from neighboring states.



<sup>\*</sup> In our brick business in the Nordic countries (Denmark, Finland, Norway and Sweden), which is managed on a supra-regional basis, we hold a No. 2 market position.









# **Management Approach**

Wienerberger is determined to provide an appropriate and well-balanced insight into the essential issues addressed by our group of companies and the related impacts. We also want to disclose information about how we manage these impacts at Group level and in our business units. We therefore decided to focus our report above all on those issues that are of material importance not only for Wienerberger, but also for our stakeholders. This approach meets the requirements of the GRI Guideline which we follow in our reporting. This chapter therefore comprises four main parts:

- > Our Management approach: Presentation of our management approach for the individual topics and the way we pursue our economic, ecological, social and societal targets
- > Global challenges and megatrends: Description of the global challenges confronting Wienerberger and the way in which the company deals with them
- Our 2014 materiality analysis: Presentation of the issues and aspects classified as material by our stakeholders
- > Our Sustainability Roadmap 2020: A self-imposed commitment to continuously improve Wienerberger's ecological, social, societal and economic performance

## Our Management Approach

### Mission statement and strategy

Wienerberger views the economy as an integral part of society that has the obligation to serve people and create value for all. Our mission is to improve people's quality of life by providing outstanding, sustainable building materials and infrastructure solutions.

Our reputation is the basis of our success. Our goal is to be the most highly regarded producer of building material and infrastructure solutions and the preferred employer in our markets. Our entrepreneurial activities are based on our values: expertise, passion, integrity and respect, customer orientation, entrepreneurship, quality and responsibility.

We take our role as a responsible member of society very seriously. For us, this responsibility encompasses the observance of ethical principles in all our actions, honest communication, active involvement in the creation of a transparent economic environment, personal accountability for everything we do, and acting as a reliable and useful member of society. By acceding to the UN Global Compact in 2003, Wienerberger officially committed itself to observing the principles of human rights, labor standards, environmental protection – including the precautionary principle – and the fight against corruption.

## **Corporate Governance at Wienerberger**

The responsible management of the Wienerberger Group with a view to its long-term development is an essential prerequisite for the achievement of our corporate goal: to sustainably increase the value of the company in accordance with ecological, social and economic principles. As a stock exchange listed company with international operations, Wienerberger is committed to the strict principles of good governance and transparency as well as to the continuous further development of an efficient system of corporate control. The framework for the company's actions is provided by Austrian law, the Austrian Corporate Governance Code, the Articles of Association, the rules of procedure of the boards of the company, and internal guidelines. Some of the most essential aspects are described in the following sections. For the complete Wienerberger Corporate Governance Report, please refer to pages 48 to 67 of the 2016 Annual Report and to the Wienerberger website.

#### Compliance

The term "compliance" covers all instruments and measures employed to ensure that a company and its employees comply with all applicable laws and regulations. Commitment to compliance with all national and international legal standards is a central principle of the

Wienerberger Group. To prevent insider trading and the illegal disclosure of inside information, the company has adopted a compliance guideline, which implements the provisions of European and Austrian stock exchange law. A compliance officer, supported by a deputy, has been appointed to monitor compliance. Training sessions on issuer compliance are held regularly at the Vienna headquarters for the top management of Wienerberger Holding and each of the business units. Pursuant to the Austrian Lobbying and Interest Representation Transparency Act, the basic principles governing lobbying activities have been laid down in a code of conduct for all board members and employees of companies in which Wienerberger AG holds a majority interest. The code of conduct can be downloaded from the Wienerberger website.

On account of the market position held by the Wienerberger Group in certain markets, the price policies of our subsidiaries are followed attentively by the antitrust authorities. There were no negative findings by the authorities in charge in 2016. This confirms the effectiveness of our compliance regime. Price agreements are not part of Wienerberger's business practices and are explicitly prohibited by our internal guidelines, which provide for severe sanctions in the event of violations.

Wienerberger introduced an anti-trust compliance program some years ago. Through the provisions of the anti-trust guideline, our employees are made aware of problems that may arise in the field of anti-trust law. The rules of conduct laid down in the guideline provide orientation on sensitive issues of competition law and are to be strictly observed. Among other issues, the guideline contains strict rules regarding contacts with competitors in respect of market activities, information exchange, pricing, delivery conditions and other forms of cooperation. As regards contacts with customers, distributors and suppliers, there are rules governing the determination of selling prices and other restrictions for distributors as well as exclusivity agreements. The guideline also includes provisions on intellectual property rights and mergers.

Within the framework of the anti-trust compliance program, all local companies of the Wienerberger Group are obliged to hold regular training sessions. As a rule, anti-trust training events take place at least once every two years and are conducted by a national anti-trust expert or our in-house legal counsel. The local management is responsible for the organization and implementation of the training event and the selection of employees to be trained. Internal Audit verifies that training programs have been held and monitors compliance with the guideline.

In accordance with Wienerberger's decentralized structure, responsibility for the enforcement of national rules and regulations and for compliance monitoring lies with the respective local management bodies. For this reason, and in line with national legal provisions, Wienerberger employees have been appointed at country level and given the responsibility of evaluating legal compliance and reporting to the local authorities and the Wienerberger Managing Board. Internal Audit regularly verifies compliance with this process and reports its findings to the Managing Board and the Audit Committee of the Supervisory Board. In many countries, Wienerberger is subject to comprehensive and increasingly stringent environmental regulations as well as health and safety rules. Wienerberger considers itself duty-bound to observe these rules and regulations, if necessary through investments in optimization measures.

A guideline on compliance with economic and financial sanction laws has been in force since 01/01/2015. The objective of this guideline is to ensure compliance with sanctions imposed on certain countries and/or their nationals within the Wienerberger Group. Deliveries to and business contracts with individuals and/or organizations under sanctions are prohibited.



#### Prevention of corruption

Wienerberger is committed to the principle of free and fair competition, which includes a firm stance against any form of corruption. We have always pursued the target of zero incidents of corruption and expect all our employees to act accordingly. In 2016, no charges were brought against Wienerberger for suspected corruption and no penalty payments were due.

In 2016, internal audits were performed in 19 companies, with a special focus on organization, purchasing, materials management, sales and human resources, as well as corruption and anti-trust legislation. Another priority was compliance with the Group-wide standards on health and safety. In the course of these audits it was found that all internal guidelines had been implemented in the countries audited and the employees concerned had been informed accordingly. Deviations from the guidelines, if any, were reported to the Managing Board and the Audit Committee, and the necessary measures, such as improvements in documentation, were agreed upon with the respective local management.

The application of the four-eyes principle in business transactions with third parties is another important instrument for the prevention of corruption. For each transaction establishing, modifying or terminating rights and obligations, two signatures of authorized signatories of the local unit are required. This requirement is laid down in international Group guidelines and helps to prevent corruption at international level.

The Wienerberger guideline on business gifts, which has been in force since 2010, was revised in 2016. The revision became necessary on account of the transition to a division-based corporate structure and the associated shift of responsibilities to the business units, as well as changes in the penal provisions applicable to corruption cases.

#### **Human resources management at Wienerberger**

Our values provide the basis for our entrepreneurial activities. The values of responsibility, integrity and respect also apply, in particular, to Wienerberger's relationship with its employees.

Our human resources management is based on the following principles, which apply throughout the Group:

- > Safe and healthy workplaces
- > Equal opportunities, regardless of age, gender, culture, religion, origin or other diversity features
- > Advancement and development of each employee
- Willingness to pursue demanding targets and assume personal responsibility
- > Entrepreneurial thinking and acting

With the signing of the Social Charter in 2001, Wienerberger committed itself to creating Group-wide employment and working conditions that meet national legal provisions or collective bargaining agreements as a minimum standard. Thus, Wienerberger complies with the recommendations of the International Labor Organization (ILO, a specialized agency of the United Nations). At Wienerberger it goes without saying that child labor and discrimination are not tolerated. We pay special attention to adequate, safe and healthy working conditions, fair remuneration, freedom of association and the right of our employees to engage in collective bargaining. In 2016, approx. 73% of all Wienerberger employees were covered by a collective bargaining agreement, the percentage being the same as in 2015.

The responsibilities of Human Resources (HR) include the recruitment of new employees, the promotion of cross-border know-how transfer, occupational safety, employee communication, talent management and succession planning. The organization of training and learning platforms, adequate compensation and bonus systems, industrial relations, as well as socially responsible headcount reduction measures within the framework of restructuring programs, are among the core tasks of HR.



The following HR instruments are employed to support human resources management at Wienerberger:

- > Management Review: Annual appraisal of senior management and succession planning for senior management positions to ensure well-structured and transparent career and succession planning. In 2016, 162 persons were listed in the management database, excluding Managing Board members.
- > Safety, Health and Education (SHE) Reporting: Collection of three sets of data on developments in the fields of occupational safety, health and initial and further training as a basis for targeted management measures.
- > Wienerberger Safety Initiative: Mandatory safety standards and continuous activities to ensure maximum occupational safety at all plants of the Wienerberger Group. These activities are described in detail in the chapter "Employees". Pipelife, for instance, worked successfully with the DuPont<sup>TM</sup> STOP® for years and changed over to the more comprehensive Behavior Observation Program (BOP) two years ago. Steinzeug-Keramo implemented the DuPont<sup>TM</sup> STOP® in 2016 and organized training sessions for its employees, including the management, at all its production sites. The attainment of targets in the field of occupational safety also counts toward the variable remuneration of plant managers. CBME centrally coordinates the implementation of a safety roadmap, as well as the Safety Alerts and the Safety Awards, and verifies compliance with the safety standards.

## **Quality and environmental management**

Quality management systems (QMS) have been installed at all our plants, and most of them are certified according to ISO 9001. Environmentally relevant aspects have also been integrated into these quality management systems. Where appropriate, production sites have also been certified according to ISO 14001. All Steinzeug-Keramo production sites and the Pipelife site in Germany have already been certified according to the energy management standard DIN EN ISO 50001:2011.

Ongoing optimization programs, such as the Plant Improvement Program (PIP) in the brick segment and the Production Excellence Program (PEP) in our concrete paver business, primarily aim at sustainable resource and cost reductions through improvements of production processes. In our plastic pipe business we apply the Lean Six Sigma management approach to implement quality enhancements and optimize our processes.

For many years, Wienerberger has been working intensively on the voluntary preparation of eco-balances and environmental product declarations (EPDs) for its entire product range. All ceramic pipes and fittings produced by Steinzeug-Keramo as well as selected Semmelrock product lines have been successfully certified according to the Cradle to Cradle® concept and are re-certified at regular intervals.

#### Stakeholder management

As a responsible member of society, Wienerberger also takes the concerns of its stakeholders into account in its corporate strategy. We place great emphasis on open, continuous and target-group-oriented dialogue, as it fosters mutual understanding of one another's interests, expectations and targets. In 2014, we therefore performed a materiality analysis that involved both internal and external stakeholders. The results were laid down as binding targets in the Wienerberger Sustainability Roadmap 2020 and form an integral part of our corporate strategy.

Our stakeholders include our employees, customers and business partners, investors, analysts and banks, local residents and local authorities, suppliers, politicians, regulators, organized interest groups, research institutions and universities, media and NGOs. These groups are extremely diverse and have different needs, interests and concerns. Therefore, different stakeholder groups are addressed by different departments or organizational units within Wienerberger, and our communication instruments vary accordingly: In addition to personal meetings, we communicate and provide information through regular newsletters and information brochures, Internet-based information platforms and information events.



Our employees are kept informed of corporate targets and strategies as well as current developments and measures in a timely and comprehensive fashion, the aim being to provide a motivating working environment and stimulate personal initiative. For details regarding our internal communication channels and measures taken to actively involve our employees, please refer to the chapter "Employees".

Our customers and business partners – end customers as well as building material dealers, developers, designers and contractors - are all interested in high-quality, durable and affordable products for buildings that ensure a safe, healthy and comfortable environment. Complaints about product quality or other issues are addressed on an individual basis. The complaints management of Pipelife is within the responsibility of the local companies. Steinzeug-Keramo took a different approach and introduced a comprehensive system of complaints management with a corresponding settlement process in 2016. Complaints are entered into the system via an app and assessed every two weeks by a body comprising representatives of the departments concerned. In this way, corrective measures, if necessary, can be taken without delay. In order to even better understand our customers' concerns and to adapt our products to their needs, engaging in continuous dialogue with them is very important to us. We also inform our customers about the technical and ecological properties of our products. Training programs and advice provided by our employees and our service centers enable our customers to make the most of our products and system solutions. In our role as the technology and innovation leader in our industry, we have begun to offer digital design services for building projects in some of our markets on a one-stop-shop basis. Thus, we are able not only to efficiently simulate the effects of design changes, but also to offer more reliable forecasts of construction time and project costs.

Capital market participants – investors, analysts and banks – are interested primarily in sustainable performance by the company. Comprehensive and transparent reporting as well as timely communication and a regular exchange of information with the Managing Board are of

crucial importance for them. These requirements are met through annual and quarterly reports, presentations, and press releases on current developments. Roadshows, participation in investor conferences, personal talks, and the annual Capital Markets Day are instruments well suited to ensure continuous and active dialogue with all capital market participants.

Suppliers are particularly interested in fair business relations. Wienerberger's interest lies in the long-term and sustainable supply of the required natural resources, materials and products in accordance with the principles of sustainability. Within the framework of our business relations, we therefore make sure that our suppliers comply with our ecological and social standards, which we clearly communicate to them. In almost all our business areas, minimum standards have been laid down in "supplier codes of conduct", which have to be signed and complied with by suppliers upon conclusion of a contract.

Local residents, local authorities and NGOs are also important stakeholders. Every production site is a neighbor, a local employer and a taxpayer. Good and trusting relationships not only with neighbors, but also with local government authorities, associations and citizen initiatives are essential for a stable production environment. We therefore value the importance of direct on-site dialogue. We adjust our contacts with neighbors, local politicians and associations to local traditions - sometimes opting for strictly formalized stakeholder committees as a framework for structured exchanges, sometimes choosing a more informal setting. Regardless of the specific mode of contact, it is of central importance to Wienerberger to be open and transparent in its relations with stakeholders and take their concerns seriously. As regards the extraction of clay, Wienerberger is committed to taking extensive health and safety measures and protecting employees and local residents from noise and dust pollution. To restore the natural balance, depleted clay pits are re-cultivated, re-naturalized or made available for re-use.

Policy-makers determine the legal framework and thereby exert a major influence on the entrepreneurial environment for Wienerberger. To a growing extent, we have been publicly advocating the provision of affordable and social housing in Europe. Moreover, we are trying to convince policy-makers of the need for state subsidies for renovation measures and the construction of (water) supply and disposal networks in Western and Eastern Europe. The members of the Managing Board therefore meet regularly with high-ranking politicians and representatives of the public administration.

Moreover, Wienerberger is a member of various European and national representative bodies, platforms and technical committees and thereby actively contributes to the process of political opinion-shaping. We address developments in the individual markets, such as the growing trend towards urbanization, and wish to offer decision-makers practical, sustainable and, above all, affordable solutions for new residential construction, infrastructure and renovation.

Wienerberger maintains close contact with research institutions and universities; the company itself operates several research institutions in Europe, each of them specializing in a different product group.

The media expect targeted and timely information on strategic and current issues. We, for our part, expect to be given fair media coverage. With a view to satisfactory cooperation, we keep the media informed through press releases and press conferences. We answer journalists' questions as quickly as possible, and in personal interviews we allow enough time for a meaningful exchange of ideas.

# Voluntary commitment to compliance with the ten principles of the UN Global Compact

Wienerberger acceded to the UN Global Compact in 2003 and is a founding member of respACT, the Austrian UN Global Compact Network. Thus, Wienerberger is committed to the ten principles of the UN Global Compact on human rights, labor standards, environmental protection, including the precautionary principle, and the

fight against corruption. The most recent Communication on Progress (CoP) for 2016 is reproduced in this report, starting on page 96, and can also be found on the Wienerberger website.

## Sustainability management

The foremost goal of our entrepreneurial activities is to sustainably increase our enterprise value in accordance with ecological, social and economic principles. Our voluntary commitment to sustainability covers all stages of the value chain of the Wienerberger Group. To ensure a uniform approach and the efficient implementation of the measures and targets defined, we have introduced clear structures and responsibilities for the Group's sustainability management.

The Sustainability Steering Committee (SSC) is responsible for Wienerberger's sustainability strategy and the definition of the targets, deadlines and measures of its sustainability program. It comprises the enlarged Managing Board of the Wienerberger Group (CEO and CFO of the Wienerberger Group, CEOs of the business units) and is the top-level body in charge of sustainability management. For the purposes of international coordination, Sustainability Management was introduced as a staff function headed by the Corporate Sustainability Officer (CSO). The CSO ensures Group-wide coordination of sustainability management and reports directly to the CEO of Wienerberger AG. The CEOs of the business units are responsible for implementing the sustainability targets in their respective business units. They are supported by sustainability officers engaged in continuous exchanges with the CSO on current developments and progress achieved. This structure enhances the responsibilities of the individual business units and strengthens their influence on the integration of our sustainability strategy.

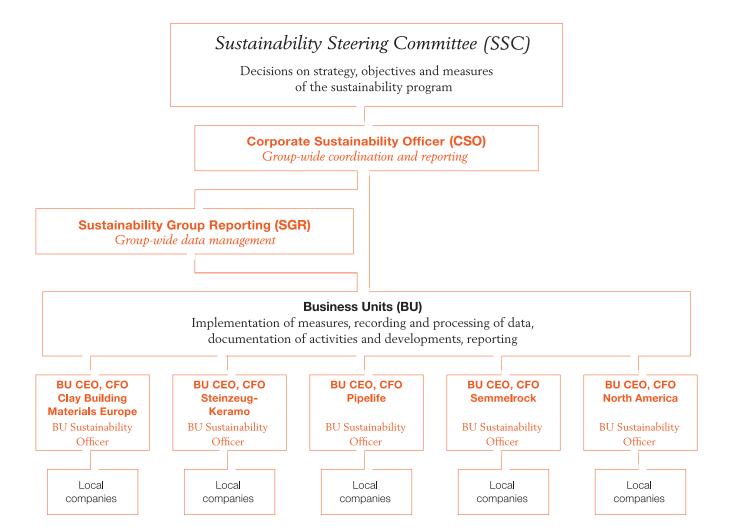
Sustainability Group Reporting (SGR) functions as a central data management system responsible for the consolidation of all non-financial indicators. The latter serve as a basis for strategic decisions at business unit and Group level.



The Sustainability Report of the Wienerberger Group represents our binding commitment to sustainable development. All Wienerberger sustainability reports meet the standard of the Global Reporting Initiative (GRI). The primary focus of the reports is on the ecological and social aspects of our activities and on future measures relating to our employees, production, products and the societal

environment. In combination with the sustainability program (Sustainability Roadmap 2020), the sustainability report is an important management instrument for Wienerberger to achieve its long-term goals. This Sustainability Report was prepared in accordance with the requirements of the G4 reporting guidelines, "core option".

## Structure of Wienerberger Sustainability Management





# Global Challenges and Megatrends – and How Wienerberger Addresses Them

Humankind is currently faced with fundamental challenges. The future of Planet Earth depends on how we cope with these challenges. The industrial sector is responsible for some of these problems, but also has the ability to offer solutions. The biggest global challenges that concern Wienerberger itself or are being addressed by our company are described in the following.

One of the major global challenges confronting humankind has been and still is climate change, its consequences being extreme weather events, flooding, droughts and a massive reduction of land available for agricultural cultivation. When the Paris Climate Agreement was signed on December 12, 2015, and entered into force on November 4, 2016, the international community of states had the justified hope of succeeding in limiting global warming to less than 2°C, or even to 1.5°C, by the end of this century, as compared to the temperature prevailing before the beginning of industrialization. Wienerberger and its production sites are directly affected by the provisions of international climate agreements. Most of our production sites and our biggest markets are in Europe. Therefore, Europe's policies on climate protection and energy, such as the planned decarbonization of the energy sector (reduction of emissions by more than 80% by 2050), are of crucial importance for Wienerberger.

➤ The firing of ceramic products requires a very high input of energy. Moreover, the use of fossil energy sources results in high CO₂ emissions. Alongside measures to reduce its own energy consumption, Wienerberger is therefore making every effort to replace CO₂-intensive energy sources (coal, fuel oil) by less CO₂-intensive (natural gas, liquefied natural gas) or climate-neutral energy sources (biomass, electricity from renewable energy sources). In 2016, the Group succeeded in reducing its consumption of coal by 40.2% and of fuel oil by 35.3%; the Group's total consumption of energy went down by 0.5% compared to the previous year (figures relating to energy content in GWh).

> The specific CO<sub>2</sub> emissions from our ceramic production (kg CO<sub>2</sub>/t of products) were reduced by 3.3% from the previous year's level and by 3.9% from the reference year 2013. Relative to the brick surface (kg CO<sub>2</sub>/m²), we succeeded in reducing emissions by 13.7% in roof tile production and 6.4% in facing brick production (reference year 2013).

The global consumption of energy and resources has reached dimensions that are coming close to what has been called the "planetary boundaries" in some respects. Therefore, non-renewable resources (including energy sources) have to be used as sparingly and efficiently as possible. Production processes should generate little waste, and the waste that is generated should be returned to the production cycle or re-used in other ways wherever possible. As our products cannot be produced without the consumption of resources and interference with the natural environment, every effort must be made to minimize such interferences.

- ➤ In all its fields of activity, Wienerberger strives for operational excellence the optimization of production and organizational processes and networking along the value chain. Process innovations have resulted in improvements in quality and a reduction of the cost of goods sold by up to 20%. By 2020, specific energy consumption in our major business units is to be reduced by up to 20% from its 2010 level. In clay block production, this target was already reached in 2016 (-20.7%).
- > Environmentally safe transport is an essential component of efficient logistics at Wienerberger. In Belgium, for instance, Wienerberger developed a transport strategy based on river navigation. Since 2013, not only primary raw materials, but also fired bricks have been delivered by boat.

Another major challenge is demographic change with its many different aspects, ranging from population growth and urbanization to ageing, migration and segregation.



Given the events of 2015, migration is currently at the focus of public attention. Although political and economic turmoil and persistent conflicts in the Middle East (Syria, Afghanistan, Iraq) have, for years, forced people to flee from their homes, it was only in 2015, when a huge wave of refugees arrived in Europe, that the problem was perceived in its true dimension there. Providing housing and caring for the refugees, integrating those who have the wish and are allowed to stay in Europe – all this demands enormous efforts on the part of the receiving states. At the same time, however, this is an opportunity for countries to counteract the age-related decline in their population figures. For many companies in the industrialized countries, the increasing average age of their workforce and the shortage of young skilled workers is a substantial challenge that can only be addressed by offering attractive working conditions and appropriate human resources development.

- > We make sure that our employees are fairly remunerated at all our production sites and thereby contribute to their social security.
- > To motivate and develop our employees, we offer extensive initial and further training programs, promote the advancement of women and make every effort to improve employee satisfaction and create a motivating work environment.
- In addition to providing regular health screenings and vaccination campaigns, we make sure that company physicians are available for consultation by employees and that workplaces are analyzed for their ergonomic characteristics. Employees are encouraged to participate in company-organized activities promoting health and fitness, some of them free of charge. These activities are adjusted to regional needs and seasonal possibilities.
- > Outstanding achievements by individual employees, teams or local companies are explicitly appreciated and rewarded accordingly, e.g. through the Safety Award (CBME, Pipelife) or the Energy Award (CBME).

For some years, more people have been living in towns than in rural regions; by 2050, city dwellers are forecast to account for 70% of the world population. <sup>2)</sup> However, urbanization means not only that more people live in urban agglomerations, but also that they adopt

urban lifestyles and consumption patterns. The challenges confronting expanding cities include supplying the population with all the products and services they need to meet their basic needs. This includes healthy, affordable and socially acceptable housing, a functioning system of drinking water supply and waste water disposal – in other words, infrastructure solutions that preserve and improve people's quality of life. Products and building material solutions should be easy to install, require little maintenance, be re-usable, repairable and recyclable, and contribute toward resource efficiency. They should be aligned to local building traditions and meet the requirements of their users in the widest sense.

- As the industry's innovation leader, Wienerberger continuously works to improve its products and system solutions for all fields of application. Wienerberger's innovative infill brick with integrated thermal insulation is an excellent example of product innovation. These bricks not only ensure a high energy efficiency of the building envelope, but also help to reduce heating costs.
- > Semmelrock developed various water-permeable paving systems, such as ARTE Ökodrain (ecological paver system) and ARTE Breite Fuge (ecological paver system with wide, water-permeable joints). Both products have been certified according to the Cradle to Cradle® concept and meet the requirements of unsealed surfaces.
- Since 2011, more than 20,000 newly planted trees in the Netherlands have been irrigated by means of Pipelife's innovative NatuDrain pipes. The pipes are made from potato starch, a secondary raw material from the food industry, and constitute a sustainable alternative to plastic pipes for tree nurseries and landscape gardening. Being 100% bio-degradable, they either can be composted or dissolve in the ground when the young tree has formed enough roots.

Another recent development observed in the industrial production of numerous goods has been the growing globalization of supply chains. Not only raw materials, but also semi-finished goods and components are procured via multi-link supply chains. The challenge for producers is not only to guarantee the quality of their finished products, but also to vouchsafe for compliance with social and



ecological minimum standards of the raw materials, products and services they need in order to produce and market their products. By signing the UN Global Compact, companies commit themselves to ensuring that its ten principles regarding human rights, occupational health and safety, environmental protection and the fight against corruption are observed not only within their own sphere of control, but also along their supply chains.

- In ceramic production (tiles and bricks, pipes), most of the clay used is sourced in the region around the respective production site, but additives and mineral aggregates are procured from other sources.
- > For the production of plastic pipes and concrete pavers, all raw materials (PVC, PP and PE granulates, additives and/or cement, mineral aggregates) are supplied by third parties.
- External secondary raw materials and packaging materials as well as energy sources required for these three product groups all come from third-party sources.

Wienerberger has adopted the practice of obliging its suppliers to comply with social and ecological minimum standards, as laid down in supplier guidelines.

The digitalization of communication, logistics and production was an essential prerequisite for the globalization of the economy. The digital transformation offers great opportunities for companies. Networks of production facilities and advanced technologies enable more and more producers to adopt just-in-time practices and sell low-cost, tailor-made products directly to end consumers.

The digital transformation concerns the whole range of Wienerberger's activities. We have therefore defined a digital agenda, which we are now implementing in an intensive process of work, covering our supply chain from beginning to end: from product development to webshop sales, from manufacturing processes to supply chain management, from customer apps to integrated 3D design in real time. > The digital processes identified not only optimize our production processes, but also have other positive effects, such as higher energy efficiency and lower emission volumes due to the optimization of logistic routes (in our stockyards and on the road), or higher raw material efficiency through digital administration, digital marketing and online catalogues (instead of paper brochures).

#### Our Value Creation

In order to learn more about which additional issues our stakeholders consider to be of material importance for Wienerberger and the company's impact on society, we analyzed the value chains of our four major business units in 2014. Based on a comprehensive survey conducted among internal and external stakeholders, specific materiality analyses were performed along the respective value chains:

- > Tiles and bricks: Clay blocks, facing bricks, roof tiles and clay pavers (Clay Building Materials Europe, General Shale within the North America Division)
- Concrete pavers and concrete façade elements (Semmelrock, Arriscraft within the North America Division)
- > Ceramic pipes (Steinzeug-Keramo)
- Plastic pipes (Pipelife, including the Pipelife production site belonging to the North America Division)

For a presentation of the individual value chains, please refer to the 2014 Sustainability Report and the Wienerberger website. The following diagram provides an overview of the entire process of value creation at Wienerberger.



## Value Creation of the Wienerberger Group

#### Input **Production Procurement** Extraction from own clay reserves or supply by third parties **Production** processes Purchase of > Delivery/Storage **Financial** > Additives and aggregates > Preparation capital (sand, grit, gravel, sawdust, Shaping paper fiber, etc.) Drying > Packaging material > Processing > External secondary raw materials Ceramic > (Glazing) products Centralized and Group-wide > Firing

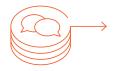


Know-how

Asset base



**Employees** 



Dialogue



Natural resources



pipes

## Purchase of

- > PVC, PP and PE granulates
- > External secondary raw materials
- > Additives
- > Packaging material

energy procurement

Natural gasElectricity

## Production processes

> Packaging

- > Preparation
- > Extruding
- > Injection molding
- > Processing
- > Packaging



Concrete pavers

## Purchase of

- Cement, additives (sand, grit, gravel, etc.), admixtures (superplasticizer, pigments, etc.)
- > Packaging material
- > External secondary raw materials

## Production processes

- > Delivery/Storage
- Mixing
- Shaping
- > Processing
- Drying
- > Packaging



## Output

## Private and public investments

## New construction & renovation

- > Residential construction: Single- and two-family homes, Multi-family houses
- > Non-residential construction: Office buildings, hotels, schools, nursery schools, etc.

### **Public investments**

> Waste water systems

## End-of-life

#### Re-use

### Recovery

- > Own production
- > External use

Landfill (debris)

## Outcome



Financial capital



Asset base



Know-how



**Employees** 



Dialogue



Natural resources

## Plastic pipes Fittings Accessories

**Roof tiles** 

Ceramic

Clay blocks

**Facing bricks** 

accessories

**Ceramic pipes** 

**Accessories** 

## Private and public investments

- Civil engineering & infrastructure: Sewers, drainage, energy supply, cable protection, irrigation, etc.)
- > Building construction & installation: Heating, sanitary and electrical installations, building drainage, geothermal energy, etc.)
- > Special applications: Industrial projects, oil and gas industry

## Recovery

- > Own production
- > External use

## Energy recovery

Landfill

# Pavers and slabs Walls and fences

Steps, edging stones, design elements

## Private and public investments

- > Public spaces
- > Roads and walkways
- Gardens
- > Patios, etc.

#### Re-use

#### Recovery

- > Own production
- > External use

Landfill (debris)



For information on two essential input factors, i.e. financial capital and plant and equipment, please refer to the 2016 Annual Report (pages 22/23). Detailed information on the input factors of knowledge and natural resources are contained in the chapters "Production" and "Products". For employees and dialogue, please refer to the chapters "Employees", "Social and Societal Commitment" and the section "Stakeholder Management" in this chapter.

The output of our industrial production processes comprises innovative building material solutions for all fields of application – from sustainable and energy-efficient buildings to environment-friendly pavers to safe pipe systems.

## Our 2014 Materiality Analysis

The diagram illustrating the process of our materiality analysis provides an overview of the individual steps involved. A detailed description of the procedure that led to the identification of the topics and/or aspects considered, the involvement of internal and external stakeholders in this process, and the selection of relevant aspects is contained in the 2014 Sustainability Report (http://sustainabilityreport14. wienerberger.com/en/), which was also prepared in accordance with the require-ments of GRI G4, "core option".

The steps involved in the materiality analysis are briefly described in the following paragraphs. For more detailed information on the performance of the 2014 materiality analysis, please refer to the 2014 Sustainability Report (materiality-analysis14.wienerberger.com).

## Steps of our 2014 Materiality Analysis



#### Our value chains

We took a close look at the entire value chain of each of the four specific product groups. This includes raw material extraction along the entire supply chain, the production and use of products, and finally the product's transformation into waste at the end of its useful life.

Potential ecological, social, ethical, regional and/or macroeconomic issues, as well as issues relating to the security of supply, were allocated to the individual steps in the value chains. These provided the basis for our stakeholder survey.



#### The stakeholder survey

The view of our internal and external stakeholders regarding the materiality of the issues identified was obtained through an online survey. The survey also served to establish our stakeholders' perception of Wienerberger's current engagement in respect of the individual issues. The stakeholder survey was performed and evaluated by an external partner, which also provided the necessary tools for the survey.

To begin with, the relevance of the various stakeholder groups for each product group was rated on the basis of their interest in and their influence on the company. Thus, we were able to define which stakeholder groups had to be included in the survey and how many people from each group had to be questioned in order to obtain a well-founded and informative result. Wienerberger's stakeholder groups are described in greater detail in the paragraph on stakeholder management (page 19).

We invited close to 500 stakeholders to participate in the survey – 80% of them external stakeholders. Based on the stakeholders' responses, the material aspectss for the four product groups along their respective value chains were determined by our partner. The significance (medium to high) of individual aspects, as perceived by internal and external stakeholders, was entered into a matrix.

## Result of the materiality analyses

It turned out that the stakeholders perceived certain aspects as being of similarly high significance across all product groups. Additionally, the aspects identified as material were aggregated at Group level. The result shows which aspects along the value chains of all product groups are equally relevant for the entire Wienerberger Group. The following indicators were identified as material:

### Supply chain aspects

- > Availability of raw materials
- > Use of recycled materials
- > Avoidance of hazardous substances
- > Protection of local residents and employees; nature conservation and re-use of depleted clay pits

### Environmental aspects in production

- > Energy efficiency
- > Climate protection
- > Resource efficiency and waste management
- > Sparing use of water

## Social aspects in production

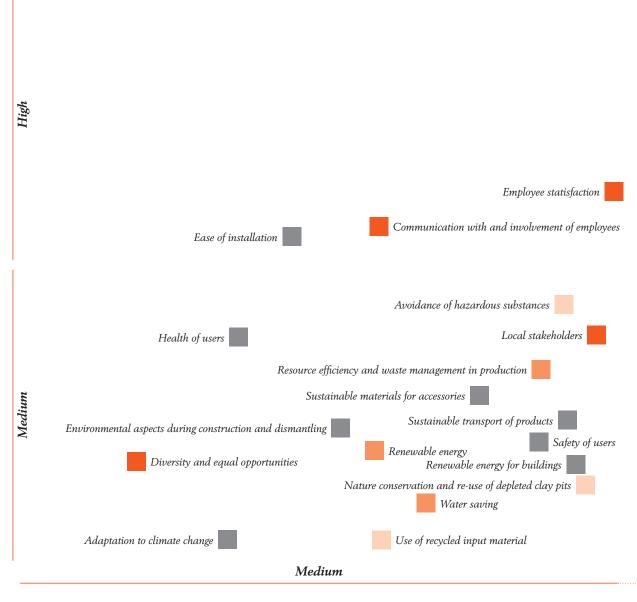
- > Safety of our employees
- > Health of our employees
- > Business ethics and compliance
- > Employee satisfaction

#### **Products**

- > Innovative and durable products
- > Recyclability, recycling and re-use of products
- > Sustainability in construction and demolition
- > Ease of installation
- > Renewable energy for buildings
- > Contribution to the energy efficiency of buildings

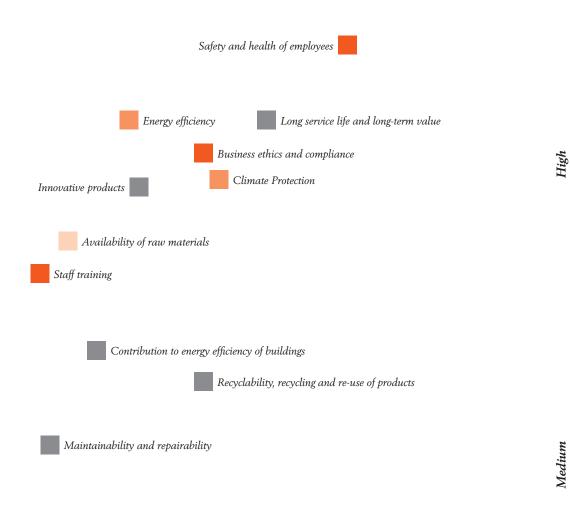
The value chains of the product groups and the results of the individual materiality analyses are described in detail in our 2014 Sustainability Report (http://sustainability report14.wienerberger.com/en/sustainability-at-wiener berger/). The results provided the basis for the further development of our sustainability strategy and the identification of targets and measures for our Sustainability Roadmap 2020 (see pages 32 to 37). The table on page 32 shows which aspects and/or challenges were identified as being of material importance for the Wienerberger Group and how they have been incorporated into the Sustainability Roadmap 2020.

## Materiality Matrix of the Wienerberger Group



Relevance from external stakeholders' point of view

Sustainability in the supply chain Environmental aspects in production



Relevance from external stakeholders' point of view

High



Components of the value chain	Aspect/Challenge	Inclusion in SR 2020
Sustainability in the supply chain		
	Availability of raw materials	Part of SR 2020
	Use of recycled material	Part of SR 2020
	Avoidance of hazardous substances	Part of SR 2020
	Protection of local residents and employees; nature conservation, re-use of depleted clay pits	Part of SR 2020
	CO <sub>2</sub> emissions in cement production	Part of SR 2020
Environmental aspects in production		
	Energy efficiency	Part of SR 2020
	Climate protection	Part of SR 2020
	Resource efficiency and waste management	Part of SR 2020
	Sparing use of water	Part of SR 2020
Social aspects in production		
	Safety of our employees	Part of SR 2020
	Health of our employees	Part of SR 2020
	Corporate ethics and compliance	Part of SR 2020
	Employee satisfaction, communication with and involvement of employees	Part of HR management and SR 2020
	Freedom of assembly	Covered by voluntary commitment to UN Global Compact
	Diversity and equal opportunities	Covered by values, HR principles and HR management (advancement of women)
	Local stakeholders	Covered by stakeholder management
Sustainable products		
	Innovative and durable products	Part of SR 2020
	Recyclability, recycling and re-use of products	Part of SR 2020
	Sustainability in construction and demolition	Part of SR 2020
	Ease of installation	Part of SR 2020
	Renewable energy for buildings	Part of SR 2020
	Contribution to energy efficiency of buildings	Part of SR 2020
	Transport of products	Environment-friendly transport is an essential part of efficient logistics and was therefore not mentioned separately in the SR 2020.
	Water and waste water solutions	Pipelife has already developed mature water management solutions that can be applied on a decentralized basis.

## The Wienerberger Sustainability Roadmap 2020

The Wienerberger Sustainability Roadmap 2020 describes the sustainability targets that will be pursued by the Wienerberger Group up to 2020. These targets are based on the results of the materiality analysis. The Roadmap represents a conscious, self-imposed commitment to

continuously improve Wienerberger's ecological, social, societal and economic performance. The measures implemented and the targets achieved in 2016, as well as the next steps planned by the business units for 2017 within the framework of the Sustainability Roadmap 2020, are described in the individual chapters of this report.



### Wienerberger Sustainability Roadmap 2020 – Implementation Overview 2016

Material issues	Hold	ling	СВ	ME	North A	nerica 1)	Pipe	elife	Semm	elrock	Steinzeug	-Keramo
QZ Quantified targets M Measures	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>
Sustainability in the supply chain												
Availability of raw materials				<u>1</u>		ď		ı.C		<b>L</b>		ı
Use of recycled material	-					u\(\delta\)		ı		a <u>c</u>		ď
Avoidance of hazardous substances						n/S		ı.		n\(\delta\)		ů
Protection of local residents and employees; nature conservation and re-use of depleted clay pits				<b>1</b> 00+		மி		ம்		ம்		ú
Environmental aspects in production												
Energy efficiency				ı.		ı.		n\(\triangle		n\begin{array}{c}  \te		ı
Climate action				ı.		ı.		n\(\delta\)		n	<b></b>	ı
Resource efficiency and waste management			-	<b>1</b> 6	-	ம்		ı6		n\(\delta\)	-	ú
Sparing use of water							<b>⊚</b> →	ıĠ		ı.S		_
Social aspects in production												
Safety of our employees		<b>n</b> A		ı		ı		ı		ı.		ď
Health of our employees	2015 erreicht	n\begin{array}{c}  \te	2015 erreicht	u\dagger	2015 erreicht	u\(\triangle				n\begin{array}{c} & & & & & & & & & & & & & & & & & & &	2015 erreicht	凸
Business ethics and compliance	<b>⊚</b> ₩✓	w ob	⊚w√	w ob	<b>⊚</b> ₩✓	w ob	⊚w√	w oß	⊚w√	w ob	⊚w√	w o
Employee satisfaction		w ob		w ob			_	w ob		w ið		
Sustainable products												
Innovative and durable products			<b>O</b> <	<u>16</u>	<b>③</b> →+	u\(\delta\)	<b>O</b> <	<b>1</b>	<b>O</b> <	<u>o</u>	<b>O</b> <	ı
Recyclability, recycling and re-use of products				ı\delta		ı	<b>⊚</b> →	ıů		ı.		ı
Sustainability in construction and demolition										<sub>I</sub> B		
Ease of installation				13				_		<b>□</b> ∆+		
Renewable energy for buildings								ıů				
Contribution to energy efficiency of buildings				ı\delta		<b>a</b>		ıů				

<sup>1)</sup> North America: Excluding Pipelife production site

<sup>2)</sup> Measures: Including non-quantified targets

<sup>₩</sup> Group-wide

Quantitative target

 $<sup>\</sup>checkmark$  Realized

<sup>→</sup> Ongoing Realization

Measure(s) implemented as planned

Partially realized

<sup>+</sup> Newly added

<sup>—</sup> Focus on indicator revised

imes Definition not specified



## Wienerberger Sustainability Roadmap 2020 - Overview 2017 to 2020

Material issues	Meilen- steine	Hol	ding	CB	ME	North A	merica 1)	Pipe	elife	Semm	ielrock	Steinzeug	-Keramo
QZ Quantified targets M Measures		QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>
Sustainability in the supply chain													
Availability of	2017				0		$\bigcirc$		$\circ$		$\circ$	⊚ ☆	$\circ$
raw materials	2020				$\circ$		$\circ$				$\circ$		$\bigcirc$
Use of recycled	2017				0		$\overline{}$		0		0	⊚☆	0
materials	2020				0						0		0
Avoidance of	2017				<u></u> +		×		0		0		0
hazardous substances	2020										0		0
Protection of local residents and employees;	2017				<u></u> +		×		0		0		0
nature conservation and re-use of depleted clay pits	2020												0
Environmental aspects in production													
F	2017				$\bigcirc$		$\circ$		$\bigcirc$		$\circ$	⊚ ☆	$\circ$
Energy efficiency	2020				0		$\overline{}$		0				0
	2017				0		$\overline{}$		0		0		0
Climate action	2020				0		$\overline{}$		$\circ$				$\circ$
Resource efficiency	2017				0		0	×	0		0		0
and waste management	2020				0						0		0
Sparing use	2017								$\circ$		0		_
of water	2020												_

- 1) North America: Excluding Pipelife production site
- 2) Measures: Including non-quantified targets
- $\mathbb{W}\ \textit{Group-wide}$
- Quantitative target

- $\rightarrow$  Ongoing Realization
- + Newly added
- Focus on indicator revised
- imes Definition not specified
- ☆ Quantitative target being defined
- $\bigcirc$  Measures and qualitative targets planned



Material issues	Meilen- steine	Hold	ling	CBI	ME	North An	nerica <sup>1)</sup>	Pipe	life	Semm	elrock	Steinzeug	-Keramo
QZ Quantified targets M Measures		QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>	QZ	M <sup>2)</sup>
Social aspects in production													
Safety of	2017		$\bigcirc$		$\bigcirc$		$\bigcirc$		$\circ$		$\bigcirc$		$\circ$
our employees	2020		O+		0		0		0		0	<b>◎</b> W →	0
Health of	2017	⊚☆	0	⊚☆	0		0				×	⊚☆	0
our employees	2020		0		0		0						0
Business ethics	2017		$\bigcirc$ w		Ow		$\bigcirc$ W		Ow		Ow		Ow
and compliance	2020		$\bigcirc$ w		$\bigcirc$ w		$\bigcirc$ w		$\bigcirc$ w	<b>◎</b> W →	$\bigcirc$ w		$\bigcirc$ w
Employee	2017		$\bigcirc$ w		$\bigcirc$ w		$\bigcirc$ w		$\bigcirc$ w		$\bigcirc$ w		$\bigcirc$ w
satisfaction	2020		$\bigcirc$ W	-	$\bigcirc$ W	-	$\bigcirc$ W	-	$\bigcirc$ w	-	$\bigcirc$ W	-	$\bigcirc$ w
Sustainable products													
products	2017				$\bigcirc$		$\bigcirc$		0		0		$\bigcirc$
Innovative and durable products	2020			<u> </u>	$\overline{}$					<u> </u>		<u> </u>	$\overline{}$
Recyclability.	2017					- · <u></u>	$\bigcirc$		$\bigcirc$		$\bigcirc$		$\overline{}$
recycling and re-use of products	2020							<u> </u>					$\overline{}$
Sustainability in	2017										$\bigcirc$		
construction and demolition	2020												
Ease of	2017				0				_		0		
installation	2020	-		-	0	-				-		-	
Renewable energy	2017								0				
for buildings	2020												
Contribution to	2017				0		0		0				
energy efficiency of buildings	2020				0								



### **Quantitative Targets of the Wienerberger Sustainability Roadmap 2020**

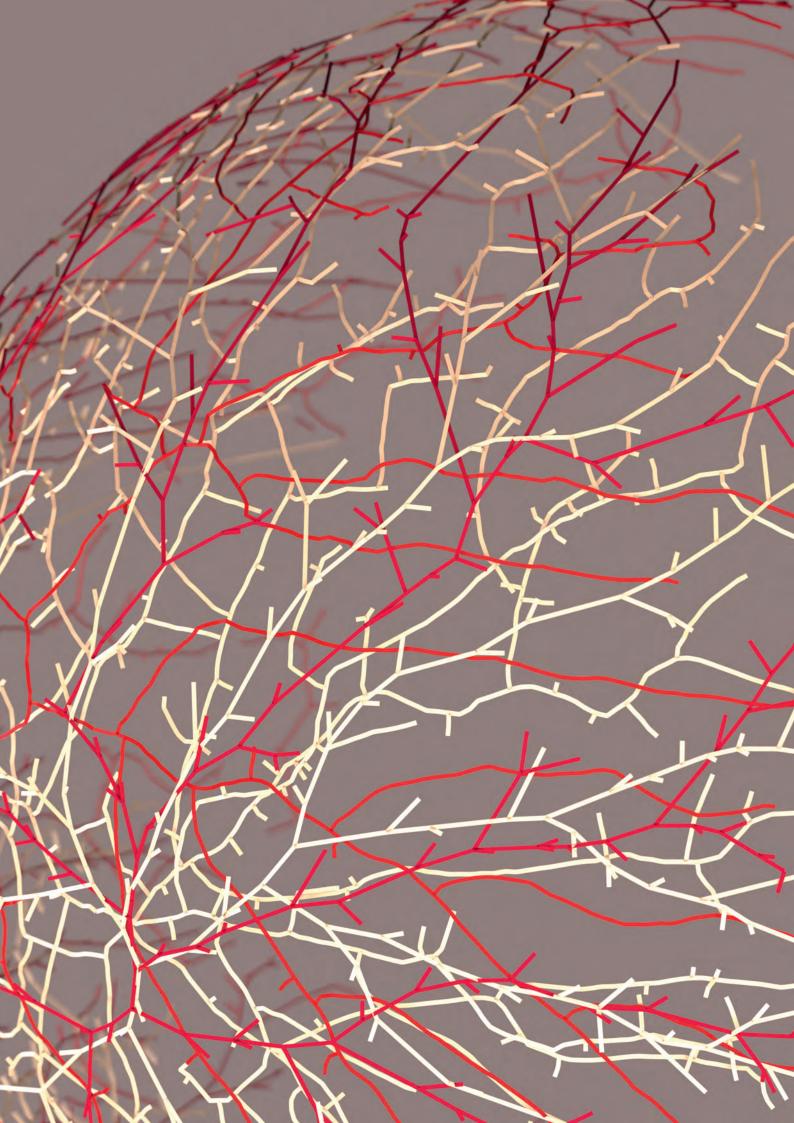
Target definitions	Dead-lines set		Performance		
Employees		2014	2015	2016	
Safety of our employees					
Group level: Zero accidents	Every year	12*	8*	7*	
Health of our employees					
Group level: Rollout of respirable crystalline silica measurements to > 95% of ceramic plants by 2020	2020	98%	98%	Target met in 2015	
Production					
Energy efficiency					
North America <sup>1)</sup> : Reduction of natural gas consumption at selected production sites by 5% per site as compared to 2015	2016	Not applicable	Reference year	4%	
Clay Building Materials Europe: Reduction of specific energy consumption by 20% as compared to 2010	2020	13%	8%	10%	
Pipelife $^{2)}$ : Reduction of specific energy consumption in production by 20% as compared to 2010	2020	2%	5%	2%	
Climate action					
North America <sup>1)</sup> : Conversion of all main production sites from coal to natural gas	2016	Not applicable	50%	80%	
Steinzeug-Keramo: Compensation of 5% of the annual $\rm CO_2$ emissions generated in a plant through climate protection projects	2017	>5%	>5%	>5%	
Clay Building Materials Europe: Reduction of specific CO <sub>2</sub> emissions from primary energy sources by 20% as compared to 2010	2020	5%	0%	2%	
Pipelife $^2$ : Reduction of specific indirect $\mathrm{CO}_2$ emissions from electricity in production by 20% compared to 2010	2020	Not applicable	17%	17%	
Water					
Pipelife $^{2)}$ : Reduction of water consumption from public networks to 0.55 $m^{3}$ per ton produced	2020	0.62 m³/ton	0.66 m³/ton	0.81 m <sup>3</sup> /ton	
Resource efficiency and waste management					
Semmelrock: Reduction of scrap rate by 50% as compared to 2014	2017	Reference value	19.1%	34.0%	
Products					
Innovative products					
Clay Building Materials Europe: Share of innovative products in revenues at 25%	Every year	Not applicable	27%	26%	
North America: Share of innovative products in revenues at 50%	2017	Not applicable	46%	49%	
Pipelife: Share of innovative products in revenues at 20%	Every year	Not applicable	21%	20%	
Semmelrock: Share of innovative products in revenues at 30%	Every year	Not applicable	39%	37%	
Steinzeug-Keramo: Share of innnovative products in revenues at 35%	Every year	Not applicable	41%	39%	
Recyclability, recycling and re-use					
Pipelife <sup>2)</sup> : Increase of the share of recycling material per ton of products produced to 70 kg	2020	58.9 kg/ton	64.6 kg/ton	64.6 kg/ton	
Social responsibility					
Business Ethics & Compliance					
Group level: Zero incidents of corruption	Every year	0	0	0	

<sup>1)</sup> North America: excl. Pipelife production site  $\slash\hspace{-0.4cm}$  Pipelife: incl. production site in North America



### Comment

	Comments
Status	
In 2016 accident frequency was reduced in all operating segments, the b segments reporting values of close to 23% and 31% compared to the pret To our greatest regret, two fatal accidents occurred during the reporting y them in a 50% subsidiary). We are consistently pursuing our zero accidents.	vious year. number of hours worked $x$ 1,000,000; including agency and temporary workers as well as employees under term contracts.
The target was met by the Wienerberger Group, including Tondach Glei 2015. Measures to protect our employees against respirable crystalline s continued.	
In 2016 the consumption of natural gas at selected production sites was 4% compared to 2015. It was due to the conversion of these sites from h energy sources to natural gas that the planned 5% reduction target could met in 2016.	tigh-emission North America. At selected production sites natural gas consumption will be further
In 2016 specific energy consumption in production was almost $10.5\%\ b$ reported in 2010.	we low the value Changes in specific energy consumption are reported as an index in $\%$ based on $kWh/ton$ (2010 = 100%).
In 2016 specific energy consumption in production was 2% below the re of 2010. The increase in specific energy consumption compared to 2015 capacity utilization at some production lines and changes in the product	is due to lower ton $(2010 = 100\%)$ .
In 2016 80% of the production lines at all main production sites were con coal to natural gas. Converting all main production sites was not possible customer demand.	
Within the framework of Cradle to Cradle® recertification in 2016, 5% of emissions generated in the respective plant were compensated.	f the CO <sub>2</sub> Achievement of this value is ensured by the measures taken to meet the requirements of the periodic Cradle to Cradle® recertification.
In 2016 specific $CO_2$ emissions from primary energy sources in product to 98% of the value reported in 2013.	ion amounted Changes in specific $CO_2$ emissions are reported as an index in % based on kg $CO_2$ /ton (2013 = 100%). Since the transition to the third EU emission trading period in 2013, the volume of $CO_2$ emissions from 2013 has been used as the new reference base.
For comparison's sake, the national conversion factors for indirect $\mathrm{CO}_2$ in 2015 were used.	emissions Changes in specific CO <sub>2</sub> emissions are reported as an index.
Water consumption in plastic pipe production increased in 2016 as a re- events. Specific water consumption from public networks accounted for 1 specific total water consumption in this product group.	isult of singular The reference value in 2014 was 0.62 m³ per ton of products produced. 15.8% of
In 2016 the scrap rate amounted to 3.1%, compared to 4.7% in 2014.	In 2014 the scrap rate was 4.7% (reference value). The target for 2017 is 2.4%.
In 2016 the business-unit-specific quantitative target regarding the contrinuouative products to revenues was met.	ribution of These innovations include new products and system solutions that are durable and cost- efficient, contribute to the energy efficiency of buildings and to climate protection, or ensure health and safety for users of buildings.
In 2016 the definition of innovative products was adopted and a new be specific target was defined.	usiness-unit- The definition agreed upon in 2016 includes product innovations and system solutions that facilitate compliance with the new energy standards (International Energy Conservation Code, IECC).
In 2016 the business-unit-specific quantitative target regarding the contr of innovative products to revenues was met.	ribution The definition adopted in 2015 includes product innovations that represent a significant improvement of an existing product as regards the production process, cost-efficiency, technical properties or ecological advantages.
In 2016 the business-unit-specific quantitative target regarding the contr of innovative products to revenues was met.	ribution The definition includes product innovations that offer an added value for customers on account of their cost-efficiency, their technical properties and their ecological advantages, such as water-permeable paving systems for unsealed surfaces.
In 2016 the business-unit-specific quantitative target regarding the contr of innovative products to revenues was met.	ribution The definition includes products for innovative applications (e.g. jacking pipes for trenchless installation).
On account of the product mix, the percentage of recycling material used per ton of products produced in 2016 remained the same as in 2015.	The reference value in 2014 was 58.9 kg per ton of products produced.
As in previous years, no charges were brought against Wienerberger for corruption nor had any penalties to be paid in 2016.	suspected In the course of 2016, Internal Audit performed audits in 19 local companies with a special focus on corruption and compliance with anti-trust legislation.



# **Employees**





# **Employees**

### Principles, Processes and Instruments

Our employees are the basis of our success and a key factor for the successful development of our company. It is our task to create the necessary basis and the best possible conditions for the safety, health and satisfaction of our employees. To this end, we are making every effort to achieve continuous improvements in the fields of occupational health and safety, diversity and equal opportunities, and initial and further training. A culture of open communication in our company, the consistent involvement of our employees, and a motivating working environment are essential in this context.

### Results of our 2014 Materiality Analysis

At Group level, the following social aspects were identified as being of material importance for our employees:

- > Safety
- > Health
- > Communication and employee involvement
- > Employee satisfaction

As a differentiated analysis of our various product groups showed, the aspects described in the following are almost equally relevant for all of them.

Wienerberger is fully aware of its responsibility for its employees. As an industrial producer, our top priority is to avoid and/or minimize potential hazards to the health and safety of our employees, especially in our plants. We not only take the necessary structural, technical and organizational measures, but also make every effort to foster a culture of safety, for instance through training programs and incentive systems.

Wienerberger is an international Group with operations in thirty countries. Therefore, creating possibilities for all our employees to interact, exchange information

and become involved in the life of the company are highly relevant factors that influence their well-being and their personal development. At the same time, the degree of employee satisfaction has a considerable impact on the performance of the company. The general conditions at the workplace and the specific instruments available to employees for the performance of their tasks play important roles in this context. It is our responsibility to create the prerequisites for dialogue and exchange across business units, promote knowledge transfer and support efficient cooperation.

The results of our materiality analyses provide the basis for our five-year plan of action, the Wienerberger Sustainability Roadmap 2020. The employee-related targets and measures within the framework of the Wienerberger Sustainability Roadmap 2020 are summarized at the end of this chapter under "Targets and Measures Relating to Employees".

### Collection of Indicators

Tondach Gleinstätten has been a fully consolidated company of the Wienerberger Group since July 2014. Its structures for the collection of non-financial indicators were optimized in the course of 2014. Therefore, the indicators shown in this report include the figures for Tondach Gleinstätten only from January 1, 2015 onwards.

### Employment Trends

### **Number of employees**

In 2016, Wienerberger employed a workforce of 15,990 people (full-time equivalents), i.e. 1.1% more (177 FTEs) than in 2015. The highest increase in percentage terms was reported by Pipes & Pavers Western Europe (+4.8%) and Clay Building Materials Europe (+4.0%).



Ø Employees by operating segment (full-time equivalents)	2014	2015 <sup>1)</sup>	2016	Chg. in %
Clay Building Materials Western Europe	5,950	6,035	5,983	-0.9
Clay Building Materials Eastern Europe	2,397	4,184	4,350	+4.0
Clay Building Materials Europe	8,347	10,219	10,333	+1.1
Pipes & Pavers Western Europe	1,768	1,757	1,841	+4.8
Pipes & Pavers Eastern Europe	2,368	2,368	2,322	-1.9
Pipes & Pavers Europe	4,136	4,125	4,163	+0.9
North America	1,246	1,272	1,289	+1.3
Holding & Others	201	197	205	+3.8
Wienerberger Group	13,930	15,813	15,990	+1.1

<sup>1)</sup> This report includes the figures for Tondach Gleinstätten since the beginning of 2015 (included in the Annual Report since July 2014). All non-financial indicators were calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.

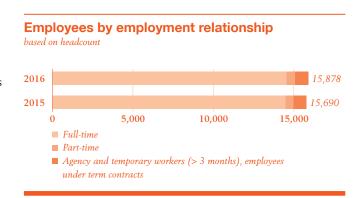
In percentage terms, the number of employees increased the most in administration, while the increase was nearly the same in all other functional areas.

In absolute terms, the number of employees increased most strongly in production (+82 full-time equivalents).

Ø Employees by functional area (full-time equivalents)	2014	2015 1)	2016	Chg. in %
Production	9,337	10,696	10,778	+0.8
Administration	1,245	1,404	1,462	+4.1
Sales (including marketing and inventories)	3,348	3,713	3,750	+1.0
Total	13,930	15,813	15,990	+1.1

<sup>1)</sup> This report includes the figures for Tondach Gleinstätten since the beginning of 2015 (included in the Annual Report since July 2014).

As at 31/12/2016, 92% of the total workforce employed by the Wienerberger Group worked full-time and 3% part-time. Temporary and agency workers who had worked for Wienerberger for more than three months without interruption as well as employees under term contracts accounted for the remaining 5%. A very small part of the work at Wienerberger is performed by staff legally defined as self-employed. Altogether, the breakdown of employees by type of employment contract has remained almost unchanged since 2015.





### **Employee turnover**

Compared with the previous year, the rate of employee turnover (defined in note 1 in the following table) in the Wienerberger Group decreased from 9.2% in 2015 to 9.0% in 2016. The only exception was the Pipes & Pavers Europe Division, which reported an increase

in employee turnover from 11.5% to 14.0%, due to employees leaving the company and, to a minor extent, to restructuring measures. As in previous years, the figures of the North America Division are not fully comparable due to specific local legal provisions and are therefore again reported separately.

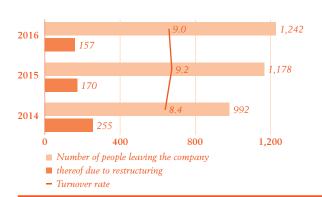
Employee turnover by operating segment 1)			
in %	2014	2015 <sup>2)</sup>	2016
Clay Building Materials Western Europe	7.6	7.9	7.6
Clay Building Materials Eastern Europe	7.7	11.3	9.3
Clay Building Materials Europe	7.6	9.1	8.3
Pipes & Pavers Western Europe	8.5	6.8	7.8
Pipes & Pavers Eastern Europe	10.8	11.5	14.0
Pipes & Pavers Europe	9.8	9.4	11.2
Holding & Others	11.1	9.3	5.4
Total excluding North America	8.4	9.2	9.0
North America <sup>3)</sup>	21.6	24.7	28.4
	· · · · · · · · · · · · · · · · · · ·		

<sup>1)</sup> Ratio of persons leaving the Wienerberger Group (termination by employee or employer as well as mutually agreed termination) to average number of employees in permanent employment (headcount); excluding temporary and agency workers as well as workers under term contracts; persons retiring or on leave do not count as persons leaving the company. // 2) Tondach Gleinstätten included as of 2015. // 3) Figures not fully comparable due to special local legislation. Previously, the numbers of persons leaving the company in North America were reported including retirements; for reasons of consistency with the Wienerberger Group, they are now shown in a three-year trend, excluding retirements.

A total of 1,242 employees left the company in the year under review (headcount excl. North America Division, which is not fully comparable due to specific local legislation). Restructuring measures led to the elimination of 157 jobs in 2016. 1,085 employees –

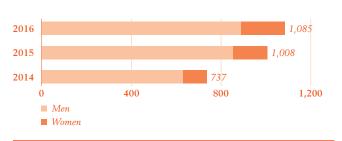
195 women and 890 men – left the Wienerberger Group for other reasons. 579 of these employees were between 30 and 49 years of age; 230 were under 30 and another 276 were over 50 years of age.

# **Employee turnover excluding North America** *based on headcount*



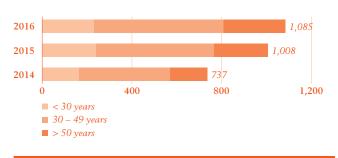
# Employees leaving, excluding restructuring, excluding North America by gender

based on headcount



# Employees leaving, excluding restructuring, excluding North America by age

based on headcount



The average length of service with the company remains high at 13 years. We regard this as a strong vote of confidence in the Wienerberger Group by our employees.

### **Employee satisfaction**

The employee survey launched at the Wienerberger Holding Company in 2015 was rolled out in Germany and Austria in cooperation with a competent partner in 2016. The degree of satisfaction of our employees at these locations was established on the basis of a set of criteria. The results, broken down by department clusters, were communicated to all employees at the locations concerned and further steps were initiated. By 2018, the employee survey will be rolled out to all country organizations of the Wienerberger Group and used as a basis for targeted measures to further improve employee satisfaction.

### Occupational Health and Safety

Wienerberger takes its responsibility for providing safe and healthy working conditions for its employees very seriously. This focus was confirmed by the materiality analysis performed in 2014 as an aspect of special relevance in our value chain. All normal capex and standard maintenance activities are always carried out with the health and safety needs of our employees in mind. The

Wienerberger Safety Initiative, launched in 2010, implemented Group-wide safety standards aimed at reducing the frequency and severity of occupational accidents. In 2014, the existing standards were further developed for the entire Wienerberger Group and activities undertaken within the framework of the safety initiative were stepped up. As in the previous year, the implementation of this initiative was continued consistently throughout 2016. Moreover, each business unit implements its specific internal programs – with great success, as the accident frequency figures show. The safety measures taken by the individual business units are described at the end of this chapter under "Targets and Measures Relating to Employees".

### **Accident frequency**

Within the framework of Safety, Health and Education (SHE) reporting by the Wienerberger Group, all accidents that lead to a loss of at least one working day for the person concerned are recorded. We are happy to report that the frequency of accidents decreased in all operating segments in 2016. Accident frequency was reduced by 18% Group-wide. The Clay Building Materials Europe Division reported a reduction in accident frequency of almost 23%. In the Pipes & Pavers Eastern Europe segment, accident frequency was reduced by over 30%. We are consistently pursuing our zero accident target. We continue to cooperate intensively with our employees across all management levels. Our main focus is on drawing employees' attention to potential sources of danger and on driving home the binding nature of safety rules and the use of personal protective equipment.



Accident frequency by operating segment 1)	2014	2015 <sup>2)</sup>	2016	Chg. in %
Clay Building Materials Western Europe	16.8	10.7	8.3	-22.8
Clay Building Materials Eastern Europe	9.4	6.6	5.1	-23.6
Clay Building Materials Europe	14.5	8.9	6.9	-22.8
Pipes & Pavers Western Europe	21.1	15.5	15.1	-2.6
Pipes & Pavers Eastern Europe	5.1	3.2	2.2	-30.6
Pipes & Pavers Europe	11.7	8.0	7.6	-4.8
North America	2.4	1.9	1.9	-2.5
Holding & Others	7.2	0.0	0.0	-
Wienerberger Group	12.3	8.0	6.5	-18.4

<sup>1)</sup> Number of occupational accidents / number of hours worked x 1,000,000; incl. agency and temporary workers (working for Wienerberger for more than 3 months without interruption) and employees under term contracts // 2) Tondach Gleinstätten included as of 2015. // General comment: All non-financial indicators were calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.

### **Accident severity**

The severity of accidents, measured as the number of accident-related sick-leave days per million hours worked, also declined significantly throughout the Group in a year-on-year comparison from 209 to 177 (-15.5%).

The notable increase reported by the Pipes & Pavers Western Europe segment was primarily due to occupational accidents resulting in longer sick leave periods at Steinzeug-Keramo. In North America, an accident suffered by one employee followed by a long period of sick-leave led to an increase by 100%. The employee concerned has meanwhile returned to work.

Accident severity by operating segment 1)	2014	2015 <sup>2)</sup>	2016	Chg. in %
Clay Building Materials Western Europe	536	339	218	-35.9
Clay Building Materials Eastern Europe	258	201	165	-17.7
Clay Building Materials Europe	450	279	195	-30.0
Pipes & Pavers Western Europe	362	185	328	+77.3
Pipes & Pavers Eastern Europe	148	71	71	-0.7
Pipes & Pavers Europe	237	119	179	+50.4
North America	41	25	71	>100
Holding & Others	199	0	0	-
Wienerberger Group	340	209	177	-15.5

<sup>1)</sup> Number of occupational accidents / number of hours worked x 1,000,000; incl. agency and temporary workers (working for Wienerberger for more than 3 months without interruption) and employees under term contracts. All non-financial indicators were calculated on the basis of non-rounded values. //

It saddens us to report that in 2016 one fatal accident each occurred in the Clay Building Materials Europe segment of the Wienerberger Group and in a 50% consolidated subsidiary. The victims were production workers, one in Austria and one in Germany. Wienerberger

deeply regrets these accidents. We have studied the circumstances of the accidents in great depth and have consistently pursued our measures aimed at increasing safety at work for our employees. We continue to work toward our zero accidents target for the entire Group.

<sup>2)</sup> Tondach Gleinstätten included as of 2015.



Going beyond the Group-wide safety initiative, each business unit has implemented its own safety programs.

### Clay Building Materials Europe (CBME)

- > CBME's Safety Management Department: Coordinates the implementation of the Safety Alert and Safety Award programs as well as the Safety Roadmap, and monitors compliance with safety standards
- > Health & safety standard with Division-specific minimum requirements regarding occupational safety and health protection
- Safety Roadmap: A binding plan of action to increase occupational safety
- Safety Alert: A standardized process of dealing with occupational accidents at all CBME production sites, documenting and communicating the cause of the accident, how it occurred and which measures were taken as a result
- > Safety Award: A distinction awarded for outstanding performance in the field of safety
- Accident reduction targets: Serve as input factors for establishing the variable salary components of managing directors and plant managers

### North America

- At local level, a safety officer is appointed for each plant.
- Monthly meetings on safety issues are held, which also clarify the reporting format between top management and the local management.
- Safety targets to be reached within two years are defined for each production site.
- > Communication of safety issues

### **Pipelife**

- > Responsibility for implementation of Pipelife's safety program lies with the Manufacturing Excellence Officer.
- Programs aimed at observing employee behavior: Behavior Observation Program (BOB), Lock-out/ Tag-out (LOTO) and 5 S (method to keep workplaces and their environment clean, safe and tidy)
- > 2016 safety awareness campaign "Take Care"

- > Safety app for early detection of potential hazards and for safety monitoring at the workplace
- > Zero Accident Club with Safety Award: A distinction awarded to local companies, depending on the number of accident-free months, and for special efforts in the field of safety
- Safety audits in the plants performed by specially trained employees from other local companies with regularly alternating assignments
- > Safety Call: Thorough analysis of every accident resulting in sick leave within the framework of a telephone conference with all managing directors of the local organizations, leading to the identification of preventive measures for other production sites; the Pipelife Safety Portal, an online platform that can be accessed by all employees who have an email account, serves as a work and information platform.
- > Extensive industry benchmarking and exchange of experience within TEPPFA (The European Plastic Pipe and Fittings Association)

### Semmelrock

- > Laboratory International coordinates the safety activities, supports awareness building among all employees through initiatives and training programs focusing on the observance of safety standards and measures to increase plant and equipment safety and reviews implementation of the safety strategy.
- > "Safety@Semmelrock": use of the "Accident Investigation Report Semmelrock" (AIRS document) to centrally document, analyze and communicate all accidents and/ or incidents
- "Safety Book" listing the principles of occupational health and safety
- Safety Day" for the exchange of information among plant and engineering managers
- "Safety culture": Implementation of mission statements, award of premiums, and use of visual aids by the local companies
- Technical safety optimization and risk analyses of production facilities



### Steinzeug-Keramo

- > Responsibility for safety at Steinzeug-Keramo lies with the Safety Board, which is chaired by the Head of Operations and comprises plant managers, works council members and experts.
- > Steinzeug-Keramo implemented the DuPont™ STOP® (safety training observation program) in 2016 and organized training programs at all production sites, also for the management. Occupational safety counts for the attainment of variable remuneration targets of plant managers.
- > Plant optimization measures
- Initial and further training sessions on occupational safety and hazard prevention, including specific safety instructions targeted at individual workplaces

### Sick-leave days

The average number of sick-leave days per employee of the Wienerberger Group (excl. the North America Division) increased from 9.1 in 2015 to 9.6 in 2016. Due to specific local legislation, the increase in the number of sick-leave days in North America is not comparable with the figures from the rest of the Wienerberger Group.

Prevention is an important health-promoting factor. Besides regular health screenings, company physicians are available for consultation by employees; workplaces are analyzed for their ergonomic characteristics, and employees are encouraged to participate in programs promoting fitness and health. In North America, all full-time employees are covered by additional health insurance, the scope of which exceeds that of the Affordable Care Act (ACA) in some respects.

Sick-leave days per employee by operating segment 1)	2014	2015 <sup>2)</sup>	2016	Chg. in %
Clay Building Materials Western Europe	10.8	10.4	11.3	+8.1
Clay Building Materials Eastern Europe	7.3	7.6	7.8	+2.3
Clay Building Materials Europe	9.8	9.3	9.8	+5.6
Pipes & Pavers Western Europe	10.2	9.8	10.5	+7.8
Pipes & Pavers Eastern Europe	6.3	8.0	8.4	+3.9
Pipes & Pavers Europe	8.0	8.8	9.3	+5.8
Holding & Others	4.1	4.3	4.1	-5.2
Total excluding North America	9.2	9.1	9.6	+5.6
North America 3)	2.9	2.9	3.4	+18.0

<sup>1)</sup> Incl. agency and temporary workers (working for Wienerberger for more than 3 months without interruption) and employees under term contracts //

### Protection against respirable crystalline silica

Since 2008, the European Union has collected comprehensive data on respirable crystalline silica from all industries concerned. The survey is conducted every two years via NEPSI, a shared online platform (Negotiation Platform on Silica, www.nepsi.eu/nepsi). The NEPSI system collects data regarding potential hazards for employees, health checks, training, the distribution and

use of personal protective equipment, and technical measures, such as the enclosure of production lines concerned. In addition, Wienerberger collected data throughout the Group in 2014 for a first three-year Group-wide comparison. However, as the added value of the additional survey on respirable crystalline silica was not confirmed, Wienerberger decided not to perform another such survey in 2016. The most recent survey via

<sup>2)</sup> Tondach Gleinstätten included as of 2015 // 3) Figures not fully comparable due to special local legislation (regarding sick leave of employees)



the NEPSI portal was conducted in 2015 and its results are shown in the 2015 Wienerberger Sustainability Update on pages 23 to 25.

# Health, safety and human rights at our own clay pits

**Employees** 

When we examined the supply chain within the framework of our materiality analysis, we first took a closer look at our own clay pits. Compliance with all rules on occupational safety and protection against health hazards is an absolute must at Wienerberger. This also applies to our clay extraction sites. Protecting workers from dust emissions and noise as well as avoiding occupational accidents are our top priorities.

### Communication and Employee Involvement

It is our goal to further strengthen the values of our corporate culture through continuous communication measures and translate them into practice throughout the Group. We use a variety of communication channels and platforms to inform our employees about corporate targets and strategies as well as about current developments relating to our shared values: competence, passion, integrity and respect, customer orientation, entrepreneurship, quality and responsibility.

Communication measures used at Group level and in the individual business units to foster employee involvement include the following:

- > Group-wide Intranet
- > Social media; see our website at http://www.wiener berger.com/social-media-presence-of-wienerbergergroup.html
- > Group-wide newsletters and video messages
- Subject-specific newsletters and knowledge bases or app stores
- > Events and technical conferences

### **Industrial relations**

The Wienerberger Social Charter, which confirms the company's commitment to compliance with the relevant conventions and recommendations of the International Labor Organization (ILO), was signed in 2001 by the

Managing Board of Wienerberger AG and the chairman of the European Forum, a social partnership body, in Strasbourg. Through this charter, Wienerberger demonstrates its global commitment to the respect of human rights, fair working conditions, payment of adequate remuneration, the avoidance of excessive working hours, permanent employment relationships and respect for the freedom of assembly and the right of employees to engage in collective bargaining.

The European Works Council (EWC) was established in 2011 as the successor to the European Forum. It addresses issues of European interest, such as strategy, investments, reorganization and streamlining measures. The goals of the European Works Council are to engage in constructive social dialogue and to facilitate networking among local bodies representing employee interests. Other important objectives of the European Works Council are to improve workplace conditions (protection of employees against hazards and implementation of safety standards) and to protect employees' health. The European Works Council also strives to ensure fair and just remuneration.

Currently, 11 countries are represented by 32 delegates. The steering committee of the European Works Council includes five elected delegates from Austria, the Netherlands, Germany and Poland. The European Works Council meets twice a year and the steering committee holds at least two meetings a year. The EWC and its steering committee are both chaired by Gerhard Seban, Chairman of the Works Council at the Hennersdorf plant in Austria and Chairman of the Central Work Council of Wienerberger Ziegelindustrie GmbH and the Austrian Group Works Council.

The Austrian Group Works Council, comprising employee representatives from all Wienerberger companies, was established in Austria in November 2013. Currently, it has ten members and meets at least four times a year, or more often, if required. Similar structures also exist in other European countries. Several employee representatives are members of the Supervisory Board of Wienerberger and, as such, closely involved in the strategic



development of the Wienerberger Group. Colleagues in North America are represented by their trade union; a works council has been installed in Canada.

Employees in Europe as well as in non-European countries are covered by a broad range of provisions, such as collective bargaining agreements, wage agreements, laws and regulations, trade-union agreements, plant agreements or individual agreements.

# Initial and Further Training and HR Development

At Wienerberger, we believe in advancing and supporting our employees in a targeted fashion and in facilitating the cross-border exchange of knowledge. The figures shown include internal and external initial and further training measures. The average number of hours per employee spent in training decreased from 15.5 in

2015 to 12.7 in 2016 (-18%), as there were fewer local initiatives. The downward trend did not apply to safety training. In particular, training within the framework of our safety programs enjoys a high priority and is being consistently implemented.

The following table, broken down by operating segment, does not include international training events and on-the-job-training. International training measures include Group-wide programs, such as Ready 4 Excellence or the Leadership Journey, which are organized centrally and financed by the holding company. In contrast to the local initiatives, international training programs were stepped up and the number of hours per employee spent in such training increased by 55.9% over the previous year's level. Including international training events and on-the-job training, the number of hours per Wienerberger employee spent in training amounted to 13.3 in 2016.

Training hours per employee and year by operating segment <sup>1)</sup>	2014	2015 <sup>2)</sup>	2016	Chg. in %
Clay Building Materials Western Europe	16.0	15.2	14.6	-4.2
Clay Building Materials Eastern Europe	15.2	15.6	10.6	-31.6
Clay Building Materials Europe	16.0	15.3	12.9	-15.9
Pipes & Pavers Western Europe	11.2	10.7	13.8	+29.3
Pipes & Pavers Eastern Europe	12.8	16.7	7.5	-55.0
Pipes & Pavers Europe	12.0	14.0	10.4	-25.8
North America	12.0	22.7	12.8	-43.4
Holding & Others	15.2	13.9	50.5	>100
Wienerberger Group	14.4	15.5	12.7	-18.0

<sup>1)</sup> Internal and external initial and further training measures; number of hours per employee. International training events and on-the-job training not included in this table. The figures shown for 2014 are rounded values, whereas the figures for 2015 and 2016 have not been rounded. // 2) Tondach Gleinstätten included as of 2015

We are convinced that investments in the development of our employees generate added value for Wienerberger. The average training expenses per employee in 2016, including international training programs, amounted to  $\leqslant$  228, which corresponds to an increase of  $\leqslant$  17 per employee over the previous year's value.

# Average training expenses per employee based on headcount



All Wienerberger training programs are designed to promote networking and facilitate international knowledge transfer. They are aimed at providing training that is tailored to the employees' specific areas of work and foster long-term succession management. As in previous years, initiatives aimed at advancing and supporting employees in a targeted fashion and facilitating the cross-border exchange of knowledge were taken in 2016. The following are two examples:

**Ready4Excellence as a cross-divisional further training measure:** This is a Group-wide program consisting of four modules for international key employees. Its contents and tools are designed to promote professionalization and the targeted implementation of the Wienerberger strategy across all countries. Intended to support personality development and the continuous development of the corporate culture, the program also focuses on communication and the importance of a feedback culture.

### Pipelife University, Lean Six Sigma and Pipeschool:

The Pipelife University is a training facility for all Pipelife employees covering a broad range of topics. As in previous years, its focus in 2016 was on the implementation of Lean Six Sigma. The objective of Lean Six Sigma is to deliver qualitatively faultless products and services that completely and profitably meet customers' needs. In 2016, 69 Lean Six Sigma projects were successfully completed.

The Pipeschool is an online learning platform that offers lessons on Pipelife in general, Pipelife products, 5S (a method of keeping workplaces and their environment clean, safe and tidy) and visual management (organization and communication concept).

### Diversity and Equal Opportunities

The principles of human resources management at Wienerberger ensure that all employees, regardless of age, gender, culture, religion, origin or other diversity features, have the same rights and opportunities. Based on these principles, Wienerberger does not tolerate any form of discrimination. Since the beginning of data collection on possible cases of discrimination, no such incidents have been reported.

Our values include integrity and respect. As an international Group, we respect local cultures and make sure that they are adequately represented among our workforce. We regard regionally recruited teams as a crucial factor of success. In our human resources planning, we therefore make every effort to employ local staff and executives (e.g. as plant managers and managing directors), which enables us to gain a better understanding of the local market and to consider the specificities of the region in decisions taken at Group level. The international character of the company is strengthened through a system of job rotation, which enables people to gain new insights in various fields of work. Wienerberger's corporate and cultural identity is characterized by cultural diversity and decentralized structures.

### Gender

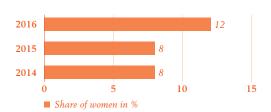
As at 31/12/2016, the total percentage of women employed by the Wienerberger Group was 13.6%, i.e. slightly above the previous year's value (+0.1%). The percentages of women in the individual functional areas remained almost unchanged.



Percentage of women by functional area 1)		31/12/2014	31/12/2015 <sup>2)</sup>	31/12/2016
Headcount	headcount	1,845	2,115	2,155
Production	in %	4.3	4.1	4.2
Administration	in %	45.9	48.1	48.1
Sales (incl. marketing and inventories)	in %	24.2	24.3	24.1
Total	in %	13.5	13.5	13.6

 $<sup>1)</sup> Agency and temporary workers and employees under term contracts not included {\it //} 2) Tondach Gleinstätten included as of 2015$ 

# Share of women in senior management based on headcount



In 2016, 12% of senior management positions were held by women, a significant increase over the previous year's value of 8%. We continued to adhere to our policy of giving preference to women for new appointments to

senior management and executive positions, provided the candidates' qualifications were equal. One specific measure to increase the number of women in senior management and executive positions at Wienerberger is to enable women to embark on suitable career paths at an early point in time.

We collect data not only on the percentage of women in the functional areas, but also on the number of newly recruited women and on those working part-time. On the basis of these indicators, we can take a more differentiated approach in human resources management in order to position ourselves as a family-friendly company and to define appropriate quantitative targets for the future.

Number of new entrants by gender and functional area <sup>1)</sup> Headcount as at 31/12/2016	Women	Women in %	Men	Men in %
Production	64	4.7	1,303	95.3
Administration	92	55.8	73	44.2
Sales (incl. marketing and inventories)	118	26.9	320	73.1
Total	274	13.9	1,696	86.1

<sup>1)</sup> Incl. agency and temporary workers (working for Wienerberger for more than 3 months without interruption) and employees under term contracts

In 2016, the number of new entrants was 1,970, i.e. 208 more than in 2015. The number of women among the new entrants rose from 234 to 274, the number of

men from 1,528 to 1,696. The percentage of women among the new entrants increased from 13.3% to 13.9%.



The reconciliation of work and family life is an issue of special concern to Wienerberger. We therefore offer our employees the possibility of working part-time. This offer is being taken up by a growing number of female as well as male employees. The percentage of Wienerberger employees working part-time increased slightly from

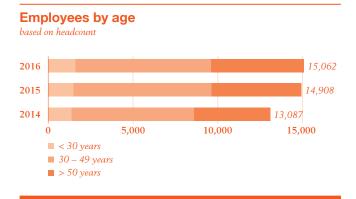
3.4% in 2015 to 3.5% in 2016. The percentage of women in part-time employment amounted to 16.8% in 2016, up from 15.3% in 2015, while the percentage of men working part-time decreased slightly from 1.5% in 2015 to 1.4% in 2016.

Number of women and men working part-time Headcount as at 31/12/2016	Total	Of which part-time	Part-time in %
Women	2,057	345	16.8
Men	13,005	177	1.4
Total 1)	15,062	522	3.5

1) Percentage of employees with permanent employment contracts

### Age

As in previous years, the long average length of service with the company was reflected in the age structure of the workforce in 2016, which hardly changed in comparison with 2015. In 2016, 53% (-1%) of our employees were between 30 and 49 years of age. 11% (+1%) were younger than 30 and 37% (+1%) were older than 50.



In this context, we pay special attention to Group-wide training and development measures for young employees as well as to long-term succession management. In order to ensure continuity in positions that are critical for Wienerberger's success, we have defined key positions for which succession plans are to be prepared. At the same time, we identify internal talents and high-potential employees and gradually prepare them for succession to key positions through targeted training measures. Through this process, we ensure that critical key positions can be filled with the right people at the right time and in line with our corporate culture.

# Targets and Measures Relating to our Employees

The targets and measures described in the following were defined by the Managing Board of Wienerberger AG and the management of the individual Wienerberger business units on the basis of the materiality matrix developed in 2014. They are part of the Wienerberger Sustainability Roadmap 2020.

The data on North America shown below do not include the Pipelife site in North America. The data on Pipelife include the Pipelife production site in North America.



### Safety of our employees

### At Group level

### **Quantitative target**

> The long-term target is zero accidents in the Wienerberger Group.

### Clay Building Materials Europe

### 2016

- > The management of the Division communicated a binding Policy Statement to the managing directors of all local organizations, which clarifies the obligatory requirements to be met and underlines that the health and safety of all employees is a matter of top priority.
- A health & safety standard with specific minimum requirements to be met by the Division was elaborated.
- The Safety Roadmap, a binding plan of action to improve occupational safety, was completed and implemented in the Business Unit.
- The Safety Alert and the Safety Award programs were continued; occupational safety was addressed as a priority issue, e.g. within the framework of the internal Technical Conference.

### 2017

- > The requirements of the health & safety standard and the measures and instruments prescribed by the standard will be rolled out to the local companies and compliance with the standard will be audited.
- > The activities provided for by the Safety Roadmap will be implemented.

### North America

### 2016

- > Monthly meetings on safety issues were held and the reporting requirements between the top management and the local management were clarified.
- A safety officer was appointed at local level, whose mandate also includes communication on safety matters.
- > Safety targets for the coming two years and measures to achieve these targets were defined for each production site.

### 2017

> The processes outlined above are being continued.

### Pipelife

### 2016

- Alongside an extensive industry benchmarking exercise, all safety-related measures and programs were continued consistently: the Safety Call, incl. accident reports and accident analyses, safety audits, 5 S (a method to keep workplaces and their environment safe, clean and tidy), the Zero Accident Club, and programs aimed at observing employee behavior, such as the Behavior Observation Program (BOB) and Lock-out/Tag-out (LOTO).
- The "Take Care" campaign was rolled out: All Pipelife production sites were provided with a uniform set of material: brochures, warning signs and stickers for machinery and equipment in the local language, containing safety instructions for employees and visitors touring the plant.



### Safety of our employees

### Pipelife

### 2016

- The Pipelife Safety Portal, a centralized online platform for exchanges on safety issues within the Pipelife Group, remained operational. All guidelines on the Group's minimum safety standards as well as information on current measures and programs can be accessed via this platform. It also includes a compilation of all written accident reports, complete with detailed analyses and recommendations for other organizations.
- Within the framework of the Zero Accident Club, the organization reporting the longest accident-free period was honored with the Pipelife Safety Award for the year 2015.

### 2017

> The processes outlined above are being continued.

### Semmelrock

### 2016

- > The Safety Policy was adopted and confirmed by the Senior Country Management of the country organization.
- > The Safety Book was completed and its rollout was started.
- > Safety competence teams were set up and started their activities in the plants.
- > The "Accident Investigation Report Semmelrock" (AIRS) system and an internal communication platform continued to be used.

### 2017

- The Safety Book will be translated into all local languages of the Semmelrock production sites and the rollout of its contents will be completed through workshops and training programs.
- > The "Safety@Semmelrock" program will be continued, production processes will be optimized through technical safety measures and plant safety will be enhanced.
- > The "Accident Investigation Report Semmelrock" (AIRS) system, with improved accident analysis and a focus on the cause(s) of accidents, and an internal communication platform will remain in use.
- A safety improvement plan will be drawn up for each plant; measures to enhance safety will be documented, prioritized and implemented over a period of three years, depending on the availability of resources.

### Steinzeug-Keramo

### 2016

- > DuPont™ STOP® (safety training observation program) was implemented at all three production sites.
- ➤ External audits were performed by DuPont<sup>TM</sup>.
- > Risk analyses were performed at production workplaces.

### 2017

- > DuPont™ STOP® (safety training observation program) will be continued at all three production sites.
- > Further audits will be performed by DuPont<sup>TM</sup>.
- > Risk analyses will be performed at production workplaces.



### Health of our employees

### At Group level

### 2016

> Based on new and more highly differentiated information, the strategy for the protection against respirable crystalline silica was evaluated; it was decided not to continue the current practice of annual collection of data on exposure to respirable crystalline silica.

### 2017

> It goes without saying that the measures taken to protect our employees from respirable crystalline silica are being continued.

### Clay Building Materials Europe

### 2016

- > The issue of protection against respirable crystalline silica was included in the health & safety program.
- New core indicators relating to the protection from exposure to respirable crystalline silica were defined; the process has not yet been completed.

### 2017

- > Work on the definition of new core indicators relating to the protection from exposure to respirable crystalline silica is being continued.
- > Based on the core indicators defined, new initiatives and measures will be evaluated.

### North America

### 2016

- > Protective measures were taken for employees potentially exposed to respirable crystalline silica and reduction standards were elaborated; programs already introduced were continued.
- Additional health insurance coverage was provided for all full-time employees of North America, the scope of which goes beyond the provisions of the Affordable Care Act (ACA) in some respects.

### 2017

- The aforementioned initiatives regarding the measurement of respirable crystalline silica are being continued.
- All full-time employees of the North America Division will continue to be covered by additional health insurance, the scope of which goes beyond the provisions of the Affordable Care Act (ACA) in some respects.

### Semmelrock

### 2016

- **>** The concentration of particulate matter at the workplace was regularly monitored by external experts and observance of legal limits was confirmed.
- > The evaluation of psychological stress at the workplace was started at a local company.
- > Further health-related measures were implemented at a newly built plant through the installation of filter systems.

### 2017

> The processes outlined above are being continued.



### Health of our employees

### Steinzeug-Keramo

### 2016

- > All fields of work were analyzed for potential exposure to respirable crystalline silica.
- > Technical equipment for the reduction of respirable crystalline silica was further optimized.

### 2017

> The measures aimed at protecting employees from respirable crystalline silica are being continued.

### Communication and employee involvement

### At Group level

### 2016

The rollout of the new Intranet (iComm) to all business units and their local companies, aimed at improving employee communication and interaction, was started.

### 2017

> The rollout of the new Intranet (iComm) to all business units and their local companies will be completed.

### **Employee satisfaction**

### At Group level

### 2016

Corporate Human Resources organized an employee survey in order to evaluate employee satisfaction at the local companies in Austria and Germany and developed a set of measures on the basis of the results obtained. The employee survey, which was conducted by external partners, was started at the Wienerberger holding company in 2015.

### 2017

Such evaluations will be performed in additional local companies. The employee survey covering the entire Wienerberger Group is to be completed by 2018.



# Production





# **Production**

### Principles, Processes and Instruments

Wienerberger strives to produce as environmentally friendly as possible. For us, the conservation of resources is a key aspect in production. In particular, we focus on the responsible use of raw materials, energy and water. We constantly work on contributing to the fight against climate change through greater energy efficiency and the reduction of our  $\mathrm{CO}_2$  emissions. At the same time, we strive to increase the amount of recycled material used in all business units, provided this is technically and economically feasible.

Research and development (R&D) are among the priorities of Wienerberger's strategic planning. One of the core activities of R&D is to optimize production processes and product development. R&D expenditure in 2016 amounted to  $\leqslant$  14.9 million, which corresponds to 0.5% of the Group's revenues.

Environmentally relevant aspects have also been integrated into the company's quality management systems (QMS), which are certified according to ISO 9001 at almost all our production sites. Where appropriate, some production sites have also been certified according to ISO 14001 (Environmental Management Systems).

Technical controlling systems have been installed in all production areas of the Wienerberger Group. These systems record all production-related data required for the management of the company and permit the internal benchmarking of production sites against one another.

### Results of our 2014 Materiality Analysis

At Group level, the following environmentally relevant aspects of production were identified as being of material importance:

### In our production

- > Energy efficiency
- > Climate protection
- > Sparing use of water
- > Resource efficiency and waste management

### In our supply chain

- > Availability of raw materials
- > Use of recycled material
- > Avoidance of hazardous substances
- > Protection of local residents, nature conservation and re-use of depleted extraction sites

In the course of a differentiated analysis of our various fields of production, specific environmentally relevant factors of influence from our production processes were identified. Detailed descriptions are contained in the 2014 Sustainability Report on pages 18 to 31 or under http://sustainabilityreport14.wienerberger.com/en/sustainability-at-wienerberger/

The results of our materiality analyses provide the basis for our five-year plan of action, the Wienerberger Sustainability Roadmap 2020. The production-related targets and measures of the Wienerberger Sustainability Roadmap 2020 are summarized at the end of this chapter under "Targets and Measures Relating to Production".

### Collection of Indicators, Restatements

In 2016, with support from an external partner, we performed a critical analysis of our non-financial data management for the entire Wienerberger Group and initiated measures aimed at its further optimization. Thanks to the high quality of our non-financial indicators, we are able to comply with the new legal provisions on non-financial reporting at European and/or national level (e.g. CSR Guideline 2014/95/EU; NaDiVeG). At the same time, we are in a position to fulfil our stakeholders' expectations in terms of maximum transparency.

The data contained in this chapter, unless otherwise indicated, exclusively refer to our production sites. In the course of the further development of data collection throughout the Wienerberger Group and the extension of the reporting limits in Clay Building Materials Europe and North America, the indicators concerned were adjusted accordingly. In the interest of transparency and comparability, the previous year's figures were restated. The presentation of a three-year trend was not possible for all indicators, as in some instances the basis for the collection of indicators today is no longer comparable with that of 2014. All adjustments and restatements made are



explained in the following and, in addition, shown in footnotes to the tables.

Tondach Gleinstätten, belonging to the Clay Building Materials Europe (CBME) Division, was fully consolidated as a wholly owned subsidiary of the Wienerberger Group as of July 2014, but its non-financial indicators have only been included since 01/01/2015, as the structures for data collection first had to be optimized in the course of 2014. The inclusion of the production tonnages and the energy consumption figures of the Tondach Group (mainly roof tile plants) in the calculations for 2015 led to significant changes in the results of CBME and the entire Wienerberger Group, the reason being that the specific energy consumption, expressed in kWh/ton, is substantially higher in roof tile production than in the production of our other building materials. We are proud to report that thanks to continuous energy conservation efforts at our production sites we have been able to counteract this trend toward higher energy intensity resulting from significant changes in the product mix at Group level. However, the increase has not yet been fully offset. We will continue our intensive efforts to optimize the production processes and include the newly acquired roof tile plants in all our optimization programs.

### Restatements

- > Production volumes in Clay Building Materials Europe (CBME): The master data on the production volumes of the individual local companies were adjusted in 2016 in accordance with most recent findings and, in the interest of comparability, the data for 2015 were restated. The product groups concerned are clay blocks, roof tiles and facing bricks. Restating these figures for 2014 or for prior years is not possible, as the current master data on production volumes are not comparable with those of 2014. Therefore, the indicators for 2014 and prior years were not restated.
- > Concrete roof tiles in Clay Building Materials Europe in Great Britain (CBME): Following the increase of concrete roof tile production by CBME in Great Britain, the reporting limits for the collection of indicators were extended to include this product group. The indicators of this new, but relatively small product group were included in our reporting for the first time in 2016 and integrated into the roof tile product group for 2015 for comparison's sake.

- > Concrete and calcium silicate products in North America: North America further differentiated the collection of indicators and reported the volumes of concrete and calcium silicate products separately for the first time in 2016. In this report, these figures are shown in a three-year trend as a separate product group under "Concrete and calcium silicate products North America". However, separate presentation of the product group is only possible from 2013 onward. Therefore, the 2013 indicators were used as a basis for the index calculations for this product group.
- CO<sub>2</sub> emissions in North America, excl. administration: North America previously reported its CO<sub>2</sub> emissions including administration. In the interest of differentiated reporting, CO<sub>2</sub> emissions caused by production are now reported in a three-year trend, excluding administration.
- > Reference base for production volumes at Steinzeug-Keramo: Steinzeug-Keramo previously used kiln capacity as a reference base for production volumes, whereas the other business units calculated their production volumes on the basis of net additions to stocks. Steinzeug-Keramo changed its data collection method in 2014; in 2016, its production volumes are shown retroactively in a three-year trend.

### Volumes Sold by Product Group

The total volumes of products supplied by the Wienerberger Group for building construction and infrastructure solutions in 2016 are illustrated below:











160,000 houses built

288,000 roofs covered

630,000

12,100,000

km pipes laid

m<sup>2</sup> surface paved

### Environmental Aspects in Production: Energy Efficiency

The following figures concerning energy consumption cover the entire Wienerberger Group. As compared with

the previous year, the Group's total energy consumption in 2015 was reduced by 0.5% through consistent efforts made to optimize production throughout the Group.

Energy consumption $^{\eta}$ in $GWh$	2014	2015 <sup>2)</sup>	2016	Vdg. in %
Natural gas <sup>3) 4)</sup>	5,393	6,302	6,331	+0.5
Coal	210	191	114	-40.2
Fuel oil 3)	18	11	7	-35.3
Liquefied natural gas	26	48	60	+24.4
Electricity <sup>3) 4)</sup>	985	1,076	1,078	+0.2
Wienerberger Group	6,632	7,628	7,591	-0.5
Share of renewable energy in the consumption of electric energy	27%	27%	31%	+13.0

<sup>1)</sup> Total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible. // 2) Tondach Gleinstätten included from 2015. // 3) Due to the integration of concrete roof tiles in CBME in Great Britain, the figures for 2015 were restated. // 4) Due to the integration of concrete and calcium silicate products in North America, the figures were restated to show a three-year trend.

Continuous efforts are being made by Wienerberger to convert its production processes to low-emission energy sources. The substitution of fuel oil and coal by other sources of energy is reflected in the figures for 2016. The increase in the consumption of natural gas and liquefied natural gas is due to a rise in ceramic production, on the one hand, and intensified efforts to replace coal and fuel oil by these low-emission energy sources, on the other hand.

The minimal increase in electricity consumption over the previous year's level is due to higher volumes of clay blocks and concrete products produced in North America. The share of renewable energy sources in the consumption of electric energy, expressed in kWh/ton, increased to a satisfactory 31%, as compared with 27% in 2015.

The table on specific energy consumption (in % based on kWh/ton) shows the development of the individual product groups over time, with the values reported for a specific reference year serving as the basis for index calculation. In previous years, the figures from 2010 were used as a basis. However, given the recent changes in the methods of data collection and the integration of new product groups, as outlined above (collection of indicators, restatements), 2010 can no longer be used as the refer-



ence year for certain product groups, as the data are no longer comparable. This concerns data on ceramic pipes as well as concrete products in North America. In this report, the index of specific energy consumption (based on kWh/ton) for the entire Wienerberger Group therefore refers to the values from 2013 as the new reference year.

In 2016, specific energy consumption dropped by 1.3% from the previous year's level in the Wienerberger Group as a whole and by 2.4% in ceramic production.

Index of specific energy consumption <sup>1)</sup> in % based on kWh/ton (2013 = 100%)	2013	2014	2015 <sup>2)</sup>	2016	Chg. against 2015 in %	Chg. against 2013 in %
Clay blocks	100.0	93.1	94.4	93.4	-1.1	-6.6
Roof tiles	100.0	96.8	89.1	87.9	-1.3	-12.1
Facing bricks	100.0	97.3	99.7	101.7	+2.0	+1.7
Ceramic pipes	100.0	99.4	103.1	111.5	+8.1	+11.5
Ceramic production	100.0	96.6	101.7	99.3	-2.4	-0.7
Plastic pipes	100.0	100.4	97.1	100.8	+3.8	+0.8
Concrete and calcium silicate products North America	100.0	102.5	108.2	102.7	-5.1	+2.7
Concrete pavers	100.0	93.5	93.7	98.1	+4.8	-1.9
Wienerberger Group	100.0	95.4	101.3	100.0	-1.3	0.0

1) Total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible. // 2) Tondach Gleinstätten included from 2015.

Continuing the rollout of our "Plant Improvement Program" throughout 2016, Clay Building Materials Europe (CBME) was able to further increase energy efficiency at its production sites. Moreover, the reduction of specific energy consumption in CBME is also due to investment projects aimed at minimizing energy losses and the implementation of best practice measures (e.g. optimization of process parameters, compressed-air systems, improvement of resource efficiency through product optimization) across the countries of the Division. The fact that numerous clay block plants in Eastern Europe were working at higher levels of capacity utilization also had a positive impact on specific energy consumption. Regular Group-wide energy benchmarking and frequent training programs contribute to the success of CBME in this respect. CBME not only expresses its appreciation of the enormous efforts made by its employees, but has created an additional incentive through the introduction of Group-wide Energy Awards. However, the market-related decline in CBME's production volumes in Belgium and Great Britain as well as the

trend toward higher-value products led to an increase in specific energy consumption in facing brick production. These effects were only partially offset by other, highly successful optimization projects (e.g. in Denmark).

The rise in specific energy consumption in the production of ceramic and plastic pipes, as compared to the previous year's values, is due partly to lower capacity utilization at some production sites and partly to changes in the product mix.

For Pipelife (plastic pipes) and Clay Building Materials Europe (tiles and bricks), we refer to the figures from 2010 as the baseline for the quantitative targets to be reached by 2020. Therefore, the index of specific energy consumption for most product groups can also be shown relative to 2010 as the reference year (excluding concrete and calcium silicate products in North America and ceramic pipes, see "Collection of indicators and restatements").



Index of specific energy consumption <sup>1)</sup> in % based on kWh/ton (2010 = 100%)	2010	2014	2015 <sup>2)</sup>	2016	Chg. against 2015 in %	Chg. against 2010 in %
Clay blocks 3)	100.0	79.1	80.2	79.3	-1.1	-20.7
Roof tiles 3) 4)	100.0	94.5	87.0	85.8	-1.3	-14.2
Facing bricks, CBME only	100.0	94.9	96.7	98.4	+1.7	-1.6
Facing bricks incl. North America 3)	100.0	99.8	102.2	104.3	+2.0	+4.3
Plastic pipes	100.0	97.8	94.6	98.2	+3.8	-1.8
Concrete pavers	100.0	88.8	88.9	93.1	+4.8	-6.9
CBME total	100.0	86.9	91.7	89.5	-2.4	-10.5

Total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible. // 2) Tondach Gleinstätten included from 2015. // 3) The indicators for 2015 were adjusted due to the update of the master data for CBME production volumes. // 4) The indicators for 2015 were adjusted due to the integration of concrete roof tiles in CBME in Great Britain.

The Clay Building Materials Europe Division is currently working on the development of new roof tile and facing brick products, one of the objectives being to increase resource efficiency and to further improve the product properties. Therefore, the index of specific energy consumption for these two product groups is also shown per square meter of product surface.

Index of specific energy consumption CBME <sup>1)</sup> in % based on $kWh/m^2$ (2013 = 100%)	2013	2014	2015 <sup>2)</sup>	2016	2015 in %	Chg. against 2013 in %
Roof tiles 3) 4)	100.0	95.4	88.0	87.0	-1.0	-13.0
Facing bricks 3)	100.0	93.0	93.5	95.6	+2.2	-4.4

<sup>1)</sup> Clay Building Materials Europe; total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible. // 2) Tondach Gleinstätten included from 2015. // 3) The indicators for 2015 were adjusted due to the update of the master data for CBME production volumes. // 4) The indicators for 2015 were adjusted due to the integration of concrete roof tiles in CBME in Great Britain.

### Environmental Aspects in Production: Climate Protection and CO, Emissions

For the collection of  $\mathrm{CO}_2$  emission data, we apply the method of the European Union Emissions Trading Scheme (ETS system), which only records direct  $\mathrm{CO}_2$  emissions resulting from production processes, excluding indirect  $\mathrm{CO}_2$  emissions resulting from the use of electricity. Accordingly, the only relevant data are  $\mathrm{CO}_2$  emissions from our ceramic production (tiles, bricks and ceramic pipes) (Scope 1).

 $\mathrm{CO}_2$  emissions from primary energy sources vary in line with energy consumption, whereas so-called process emissions result from the raw material and, in clay block production, from the use of pore-forming agents. Electric energy is used in the production of plastic pipes and concrete pavers, with the related  $\mathrm{CO}_2$  emissions being attributed to the electric power producer.



CO <sub>2</sub> emissions in kilo tons per year	2014	2015 <sup>1)</sup>	2016	Chg. in %
From primary energy sources <sup>2)</sup>	980	1,080	1,074	-0.6
From processes <sup>2)</sup>	668	718	720	+0.2
Total – covered by ETS 3)	1,648	1,798	1,793	-0.3
Plants not covered by ETS 4) 5)	199	266	253	-4.9
From biogenic materials 6)	229	240	249	3.9

1) Tondach Gleinstätten included from 2015. The indicators for 2015 were adjusted due to the integration of concrete roof tiles in CBME in Great Britain. //
2) The indicators for 2015 were adjusted due to the update of the master data for CBME production volumes. // 3) Source: Community Independent Transaction Log (CITL). // 4) Calculation in accordance with national rules (Switzerland) or EU standard emission factors. Until 2014, only CO<sub>2</sub> emissions from the combustion of primary energy sources were included for production sites in the USA; from 2015, CO<sub>2</sub> emissions from processes are also included. // 5) Due to the integration of concrete and calcium silicate products in North America, the indicators were restated to show a three-year trend. Moreover, the indicators for North America are now reported in a three-year trend, excl. administration. // 6) Figures from Wienerberger's CO<sub>2</sub> monitoring are based on national rules.

On account of the transition to the third trading period of the European Union Emissions Trading System, emission data collected in 2013 are used as the new reference base for the calculation of specific  $\rm CO_2$  emissions from primary energy sources (in % based on kg  $\rm CO_2$ /ton).

Within the framework of the materiality analysis performed in 2014, our stakeholders only ranked fuel-related  $\mathrm{CO}_2$  emissions, which can be directly influenced by Wienerberger, as a material aspect in the fight against climate change. This is also reflected in the target definition of the Clay Building Materials Europe Division for

the reduction of specific  $\mathrm{CO}_2$  emissions from primary energy sources by 20%, as compared with 2010. Changes in specific energy consumption provide an approximate basis for the assessment of target attainment, as the volume of  $\mathrm{CO}_2$  emissions correlates with the quantity and composition of primary energy sources used. Reductions can be achieved through efficiency increases in production (i.e. lower energy consumption per ton of products produced), on the one hand, and the replacement of  $\mathrm{CO}_2$ -intensive fuels (coal, fuel oil) by less  $\mathrm{CO}_2$ -intensive or renewable energy sources, on the other hand. Thus, the ongoing conversion to natural gas as a fuel also contributes to the reduction of specific  $\mathrm{CO}_2$  emissions.

Index of specific CO <sub>2</sub> emissions <sup>1)</sup> in % based on kg CO <sub>2</sub> /ton (2013 = 100%)	2013	2014	2015 <sup>2)</sup>	2016	Chg. against 2015 in %	Chg. against 2013 in %
Clay blocks 3)	100.0	91.6	93.2	92.1	-1.1	<b>-</b> 7.9
Roof tiles 3)	100.0	95.1	88.0	87.1	-1.0	-12.9
Facing bricks 3)	100.0	98.0	95.2	95.0	-0.2	-5.0
Ceramic pipes 4)	100.0	100.7	105.4	111.9	+6.1	+11.9
Ceramic production	100.0	96.3	99.4	96.1	-3.3	-3.9

<sup>1)</sup> The specific  $CO_2$  emissions exclusively refer to fuel emissions. // 2) Tondach Gleinstätten included from 2015. // 3) The indicators for 2015 were adjusted due to the update of the master data for CBME production volumes. // 4) At Steinzeug-Keramo the reference base for the production volume was changed from kiln capacity to net additions to stocks and the indicators were adjusted to show a three-year trend.



The index of specific  $\mathrm{CO}_2$  emissions from primary energy sources in kg  $\mathrm{CO}_2$  per ton of products produced was reduced by a satisfactory 3.3%, as compared to the previous year. This trend was seen in almost all areas of ceramic production. The main factors of influence responsible for the increase reported in ceramic pipe production by 6.1% from the previous year's level were shifts in the product mix toward more energy-intensive products and the low level of capacity utilization at some production lines. Specific  $\mathrm{CO}_2$  emissions from primary energy sources dropped more strongly (-3.3% as compared to 2015) than specific energy consumption in ceramic production (-2.4%). This is due to the consistent

downward trend in the use of CO<sub>2</sub>-intensive energy sources, such as coal and fuel oil, and the conversion to natural gas.

The Clay Building Materials Europe Division is working on the development of new roof tile and facing brick products, one of the objectives being to increase resource efficiency and to further improve the product properties. Therefore, the index of specific CO<sub>2</sub> emissions from primary energy sources for these two product groups is also shown per square meter of product surface. Based on this indicator as well, emission volumes were found to develop in parallel with the reduction of thermal energy consumption.

Index of specific CO <sub>2</sub> emissions CBME <sup>1)</sup> in % based on kg $CO_2/m^2$ (2013 = 100%)	2013	2014	2015 <sup>2)</sup>	2016	Chg. against 2015 in %	Chg. against 2013 in %
Roof tiles 3)	100.0	86.9	86.3	-0.7	-13.7	-13,7
Facing bricks <sup>3)</sup>	100.0	91.7	93.6	+2.1	-6.4	-6,4

1) Specific  $CO_2$  emissions exclusively refer to fuel emissions. // 2) Tondach Gleinstätten included from 2015. // 3) The indicators for 2015 were adjusted due to the update of the master data for CBME production volumes.

A major part of the total carbon footprint of Semmelrock's concrete products is generated upstream in raw material production (Scope 2). Cement production is particularly energy-intensive and, consequently, CO,intensive. Within the framework of the Sustainability Roadmap 2020, Semmelrock has undertaken to reduce these emissions, e.g. by implementing pilot projects to investigate the use of recycled concrete and climatefriendly cement. In the opinion of our stakeholders, other types of indirect CO<sub>2</sub> emissions, such as those caused by the transport of raw materials and finished products, only account for a relatively small part of the total carbon footprint of our products, compared with direct emissions from ceramic production and/or the CO, intensity of the raw materials used in the production of plastic and concrete products. Within the framework of the Sustainability Roadmap 2020, Pipelife set itself the target of reducing its specific indirect CO<sub>2</sub> emission from the use of electricity in production by 20% from the level reported in 2010. In 2016, Pipelife's indirect CO, emissions (mainly from electricity consumption) were 17% below the value reported in 2010.

# Environmental Aspects in Production: Resource Efficiency and Waste Management

Wienerberger is making a continuous effort to increase resource efficiency in production and, at the same time, further improve the properties of its products. Our particular focus is on reducing raw material consumption and using secondary raw materials in those areas of production where it is economically and technically feasible. We are also working on a continuous reduction of scrap rates and the recycling of production waste and residual substances into production. Figures on the total amount of raw materials used in the Wienerberger Group cannot be disclosed for reasons of data protection and industrial secrecy.

A total of 150,136 tons of waste (Tondach Gleinstätten included since 2015) was generated by Wienerberger in 2016, 1% of which was hazardous waste. Almost all the waste generated by the Wienerberger Group is non-hazardous waste, which was collected and recycled at a rate of 83% in 2016. Thus, the percentages of the aforementioned waste categories were the same as in the previous year.





### **Our Supply Chain**

In this area, the following aspects are of particular importance for Wienerberger and its production processes:

- > Long-term availability of raw materials
- > Use of biogenic and secondary raw materials
- > Responsible sourcing of raw materials
- Health and safety of our employees working at clay extraction sites
- Stakeholder management and human rights in the context of clay extraction
- Nature conservation and re-naturalization of extraction sites

Long-term availability of raw materials is a crucial aspect of corporate responsibility. To avoid the risk of potential shortages, Wienerberger is making every effort to increase the efficiency of raw material use through low scrap rates, minimal waste and increased recycling (see above), as well as early identification of possible shortages and diversification of sources of supply.

From the viewpoint of resource efficiency, the use of secondary raw materials is an important topic for the future. However, technical feasibility depends on the types of materials and the applications concerned. The use of recycled materials has become common practice in plastic production. In ceramic production, recycled materials are used as additives. Using recycled products as a substitute for primary raw materials is a greater challenge. While residual material from our own plants can be recycled into

production on account of its high degree of purity, the use of secondary ceramic material from external sources is hardly possible, at least for the time being. Ceramic material can be separated from other construction debris and used in the production of building materials, but is not yet available in sufficient quantities and quality.

Responsible sourcing of raw materials in the plastics industry ranges from nature conservation and the rights of regional stakeholders in the context of crude oil extraction to energy efficiency in processing in the petrochemical industry. Pipelife has elaborated a code of conduct for suppliers, which can be downloaded at http://www.pipelife.com/media/com/about\_pipelife/Supplier\_Code\_of\_Conduct.pdf

The health and safety of our employees at our own clay extraction sites is a matter of special importance for us. Avoiding occupational accidents, minimizing exposure to dust and protection from noise are our top priorities in this respect.

Residents in the neighborhood of extraction sites are an important stakeholder group for us. In the interest of the health and safety of neighboring residents concerned, we want to engage in open dialogue with them.

Nature conservation and a meaningful re-use of depleted clay pits are important criteria of sustainability in the operation of extraction sites. This includes non-interference with protected areas, recultivating or renaturalizing depleted extraction sites, and making them available for re-use. As regards Wienerberger's own clay pits, nature conservation and a meaningful use of depleted sites are guaranteed.



# Environmental Aspects in Production: Sparing Use of Water

We are making every effort to use water sparingly, for instance by running it in closed circuits and drawing

primarily on our own wells. The Wienerberger Group's total consumption of water in 2016 was 3.4% higher than in 2015. The percentage drawn from public networks remained almost unchanged.

Water consumption		2014	2015 <sup>1)</sup>	2016	Chg. in %
Wienerberger Group	in mill. m³	3.7	4.0	4.2	+3.4
of which from public networks	in %	39.3	34.3	33.5	-

<sup>1)</sup> Tondach Gleinstätten included from 2015.

The increase in specific water consumption in all product groups in 2016, based on net additions to stocks, is due to a variety of causes.

In the production of ceramic pipes, the higher percentage of ground products resulted in higher specific water consumption (+15%). The increase in specific water consumption in the production of plastic pipes (+8%) was due to singular events, such as water leakages from cooling circuits and the refilling of another cooling circuit in the course of maintenance operations. The product mix also has an influence on specific water consumption in plastic

pipe production. Nevertheless, specific water consumption from public networks for plastic pipe production only accounted for 15.8% of specific total water consumption for this product group. Water from sources other than public networks (e.g. water from rivers, lakes and, in Scandinavia, the sea) is returned to the environment after the cooling process in accordance with legal provisions and, thus, does not count as consumption in the true sense of the term. Water consumption in the production of concrete pavers increased on account of the higher percentage of washed products.

Specific water consumption in $m^3/ton$	2014	2015 <sup>1)</sup>	2016	Chg. in %
Brick products <sup>2) 3)</sup>	0.159	0.154	0.154	+0.3
Ceramic pipes 4)	0.228	0.228	0.263	+15.0
Plastic pipes	4.133	4.700	5.110	+8.7
Concrete pavers	0.050	0.051	0.055	+7.5
Concrete and calcium silicate products North America	0.361	0.389	0.401	+3.2

<sup>1)</sup> Tondach Gleinstätten included from 2015. // 2) The indicators for 2014 and 2015 were adjusted due to the recognition of concrete and calcium silicate products North America as a separate item. // 3) The indicators for 2015 were adjusted due to the integration of concrete roof tiles in CBME Great Britain and the update of the CBME master data on production volumes. // 4) At Steinzeug-Keramo the reference base for the production volume was changed from kiln capacity to net additions to stocks and the indicators were adjusted to show a three-year trend.

### Targets and Measures Relating to Production

The following targets and measures were defined by the Managing Board of Wienerberger AG and the management of the individual business units on the basis of the materiality matrix developed in 2014. They are part of the Wienerberger Sustainability Roadmap 2020.

The data on North America do not include the North American production site of Pipelife. All data on Pipelife include Pipelife's production site in North America.



### Aspects of our production

### **Energy efficiency**

### Clay Building Materials Europe

### **Quantitative target**

> Specific energy consumption in production is to be reduced by 20% by 2020, as compared to 2010.

### 2016

- > Specific energy consumption in production was 10.5% below the value of 2010 (calculated as an index in % based on kWh/ton; 2010 = 100%).
- > CBME further pursued the strategy of its R&D roadmap to reduce energy consumption.
- **>** Benchmarks were set and best practices exchanged.
- > The Energy Award was again given out as an incentive for the local companies.
- > Specific investments were made to reduce energy consumption.
- > The conversion of a pilot plant to be equipped with new technology for a significant reduction in specific energy consumption was prepared.

### 2017

- The conversion of a pilot plant to new technology for a significant reduction in specific energy consumption will be implemented (rollout of findings from 2018 onward).
- > Benchmarks are being set and best practices exchanged.
- > Energy Awards will again be given out as an incentive for the local companies.
- > Specific investments are being made to reduce energy consumption.

### North America

### **Quantitative target**

> By 2016, the consumption of natural gas at selected production sites is to be reduced by 5% each, as compared to 2015.

### 2016

- > The consumption of natural gas at selected production sites was reduced by 4% each, as compared to 2015. As a result of the conversion of these production sites from high-emission energy sources to natural gas, the 5% target was not fully attained in 2016.
- > Electricity consumption at other selected production sites was optimized.
- > A new quantitative target was defined: reduction of specific energy consumption (fuels and electricity) at two main production sites by another 5% in 2017.

### 2017

- > Consumption of natural gas at selected production sites will be further reduced in order to reach the target set for 2016.
- > Specific energy consumption (fuels and electricity) will be reduced by another 5% at two main production sites.
- **>** Appropriate measures are being implemented to reduce energy consumption.



### **Energy efficiency**

### Pipelife

### Quantitative target

> By 2020, specific energy consumption in production is to be reduced by 20%, as compared to 2010.

### 2016

- > Specific energy consumption in production was 2% below the comparable value of 2010
- > Projects aimed at reducing energy consumption in production were carried out at various production sites within the framework of "Energy Treasure Hunts".
- > Local electricity saving initiatives were implemented.
- > The results were analyzed and communicated internally via an interactive tool.
- > The performance of the individual local companies was compared.
- > Best practice examples were exchanged and benchmarks were set.

### 2017

- > The processes described above are being continued.
- > The results are updated, analyzed and communicated internally via an interactive tool.
- > The performance of the individual local companies is compared.
- > Best practice examples are exchanged and benchmarks set.

### Semmelrock

### 2016

> A new plant was built in Austria with a clear focus on energy and resource efficiency based on the most advanced technologies.

### 2017

- > The results obtained as regards the increase of resource efficiency will be rolled out to other local companies through appropriate measures.
- > A plan of action for Semmelrock's other production plants will be drawn up

### Steinzeug-Keramo

### 2016

- > Energy efficiency monitoring was implemented at the production sites and internal quantitative targets were defined for individual production lines.
- A working group was set up and regular exchanges of scientific data with Clay Building Materials Europe were organized.
- > Projects aimed at a continuous increase in energy efficiency were implemented.

### 2017

- > The processes described above are being continued.
- > Best practice examples are exchanged and benchmarks set.



#### **Climate action**

#### Clay Building Materials Europe

#### **Quantitative target**

> By 2020, specific CO<sub>2</sub> emissions from primary energy sources in production are to be reduced by 20% from their 2010 level.

#### 2016

- Specific CO<sub>2</sub> emissions from primary energy sources in production amounted to 98% of the value reported in 2013 (calculated as an index in % based on kg CO<sub>2</sub>/ton; 2013=100%. Following the transition to the third EU emissions trading period in 2013, the level of CO<sub>2</sub> emissions in 2013 is now referred to as the new baseline for future developments).
- > CBME further pursued the strategy of its R&D Roadmap to reduce energy consumption and, consequently, specific CO<sub>2</sub> emissions from primary energy sources.
- > The Energy Award was again given out as an incentive for local companies.
- > Special investments were made to reduce the volume of specific CO<sub>2</sub> emissions from primary energy sources.
- > The conversion of a pilot plant to be equipped with new technology for a significant reduction in specific energy consumption was prepared.

#### 2017

- > A pilot plant is being converted to new technology for a significant reduction in specific energy consumption.
- > Energy Awards will again be given out as an incentive for the local companies to step up their efforts.
- > Specific investments will be made to further reduce energy consumption.
- ➤ CBME will further pursue the strategy of its R&D Roadmap to reduce energy consumption and, consequently, specific CO₂ emissions from primary energy sources.

#### North America

#### **Quantitative target**

> Conversion of all main production sites from coal to natural gas by 2016.

#### 2016

- > 80% of the production lines at all main production sites were converted from coal to natural gas. Converting all main production sites in 2016 was not possible, as the production lines were continuously in operation to meet customer demand.
- **>** Appropriate measures were taken to reduce emissions.

- The remaining production lines of all main production sites will be converted to natural gas.
- > Additional measures are being taken to reduce emissions.



#### **Climate action**

#### Pipelife

#### Quantitative target

By 2020, specific indirect CO<sub>2</sub> emissions in production (primarily from electricity consumption) are to be reduced by 20%, as compared to 2010.

#### 2016

- Indirect CO<sub>2</sub> emissions (primarily from electricity consumption) were 17% below the reference value of 2010.
- Projects aimed at reducing specific CO<sub>2</sub> emissions were carried out at various production sites within the framework of "Energy Treasure Hunts".
- > Local initiatives to reduce emissions were implemented.
- > The results were analyzed and communicated via an interactive tool.

#### 2017

- > The processes described above are being continued.
- > The performance of the individual local companies is compared.
- > Best practice examples are exchanged and benchmarks set.

#### Semmelrock

#### 2016

> Group-wide monitoring of cement consumption was introduced at the central laboratory. The targets pursued include mix optimization, minimizing the use of cement and/or use of a binder with a lower percentage of cement clinker.

#### 2017

- > Optimized mix formulations are being rolled out to all countries.
- > Further possibilities of reducing the percentage of cement clinker are being evaluated.
- > Specific cement consumption is being reduced through a continuous reduction of the scrap rate.

#### Steinzeug-Keramo

#### 2016

- > 100% of the electricity consumed came from renewable sources.
- Within the framework of re-certification in accordance with Cradle to Cradle®, 5% of the annual CO<sub>2</sub> emissions generated at the company's production sites were offset through climate protection projects.
- Internal quantitative targets were defined for individual production lines.
- A working group was set up and regular exchanges of scientific data with Clay Building Materials Europe were organized.

- > 100% of the electricity consumed comes from renewable sources.
- > 5% of the annual CO<sub>2</sub> emissions generated at the company's production sites will be offset through climate protection projects.



#### Resource efficiency and waste management

#### Clay Building Materials Europe

#### 2016

- > The study on the use of secondary raw materials and on resource efficiency and waste management in brick production was completed.
- > Potential measures were defined on the basis of the results of the study (light-weight products, reduction of scrap rate, energy efficiency).

#### 2017

- > Implementation of the measures recommended on the basis of the aforementioned study is being continued.
- > A guideline for the use of additives will be adopted and a new format of annual raw material reporting will be introduced.

#### North America

#### 2016

- > The closed resource cycle was further optimized.
- > New possibilities of using recycled materials as additives were tested.
- > An internal initiative was launched to identify sources of waste and reduce the volume of waste generated.
- > The recycling of packaging materials was extended.
- > The sale of products in "bulk bags" (stable, re-usable containers) instead of paper bags was rolled out.

#### 2017

> The measures described above are being continued.

#### Semmelrock

#### **Quantitative target**

> The scrap rate in production is to be reduced by 50% by 2017. In 2014 (reference value) the scrap rate was 4.7%.

#### 2016

- > The scrap rate was 3.1%, which corresponds to a reduction against the reference value of 4.7% by 1.6%.
- > A monitoring system was introduced by the central laboratory.
- The scrap rate was determined and analyzed on a monthly basis, and individual production lines were classified according to the data obtained as a basis for targeted optimization measures.

- > The measures aimed at reducing the scrap rate are being implemented.
- The best practice measures implemented are being analyzed and further optimization measures will be derived from the results obtained.
- > Work on a closed resource cycle in production is being continued.
- > A concrete recycling concept is being developed.



#### Sparing use of water

#### Pipelife

#### **Quantitative target**

➤ The consumption of water from public networks is to be reduced to 0.55 m³ per ton of produced by 2020.

#### 2016

> The results of local initiatives were analyzed and communicated internally via an interactive tool.

#### 2017

> Further initiatives will be launched on the basis of the findings obtained.

#### Semmelrock

#### 2016

- > The established practice of process water recycling was continuously optimized to further reduce the amount of waste water generated.
- > A new technology for optimized water recycling was installed at a newly built paver plant.

- > The successfully installed system of water recycling will be rolled out to more paver plants.
- > A new technology for optimized water recycling in slab production is being tested.



#### Aspects along our supply chain

#### **Availability of raw materials**

#### Clay Building Materials Europe

#### 2016

The raw material sources of Tondach Gleinstätten were included in CBME's raw material risk management system, which covers all relevant clay pits and their characteristics. Thus, limited availabilities can be identified at an early point in time.

#### 2017

- > All relevant clay pits and their characteristics are monitored and the necessary measures are taken in time.
- > A raw material availability benchmark will be defined.

#### North America

#### 2016

Continuous monitoring of raw material availability from own clay pits for at least ten years of operation on the basis of the "raw material availability map" was further intensified.

#### 2017

> The measures described above are being continued.

#### Pipelife

#### **Until 2017**

> A strategy for the avoidance of supply shortages will be implemented on the basis of a list of all products and their suppliers for all essential product groups.

#### Semmelrock

#### 2016

> The step-by-step implementation of the raw material procurement strategy, which is based on risk assessment in raw material supply, was started.

#### 2017

- > The raw material procurement strategy is being adapted step by step for application at country and plant level.
- The raw material procurement strategy is being continuously adapted to market conditions.

#### Steinzeug-Keramo

#### 2016

- > An internal benchmark for raw material availability was defined.
- > Clay suppliers were audited with a view to the availability of clay from their sources.
- An analysis of suppliers of selected raw materials was performed and appropriate measures were taken.

- All relevant sources of supply are being monitored and the necessary measures are taken in time.
- > Supplier management activities are being continued.



#### Use of secondary raw materials

#### Clay Building Materials Europe

#### 2016

> A research and development project on the use of secondary raw materials in brick production was carried out.

#### 2017

- > The research and development project on the use of secondary raw materials in brick production will be completed.
- > Further measures will be rolled out on the basis of the analysis of the use of secondary raw materials in brick production.

#### North America

#### 2016

> The closed resource cycle in production was continuously monitored with a view to possible improvements.

#### 2017

Further possibilities of using selected recycled materials in production are being explored.

#### Pipelife

#### **Quantitative target**

> By 2020, the amount of recycled material per ton of products produced is to be increased to 70 kg.

#### 2016

- Research projects aimed at optimizing the ratio of primary and secondary raw materials in Pipelife products were continued.
- > The technical feasibility of the use of recycled materials was further studied and production sites suited for implementation of such projects were identified.
- > The results were analyzed and applied at additional production sites.

#### 2017

> The research projects are being continued and applied at additional production sites.



#### Use of secondary raw materials

#### Semmelrock

#### 2016

> The recycling potential in the various product groups was analyzed and possibilities of substituting primary raw material by recycled material were evaluated.

#### 2017

> Based on the analyses performed, a project on the use of recycled concrete will be launched, the objective being to identify a technology for efficient concrete recycling and to determine the optimal quantities of recycled concrete to be used.

#### Steinzeug-Keramo

#### 2016

- All the necessary measures were taken to obtain the scheduled Cradle to Cradle® re-certification.
- The percentages of internal and external secondary raw materials used in production were evaluated in detail for all production lines. Currently, the average percentage of secondary raw materials is 40%. This percentage is continuously re-evaluated in light of ecological, technological and economic considerations.

#### 2017

Possibilities of further improving the technical properties of materials with the highest possible recycling ratio are being studied.

#### Avoidance and/or substitution of hazardous substances

At Group level and at business unit level

It goes without saying that Wienerberger meets all European, national and regional legal requirements regarding the avoidance and substitution of hazardous substances. Compliance with all legal provisions is continuously monitored and the necessary measures are taken without delay, whenever need rises.

#### Clay Building Materials Europe

#### 2016

> The revision of the internal guideline on the avoidance of hazardous substances was continued. The revised guideline provides for even stricter classification of inputs and contains clear, binding instructions for the production sites.

- > The new guideline will be finalized and implemented throughout the business unit.
- Compliance with the revised guideline will be monitored in cooperation with Internal Audit.
- > An annual raw material report with new disclosure requirements will be introduced.



#### Protection of local residents, nature conservation and re-use of clay pits

#### Clay Building Materials Europe

#### 2016

- > A supplier code of conduct was made available to all local companies as a binding instrument with immediate effect. It demands that suppliers respect human rights and the principles of environmental protection.
- > Documents signed by suppliers are being administered centrally.

#### 2017

> A new supplier management structure is being designed for selected areas.

#### North America

#### 2016

- > The regular annual checks for dust emissions and water quality were performed at all production sites.
- Open and transparent communication with local residents and local authorities was continued.

#### 2017

> The aforementioned measures are being continued.

#### Pipelife

#### 2016

> The "Pipelife Supplier Code of Conduct" for a responsible way of dealing with people and the natural environment continued to apply.

#### 2017

> The "Pipelife Supplier Code of Conduct" continues to apply.



#### Protection of local residents, nature conservation and re-use of clay pits

#### Semmelrock

#### 2016

- > The number of local raw material suppliers of the Austrian local company was increased.
- > A supplier code of conduct was elaborated as a binding instrument.

#### 2017

- > The supplier code of conduct is made available to all local companies as a binding instrument.
- **>** A solution for the central administration of all supplier documents is being elaborated.

#### Steinzeug-Keramo

#### 2016

- > The company applied its own standard on nature conservation and the meaningful re-use of clay pits.
- > Steinzeug-Keramo performed a supplier audit.

#### 2017

> Steinzeug-Keramo will again perform a supplier audit.



# **Products**





### **Products**

#### Principles, Processes and Instruments

A central principle of product development at Wienerberger is the creation of lasting value for our customers by supplying them with durable and innovative building material and infrastructure solutions. In our opinion, the relation between a product's useful life and its impact on the environment during raw material extraction, production, transport, installation, use and disposal plays an important role. Wienerberger brick products are an integral part of sustainable building concepts. They guarantee a high quality of life and contribute to climate protection, for example through their heat storage capacity. In the field of pipes and pavers, we offer system solutions for all present-day challenges, including the demands on water management resulting from climate change and increasing urbanization.

#### Research and development

In view of what users and developers expect of a modern building, and considering the numerous regulatory requirements to be met, such as the Energy Performance of Buildings Directive (EPBD), a system-based approach to building construction is getting more and more important. Integrated system solutions enable us to combine the outstanding properties of individual products of the Wienerberger product portfolio with products supplied by our partners in the field of building services and facilities in order to obtain the best possible results.

Wienerberger operates several research centers in Europe, each of them specializing in a different product group. Our product management specialists cooperate closely with the marketing and sales departments of the individual business units in order to adapt new developments to the needs of our customers. The market launch of new products across several countries is managed centrally, but the products are adjusted to local market conditions by our specialists on site. Thus, successful developments can be rolled out quickly and efficiently to the entire Group.

Wienerberger aims to secure and further strengthen its market positions through cost and technology leadership and product innovations. Therefore, research and development (R&D) are among the priorities of Wienerberger's strategic planning. R&D expenditure amounted to € 14.9 million in 2016, which corresponds to 0.5% of the Group's revenues.

### Environmental product declarations and certifications

For many years, Wienerberger has been working intensively on the voluntary preparation of eco-balances and environmental product declarations (EPDs) for its entire product range.

All ceramic pipes and fittings produced by Steinzeug-Keramo as well as selected Semmelrock product lines have been certified according to the Cradle to Cradle® concept. This means that our products need not be disposed of as waste at the end of their useful life, but can be returned into the production cycle as feedstock for new products. Regular re-certification ensures a continuous improvement of the products according to the Cradle to Cradle® principles.

#### Results of our 2014 Materiality Analysis

At Group level, the following aspects relating to our products, their useful life and their "end-of-life" disposal were identified as material:

- > Innovative and durable products
- > Recyclability, recycling and re-use of products
- > Sustainability in construction and demolition
- > Ease of installation
- > Renewable energy for buildings
- > Contribution to the energy efficiency of buildings

#### **Innovative Products**

Products, system solutions or processes that represent an improvement over earlier versions or add to the diversity of the product range qualify as innovative. In a continuous effort up to 2015, the business units elaborated their own definitions of the innovative character of their products and system solutions in line with current market requirements, which facilitates Group-wide comparisons. These definitions refer to properties identified as material by our



stakeholders, depending on the type of product or system solution. Durability, recyclability, recycling and re-use, contributions to energy efficiency, climate protection and the preservation of the cultural heritage, as well as cost efficiency and ease of installation, are considered to be of material importance. In 2016, innovative products and

system solutions accounted for 27% of the Group's total revenues. The specific quantitative targets of the individual business units regarding the contribution of innovative products and system solutions to revenues, as well as the results for 2016, are show in the following overview.

Targets for the contribution of innovative products to revuenes	Period	2015 in %	2016 in %	
Clay Building Materials Europe: 25%	Every year	27	26	These innovations include new products and system solutions that are durable and cost-efficient, contribute to the energy efficiency of buildings and to climate protection, ensure security and health for users of the buildings, facilitate correct planning, are easy to use and well-suited for an interesting architectural design.
North America: 50%	2017	46	49	The definition agreed upon in 2016 includes product innovations and system solutions that facilitate compliance with the new energy standards (International Energy Conservation Code, IECC), offer a higher level of energy efficiency and are well-suited for the construction of tornado-proof houses.
Pipelife: 20%	Every year	21	20	The definition includes product innovations that represent either a completely new development or a significant improvement of an existing product as regards the production process, cost-efficiency, technical properties or ecological advantages.
Semmelrock: 30%	Every year	39	37	The definition includes product innovations that offer an added value for customers on account of their cost-efficiency, their technical properties and their ecological advantages, such as water-permeable paving systems for unsealed surfaces.
Steinzeug-Keramo: 35%	Every year	41	39	The definition includes recently introduced products (e.g. Kerapro shafts), products for particularly innovative applications (e.g. jacking pipes for trenchless installation), particularly sustainable products in terms of energy efficiency and climate protection (e.g. climate-neutral pipes).

The targets of the individual business units and the measures relating to innovative products are presented in the following section, with a special focus on product properties identified as material.

#### Targets and Measures Relating to Products

The following targets and measures were defined by the Managing Board of Wienerberger AG and the management

of the individual business units on the basis of the materiality matrix developed in 2014. They are part of the Wienerberger Sustainability Roadmap 2020.

The data on North America do not include the North American production site of Pipelife. All data on Pipelife include Pipelife's production site in North America.



#### Innovative and durable products

#### Clay Building Materials Europe

#### **Quantitative target**

> The percentage of innovative products is to be maintained at 25% through continuous product development and market launches.

#### 2016

- Innovative products accounted for 26% of the business unit's revenues.
- Product improvements were made and further innovation management measures were implemented. Customers were involved in these processes and life cycle analyses were performed. The processes included strategic reviews, innovation workshops, activity reports and the documentation of the respective projects.

#### 2017

> The product improvement and innovation management processes will be further advanced.

#### North America

#### **Quantitative target**

> The percentage of innovative products is to be increased to 50% in 2017 through continuous product development and market launches.

#### 2016

- > Innovative products accounted for 49% of the business unit's revenues.
- The lighthouse project focused on the construction of tornado-proof homes was completed in Tuscaloosa/Alabama in cooperation with Habitat for Humanity.

#### 2017

> Potential local partners for cooperation on a further lighthouse project near Nashville are being evaluated.

#### Pipelife

#### **Quantitative target**

The percentage of innovative products is to be maintained at no less than 20% of the business unit's revenues through continuous product development and market launches.

#### 2016

- > Innovative products accounted for 20% of the business unit's revenues.
- > Research and development projects aimed at product optimization as well as further innovation management measures were implemented.

#### 2017

> The activities described above are being continued.



#### Innovative and durable products

#### Semmelrock

#### **Quantitative target**

> The percentage of innovative products is to be maintained at 30% of the business unit's revenues through continuous product development and market launches.

#### 2016

- > Innovative products accounted for 37% of the business unit's revenues.
- > The further development of water-permeable paver systems for unsealed surfaces was actively pursued. Examples include ecological paver systems with wide water-permeable joints that allow water to seep easily into the ground.

#### 2017

- > Product solutions for water-permeable surfaces will be rolled out, the first step being the market launch of ASTI Breite Fuge in Hungary.
- > The newly developed surface treatment system, combined with an optimized application technology, will be rolled out to the local companies.

#### Steinzeug-Keramo

#### **Quantitative target**

> The percentage of innovative products is to be maintained at 35% of the business unit's revenues through continuous product development and market launches.

#### 2016

- > Innovative products accounted for 40% of the business unit's revenues.
- > A new innovation process was implemented in cooperation with an external partner.

#### 2017

> Work on the innovation process is being continued.

#### Recyclability, Recycling and Re-use

#### Clay Building Materials Europe

#### 2016

Various possibilities of using recycled brick material were evaluated within the framework of a pilot project carried out in cooperation with the Vienna University of Natural Resources and Life Sciences.

- > The research and development project will be completed.
- > Further measures will be defined on the basis of the results of the aforementioned research and development project.



#### Recyclability, Recycling and Re-use

#### North America

#### 2016

- > Work on the optimization of the closed resource cycle was continued.
- > New possibilities of using secondary raw materials as additives were tried out.
- > More packaging material was recycled.
- > The sale of products in "bulk bags" (stable, re-usable containers) instead of paper bags was rolled out.

#### 2017

- > The aforementioned measures are being continued and their implementation will be evaluated at plant level and by the regional management.
- Cooperation with suppliers will focus on packaging efficiency and the recycling of packaging material.
- > A supplier guideline will be elaborated to promote the re-use and/or recycling of packaging material.
- > An internal initiative will be aimed at identifying the causes of waste and reducing the volume of waste generated.

#### Pipelife

#### **Quantitative target**

**>** By 2020, the amount of recycled material per ton of products produced is to be increased to 70 kg.

#### 2016

- > Research projects were carried out to establish the optimum percentages of primary and secondary plastic materials to be used in Pipelife products.
- The technical feasibility of using recycled material was further investigated and production sites suited for implementation were identified.

#### 2017

> The research projects are being continued and the results will be put into practice at additional production sites.



#### Recyclability, Recycling and Re-use

#### Semmelrock

#### 2016

- > The recycling potential in the various product groups was analyzed.
- On the basis of the results obtained, possibilities of substitution in the company's product range were evaluated.

#### 2017

- > Studies on the possibility of using secondary raw materials without compromising quality are being continued.
- > The substitution of recycled material for primary raw materials, e.g. in road construction, will be further optimized.
- > The re-certification of ARTE interlocking pavers according to the Cradle to Cradle concept is being prepared. The ARTE product family comprises a selection of pavers in various formats, 8 and 10 cm high, with an integrated interlocking system designed especially for surfaces under high traffic load that prevents shifting and deformation.

#### Steinzeug-Keramo

#### 2016

- ➤ All the necessary measures were taken to obtain the scheduled Cradle to Cradle® re-certification.
- The percentages of internal and external secondary raw materials used in production were evaluated for all production lines. Currently, the average percentage of secondary raw materials used is 40%. This value is subject to continuous evaluation on the basis of ecological, technological and economic criteria.

#### 2017

Additional possibilities of improving material properties while increasing the recycling rate as much as possible are being evaluated.

#### **Ease of installation**

#### Clay Building Materials Europe

#### 2016

- Intensive efforts were made to develop new products and/or system solutions to speed up and facilitate masonry work and to minimize the risk of mistakes made at the construction site.
- > Special analog and digital planning tools as well as personal support services were provided to familiarize architects and designers with the best possible way of using brick products.

#### 2017

The solutions available for the applications described above will be further improved and upgraded.



#### **Ease of installation**

#### Semmelrock

#### 2016

- > The safe use of products for their respective applications was supported by a CAD design service for private, commercial and public projects, and the design of tailor-made public spaces was facilitated.
- > The process of setting pavers at the construction site was facilitated through product optimization.

#### 2017

- > Additional visualization tools are being developed for optimum application of the products supplied.
- > Slabs and pavers in large formats are being developed and products requiring a high level of application know-how are being optimized.
- > Work on product optimization to facilitate setting is being continued.

#### Pipelife

#### 2016 and 2017

> For years, Pipelife has been working on solutions that facilitate the installation and use of plastic pipe systems. This issue will remain at the focus of Pipelife's research and development activities.

#### Renewable energy for buildings

#### Pipelife

Renewable energy for buildings is an important topic for Pipelife.

#### 2016

Pipelife's range of geothermal products was broadened and the related revenues increased.

#### 2017

> The range of such products available will be further extended.



#### Contribution to the energy efficiency of buildings

#### Clay Building Materials Europe

#### 2016

- The development of clay blocks filled with insulating material was advanced, especially for use in multi-story residential buildings.
- High thermal insulation clay blocks without infill material but with a special hole geometry were further developed, both for use in single-family homes and for non-load-bearing infill masonry.
- New facing brick formats for multi-layer exterior walls were introduced to permit the use of more efficient and thicker insulating material without increasing the wall thickness.
- > Special solutions for upon-rafter insulation of pitched roofs were included in the delivery program.

#### 2017

> The solutions available for the applications described above will be further optimized and upgraded.

#### North America

#### 2016 and 2017

North America is continuously working on the development of new products and system solutions that facilitate compliance with the new energy standards (International Energy Conservation Code, IECC) and offer a higher degree of energy efficiency.

#### Pipelife

#### 2016

- > The product portfolio for heating and cooling systems for buildings was enlarged.
- Pipelife continuously optimized and enlarged the range of planning tools that can be used to measure the heat loss and the heat requirements of individual residential units and entire buildings as a basis for the design of more efficient heating systems.

#### 2017

> The range of products available for these applications will be further enlarged.



# Social and Societal Commitment



# Social and Societal Commitment



#### **Principles**

Wienerberger views the economy as an integral part of society that has the obligation to serve people and create value for all. Wienerberger takes its role as a responsible member of society very seriously. For us, this responsibility encompasses the observance of ethical principles in all our actions, honest communication, active involvement in the creation of a transparent economic environment, personal accountability for what we do, and acting as a reliable and useful member of society.

#### Results of our 2014 Materiality Analysis

In the course of a differentiated analysis of the impact of our various fields of production on society, business ethics and compliance were identified as aspects of material importance that are equally relevant to all operating segments. Details relating to these issues are contained in the chapter "Management Approach", which also outlines our quantitative targets and the corresponding measures.

#### Social Commitment and Donation Activites

As a supplier of building material and infrastructure solutions, we want to use our products and our know-how to the greatest possible benefit of society. We continuously support a large number of social projects and organizations in almost all the countries we operate in. In accordance with the Wienerberger donations guideline, we support people in need in a targeted manner through product donations. We are convinced that we can help best in our fields of core competence, i.e. through the provision of solutions in the fields of building materials and infrastructure and the transfer of sustainable building know-how.

Wienerberger has organized and financed the Wienerberger Sustainable Building Academy (WISBA) since 2013, the objective of the program being to support students of architecture and construction engineering through practice-related training in sustainable building. This international training program expired in 2015. Currently, a revised version of the Wienerberger donations guideline is being elaborated, in which the issue of training will continue to play a central role.

We regard affordable housing as a fundamental human right. In 2012, Wienerberger therefore began to cooperate with Habitat for Humanity, an international non-profit organization (NPO) focusing on the provision of housing for people in need. Up to and including 2016, we built homes for almost 170 families unable to afford decent housing and contributed toward improving living conditions for another 1,400 people (e.g. through the construction of schools or social centers). Based on a new cooperation agreement concluded between Wienerberger and Habitat for Humanity in 2015, our cooperation will be prolonged until 2018. The scope of our cooperation has been extended in both geographic and material terms, with our activities now covering five countries (Romania, Bulgaria, Hungary, Poland and the USA).

Besides product donations for lighthouse projects, such as tornado-proof homes in the USA, joint events were organized with Habitat for Humanity. The objective was to make politicians as well as public authorities aware of the importance of social housing (through the organization of "housing forums"). Moreover, another cooperative volunteering campaign was organized, with Wienerberger employees helping on site and providing hands-on assistance in the construction of houses. This form of cooperation is to be continued in the future.

Wienerberger also renders instant and non-bureaucratic assistance in the event of natural disasters, for instance after the catastrophic floods that devastated large parts of South-Eastern Europe in 2014. In cooperation with Caritas Switzerland, a humanitarian organization with many years of experience in the construction of homes for victims of the civil war in the region, Wienerberger erected about 30 houses in Bosnia-Herzegovina and donated clay blocks, roof tiles and installation pipes for this project. In addition, Wienerberger supported a number of other reconstruction projects. Altogether, the Wienerberger Group donated water and sewage pipes for 40 houses, clay blocks for 45 houses and roof tiles for 89 houses.

Our commitment to social causes will remain strong in the years to come, and we will be making every effort to live up to our claim to be a valuable member of society and to create value for all.



# **About this Report**

#### Reporting Profile

Wienerberger reports once a year on the Group's non-financial indicators. In accordance with past practice, publication of a full Sustainability Report alternates with a concise update presenting the most essential facts and figures. The 2015 Sustainability Update was published in June 2016. The 2017 Sustainability Update will be published in June 2018.

This Sustainability Report covers Wienerberger's activities in 2016. The figures contained in this report also refer to the years 2014 and 2015 to show a three-year trend. The report focuses on the ecological and social aspects of Wienerberger's activities and their impact on society. For more detailed information on Wienerberger's economic performance, its organizational profile and its corporate governance structure, please refer to the 2016 Annual Report (www.annualreportwb.com/en/).

This report covers the fully consolidated subsidiaries of the Group with operations in the wall, roof, façade, ceramic pipe, plastic pipe and concrete paver product groups. A list of all companies covered by the consolidated financial statements is contained in the 2016 Annual Report of Wienerberger. Sustainability reporting follows the scope of consolidation of the Wienerberger Group, but includes Tondach Gleinstätten only from the reporting year 2015. The majority of Tondach Gleinstätten, the leading producer of clay roof tiles in Central and Eastern Europe, was taken over in July 2014 and is now part of the Clay Building Materials Europe (CBME) Division of the Wienerberger Group. As the structures required for the collection of non-financial indicators first had to be integrated in the course of 2014, the indicators and activities of Tondach Gleinstätten are not yet included in

the data for 2014. Deviations from the reporting scope are indicated in the respective sections. Moreover, the data presented in the chapter "Production" only refer to our production sites, whereas all other data include all sites of the Wienerberger Group. For details on the scope of consolidation and the segmentation of the Wienerberger Group, please refer to Wienerberger's Annual Report.

The topics and key indicators presented in the report were elaborated by subject-specific working groups in cooperation with the Corporate Sustainability Officer. The decisions were taken by the Wienerberger Sustainability Steering Committee (SSC).

This Sustainability Report was prepared in accordance with the current G4 guidelines of the Global Reporting Initiative (GRI), "core option".

The data presented in this Sustainability Report are based primarily on internal statistics. Important topics were validated by an independent external auditor. In the year under review, the audit focused on facts and figures regarding occupational safety, health, employee turnover, energy consumption and emissions. The audit also covered the underlying sustainability management system and the processes employed to collect data and to implement the sustainability strategy.



# **GRI G4 Content Table**

#### General standard disclosures

	Indicator	Page in Sustainability Report	Part of external assurance	UN Global Compact Principles
	Strategy & Analysis			
1	Statement from the most senior decision-maker of the organization	6–8		
	Organizational Profile			
3–9	Name, headquarters, scale, legal form, brands and products, locations and markets	9–13, 25, Annual Report 96–97		
10–11	Total number of employees by employment contract, gender, supervised employees, regions and any significant variations in employment numbers	41–43, 50–51		
12	Description of supply chain	25–27		
13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	no significant changes		
14	Handling of precautionary approach or principle addressed by the organization	16, 100		UNGC 7
15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes	16, 21, 96–100		
16	Memberships of associations (such as industry associations)	21, 90		
	Identified Material Aspects and Boundaries			
17	List of all entities included in the organization's consolidated financial statements	91, Annual Report 180		
18–21	Process for defining the report content, material aspects, aspect boundaries inside and outside of the organization	25–32, Website, Materiality Analysis 2014	2014	
22–23	Restatements of information provided in previous reports, and the reasons for such restatements	59 and mentioned in the footnotes of respective indicators		
	Stakeholder Engagement			
24–27	List of stakeholder groups engaged, basis for identification of stakeholders, organization's approach to stakeholder engagement and topics that came up during the stakeholder process	19–21, 28–29, Materiality Analysis 2014		
	Report Profile			
28–30	Reporting period, date of most recent previous report and reporting cycle	91		
31	Contact point for questions regarding the report or its contents	100		
32	Report of the "in-accordance"-option, GRI-index of the selected option, reference to the external audit report	91		
33	Policies of the organization regarding external audit of the report, scope of audit and relationship to audit company	91, 101–102		
	Governance			
34	Governance structure of the organization, including committees responsible for decisions regarding the economic, ecological and social impact	21–22, Website, Annual Report 48–67	2014	
	Ethics and Integrity			
56	Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	16–18		



25, 65, 73, 76–77

25, 29

#### Specific standard disclosures

 $DMA \quad Disclosure \ on \ management \ approach$ 

EN33

Significant actual and potential negative environmental impacts in the supply chain and actions taken  $\,$ 

	Indicator	Page in Sustainability Report	Part of external assurance	UN Global Compact Principles
	Economic Performance			
	Aspect: Economic Performance			
DMA	Disclosure on management approach	9–10		
EC1	Direct economic value generated and distributed	11		
EC3	Coverage of the organization's defined benefit plan obligations	Annual Report 144–147		
	Aspect: Indirect Economic Impacts			
EC7	Development and impact of infrastructure investments and services supported	90		
	Environment			
	Aspect: Materials			UNGC 7, 8, 9
DMA	Disclosure on management approach	19, 58, 71–75		
EN2	Percentage of materials used that are recycled input materials	64–65, Website, Materiality Analysis 2014		
	Aspect: Energy			UNGC 7, 8, 9
DMA	Disclosure on management approach	19, 58–62, 67–68	yes	
EN3	Energy consumption within the organization	60	yes	
EN5	Energy intensity	61–62	yes	
EN6	Reduction of energy consumption	60–62		
	Aspect: Water			UNGC 7, 8, 9
DMA	Disclosure on management approach	19, 66, 72		
EN8	Total water withdrawal by source	66		
	Aspect: Emissions			UNGC 7, 8, 9
DMA	Disclosure on management approach	19, 58–59, 62–64, 69–70	yes	
EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	63	yes	
EN18	Greenhouse gas (GHG) emissions intensity	63–64	yes	
EN19	Reduction of greenhouse gas (GHG) emissions	63–64		
	Aspect: Products and Services			UNGC 9
DMA	Disclosure on management approach	80–87		
EN27	Extent of impact mitigation of environmental impacts of products and services	80–87		
	Aspect: Supplier Environmental Assessment			UNGC 7, 8



# **GRI G4 Content Table**

#### General standard disclosures

	Indicator	Page in Sustainability Report	Part of external assurance	UN Global Compact Principles
	Labor practices and decent work			
	Aspect: Employment			UNGC 3, 4, 5, 6
DMA	Disclosure on management approach	18–19, 40		
LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	41–43, 50–51 Detailed reporting fully in line with GRI requirements is currently not possible. The adaptation of the according reporting is in progress.		
	Aspect: Occupational Health and Safety			
DMA	Disclosure on management approach	18–19, 40, 43–46	yes	
LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	44–46  Detailed reporting fully in line with GRI requirements is currently not possible.  The adaptation of the according reporting is being evaluated.	yes	
LA7	Workers with high incidence or high risk of diseases related to their occupation	46		
LA8	Health and safety topics covered in formal agreements with trade unions	47		
	Aspect: Training and Education			
DMA	Disclosure on management approach	18–19, 48–49		
LA9	Average hours of training per year per employee by gender, and by employee category	48–49 Detailed reporting fully in line with GRI requirements is currently not possible. The adaptation of the according reporting is being evaluated.		
	Aspect: Diversity and Equal Opportunity			UNGC 6
DMA	Disclosure on management approach	18–19, 48–49		
LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	50–51, Annual Report 49		
	Human rights			
	Aspect: Non-discrimination			UNGC 6
DMA	Disclosure on management approach	18–19, 49		
HR3	Total number of incidents of discrimination and corrective actions taken	49		



#### General standard disclosures

	Indicator	Page in Sustainability Report	Part of external assurance	UN Global Compact Principles
	Human rights			
	Aspect: Assessment			UNGC 1, 2
DMA	Disclosure on management approach	Website, Materiality Analysis 2014		
HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	Reporting fully in line with GRI requirements is currently not possible. The adaptation of the according reporting is being evaluated.		
	Society			
	Aspect: Local Communities			
DMA	Disclosure on management approach	Website, Materiality Analysis 2014		
SO2	Operations with significant actual or potential negative impacts on local communities	Website, Materiality Analysis 2014		
	Aspect: Anti-corruption			UNGC 10
DMA	Disclosure on management approach	16–18		
SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	18		
SO5	Confirmed incidents of corruption and actions taken	18		
	Aspect: Anti-competitive Behavior			
DMA	Disclosure on management approach	16–18		
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	17		
	Aspect: Compliance			
DMA	Disclosure on management approach	16–18		
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	17–18		
	Aspect: Supplier Assessment for Impacts on Society			UNGC 1, 2
DMA	Disclosure on management approach	25, 76–77		
SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	Reporting in line with GRI requirements is currently not possible. In almost all our business areas, minimum standards have been laid down in "supplier codes of conduct", which have to be signed and complied with by suppliers upon conclusion of a contract.		

Note: The Annual Report as well as the Sustainability Analysis 2014 can be found on the Wienerberger Website (www.wienerberger.com)



# UN Global Compact: Communication on Progress 2016

The activities of big industrial companies, such as Wienerberger AG, have a strong impact on society and the environment. Such companies therefore bear a special responsibility and should act in an exemplary manner. The minimum standards to be complied with include, above all, the principles of the UN Global Compact regarding human rights, labor standards, environmental protection and the fight against corruption<sup>1)</sup>. Through its accession to the UN Global Compact in 2003, Wienerberger officially committed to the ten principles and undertook to foster their implementation within the framework of the company's possibilities. Once a year, we report on progress achieved in this respect.

The 2016 Communication on Progress in respect of the Global Compact forms part of our 2016 Sustainability Report. In order to ensure maximum transparency and to make it easier for our readers to find the individual examples, we have aggregated the most important statements on the ten principles and, in addition, marked the corresponding indicators in the GRI Index and added references to the pages concerned.

# Global Compact Principles – Human Rights Principles 1 und 2

Businesses should support and respect the protection of internationally proclaimed human rights, and make sure that they are not complicit in human rights abuses.

#### Commitment

Within its sphere of influence, Wienerberger guarantees the protection of basic human rights. By adopting the Wienerberger Social Charter, Wienerberger committed itself to comply with the conventions and recommendations of the International Labor Organization (ILO). This includes providing safe and healthy working conditions. The safety of its employees is a matter of top priority for Wienerberger.

#### Progress in 2016

The long-term target pursued by the Wienerberger Group is to reduce the number of accidents to zero. Through the Group-wide Wienerberger Safety Initiative, uniform safety standards were implemented in 2010. In 2014, these were upgraded for the entire Wienerberger Group and activities within the framework of the Safety Initiative were stepped up in order to minimize the frequency and severity of accidents. Every occupational accident is analyzed by the business unit concerned; core aspects of occupational safety and individual initiatives are evaluated annually. The accident frequency within the Wienerberger Group was reduced from 8 occupational accidents per million hours worked in 2015 to 6.5 in 2016, which corresponds to a reduction by 18.4%. Accident severity, expressed in accident-related sick-leave days per million hours worked, dropped significantly by 15.5% from 209 in 2015 to 177 in 2016. Despite our efforts, one fatal occupational accident each occurred in the Wienerberger Group and in a 50% subsidiary of Wienerberger's. We deeply regret these accidents. We have further intensified our efforts to improve the safety of our employees.

As in the previous year, targeted measures were taken by each business unit in 2016 in order to further increase the level of safety for our employees. These measures are described in detail on pages 45 to 46 of the Wienerberger Sustainability Report. Going beyond the Group-wide safety standard, each business unit has implemented its own safety programs:

#### Clay Building Materials Europe (CBME)

- > CBME's Safety Management Department centrally coordinates the implementation of the Safety Roadmap as well as the Safety Alert and Safety Award programs and monitors compliance with the safety standards.
- > Health & Safety Standard with division-specific minimum requirements regarding occupational safety and health protection



- Safety Roadmap, a binding plan of action to increase occupational safety
- Safety Alert: A standardized process of dealing with occupational accidents at all CBME production sites, documenting and communicating the cause of the accident, how it occurred and which measures were taken as a result
- > Safety Award: A distinction awarded for outstanding performance in the field of safety
- Accident reduction targets serve as input factors for establishing the variable salary components of managing directors and plant managers.

#### North America

- At local level, a safety officer has been appointed for each plant.
- Monthly meetings on safety issues are held, which also clarify the reporting format between top management and the local management.
- Safety targets to be reached within two years are defined for each production site.
- > Communication on safety issues

#### **Pipelife**

- > Responsibility for implementation of Pipelife's safety program lies with the Manufacturing Excellence Officer.
- Programs aimed at observing employee behavior:
   Behavior Observation Program (BOP), Lock-out/
   Tag-out (LOTO) and 5 S (method to keep workplaces and their environment clean, safe and tidy)
- > 2016 safety awareness campaign "Take Care"
- Safety app for early detection of potential hazards and for safety monitoring at the workplace
- > Zero Accident Club with Safety Award: A distinction awarded to local companies, depending on the number of accident-free months, and for special efforts in the field of safety
- Safety audits in the plants performed by specially trained employees from other local companies with regularly alternating assignments
- > Safety Call: Thorough analysis of every accident resulting in sick leave within the framework of a telephone conference with all managing directors of the local organizations, leading to the identification of preventive measures for other production sites; the

- Pipelife Safety Portal, an online platform that can be accessed by all employees who have an email account, serves as a work and information platform.
- > Extensive industry benchmarking and exchange of experience within TEPPFA (The European Plastic Pipe and Fittings Association)

#### Semmelrock

- > Laboratory International coordinates the safety activities, supports awareness building among all employees through initiatives and training programs focusing on the observance of safety standards and measures to increase plant and equipment safety, and reviews implementation of the safety strategy.
- "Safety@Semmelrock" using of the "Accident Investigation Report Semmelrock" (AIRS document) to centrally document, analyze and communicate all accidents and/ or incidents
- "Safety Book" listing the principles of occupational health and safety
- "Safety Day" for the exchange of information among plant and engineering managers
- "Safety Culture" for the implementation of mission statements, award of premiums, and use of visual aids by the local companies
- Technical safety optimization and risk analyses of production facilities

#### Steinzeug-Keramo

- Responsibility for safety at Steinzeug-Keramo lies with the Safety Board, which is chaired by the Head of Operations and comprises plant managers, works council members and experts.
- ➤ Steinzeug-Keramo implemented the DuPont<sup>TM</sup> STOP® (safety training observation program) in 2016 and organized training programs at all production sites, also for the management. Occupational safety counts for the attainment of variable remuneration targets of plant managers.
- > Plant optimization measures
- Initial and further training sessions on occupational safety and hazard prevention, including specific safety instructions targeted at individual workplaces



Health is a human right. Wienerberger therefore ensures safe and healthy working conditions at all its production sites. In 2016, the average number of sick-leave days per employee at Group level (excluding the North America Division, as its figures are not comparable with those of the other divisions of the Group due to local legal provisions) increased slightly to 9.6 from 9.1 in the previous year. Prevention plays an important role in health promotion. Besides its regular health screening programs, Wienerberger therefore ensures that company physicians are available to all its employees and offers ergonomic workplace analyses as well as individual health and fitness programs. In North America, all full-time employees are covered by additional health insurance, the scope of which exceeds that of the Affordable Care Act (ACA) in some respects.

Being aware of its responsibility for the health and well-being of its employees, Wienerberger for years has been making every effort to minimize their exposure to potentially hazardous substances. In 2015, particulate matter measurements were performed at 98% of all ceramic plants of the Wienerberger Group. Thus, the Group-wide target of rolling out particulate matter measurements to at least 95% of all Wienerberger ceramic plants by 2020 was reached ahead of schedule.

## Global Compact Principles – Labor Standards Principles 3, 4, 5 and 6

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced and compulsory labor; the effective abolition of child labor; and the elimination of discrimination in respect of employment and occupation.

#### Commitment

Zero tolerance of child labor and discrimination is an absolute must for Wienerberger. Even before its accession to the UN Global Compact in 2003, Wienerberger committed itself, by signing the 2001 Social Charter, to ensure that employment and working conditions throughout the Group comply with national legislation and/or are based on collective bargaining agreements as a minimum standard. Thus, Wienerberger operates in accordance with the recommendations of the Inter-

national Labor Organization (ILO). Besides adequate and safe working conditions, fair remuneration and the right of assembly and collective bargaining are high priorities for us. In our effort to combat discrimination in recruitment and employment, we consider it essential to offer our female employees an attractive working environment and the same opportunities as their male colleagues. At the same time, we want to make sure that our male employees benefit from the same flexible solutions that enable them to reconcile work and family obligations as their female colleagues.

#### Progress in 2016

In 2016, 73% of all Wienerberger employees were covered by a collective bargaining agreement, the percentage being the same as in 2015.

Companies with a primary focus on the production of building materials traditionally have a high percentage of male employees. In 2016, the number of new entrants was 1,970, i.e. 208 more than in 2015. The number of women among the new entrants rose from 234 to 274, the number of men from 1,528 to 1,696. The percentage of women among the new entrants increased from 13.3% to 13.9%. As at 31/12/2016, the total percentage of women employed by the Wienerberger Group was 13.6%, i.e. slightly above the previous year's value (+0.1%). The percentages of women in the individual functional areas remained almost unchanged compared to the previous year. In 2016, 12% of senior management positions were held by women, a significant increase over the previous year's value of 8%. We continued to adhere to our policy of giving preference to women for new appointments to senior management and executive positions, provided the candidates' qualifications were equal. One specific measure to increase the number of women in senior management and executive positions at Wienerberger is to enable women to embark on suitable career paths at an early point in time.

The reconciliation of work and family life is an issue of special concern to Wienerberger. We therefore offer our employees the possibility of working part-time. This offer is being taken up by a growing number of female as well as male employees. The percentage of Wienerberger employees working part-time increased slightly from 3.4%



in 2015 to 3.5% in 2016. The percentage of women in part-time employment amounted to 16.8% in 2016, up from 15.3% in 2015, while the percentage of men working part-time decreased slightly from 1.5% in 2015 to 1.4% in 2016.

## Global Compact Principles – Environmental Protection

#### Principles 7, 8 and 9

Businesses should support a precautionary approach to environmental challenges; undertake initiatives to promote greater environmental responsibility; and encourage the development and diffusion of environmentally friendly technologies.

#### Commitment

Our goal is to minimize the environmental impact of our production processes and our use of raw materials. A responsible way of operating our clay extraction sites, the best possible conservation of resources, and an increase in the percentage of recycled materials used: these are the central principles governing our production activity. We are well aware that industrial production processes always involve a certain degree of interference with the natural environment. Therefore, every effort must be made to minimize such interferences.

#### Progress in 2016

Specific energy consumption and specific CO, emissions are two of the essential indicators of environmentally friendly production technologies. Wienerberger has set itself the target to reduce these parameters by 20% each in ceramic production by 2020, as compared with 2010. In 2016, the Wienerberger Group's total energy consumption was reduced by 0.5% through consistent efforts made to optimize production throughout the Group. The share of renewable energy sources in the consumption of electric energy, expressed in kWh/ton, increased to a satisfactory 31%, as compared with 27% in 2015. In 2016, specific energy consumption dropped by 1.3% from the previous year's level in the Wienerberger Group as a whole and by 2.4% in ceramic production. Continuous efforts are being made by Wienerberger to convert its production processes to low-emission energy sources, which had a positive impact on the volume of CO<sub>2</sub> emissions, as compared to the previous year. The

index of specific  $\mathrm{CO}_2$  emissions from primary energy sources in kg  $\mathrm{CO}_2$  per ton of ceramic products produced was reduced by 3.3%, as compared to the previous year. This trend was seen in almost all areas of ceramic production. Specific  $\mathrm{CO}_2$  emissions from primary energy sources dropped more strongly (-3.3% as compared to 2015) than specific energy consumption in ceramic production (-2.4%). This is due to the consistent downward trend in the use of  $\mathrm{CO}_2$ -intensive energy sources, such as coal and fuel oil, and the conversion to natural gas. Pipelife has set itself the target to reduce the volume of specific indirect  $\mathrm{CO}_2$  emissions (primarily from the consumption of electricity) in production by 20% from the level reported in 2010. In 2016, Pipelife's indirect  $\mathrm{CO}_2$  emissions were 17% below the reference value of 2010.

Specific water consumption is another indicator of the use of environmentally friendly technologies. Wienerberger regrets to report that no progress was achieved in this area in 2016. In the production of ceramic pipes, the higher percentage of ground products resulted in higher specific water consumption (+15%). The increase of specific water consumption in the production of plastic pipes (+8%) was due to singular events, such as water leakages from cooling circuits and the refilling of another cooling circuit in the course of maintenance operations. The product mix also has an influence on specific water consumption in plastic pipe production. Specific water consumption from public networks for plastic pipe production only accounted for 15.8% of specific total water consumption for this product group. Water from sources other than public networks (e.g. water from rivers, lakes and, in Scandinavia, the sea) is returned to the environment after the cooling process in accordance with legal provisions and, thus, does not count as consumption in the true sense of the term. Pipelife's target is to reduce its consumption of water from public networks to 0.55 m<sup>3</sup> per ton of products produced by 2020.

Wienerberger is making a continuous effort to increase resource efficiency in production and, at the same time, further improve the properties of its products. Our particular focus is on reducing raw material consumption and using secondary raw materials in those areas of production where it is economically and technically feasible. We are also working on a continuous reduction of

scrap rates and the recycling of production waste and residual materials into production. Semmelrock's target for 2017 is to reduce its scrap rate by 50% compared to the reference value from 2014.

As part of its commitment to the precautionary principle in dealing with environmental problems, Wienerberger has for years been working intensively on the voluntary preparation of eco-balances and environmental product declarations (EPDs) for its entire product range. All ceramic pipes and fittings produced by Steinzeug-Keramo as well as selected Semmelrock product lines have been successfully certified according to the Cradle to Cradle® concept.

# Global Compact Principles – Fight against Corruption

#### Principle 10

Businesses should work against corruption in all its forms, including extortion and bribery.

#### Commitment

Wienerberger is committed to fair and free competition; this implies a firm stance against any form of corruption. We have always pursued the target of zero incidents of corruption and expect all our employees to act accordingly.

#### Progress in 2016

No charges for suspected corruption were brought against Wienerberger in 2016, nor were any penalty payments imposed. No negative findings were reported by the competent supervisory authorities. Wienerberger expects all employees of the Wienerberger Group to act in full compliance with the law. Any infringement constitutes a breach of duty. Should a suspicion of unlawful behavior be confirmed, the employee concerned will be sanctioned under labor law or civil law, depending on the extent of damage caused.

In 2016, internal audits were performed in 19 companies, with a special focus on organization, purchasing, materials management, sales and human resources, as well as corruption and anti-trust legislation. Another priority

was compliance with the Group-wide standards on health and safety. In the course of these audits it was found that all internal guidelines had been implemented in the companies audited and the employees concerned had been informed accordingly. Deviations from the guidelines, if any, were reported to the Managing Board and the Audit Committee, and the necessary measures, such as improvements in documentation, were agreed upon with the respective local management.

# Global Compact Principles – Implementation in the Supply Chain

Wienerberger increasingly monitors complance with the principles of the Global Compact also along its supply chains. Pipelife's suppliers, for instance, have for some time been obliged to comply with the "Pipelife Supplier Code of Conduct" (www.pipelife.com/media/com/about\_pipelife/Supplier\_Code\_of\_Conduct.pdf). In 2016, Semmelrock developed a "Supplier Code of Conduct", and the Clay Building Materials Europe Division (CBME) rolled out a comprehensive and binding "CBME Supplier Code of Conduct" to all local companies.

#### For further information:

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# Report on the independent limited assurance engagement in accordance with KFS/PG 13

#### To Wienerberger AG, Austria

In accordance with our agreed terms of engagement, we performed procedures to obtain limited assurance on selected information of the Sustainability Report 2016 of Wienerberger AG. This engagement is subject to the "General Conditions of Contract for the Public Accounting Professions" (AAB 2011) as amended February 21, 2011, issued by the Austrian Chamber of Public Accountants and Tax Advisors. Our liability towards the Company and also towards third parties is limited in accordance with Section 8 of the AAB 2011. We draw your attention to the fact that the English translation of this Report on the independent limited assurance engagement is presented for the convenience of the reader only and that the German wording is the only legally binding version.

#### Responsibility of the management

The preparation of the Sustainability Report 2016 in accordance with the criteria set out in the Sustainability Reporting Guidelines Vol. 4 of the Global Reporting Initiative ("GRI criteria")

- > Stakeholder inclusiveness
- > Sustainability context
- > Materiality
- > Completeness
- > Balance
- **>** Comparability
- > Accuracy
- > Timeliness
- > Clarity
- > Reliability

is the responsibility of the management of Wienerberger AG. This responsibility includes the selection and application of appropriate methods for preparing the Sustainability Report 2016, making assumptions and estimates of individual sustainability disclosures that are plausible under the given circumstances as well as designing, implementing and maintaining systems and processes, where relevant for the preparation of the Sustainability Report 2016.

#### Limitation of the scope of the engagement

Our responsibility is to give an assessment, based on our work, on whether anything has come to our attention that causes us to believe that the quantitative disclosures in chapter "Employees" on the GRI aspect of "Occupational Health and Safety" (Pages 43 to 44 and Page 46, GRI LA6) and "Employment" (Pages 40 to 43 and Page 50, GRI LA1) as well as in chapter "Production" on the GRI aspects of "Energy" (Pages 60 to 62, GRI EN3 and EN5) and "Emissions" (Pages 63 to 64, GRI EN15 and EN18) of the Sustainability Report 2016 have not been prepared in accordance with the GRI criteria as set out in the Sustainability Reporting Guidelines Vol. 4. Our review was limited to the headquarters in Vienna, operative audit procedures have additionally been conducted in a plant in Bad Fischau.

#### Responsibility of the independent auditor

We have performed our engagement in accordance with Expert Opinion KFS/PG 13 for assurance engagements. This standard requires us to comply with our professional standards and to plan and perform the engagement in a way that enables us to draw conclusions in accordance with KFS/PG 13.

#### **Engagement approach**

In a limited assurance engagement, the work performed is less extensive than in a reasonable assurance engagement and, therefore, less assurance is obtained. We performed our work, using appropriate random samples, based on our due judgement and to the extent required to obtain limited assurance. In the course of our engagement, we therefore obtained relevant evidence based on risk and materiality assessments in order to obtain this limited assurance on the compliance of the disclosures according to the scope of the engagement with the GRI criteria mentioned above. In doing so, our work performed at the headquarters of Wienerberger AG in Vienna, Austria, particularly included the following:

- Inspection of relevant documentation of the process for preparing the Sustainability Report 2016 as well as of existing documents and systems on the sustainability management and their sample testing.
- Interviewing employees materially involved in the preparation of the contents of the report from the departments Corporate Sustainability Management (CSO), Corporate Reporting, Controlling, Corporate Engineering, Human Resources and Corporate Management of Wienerberger AG in Vienna.
- > Telephone calls with data providers for Employment, Occupational Health and Safety and Energy from Semmelrock Austria and Semmelrock Poland.
- > Sample comparison for a selection of disclosures included in the Sustainability Report 2016 according to the scope of the engagement with centrally provided records by country organizations as well as any side calculations.

#### Conclusion

Based on our work, nothing has come to our attention that causes us to believe that the quantitative disclosures in chapter "Employees" on the GRI aspect of "Occupational Health and Safety" (Pages 43 to 44 and Page 46, GRI LA6) and "Employment" (Pages 40 to 43 and Page 50, GRI LA1) as well as in chapter "Production" on the GRI aspects of "Energy" (Pages 60 to 62, GRI EN3 and EN5) and "Emissions" (Pages 63 to 64, GRI EN15 and EN18) of the Sustainability Report 2016 have not, in any material aspects, been prepared in accordance with the criteria of stakeholder inclusiveness, sustainability context, materiality, completeness, balance, comparability, accuracy, timeliness, clarity and reliability of the Sustainability Reporting Guidelines Vol. 4 of GRI.

PwC Wirtschaftsprüfung GmbH Vienna, 29. June 2017

Dr. Aslan Milla Austrian Certified Public Accountant

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#### Remark

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