

wienerberger

# Building for People



Since 1819

## Quantitative targets of the Wienerberger Sustainability Roadmap 2020

Target definitions	Deadlines set	Performance			Status
		2016	2017	2018	
<b>Employees</b>					
<b>Safety of our employees</b>					
Group level: zero accidents	Every year	7	5	5	The accident frequency value* was reduced from 5.4 to 5.1, i.e. by almost 6%.
<b>Health of our employees</b>					
Group level: Percentage of ceramic production sites reporting core indicators on protection from exposure to respirable crystalline silica > 95%	2020	No data collected	98%	No data collected	The survey via NEPSI, the shared online platform (Negotiation Platform on Silica, <a href="http://www.nepsi.eu/de/nepsi">www.nepsi.eu/de/nepsi</a> ), is conducted every two years. Wienerberger is currently working independently on a new Group-wide standard for protection against respirable crystalline silica.
<b>Production</b>					
<b>Energy efficiency</b>					
North America <sup>1)</sup> : Reduction of natural gas consumption at selected production sites by 5% per site compared to 2015	2018	4%	4%	5%	The target for 2017 was extended by one year, as the complete conversion of all main production sites to natural gas as an energy source generating lower emissions naturally led to an increase in natural gas consumption.
Clay Building Materials Europe: Reduction of specific energy consumption in production by 20% compared to 2010	2020	10%	12%	13%	Compared to 2017, a further improvement by 1% (in absolute terms) was achieved.
PREVIOUS target for Pipelife <sup>2)</sup> : Reduction of specific energy consumption in production by 20% compared to 2010	2020	2%	-5%	-4%	The negative value indicates an increase. Specific energy consumption was 4% above the 2010 baseline. This is primarily attributable to the long-term trend towards lighter plastic pipe products with smaller diameters (which strongly influences the specific value, measured in tons of net additions to inventories).
<b>NEW</b> target for Pipelife <sup>2)</sup> : Reduction of specific energy consumption in production by 3% compared to 2010	2020	6%	0%	-1%	Starting from 2018, the target was redefined on account of changes in the product mix (see above). Our new target refers not only to electricity, but also to all other energy sources used.
<b>Climate action</b>					
Steinzeug-Keramo: Compensation of 5% of the annual CO <sub>2</sub> emissions generated in the respective plant through climate protection projects	2018	>5%	>5%	>5%	The target was achieved again in 2018.
Clay Building Materials Europe: Reduction of specific CO <sub>2</sub> emissions from primary energy sources by 20% compared to 2010	2020	2%	4%	6%	Irrespective of the success achieved in reducing specific CO <sub>2</sub> emissions, the target for 2020 is highly ambitious.
PREVIOUS target for Pipelife <sup>2)</sup> : Reduction of specific indirect CO <sub>2</sub> emissions from electricity in production by 20% compared to 2010	2020	17%	16%	11%	The reductions of specific indirect CO <sub>2</sub> emissions have been decreasing since 2016. This development is primarily attributable to the trend towards lighter plastic pipe products with smaller diameters (which strongly influences the specific value, measured in tons of net additions to inventories). We have therefore defined a new target.
<b>NEW</b> target for Pipelife <sup>2)</sup> : Reduction of specific indirect CO <sub>2</sub> emissions from electricity in production by 11% compared to 2010	2020	17%	16%	11%	Starting in 2018, we defined a new target taking account of changes in the product mix (see above).
<b>Water usage</b>					
PREVIOUS target for Pipelife <sup>2)</sup> : Reduction of specific water usage from public networks to 0.55 m <sup>3</sup> per ton of products produced	2020	0.81 m <sup>3</sup> /t	0.95 m <sup>3</sup> /t	1.02 m <sup>3</sup> /t	Specific water usage from public networks has been increasing since 2016. This development is primarily attributable to the trend towards lighter plastic pipe products with smaller diameters (which strongly influences the specific value, measured in tons of net additions to inventories). We have therefore defined a new target.
<b>NEW</b> target for Pipelife <sup>2)</sup> : Reduction of specific water usage from public networks to 0.85 m <sup>3</sup> per ton of products produced	2020	0.81 m <sup>3</sup> /t	0.95 m <sup>3</sup> /t	1.02 m <sup>3</sup> /t	Starting in 2018, we defined a new target taking account of changes in the product mix (see above).
<b>Resource efficiency and waste management</b>					
<b>NEW</b> target for Semmelrock: Reduction of the scrap rate to 2% by 2020	2020	3.1%	2.6%	2.1%	The previous target (-50% compared to 2014), which expired in 2017, was almost achieved. We have defined a new target to be reached by 2020, which provides for a reduction of the scrap rate by another 23% compared to 2017.

1) North America: excl. Pipelife production site. // 2) Pipelife: incl. the production site in North America until 2016. // \* Unit for accident frequency defined as follows: number of occupational accidents/number of hours worked x 1,000,000; including temporary and agency workers as well as employees under term contracts.

Target definitions	Deadlines set	Performance			Status
		2016	2017	2018	
<b>Products</b>					
<b>Innovative Products</b>					
Clay Building Materials Europe: 25% share of innovative products in revenues	Every year	26%	31%	31%	The target was surpassed.
North America: 50% share of innovative products in revenues	2018	49%	51%	51%	The target was achieved again.
Pipeline: 20% share of innovative products in revenues	Every year	20%	19%	17%	The target was missed, the percentage of total revenues being significantly below the previous year's level. This is attributable to the product development cycles in this product group. For 2019, we expect the share of innovative products in revenues to rise again.
Semmelrock: 30% share of innovative products in revenues	Every year	37%	38%	35%	The target was surpassed.
Steinzeug-Keramo: 35% share of innovative products in revenues	Every year	39%	42%	43%	The target was surpassed.
<b>Recyclability, recycling and re-use</b>					
PREVIOUS target for Pipeline <sup>2)</sup> : Increase of the amount of secondary raw material to 70 kg per ton of products produced	2020	65.4 kg/t	67.2 kg/t	75.02 kg/t	The target was achieved in 2018, i.e. two years earlier than planned.
NEW target for Pipeline <sup>2)</sup> : Increase of the amount of secondary raw material to a total of 85 kg per ton of products produced	2020	65.4 kg/t	67.2 kg/t	75.02 kg/t	The use of secondary raw material is particularly relevant in plastic pipe production. We have therefore further increased the target value and defined a new, ambitious target for 2020.
NEW target for Pipeline <sup>2)</sup> : Increase of the amount of exclusively external secondary raw material to 50 kg per ton of products produced	2020	23.7 kg/t	30.89 kg/t	39.18 kg/t	Additionally, we have introduced a clear differentiation between external and internal recycled materials and defined a supplementary target for the share of exclusively external secondary raw material. This corresponds to a 250% increase compared to 2020.
<b>Social responsibility</b>					
<b>Business ethics &amp; compliance</b>					
Group level: zero incidents of corruption	Every year	0	0	0	The target was achieved again in 2018.

*Our Sustainability Roadmap 2020 represents a conscious, self-imposed commitment to continuously improve our ecological, social, societal and economic performance along the entire value creation process of the Wienerberger Group (diagram on page 38/39).*

This process is based on four main **value chains**: bricks and tiles, ceramic pipes, plastic pipes and concrete pavers. Along these value chains, about **500 stakeholders** specified the aspects and challenges which they regard as most important for the Wienerberger Group and its impacts on society (detailed process description starting on page 37). The results of this **materiality analysis** were aggregated in a Group-wide **materiality matrix**, published for the first time in our 2016 Sustainability Report.

Starting in 2019, Wienerberger will perform an update of its materiality analysis, which will then serve as the basis for a new Wienerberger Sustainability Roadmap to enter into force in 2021. The aspects and challenges identified by the stakeholders as the most material ones for the Wienerberger Group were incorporated in the sustainability program for the period from 2015 to 2020: the **Sustainability Roadmap 2020** (details on page 42). The roadmap contains the quantitative targets we want to reach every year, such as zero accidents or zero incidents of corruption at Group level, or by 2020, at the latest.

The tables on these two pages shows the extent to which we have reached our quantitative targets as at 31/12/2018. For a more detailed presentation of our activities along the Wienerberger Sustainability Roadmap 2020, complete with further explanations, please refer to the chapters starting on pages 90 (Employees), 116 (Production) and 137 (Products).

# 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.*



**wienerberger**

## *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.*

# Building for People

*For generations, we have been assuming responsibility. 200 years ago, Wienerberger began to manufacture building materials that enable the construction of sustainable, durable buildings and affordable housing. Many of these buildings have become part of our architectural heritage, and many still play an important role in meeting the demand for housing.*

*In the meantime, we have evolved to become a provider of entire system solutions for buildings and infrastructure, designed to improve people's quality of life and create sustainable value.*

*In this way, we are also assuming responsibility for generations to come.*

*Our product solutions, business areas and brand names*

*We are Wienerberger*

*Clay blocks, facing bricks, roof tiles, clay pavers in Europe: **Clay Building Materials Europe**  
Facing bricks, plastic pipes, concrete products, calcium silicate products in North America: **North America**  
Ceramic pipes: **Steinzug-Keramo**, Concrete Pavers: **Semmelrock**, Plastic pipes: **Pipelife***

# Key Indicators – Wienerberger Group

Corporate indicators		2016	2017	2018	Chg. in %
Revenues	<i>in MEUR</i>	2,973.8	3,119.7	<b>3,305.1</b>	+6
EBITDA	<i>in MEUR</i>	404.3	415.0	<b>442.6</b>	+7
EBIT	<i>in MEUR</i>	190.6	178.7	<b>239.8</b>	+34
Profit before tax	<i>in MEUR</i>	158.5	144.9	<b>195.3</b>	+35
Free cash flow	<i>in MEUR</i>	246.5	152.5	<b>236.5</b>	+55
Net debt	<i>in MEUR</i>	631.6	566.4	<b>631.6</b>	+12
Gearing	<i>in %</i>	34.2	29.6	<b>32.6</b>	-
Employees		2016	2017	2018	Chg. in %
Ø Employees as at 31/12	<i>Full-time equivalents (FTE)</i>	15,990	16,297	<b>16,596</b>	+1.8
Employees as at 31/12	<i>Headcount</i>	15,878	16,258	<b>16,284</b>	+0.2
Accident frequency	<i>Number of occupational accidents/ number of hours worked x 1,000,000</i>	6.5	5.4	<b>5.1</b>	-5.7
Accident severity	<i>Accident-related sick-leave days / number of hours worked x 1,000,000</i>	177	173	<b>155</b>	-10.5
Ø Sick-leave days / employee <sup>1)</sup>	<i>in days</i>	9.6	10.2	<b>10.5</b>	+2.9
Ø Training hours / employee <sup>2)</sup>	<i>in hours</i>	12.7	13.6	<b>15.8</b>	+16.1
Ø Training costs / employee	<i>in €</i>	228	255	<b>283</b>	+11.1
Percentage of women	<i>in %, relative to total headcount</i>	13.6	13.8	<b>14.3</b>	-
Employee turnover <sup>1)</sup>	<i>in %</i>	9.0	9.2	<b>12.2</b>	-
Production		2016	2017	2018	Chg. in %
Total energy consumption <sup>3)</sup>	<i>in GWh</i>	7,591	7,889	<b>8,149</b>	+3.3
Specific energy consumption <sup>3)</sup>	<i>Index in % based on kWh/ton (2013 = 100%)</i>	100.0	99.1	<b>98.4</b>	-0.8
Total CO <sub>2</sub> emissions <sup>4)</sup>	<i>in kilo tons</i>	2,046	2,171	<b>2,297</b>	+5.8
Specific CO <sub>2</sub> emissions <sup>5) 6)</sup>	<i>Index in % based on kg CO<sub>2</sub>/ton (2013 = 100%)</i>	96.1	94.0	<b>91.8</b>	-2.4
Volume of waste generated	<i>in t</i>	160,106	167,084	<b>147,569</b>	-11.7
Water usage	<i>in million m<sup>3</sup></i>	4.2	4.2	<b>4.4</b>	+5.4
Percentage of water usage from public networks	<i>in %</i>	33.5	33.7	<b>34.9</b>	-
Products		2016	2017	2018	Chg. in %
Share of innovative products in total revenues	<i>in %</i>	26.9	29.7	<b>29.0</b>	-

1) Excluding North America, as the indicators are not fully comparable to those of other Divisions due to specific local regulations regarding employee-related data collection. // 2) Internal and external initial and further training measures per employee. International training events are not included. // 3) Total energy consumption comprises energy consumed in production, excluding administration, except in countries where separate accounting is not possible. // 4) Exclusively direct, absolute CO<sub>2</sub> emissions. // 5) Specific CO<sub>2</sub> emissions exclusively refer to fuel emissions in ceramic production. // 6) In previous years, the sum total for ceramic production included concrete products of the North America Division. The latter have now been calculated separately and the indices have been restated. // 7) Employee turnover in plastic pipe production in North America has now been calculated separately and the indicators for 2016 and 2017 were restated (reason stated in footnote 1). // 8) The system boundaries applied to employee turnover in brick production were corrected for 2016 and adjusted to the indicator. Brick production includes Clay Building Materials Europe and India, but excludes brick production in North America (reason stated in footnote 1).

**General statements applying to all parts of the 2018 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 2018 Sustainability Report. The reporting scope is indicated in the chapter „Reporting Profile“. // Total energy consumption comprises energy consumed in production, excluding administration, except in countries where separate accounting is not possible. // Rounding differences may be due to electronic data processing. // Up to and including 2016, agency and temporary workers were included only after 3 months of uninterrupted work at Wienerberger. From 2017 onwards, all agency and temporary workers are included in the calculation of accident indicators from their first hour of work at Wienerberger, as are full-time equivalents.

# Key Non-Financial Indicators by Product Group

		2016	2017	2018	Vdg. in%
<b>Bricks and tiles</b>					
Employees as at 31/12	<i>Headcount</i>	11,654	11,970	<b>12,032</b>	+0.5
Accident frequency	<i>Number of occupational accidents / number of hours worked x 1,000,000</i>	6.2	5.3	<b>5.4</b>	+0.9
Percentage of women	<i>in %, relative to total headcount</i>	13.2	13.3	<b>13.6</b>	-
Employee turnover <sup>1) 8)</sup>	<i>in %</i>	8.2	8.5	<b>11.9</b>	-
Specific energy consumption <sup>3)</sup>					
Clay blocks	<i>Index in % based on kWh/ton (2010 = 100%)</i>	79.3	77.5	<b>77.3</b>	-0.2
Roof tiles	<i>Index in % based on kWh/ton (2010 = 100%)</i>	85.8	85.7	<b>84.3</b>	-1.7
Facing bricks	<i>Index in % based on kWh/ton (2010 = 100%)</i>	104.3	103.6	<b>101.2</b>	-2.3
Specific CO <sub>2</sub> emissions <sup>5)</sup>					
Clay blocks	<i>Index in % based on kg CO<sub>2</sub>/ton (2013 = 100%)</i>	92.1	89.6	<b>89.7</b>	+0.1
Roof tiles	<i>Index in % based on kg CO<sub>2</sub>/ton (2013 = 100%)</i>	87.1	87.4	<b>85.7</b>	-1.9
Facing bricks	<i>Index in % based on kg CO<sub>2</sub>/ton (2013 = 100%)</i>	95.0	93.0	<b>90.2</b>	-3.1
Specific water usage	<i>in m<sup>3</sup>/ton</i>	0.15	0.15	<b>0.15</b>	-0.8
Share of innovative products in total revenues	<i>in %</i>	28.8	33.0	<b>33.1</b>	-
<b>Ceramic pipes</b>					
Employees as at 31/12	<i>Headcount</i>	561	539	<b>451</b>	-16.3
Accident frequency	<i>Number of occupational accidents / number of hours worked x 1,000,000</i>	32.5	9.8	<b>15.5</b>	+59.4
Percentage of women	<i>in %, relative to total headcount</i>	7.8	8.7	<b>9.8</b>	-
Employee turnover	<i>in %</i>	7.1	2.6	<b>25.2</b>	-
Specific energy consumption <sup>3)</sup>	<i>Index in % based on kWh/ton (2013 = 100%)</i>	111.8	122.0	<b>116.4</b>	-4.6
Specific CO <sub>2</sub> emissions <sup>5)</sup>	<i>Index in % based on kg CO<sub>2</sub>/ton (2013 = 100%)</i>	111.9	123.8	<b>111.7</b>	-9.8
Specific water usage	<i>in m<sup>3</sup>/ton</i>	0.26	0.24	<b>0.43</b>	+77.1
Share of innovative products in total revenues	<i>in %</i>	39.4	42.0	<b>43.0</b>	-
<b>Plastic pipes</b>					
Employees as at 31/12	<i>Headcount</i>	2,577	2,662	<b>2,746</b>	+3.2
Accident frequency	<i>Number of occupational accidents / number of hours worked x 1,000,000</i>	3.9	3.8	<b>2.6</b>	-32.3
Percentage of women	<i>in %, relative to total headcount</i>	14.9	14.9	<b>16.0</b>	-
Employee turnover <sup>1) 7)</sup>	<i>in %</i>	10.5	10.9	<b>11.3</b>	-
Specific energy consumption <sup>3)</sup>	<i>Index in % based on kWh/ton (2010 = 100%)</i>	98.2	98.9	<b>100.2</b>	+1.3
Specific indirect CO <sub>2</sub> emissions from electricity	<i>Index in % based on kg CO<sub>2</sub>/ton (2010 = 100%)</i>	83.0	84.0	<b>89.0</b>	+6.0
Specific water usage	<i>in m<sup>3</sup>/ton</i>	5.11	5.04	<b>5.25</b>	+4.3
Share of innovative products in total revenues	<i>in %</i>	20.0	19.1	<b>16.7</b>	-
<b>Concrete pavers</b>					
Employees as at 31/12	<i>Headcount</i>	976	963	<b>904</b>	-6.1
Accident frequency	<i>Number of occupational accidents / number of hours worked x 1,000,000</i>	4.4	9.5	<b>5.0</b>	-47.3
Percentage of women	<i>in %, relative to total headcount</i>	14.9	16.2	<b>16.3</b>	-
Employee turnover	<i>in %</i>	15.3	16.6	<b>12.7</b>	-
Specific energy consumption <sup>3)</sup>	<i>Index in % based on kWh/ton (2010 = 100%)</i>	93.1	95.0	<b>78.2</b>	-17.7
Specific water usage	<i>in m<sup>3</sup>/ton</i>	0.06	0.05	<b>0.06</b>	+9.2
Share of innovative products in total revenues	<i>in %</i>	36.9	37.6	<b>35.0</b>	-

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*Per Mausclick zum Kapitel Ihrer Wahl.*

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# Introduction by the Chief Executive Officer



Heimo Scheuch, Chairman of the  
Managing Board of Wienerberger AG

## *Ladies and Gentlemen:*

Our success story began 200 years ago in the Wienerberger district on the southern outskirts of Vienna. When Alois Miesbach, a man with a vision, bought a small brick factory, he prepared the ground for a company that has become a living example of sustainability. 50 years later, Heinrich Drasche, Alois Miesbach's nephew, made another decisive move by taking our company public on the Vienna Stock Exchange, where we have been listed ever since. Since our early days, we have always felt a responsibility for generations to come. To this very day, Wienerberger's corporate culture has been marked by strong values.

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*"Since our early days, we have always felt a responsibility for generations to come."*

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Since 1819, Wienerberger has been producing durable and sustainable building materials that continue to play an important role in contemporary architecture and residential construction. Most of the magnificent buildings in Vienna, dating back to the 19<sup>th</sup> century, were erected with products made by Wienerberger. The company was also instrumental in the construction of social housing, a pioneering movement that started in Vienna about 100 years ago. Today, we supply not only building materials with outstanding characteristics, but entire system solutions for building construction and infrastructure, which serve to improve people's quality of life and create sustainable value.

All our activities are focused on our customers and the best possible solutions we can offer them. For about 100 years, Wienerberger has played a role in the creation of



affordable housing, which is still a crucial topic today. At the same time, we are determined to offer our customers systems capable of meeting the requirements for buildings and infrastructure today and in the future. Noteworthy examples include solutions for energy-efficient buildings and for infrastructure that provides maximum security of supply.

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*“In 2018, innovative products accounted for almost one third of our total revenues.”*

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The key element of Wienerberger’s organic growth is product innovation. In 2018, innovative products accounted for almost one third of our total revenues; in other words, almost one out of three euros of revenue was generated through innovative products. This underlines Wienerberger’s position as an innovation leader in our industry, which has been made possible by continuous research and development activities undertaken in cooperation with our partners, including customers, architects, building contractors and developers. In 2018, we invested almost € 16 million in research and development.

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*„Progressive digitalization in all walks of life is fundamentally changing our business model.”*

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We are living in the digital age. This also holds for the construction industry. As a company operating in this industry, we have to address these challenges. Progressive digitalization in all walks of life is fundamentally changing our business model. This applies to the way we interact with our customers and partners, the design and implementation of construction projects, as well as internal processes in administration and production, where we are striving for higher resource efficiency. Wienerberger is taking the lead in this transformative process. I am convinced that our industry is only at the beginning of a fundamental transformation.

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*“Our target for the percentage of secondary raw materials to be used in plastic pipe production by 2020 was already achieved in 2018.”*

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Resource efficiency is a matter of high priority not only in the context of digitalization but in many other areas as well. One of our objectives is to focus even more strongly on the principles of the circular economy. Above all, residual materials from production, as well as materials from external sources having undergone thorough quality checks, are to be returned into the production process. One of the targets defined in our Sustainability Roadmap 2020 for plastic pipe production was to increase the amount of secondary raw materials used to 70 kg per ton of products produced by 2020. This target was more than achieved in 2018, i.e. two years earlier than planned. We have therefore set ourselves new and even more ambitious targets for 2020. We are now aiming at 85 kg of secondary raw materials per ton of products, at least 50 kg thereof from external sources.

Energy efficiency is another crucial topic for all Wienerberger Business Units. In brick production in Europe, for instance, our target is to reduce specific energy consumption by 20% by 2020 compared to 2010. By 2018, we achieved a 13% reduction. In plastic pipe production, however, we had to redefine our efficiency targets against the background of a persistent trend in our product mix towards lighter products with smaller pipe diameters. On the one hand, this means higher resource efficiency: less material is needed for a product providing the same or even better performance. On the other hand, however, specific energy consumption and CO<sub>2</sub> emissions, measured per ton of products produced, increase, while energy input and water usage remain the same. We have therefore adjusted our new targets to this development.



The assumption of social responsibility, especially for the well-being of our employees, has always been a high priority for Wienerberger. Since the late 19th century, when urgently needed social reforms were initiated by the physician and journalist Victor Adler, Wienerberger has evolved to become a fair and responsible employer treating its employees with respect and paying decent wages and salaries. Today, we are responsible for a workforce of almost 17,000 people. From the social benefits introduced in our early days, we have moved on to a comprehensive portfolio of responsibilities that we fulfill on a daily basis in order to live up to our vision of being the preferred employer in our industry. By signing the Social Charter in 2001, Wienerberger undertook to ensure that employment and working conditions across the Group are based on national legislation and/or collective bargaining agreements as a minimum standard.

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*“Wienerberger now offers its employees the chance to become co-owners.”*

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It is part of our corporate mission to share not only our values, know-how and experience, but also our success. Therefore, Wienerberger now offers its employees the chance to become co-owners. The first round of the employee participation program has been successfully completed in Austria. The high participation rate of roughly 28% shows that our employees believe in the strategy and future of Wienerberger. Our employees know the company well, see our growth potential, and know that this program will allow them to derive a long-term benefit from the company’s success.

The health and safety of our employees is a matter of special importance to us. We are doing our utmost to make their workplaces safe, healthy and fit for the future and to reach our target of zero accidents. Compared to the previous year, we were able to reduce accident frequency by almost 6% and accident severity by close to 11%. However, it saddens us to report that a fatal occupational accident occurred at a 50% subsidiary of

Wienerberger. The accident victim was a production worker in Germany. Wienerberger deeply regrets this accident. Although the indicator is not within the reporting scope (given that the company concerned is not fully consolidated), we disclose the information on account of its high relevance and in the interest of transparency. We studied the circumstances of the accident in great depth and are consistently pursuing our measures aimed at increasing safety at work for our employees. Comprehensive safety programs have been implemented by all our Business Units in order to ensure an even higher level of occupational safety.

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*“The higher diversity of the Managing Board will have a positive impact on the company as a whole.”*

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We have highly qualified employees in all our country organizations. We support them in their development through training programs and by providing the best possible framework for their careers. For new appointments, we give preference to women, provided their qualifications are equivalent to those of male candidates, as we are convinced that diversity adds value to our company. On 1 June 2019, Ms. Solveig Menard-Galli, previously responsible for the management of our Fast Forward 2020 program, joined the Managing Board as our new Chief Performance Officer (CPO). As the third member of the Managing Board, alongside Willy Van Riet as CFO and myself as CEO, Ms. Menard-Galli will further advance the implementation of Fast Forward 2020, a program she is thoroughly familiar with, and the associated cultural change. At the same time, she will be in charge of our digitalization strategy. The higher diversity of the Managing Board will have a positive impact on the company as a whole. When it comes to repositioning Wienerberger in a time of forward-looking change, the perspectives and approaches of a new management generation are indispensable. The fact that an internal candidate has been chosen for this important position confirms that our company has a talent pool of excellent colleagues.



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*“In times of change, communication is crucial.”*

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Wienerberger is not alone in repositioning itself in a period of change. Society as a whole is undergoing a process of transformation and is being confronted with major challenges, such as the fight against global warming, adjustment to climate change, globalization, migration and demographic change, digitalization and cyber security. In times like these, communication is crucial in order to provide all stakeholders – above all our own employees, but also our shareholders and business partners – with timely and comprehensive information on the path taken by our company. To find out what really matters to our stakeholders, we performed our first materiality analysis in 2014 and integrated the results into our Sustainability Roadmap 2020.

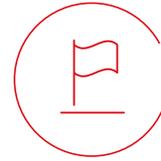
Starting in 2019, we will review the materiality analysis and prepare our new roadmap for the years after 2020. To this end, in 2018 we performed an impact and risk analysis based on the value chains of our four main product groups and examined our contribution to the achievement of the 17 sustainability development goals of the United Nations (UN SDGs). It turned out that, besides the need to give constant attention to occupational safety, issues arising upstream in the supply chain, such as human rights and corruption, represent the greatest risks – but also opportunities – for Wienerberger.

Respect for human rights and zero tolerance of child labor and discrimination have always been matters of course for Wienerberger. This is in line with our values and one of the reasons why we acceded to the UN Global Compact in 2003, committing ourselves to implementing the ten principles relating to human rights, labor standards, environmental protection, including the precautionary principle, and the fight against corruption.

In order to fully live up to our responsibility along the supply chain, we will elaborate and roll out a uniform, Group-wide “Supplier Code of Conduct” (SCOC), which will replace the specific codes currently applied by our Business Units. Compliance with the SCOC will be monitored through supplier audits and reported in the 2019 Sustainability Report. For our 2018 Communication on Progress relating to the UN Global Compact, please refer to pages 156 to 161.

In the years to come, we will continue to consistently pursue our strategy, implement all measures necessary to attain our goals, and report on the results achieved in an open, clear and transparent manner. I will be greatly pleased to see you, our esteemed readers, accompany us this path.

Yours  

# What makes us proud



*Responsibility assumed for generations for 200 years, and listed on the Vienna Stock Exchange for 150 years.*



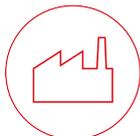
*39% reduction in accident frequency and 63% reduction in accident severity in plastic pipe production in Europe compared to the previous year.*



*Innovative products account for almost 30% of total revenues at Group level: almost one out of three euros of revenue is generated through innovative products.*



*33.3% women on the Managing Board as of 2019 through in-house appointment of new Chief Performance Officer (CPO).*



*13% reduction in specific energy input in brick production in Europe compared to 2010.*



*Target for the amount of secondary raw material used in plastic pipe production achieved two years earlier than planned at 75 kg per ton of products.*



*Help provided for a total of 1,134 people, including 82 families, in the second round of cooperation with Habitat for Humanity from July 2015 to June 2018.*

# What will make us work even harder



*We will implement efficient instruments to ensure responsible supplier management, including a Group-wide, uniform Supplier Code of Conduct as a minimum standard, and perform supplier audits.*



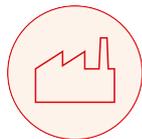
*We are determined to sustainably reduce the frequency and severity of accidents in all production areas. Our target is zero accidents.*



*We are determined to increase the percentage of innovative plastic pipe products in total revenues in order to reach our self-imposed goal again.*



*We want to continuously increase the percentage of women in senior management positions, which decreased in 2018.*



*Absolute CO<sub>2</sub> emissions at Group level and specific CO<sub>2</sub> emissions from primary energy in ceramic production increased in 2018. We will take even more effective measures to counteract this trend.*



*It has always been a matter of course for us to respect human rights and to have zero tolerance for child labor or any form of discrimination. We have therefore decided to communicate this commitment even more clearly and transparently by drawing up and publishing a binding Wienerberger Code of Conduct in written form.*



# Summary

**Our vision** is 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 with our building material and infrastructure solutions. The primary goal of our entrepreneurial activities is to sustainably increase the value of the company in accordance with ecological, social and economic principles. Day after day, approximately 17,000 employees are making every effort to translate our 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 proximity, entrepreneurship, quality, and responsibility – and provides the foundation for our organization.

We have defined a clear strategy that enables us to benefit from future development opportunities and the expansion of our platforms. Our strategic priorities are organic growth, operational excellence, growth projects, and portfolio optimization.

## Management Approach

In 2014, we took a first close look at what really matters to our stakeholders and integrated these topics into our sustainability program: the Sustainability Roadmap 2020. In 2018, as a first step towards elaborating the successor program to be applied as of 2020, we dealt with current challenges and explored the related issues:

- › Which are the most important **impacts, risks and opportunities** of Wienerberger's four main product groups along their entire value chains?
- › Which of the **17 Sustainability Development Goals of the United Nations (SDGs)** are particularly relevant for Wienerberger's four main product groups in the individual phases of their life cycle?

Together with internal experts, we found initial answers to these questions, which we regard as a first step towards the next level in our sustainability management. Starting in 2019, we will update our **2014 materiality**

**analysis**. The results of this process, as well as those of the impact and risk analyses, will then provide the **basis for our new Sustainability Roadmap** effective as of 2021.

We are consistently pursuing the targets of our **Wienerberger Sustainability Roadmap 2020**, implementing the measures planned, and preparing the next steps for 2019 and 2020. In most of our product groups, we are well on track in dealing with the relevant topics. In some areas, we have even set ourselves new and more ambitious targets. For certain topics in plastic pipe production, we had to redefine our targets in 2018. We have learned our lessons and will take the new findings into account in our future decision-making processes.

With the **new structure of centralized procurement** (Corporate Procurement), we have created the best possible framework for responsible supplier management. Within the framework of our business relations, we also pay attention to compliance with ecological and social standards on the part of our suppliers. Besides the new, Group-wide Supplier Code of Conduct to be implemented and rolled out in 2019, we are planning to employ additional instruments in support of responsible supplier management. In the course of 2018, staff members of Corporate Procurement underwent targeted training organized by an external certification body, which will enable them to audit our suppliers as of 2019.

## Employees

In 2018, the **number of our employees** rose from 16,297 to 16,596 (full-time equivalents), which corresponds to a 1.8% increase over the previous year's level.

For Wienerberger, the **occupational health and safety of our employees** are top priorities. This also applies to employees working at our own clay extraction sites. Our target at Group level is to reduce the number accidents to zero. Compared to the previous year, we succeeded in reducing the frequency of accidents by almost 6% and accident severity by close to 11%. This is the first report in which Wienerberger also discloses the types of accident-related injuries. It saddens us to report that a fatal occupational accident occurred at a 50%



subsidiary of Wienerberger. The accident victim was a production worker in Germany. Wienerberger deeply regrets this accident. Although the indicator is not within the reporting scope, we disclose the information on account of its high relevance and in the interest of transparency. We studied the circumstances of the accident in great depth and are consistently pursuing our measures aimed at increasing safety at work for our employees. The Wienerberger safety standards as well as the safety programs implemented by the individual Business Units are being consistently pursued. The number of non-accident-related sick-leave days increased slightly in 2018 from 9.9 to 10.2 days, which is primarily attributable to employees being on sick leave for longer periods of time. In view of the prevalence of long-term sick-leave periods, prevention is particularly important as a health-promoting factor.

In times of change, a well-functioning **communication culture** is crucial. To a growing extent, we rely on interactive communication processes and use two-way communication tools that facilitate dialogue. **Employee satisfaction** is another matter of great importance for us. The employee survey launched in 2015 was completed across the entire Wienerberger Group in 2018, and the measures derived from the survey were implemented. To evaluate the impact of these measures, we will conduct another survey in 2020. Wienerberger attaches great importance to supporting our employees' professional development in a targeted manner and to facilitating an international exchange of knowledge. Our training program comprises internal as well as external **initial and further training measures**. In 2018, the number of hours spent in training per employee increased from an average of 13.6 to 15.8 hours (+16.1%).

We are convinced that a higher **percentage of women in executive positions** has a positive impact on a company's success. We are therefore determined to increase the number of women in senior management and executive positions. However, due to restructuring measures, the percentage of women in senior management positions across the Group dropped slightly to 11% in 2018 as compared to 12% in the previous year. In the interest

of long-term **succession planning**, the Supervisory Board and the Managing Board are making a continuous effort to identify and promote high-potential candidates for top level positions, if possible within the Wienerberger Group. Nomination decisions are based on a uniform catalogue of criteria, which is used for the evaluation of both internal and external candidates. Since of 1 June 2019, an internal woman candidate will be appointed to the newly created position of Chief Performance Officer, which is increasing the number of Managing Board members to three. The percentage of women will then be 33.3%.

### **Production**

In 2018, given the **higher number of incoming orders, production volumes increased** in some Business Units. The higher production volumes, compared to the previous year, as well as **acquisitions** had an impact on the **development of our absolute indicators in 2018** (energy input, CO<sub>2</sub> emissions, water usage). However, thanks to our efforts to enhance resource efficiency and optimize production processes, the specific indicators per unit of products produced (expressed in tons or square meters) improved.

At Group level, the higher production volume in 2018 resulted in a 3.3% increase in absolute **energy consumption** compared to the previous year. Nevertheless, in 2018 specific energy input in kWh/ton dropped by almost 1% overall and by 2% in ceramic production. The percentage of renewable energy sources in electricity consumption, based on kWh per ton, remained unchanged at the previous year's level of 37%.

Due to higher production volumes, the Wienerberger Group's absolute volume of **CO<sub>2</sub> emissions** (Scope 1) increased by 6% over the previous year's level. Wienerberger is continuously striving to convert its production processes to low-emission energy sources. The substitution of coal and liquefied natural gas with other energy sources is also reflected in the indicators for 2018. We succeeded in reducing specific CO<sub>2</sub> emissions from primary energy input (fuel emissions) in kg CO<sub>2</sub>/ton by 2.4%.



For **plastic pipe production** in Europe, however, we had to **adjust our original energy efficiency targets**, one of the reasons being continuous changes in the product mix with a trend towards lighter products with smaller pipe diameters. On the one hand, this results in higher resource efficiency, as less raw material is needed to produce a product providing the same or even better performance. On the other hand, specific consumption and CO<sub>2</sub> emissions, measured per ton of products produced, increase, while energy and water usage remain the same. We have adapted our new targets to this development.

Wienerberger is determined to continuously develop and improve the properties and the high quality of its products. At the same time, we are aiming at a steady increase **in resource efficiency** in production. Our efforts are focused on raw material savings and the use of secondary raw materials, wherever technically and economically feasible, and the return of production waste and residual materials into production. A steady **reduction of our scrap rates** is another essential topic. In concrete paver production, we brought the scrap rate down by 45% between 2014 and 2017 and are aiming to achieve a further 23% reduction by 2020 compared to 2017.

The Wienerberger Group's absolute **water usage** in 2018 was 5.4% higher than in the previous year. Specific water usage, based on net additions to inventories, also increased in 2018 in almost all products groups. Notwithstanding the Wienerberger Group's commitment to a sparing use of water, wherever possible in closed circuits, changes in the product mix and higher production volumes in some areas had an impact on specific water usage.

In Europe, Wienerberger continuously monitors all its own clay pits used for brick production. This includes information on the **intended re-use of depleted extraction sites**. Wienerberger respects the principle of non-interference with protected areas and considers it its duty to make the company's own depleted sites available for their intended re-use. As a rule, the competent public authority defines the type of re-use of depleted clay pits at the time of approval of clay extraction. Environmental impact

assessments and ecological studies are always part of the approval procedure. In principle, depleted clay pits, with enough open space and water gathering in ponds, have the potential to become an ideal habitat for rare plants and animals.

### Products

Rising expectations to be met in the design of affordable and efficient housing and infrastructure represent new challenges we have to address with our system solutions.

In 2018, **innovative products and system solutions** accounted for 29%, i.e. almost one third, of the Group's total revenues. The Business Units elaborated definitions of the innovative character of their products and system solutions on the basis of current market requirements and determined their own specific targets for the percentages of innovative products in annual revenues. Such definitions facilitate Group-wide comparisons and make the progress of innovation measurable. The development priorities range from innovations in the application and use of products to research on new materials and production processes to resource efficiency in the use of raw materials. In 2018, all but one Business Unit reached their targets in terms of innovative products as a percentage of total revenues.

Examples of Wienerberger's innovative solutions include:

- The **"KERA.Box"**, consisting of a construction site container with products of ceramic pipe systems and an app, which together facilitate planning, accelerate the workflow on the construction site, and generate added value.
- **High-performance insulating materials** made from mineral raw materials with insulating properties which by far surpass those of commercially available products and an additional advantage: they are fireproof.
- **Raineo Smart Meter**, a measuring station consisting of several sensors, which monitors water throughput in pipes and is able to predict floods.



From the viewpoint of resource efficiency, the use of *recycled or secondary raw materials and the re-use of products* are important topics for the future. 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 do not have to become waste at the end of their useful life, but can become raw materials for new products in a cycle. In ceramic production, secondary raw materials are used as additives. Resource efficiency and the use of secondary raw materials are particularly important topics in plastic pipe production in Europe. In 2015, we therefore set ourselves the target of increasing the amount of secondary raw material in this product group to 70 kg per ton of products produced by 2020. With over 75 kg of secondary raw material used per ton, this target was reached, and in fact exceeded, in 2018. Taking the high relevance of this topic into account, we set ourselves a new and even more ambitious target in 2018: By 2020, we want to increase the amount of secondary raw material to 85 kg per ton of products produced, including up to 50 kg of external secondary raw materials.

### **Social and Societal Commitment**

In the course of a differentiated analysis of crucial topics relating to the impact of our various fields of production on society, business ethics and compliance were identified as topics of material importance that are equally relevant for all product groups. 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 2018, no charges were brought against Wienerberger for suspected corruption, nor were judgments passed nor penalty payments imposed for such reason. Commitment to compliance with all national and international legal standards in effect is a fundamental principle of the Wienerberger Group. No negative findings were reported by the competent authorities in 2018.

Moreover, Wienerberger officially commits to *implementing the ten principles of the UN Global Compact*. By signing the Wienerberger Social Charter, Wienerberger undertook to comply with the relevant conventions and recommendations of the International Labor Organization (ILO).

*Affordable housing* is a fundamental human right and should be recognized as such. In 2012, Wienerberger therefore began to cooperate with Habitat for Humanity, an international non-profit organization. Given the highly positive experience gained by both partners since the beginning of their cooperation, Habitat for Humanity and Wienerberger signed a further cooperation agreement in 2018, which will be in effect until 2021. For this third period of cooperation, the scope has been extended geographically (adding two more countries) and substantively, with activities now being carried out in seven countries (Bulgaria, North Macedonia, Poland, Romania, Slovakia, Hungary and Great Britain). In 2018 alone, we were able to help another 37 families and over 290 children and adolescents within the framework of our partnership. Since the beginning of the second round of cooperation from July 2015 to June 2018, help was provided for a total of 1,134 people in need, among them 82 families. As in previous years, so-called “housing forums” were co-organized with Habitat for Humanity, the objective being to make politicians as well as public authorities aware of the importance of social housing.

Besides our cooperation with Habitat for Humanity, which is coordinated at Group level, we also carry out joint projects with other partners at local level, such as Caritas or the Elijah Association, aimed at the creation of housing for people in need.



# 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 31/12/2018, Wienerberger had 195 production sites operating in 30 countries of the world and exported its products to international markets. We are the worldwide market leader in bricks and the number one 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. For details on our production sites and market positions, please refer to the diagram on pages 24-25.

Wienerberger is a free float company with 100% of its shares being publicly traded. For details on the shareholder structure of Wienerberger, please refer to the 2018 Annual Report, pages 114-116.

## *History of the Company*

Wienerberger was founded by Alois Miesbach in 1819 as an Austrian brick factory in the Wienerberg district on the southern outskirts of Vienna. In 1869, it became one of the first companies to be listed on the Vienna Stock Exchange.

Wienerberger evolved from a local brick manufacturer into an international supplier of building material systems. As of 2019, the Group comprises three Business Units: Wienerberger Building Solutions, Wienerberger Piping Solutions und North America.

The company took its first step towards internationalization when it entered the German market by taking over the Oltmanns Group in 1986. This step was followed by a successful expansion into Eastern Europe, France and the Benelux countries during the 1990s. At about the same time, Wienerberger entered the plastic pipe market by establishing Pipelife as a joint venture and diversified into ceramic pipes and concrete pavers.

In 1996, Wienerberger took over Terca Bricks, the leading producer of facing bricks in Belgium and the Netherlands. The acquisition of a majority stake in Semmelrock, the leading paver producer in Central and Eastern Europe, followed in the same year. Through these strategic acquisitions, Wienerberger enlarged its product portfolio to include facing bricks and concrete pavers and expanded its geographic market coverage.

In 1999, Wienerberger entered the North American building materials market by taking over General Shale, a leading US brick producer.

Another strategic milestone was set in 2003 with the Group's entry into the roofing systems market through the acquisition of Koramic, which strengthened Wienerberger's position in the building renovation market.

In 2010, Wienerberger took over Steinzeug-Keramo, a specialist in waste-water systems, and acquired the remaining shares in Semmelrock. Through the full takeover of Pipelife in 2012, Wienerberger positioned itself as a leading supplier of plastic pipes in Europe. This step strengthened Wienerberger's position in the infrastructure market and reduced its dependence on the highly cyclical sector of new building construction. By taking over Tondach Gleinstätten in 2014, Wienerberger finally positioned itself as the leading supplier of roof tiles in Eastern Europe.

## *Mission Statement*

Our vision is 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 17,000 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 proximity, entrepreneurship, quality and responsibility – and provides the foundation for our organization.

### **Business Model**

Wienerberger's business model is focused on providing innovative building material solutions for all our fields of application, from sustainable and energy-efficient buildings to environment-friendly pavers to pipe systems designed to ensure maximum security of supply.

### **Value Creation**

Our value creation process is fundamental to the achievement of our corporate goal of sustainably increasing the value of the company in ecological, social and economic terms. Six input variables determine Wienerberger's value creation process: financial capital, production facilities, know-how, employees, dialogue, and natural resources. These variables not only influence one another, but also change as a consequence of the company's business activities. Such changes result from well-balanced strategic decisions. This is how we create added value for the organization and for our stakeholders. A diagram illustrating our value creation process is shown on pages 38-39.

### **Strategy and Targets for 2020**

Each of our business areas – infrastructure, new construction and renovation – is supported by strong industrial platforms in Europe and North America. We have defined a clear strategy that enables us to benefit from future development opportunities and the expansion of our platforms. A strong leadership team at corporate level cooperates with experienced local managers in the implementation of our accelerated growth course. Our strategic priorities are organic growth, operational excellence, growth through acquisitions, and portfolio optimization.

#### **Organic growth**

In order to generate organic growth, we focus on innovations, deepened customer relations and a profound knowledge of our local markets, as well as the development and application of digital solutions along our entire value chain.

### **Innovation**

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 striving to improve and further develop our products and system solutions for all fields of application, including the recycling and re-use 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. We take advantage of our strong market positions to introduce successful innovations at supra-regional level. Our development priorities are:

- › Innovations in the application and use of our products and system solutions
- › Research into new materials
- › Optimization of existing production processes and development of new ones
- › Resource-efficient use of raw materials
- › Re-use of our products

### **Market proximity**

The growing complexity of the design and execution of construction projects is an issue to be addressed. 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 right through to execution.

### **Digitalization**

By contributing to the digital transformation of our industry we are able to offer our customers higher added value. To this end, we are initiating change processes within the company along the entire value chain. Within the framework of our digital agenda, we are relying increasingly 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.



### **Operational Excellence**

The Fast Forward 2020 program provides the framework for hundreds of individual projects that together make up a Group-wide package of measures relating to operational excellence.

The program is being implemented in six clearly defined work streams. A major contribution will come from further improvements in production through process optimization, investments in automation, and reductions in energy costs and the scrap rate. The enlargement of our range of products and solutions, as well as the optimization of our pricing policy, is equally important. In the field of procurement, progressive centralization will help us tap the potential of our Group as a buyer. Measures are also being taken in supply chain management, administration, and the optimization of individual organizational units. The economic target of the Fast Forward program is to generate improvements in EBITDA in a total amount of € 100 million in the period from 2019 to 2020.

### **Growth projects and portfolio optimization**

We are enlarging our existing platforms through the acquisition of growth-oriented companies generating high margins. Our investment decisions are based on clearly defined criteria and aimed at strengthening our unique selling propositions. We therefore analyze not only the financial position of potential take-over candidates, but also the added value and user-friendliness of their products, the relevance of the companies in the local markets, and their position as partners for our customers. We thus acquire companies which can be swiftly integrated into the existing industrial network and ideally complement our business.

To achieve sustainable organic growth, we continuously review all business areas and analyze their strategic orientation and growth potential.

### ***Corporate Governance at Wienerberger***

As a listed company with international operations, Wienerberger is committed to the strict principles of good governance and transparency as well as to the continuous development of an efficient corporate control system. We are convinced that managing the Wienerberger Group responsibly and with long-term goals in mind is a crucial prerequisite for sustainably increasing our enterprise value. In the pursuit of this target, we always act within the framework of Austrian law, the Austrian Corporate Governance Code, our Articles of Association, the rules of procedure of the boards of the company, and our internal policies.

Group policies, such as a compliance code to prevent insider trading and a code of conduct for lobbying activities, provide the framework for our actions. A compliance officer, assisted by a deputy, has been appointed for monitoring purposes.

Additional information on corporate governance at Wienerberger is contained in the chapter “Management Approach” starting on page 28. For an overview of relevant activities in the reporting year, please refer to the report of the Supervisory Board in Wienerberger’s 2018 Annual Report, starting on page 48. Our corporate governance principles are also published on the Wienerberger website.



## Review of the Year 2018

2018 was an outstanding year for the Wienerberger Group, in which we reached numerous notable milestones. Our revenues increased by 6% to € 3,305.1 million, the highest ever in the history of the company. Thanks to continuous operational improvements, EBITDA grew by 7% to € 442.6 million. Our net profit came to € 133.5 million, up by 8% from the previous year. Despite significantly higher growth investments, the ratio of net debt to EBITDA remained unchanged at a year-end value of 1.4. This shows that we again succeeded in combining value-creating growth with strict financial discipline. We intend to further pursue this strategy in the years to come and to broaden our existing platforms through acquisitions in high-margin growth areas.

In 2018, a dividend of € 0.30 per share, i.e. a total of € 34.8 million, was paid out from the 2017 net profit. Additionally, the shareholders received a one-time special dividend of € 0.10 per share from the ANC Private Foundation. For details on the ANC Private Foundation, please refer to page 209 of the 2018 Annual Report. The hybrid coupon paid out amounted to € 13.6 million. Payments to public bodies, comprising taxes on income and other taxes (excluding deferred taxes), totaled € 75.1 million, more or less corresponding to the previous year's level.

Based on the strong performance of the Group and the positive outlook for 2019, the dividend paid out in 2019 for the business year 2018 was increased by 67% to € 0.50 per share.

### Financial flows to stakeholders in € million

	2016	2017	2018	Chg. in %
Corporate revenues <sup>1)</sup>	3,042.9	3.180,2	<b>3.363,5</b>	+6
Operating expenses <sup>2)</sup>	-1,861.7	-1.944,0	<b>-2.039,9</b>	+5
Wages, salaries and benefits <sup>3)</sup>	-751.8	-794,5	<b>-853,5</b>	+7
Payments to providers of equity <sup>4)</sup>	-61.9	-61,5	<b>-48,4</b>	-21
Payments to providers of foreign capital	-33.6	-38,5	<b>-38,3</b>	-1
Payments to public bodies <sup>5)</sup>	-60.5	-75,5	<b>-75,1</b>	-1

1) Revenues and other operating income // 2) 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 // 3) Excluding company cars; including employee-related restructuring costs // 4) Hybrid coupon and dividend recognized in the year of cash flow // 5) Excluding deferred taxes

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



### ***Our Product Groups and their Applications, Customer Groups and Users of our Products***

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.

Wienerberger's structure until 2018 comprises the following Divisions: Clay Building Materials Europe (clay blocks, facing bricks and roof tiles), Pipes and Pavers Europe (ceramic pipes, plastic pipes, concrete pavers), North America (facing bricks, calcium silicate and concrete products, plastic pipes) and Holding & Others (comprising the holding company of the Group and the clay block production site in India).

#### **Clay Building Materials Europe Division**

The Clay Building Materials Europe Division has a broad range of innovative products and system solutions for the building envelope. Its roof tiles, clay blocks and facing bricks are innovation drivers for energy-efficient, sustainable and affordable building solutions. Therefore, in accordance with our internal target, innovative products and system solutions are to account for more than 25% of our annual revenues. In addition, measures taken within the framework of the Fast Forward 2020 program aimed at optimizing costs and processes and adjusting our structures to changing market conditions are crucial components of our strategic orientation. These statements and targets also apply to our clay block production site in India.

In a process of ongoing dialogue, we are making every effort to adapt our building solutions to our customers' needs. We therefore respond to the expectations of individual customer groups by supporting them with comprehensive advisory services from the planning phase to project execution. We increasingly rely on digital and mobile solutions to facilitate fast data and information exchange.

In the following, we present an overview of the core properties and main applications of our products for walls, facades and roofs.

#### ***Wall***

Wienerberger clay blocks today fulfil the demanding standards of building physics that will have to be met by the buildings of tomorrow. Depending on local building traditions, they are used for load-bearing exterior monolithic or cavity walls of single-family homes as well as multi-story buildings. They are also used for load-bearing interior walls and for non-load-bearing partitions or infill walls.

#### ***Facade***

Facing bricks are used, above all, in visible brick architecture as the most striking esthetic exterior feature of a building. A facing brick wall provides optimal protection from weather influences, but still allows the building envelope to breathe. Thanks to the durability of facing bricks, there is no need for costly renovation as the building gets older. Through the combination of different colors, formats and surface structures, facing bricks are ideally suited for modern and cost-effective urban brick architecture.

#### ***Roof***

Clay roof tiles are used for pitched roofs, low slope roofs and as design elements on facades. They protect the building and its facade from weather influences and moisture for many years. On account of their long useful life and their color-fastness, they are the preferred building material for renovation works. A broad range of roof tiles and accessories is available for creative applications in modern building construction as well as for traditional solutions in renovation and classified buildings.



# Building Solutions



## Holding & Others

Clay blocks



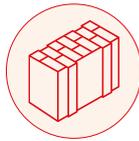
## Clay Building Materials Europe

Clay blocks, facing bricks, roof tiles, clay pavers

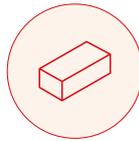


## North America

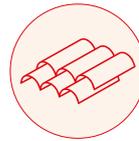
Facing bricks, concrete products, calcium silicate products



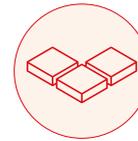
Wall



Facade



Roof



Clay pavers



### Building solutions

Single- and two-family homes, multi-story residential buildings, non-residential buildings

New construction, renovation, conservation of classified buildings

### Decision-makers, customer groups

Architects/designers, public principals, private investors, building contractors, processors, distribution partners, dealers

### Product users

Users of buildings, the public



### **The Pipes and Pavers Europe Division**

Pipes & Pavers Europe offers solutions for all contemporary challenges, such as water management in the context of climate change or increasing urbanization. The Pipes & Pavers Europe Division comprises our business in Pipelife plastic pipes, Steinzeug-Keramo ceramic pipes, and Semmelrock concrete pavers. The product portfolio of the Division includes system solutions for installation in buildings, drinking water supply, irrigation, waste-water and rainwater management, drainage, energy supply and data transmission, special products for industrial applications, and pavers. In terms of our strategic development, we group these applications in three priority areas: modern solutions for buildings, smart infrastructure, and special solutions for industrial and energy applications.

Our focus lies on enhancing our problem-solving expertise for the benefit of our customers. On the one hand, we benefit from in-house developments pursued in the Group's own research centers; on the other hand, we continuously explore possibilities of value-creating acquisitions in order to diversify into new applications and broaden our geographic market coverage.

In the following, we present an overview of the core properties and main applications of our ceramic pipes, plastic pipes, and pavers.

#### ***Ceramic pipes***

Ceramic pipes (including fittings, manholes and accessories) are used in open-trench and trenchless sewer construction, providing sustainable system solutions for municipal waste-water disposal. Thanks to their durability, stability, low maintenance requirements and resistance to effluents, ceramic pipes meet all the requirements of modern sewage systems.

#### ***Plastic pipes***

Plastic pipes (including fittings and accessories) are suited for a wide variety of applications for private and industrial use. The range of high-quality, durable pipe systems includes products for installation in buildings,

drinking water supply, irrigation, waste-water and rainwater management, drainage, energy supply, data transfer, as well as special products for industrial applications.

#### ***Pavers***

Concrete and clay pavers offer outstanding advantages in terms of durability and lifetime esthetics. They are used for a wide variety of applications, from public spaces and heavily trafficked roads to private buildings and gardens. Customers appreciate the high-quality surface finish as well as the variations in design and setting patterns.

### **The North America Division**

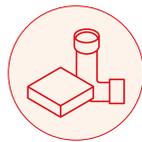
The North America Division's main focus is on innovative products and system solutions with facing bricks, concrete and calcium silicate products, and plastic pipes.

The core properties and applications of facing bricks as well as concrete and calcium silicate products in North America are comparable to those of the wall and facade products of the Clay Building Materials Europe Division. This also holds for plastic pipes produced by the North America Division and Pipes & Pavers Europe. Information provided on the core properties and applications of products supplied by the Clay Building Materials Europe and the Pipes and Pavers Europe Divisions also applies to North America.

### ***Structure of the Divisions and their Product Groups as of 2019***

Starting in 2019, we will report on our activities in ceramic building materials for the building envelope and our business in concrete pavers within the framework of Wienerberger Building Solutions, the newly created business unit succeeding the Clay Building Materials Europe Division. Developments in our plastic pipe business and our ceramic pipe operations will be reported within the framework of our second Business Unit, i.e. Wienerberger Piping Solutions. Reports on our business and activities in North America will be based on the current structure.

# Infrastructure Solutions



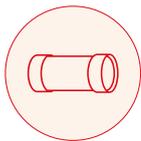
## Pipes & Pavers Europe

Ceramic pipes, plastic pipes, concrete pavers

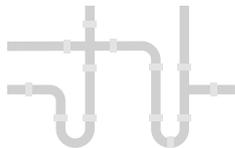


## North America

Plastic pipes



### Ceramic pipes



#### Infrastructure Sewage construction

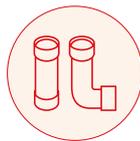
Open and trenchless construction, municipal wastewater disposal  
New construction, renovation

#### Decision-makers, customer groups

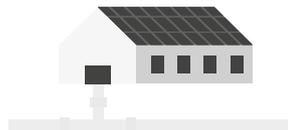
Designers, contractors, distribution partners, dealers, public principals, private investors

#### Product users

Users of buildings, the public



### Plastic pipes



#### Infrastructure Pipe systems – public – private – industrial

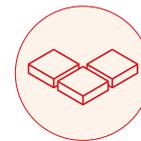
Building installation, water management, energy supply, data transmission, special products for industrial applications  
New construction, renovation, repair

#### Decision-makers, customer groups

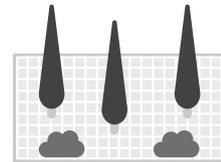
Investors, public principals, designers, building contractors, processors, distribution partners, dealers, private customers

#### Product users

End customers, users of buildings, the public, network operators



### Pavers



#### Infrastructure Pavings

Public spaces, private homes and gardens, streets  
New construction, renovation, repair

#### Decision-makers, customer groups

Architects, designers, building contractors, processors, distribution partners, dealers, public principals, private customers

#### Product users

Users of buildings, the public

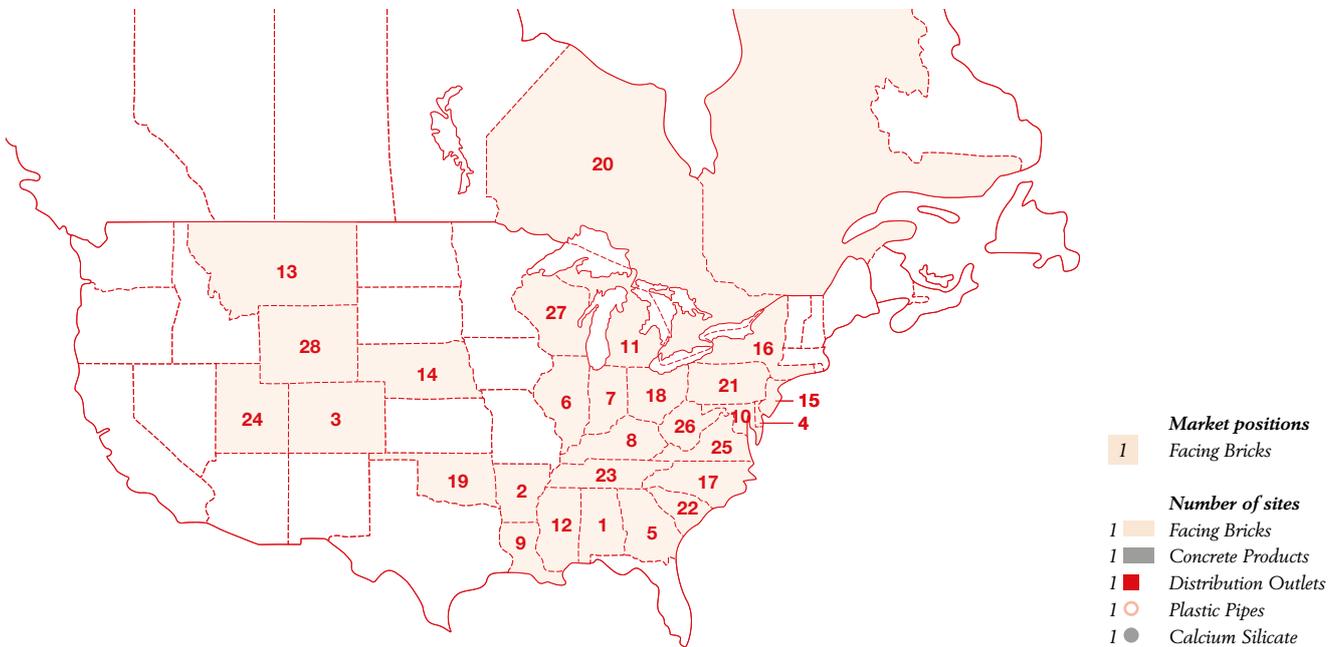


**Production Sites and Market Positions**

Wienerberger is the only multinational producer of bricks, roof tiles, concrete pavers and pipe systems with a total of 195 production sites in 30 countries and activities in international export markets. We are the world's largest

producer of bricks and number one on the clay roof tile market in Europe. Furthermore we hold leading positions in pipe systems in Europe and concrete pavers in Central-East Europe.

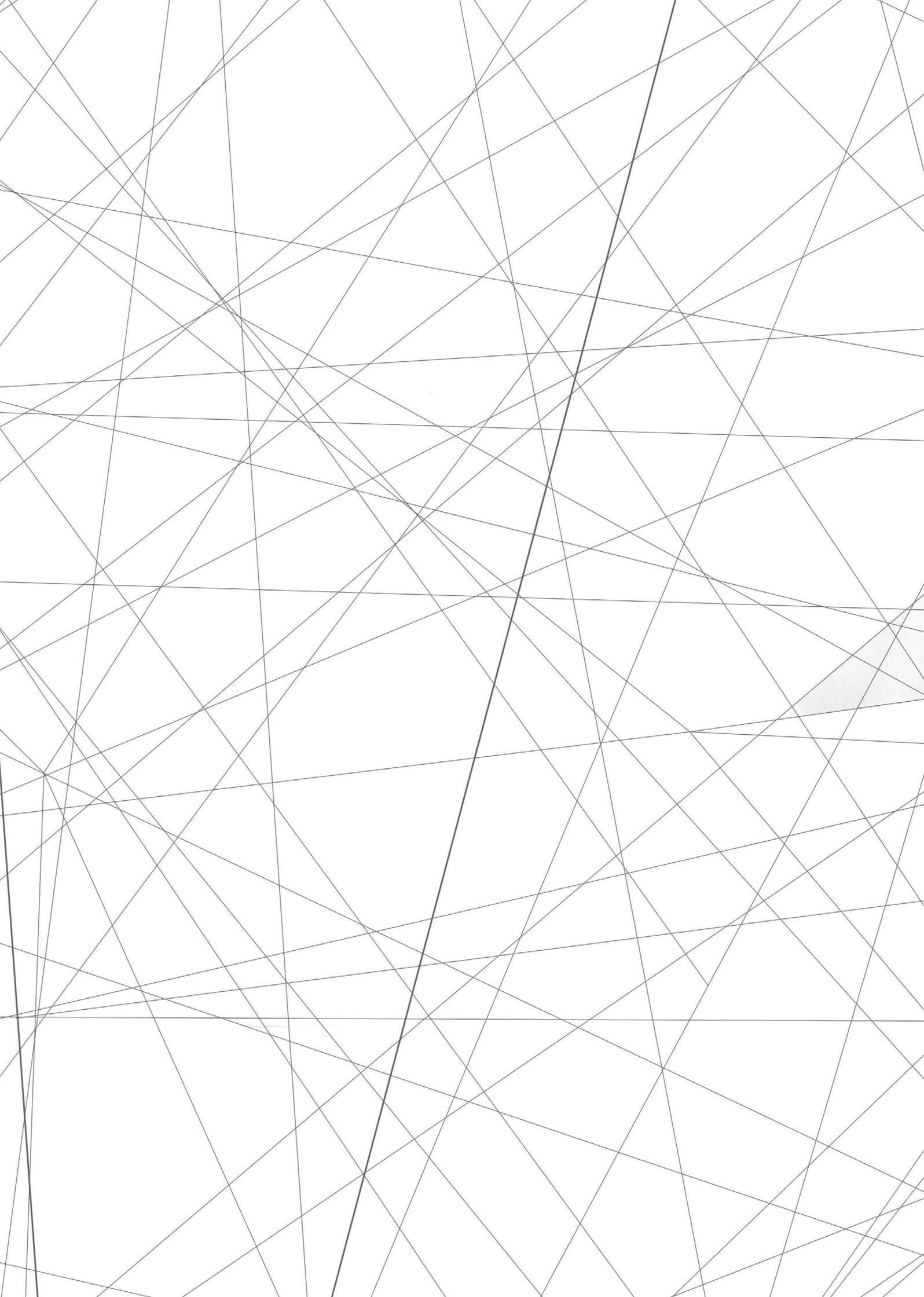
*Wienerberger Markets in North America*



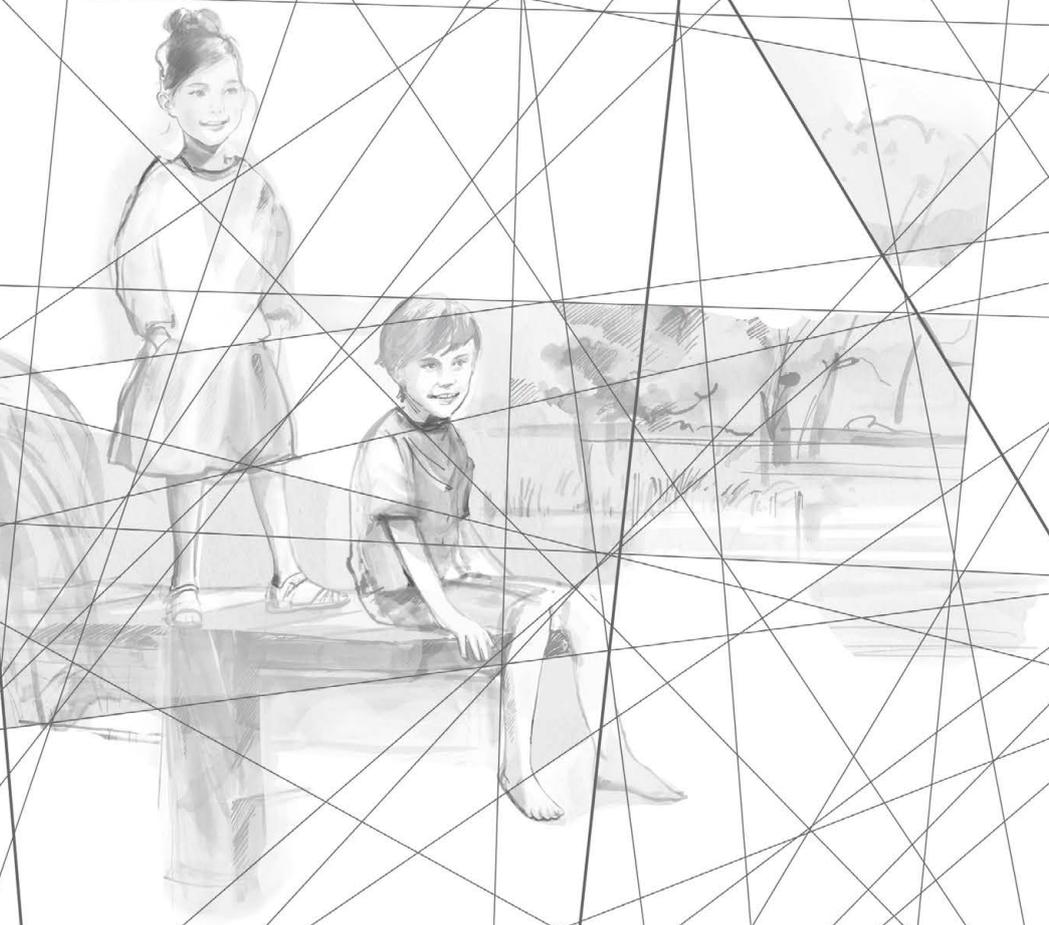
1 Alabama	3		1 ■		15 New Jersey*	3			
2 Arkansas*	4			1 ○	16 New York*	3			
3 Colorado	1	1 ■	1 ■		17 North Carolina	1	2 ■		4 ■
4 Delaware*	5				18 Ohio*	2			
5 Georgia	1	1 ■			19 Oklahoma*	6			
6 Illinois	3		2 ■		20 Ontario				1 ●
7 Indiana	1	1 ■	2 ■		21 Pennsylvania*	3	1 ■		
8 Kentucky*	1				22 South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

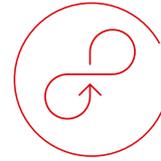
\* Markets are served through exports from neighboring states.





# Management Approach





# Management Approach

Wienerberger is determined to provide appropriate and well-balanced insights into the essential topics addressed by our group of companies as well as into the related impacts. We also wish to provide 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 standards, which we follow in our reporting.

This chapter comprises the following parts:

## ***Our management approach***

Presentation of our management approach to the individual topics and the way we pursue our economic, ecological, social and societal targets

## ***Details of our sustainability management***

The most important structures and instruments that are firmly rooted in the Wienerberger Group. These include:

- › ***Our materiality analysis:*** Topics classified as material by our stakeholders in 2014 and an outlook on the updated materiality analysis as of 2019
- › ***Wienerberger Sustainability Roadmap 2020 (SR2020):*** A self-imposed, conscious commitment, assumed in 2015, to continuously improve Wienerberger's ecological, social, societal and economic performance on the basis of the materiality analysis. The SR 2020 is reviewed and updated annually.
- › ***Impact and risk analysis and relevant Sustainability Development Goals (SDGs):*** Results of the impact and risk analysis performed in 2018 in cooperation with internal experts, and the UN Sustainable Development Goals that were identified as being relevant to Wienerberger.

## ***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 sustainable building material and infrastructure solutions of outstanding quality.

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.

The primary goal of our entrepreneurial activities is to sustainably increase the value of the company in accordance with ecological, social and economic principles. To achieve this corporate goal, we have defined a clear strategy focused on organic growth and operational excellence as well as growth projects and portfolio optimization.

In our strategic considerations, we take into account the interests of our organization as well as those of our stakeholders, with whom we are closely associated through long-term relations. We are convinced that well-balanced decisions can lead to a convergence of these interests. This enables us to broaden the basis for our growth and create optimal prerequisites for sustainable value creation. To make our progress measurable, we have set ourselves clear financial and non-financial targets.

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, 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 2013, Wienerberger officially committed itself to observing the principles regarding human rights, labor standards, environmental protection – including the precautionary principle – and the fight against corruption.



## Corporate Governance at Wienerberger

### *Commitment to the Corporate Governance Code*

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 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 policies. Since 2002, Wienerberger has been committed to full compliance with the rules of the Austrian Corporate Governance Code (see [www.corporategovernance.at](http://www.corporategovernance.at)). Some of the most important aspects are described in the following sections. For the complete Wienerberger Corporate Governance Report, please refer to pages 52 to 71 of the 2018 Annual Report and to the Wienerberger website ([www.wienerberger.com](http://www.wienerberger.com)).

The implementation of the Code and the correctness of our public statements were evaluated by the external auditor, Deloitte Audit Wirtschaftsprüfungs GmbH, Vienna, within the framework of its review of the corporate governance report as part of the 2018 Annual Report; the auditor's report on review is published on our website ([www.wienerberger.com](http://www.wienerberger.com)). The most recent evaluation of the corporate governance report for 2018 did not result in any negative findings regarding our public statements on compliance with the Code. Compliance with the provisions of the Code relating to the external auditor was verified by the Audit Committee. In its report to the Supervisory Board, the Audit Committee stated that no deviations from the rules of the Code were identified in 2018.

### *Compliance*

The term "compliance" encompasses all instruments and measures designed to ensure that a company and its employees act in conformity with the law in respect of all legal provisions that specifically apply to the company concerned. Commitment to compliance with all national and international legal standards in effect is a fundamental principle of the Wienerberger Group.

In order to prevent insider trading and the unlawful disclosure of inside information, the company has a compliance policy in place, which was updated in 2018. This policy implements the provisions of European and Austrian stock exchange law. A compliance officer, supported by a deputy, has been appointed to monitor compliance. Moreover, training sessions, for example on issuer compliance, are held regularly at the Vienna headquarters for both Wienerberger Holding and the individual Business Units.

The principles governing lobbying activities have been laid down in a code of conduct based on the provisions of the Austrian Lobbying and Transparency Act, which applies to all boards and employees of Austrian companies in which Wienerberger AG holds a majority interest. This code of conduct can be downloaded from the Wienerberger website ([www.wienerberger.com](http://www.wienerberger.com)).

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 anti-trust authorities. Investigations can be initiated even in the absence of a specific reason. We take such proceedings very seriously. We support the investigations to the best of our abilities in order to clarify issues raised by the authorities swiftly and thoroughly. Despite all efforts made, such proceedings usually take several years. Within the framework described above, we communicate all proceedings initiated and/or concluded during the respective reporting year and disclose the payment of



finer, where applicable. In 2018, no new proceedings were initiated against Wienerberger, nor were any decisions taken or fines imposed. The fact that there were no negative findings by the competent authorities confirms the effectiveness of our compliance measures. 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.

An anti-trust compliance program was introduced within the Wienerberger Group some years ago. Through the Group's anti-trust compliance policy, 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 policy provide guidance on sensitive issues of competition law and are to be strictly observed. Among other topics, the policy sets out rules regarding contacts with competitors in respect of market activities, information exchange, pricing and delivery terms, as well as possible forms of cooperation. As regards contacts with customers, distributors and suppliers, strict rules apply to the determination of re-sale prices or other re-sale restrictions as well as exclusivity arrangements. The policy also contains provisions on intellectual property rights and mergers.

Within the framework of the anti-trust compliance program, all country organizations 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 of training events and the selection of employees to be trained. Internal Audit verifies that training events have been held and monitors compliance with the anti-trust policy.

In accordance with Wienerberger's decentralized structure, responsibility for the implementation of and compliance with the national rules and regulations lies with the respective local management bodies. For this reason, and pursuant to national legal provisions, compliance officers have been appointed at country level and mandated to evaluate compliance and report thereon to the local authorities and the Wienerberger Managing 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 all these rules and regulations, if necessary through investments in optimization measures.

Since 01/01/2015, a policy on compliance with economic and financial sanction laws has been in force to ensure compliance with sanctions against certain countries and/or nationals of such countries within the Wienerberger Group. Deliveries to and business contacts with individuals and/or organizations under sanctions are prohibited.

#### ***Internal audit***

In order to further improve Wienerberger's system of risk management, an internal audit function has been set up as a staff unit reporting to the Managing Board. The Managing Board and Internal Audit regularly analyze operational processes for potential risks and possible improvements in efficiency; they also monitor compliance with legal provisions, internal policies and processes. These activities are based on an audit plan approved by the Managing Board and agreed upon with the Audit Committee of the Supervisory Board, as well as a Group-wide system of risk assessment covering all the company's operations. Internal Audit reports to the Managing Board and the Audit Committee on the audit findings.



### ***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 2018, no charges were brought against Wienerberger for suspected corruption and no penalty payments were due.

In 2018, 27 companies (listed in the 2018 Annual Report, starting on page 212, “Group Companies”), were audited by Internal Audit with a special focus on organization, purchasing, materials management, sales, human resources, and corruption and anti-trust legislation. Other focus areas of the audits included compliance with the Group-wide health and safety standards for our employees. In the course of these audits, it was ascertained that the internal policies had been implemented in the companies audited and that the employees concerned were adequately informed. Deviations from the policies, if any, were reported to the Managing Board and the Audit Committee, and appropriate measures, such as improvements of documentation processes, were agreed upon with the respective local management.

Another important instrument for the prevention of corruption is the four-eyes principle applicable to the signing of business transactions with third parties. Whenever rights and obligations are established, modified or terminated, the signatures of two competent authorized persons from the local entity are required. This instruction is laid down in international Group policies and supports the prevention of corruption at international level, as does the Group-wide policy on business gifts, which was updated in 2016.

### **Human resources management**

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. Human resources management is based on the following principles, which apply throughout the Group:

- › Ensuring safe and healthy workplaces
- › Equal opportunities, regardless of age, gender, culture, religion, origin or other diversity features
- › Advancement and development of each individual 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.

Occupational health and safety is a matter of special importance to us. The Wienerberger Safety Initiative contains binding rules on safety standards and provides for activities ensuring the highest possible level of occupational safety at all production sites of the Wienerberger Group. These activities, as well as the additional initiatives taken by the various Business Units, are described in detail in the chapter “Employees” starting on page 74 and on page 77.



In addition to its commitment to providing adequate, safe and healthy working conditions, our human resources management is based on fair remuneration, freedom of association and the right of our employees to engage in collective bargaining. In 2018, approx. 71% of all Wienerberger employees were covered by collective bargaining agreements.

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, appropriate 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 2018, 155 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 details in the chapter “Employees” starting on page 74.

## Quality and environmental management

Quality management systems (QMS) have been installed at all our plants, which are certified according to ISO 9001 at almost all production sites. Environmentally relevant aspects have also been integrated into our QMS. Where appropriate, production sites have also been certified according to ISO 14001. All Steinzeug-Keramo production sites and the Pipelife site in Germany are 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 conservation and cost reductions through improvements of production processes. With our “Demoplant” project for brick production in Europe, we are pursuing the ambitious goal of reducing natural gas consumption in production by up to 50%. We are now testing the technologies identified as suitable for this purpose in a retrofitted plant.

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 being re-certified at regular intervals.

## Stakeholder management

As a responsible member of society, Wienerberger 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 this context, in 2014 we 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 non-governmental organizations (NGOs). These groups are extremely diverse and have different needs, interests and concerns.

Different stakeholder groups are therefore 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 mainly interested in high-quality, durable and affordable products for buildings that ensure a safe, healthy and comfortable environment. In our role as the technology and innovation leader of our industry, we have begun to offer one-stop-shop solutions for the digital design of building projects in some of our markets as part of our digital agenda. 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. BIM (Building Information Modelling), for example, is ideally suited as a one-stop system for seamless digital design of construction projects. Our well-trained and highly qualified employees as well as our service centers are available to support our customers in the application of our products and system solutions.

- › **Capital market participants** - investors, analysts and banks - are interested primarily in the company’s sustainable performance. 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 our 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 sourcing 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. All operating segments in Europe have laid down their minimum standards in supplier codes of conduct. Within the framework of the new procurement structure with Corporate Procurement as a central department, a Group-wide “Supplier Code of Conduct” is being elaborated and rolled out in 2019. Additional instruments for responsible supplier management, such as supplier audits, are being implemented. For detailed information, please refer to the chapter “Production”, in particular the section “Sustainability in our supply chain”, starting on page 114.



- › **Local residents, local authorities and non-governmental organizations (NGOs)** are also among our 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 and local authorities 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, the most important point for Wienerberger is to present itself as a company that is open and transparent in its relations with stakeholders and takes their concerns seriously. As regards the extraction of clay, Wienerberger has committed itself to taking extensive health and safety measures and protecting employees and local residents from exposure to noise and dust. Depleted extraction sites are re-cultivated, re-naturalized or made available for re-use.
- › **Policy-makers** determine the legal framework and thereby exert a major influence on Wienerberger's entrepreneurial environment. 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 aid for renovation measures and the construction of water-supply and wastewater 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 are determined to address the 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.

- › **Research institutions and universities** are important partners with whom Wienerberger maintains close contacts and engages in regular exchange. Wienerberger itself operates several research facilities in Europe, each specializing in a different product group.
- › **The media** expect targeted and timely information on strategic and current issues. Wienerberger, for its part, expects to receive fair media coverage. With a view to satisfactory cooperation, we keep the media informed on current issues through press releases and press conferences. Journalists' questions are answered as quickly as possible, and enough time is allowed in personal interviews for a meaningful exchange of ideas.

### Complaints management

Complaints regarding product quality or other issues are dealt with in various ways by our Business Units. At Pipelife, for instance, complaints management is handled locally by the individual country organizations. Steinzeug-Keramo has taken a different approach and applied a comprehensive complaints management regime since 2016. Each complaint is entered into the system via an app and, at intervals of two weeks, the complaints received are assessed by a group comprising representatives of all departments concerned. Corrective measures, if necessary, can then be implemented. In order to understand our customers' concerns even better and adapt our products to their needs as far as possible, it is crucial to engage in continuous dialogue with them. Moreover,



we inform our customers not only about the technological properties of our products, but also about their ecological characteristics.

### **Data protection**

The protection of personal data has always been a matter of high priority for Wienerberger in all the company's business relations. We treat personal data as confidential and process them in accordance with the data protection rules in effect. We continuously invest in data security measures in order to ensure the best possible protection of personal information. In order to meet all requirements arising in this context and continuously improve our privacy-related processes, an international team of data protection coordinators operates at Wienerberger AG and in the country organizations. With a view to the General Data Protection Regulation, a quality standard for data protection was elaborated in cooperation with external experts and successfully implemented throughout the Group in 2018.

### **Self-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, Austria's leading platform for corporate social responsibility and sustainable development. Thus, Wienerberger is officially committed to implementing 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 Wienerberger Social Charter, which confirms the company's commitment to compliance with the relevant conventions and recommendations of the International Labor Organization (ILO – a specialized agency of the United Nations), was signed by the Managing Board of Wienerberger AG and the chairman of the European Forum, a social partnership body, in Strasbourg in 2001. Through this charter, which is published on our website ([www.wienerberger.com](http://www.wienerberger.com)), Wienerberger demonstrates its global commitment to respect for human rights, fair working conditions, payment of adequate remuneration, the avoidance of excessive working hours, permanent employment contracts, and respect for the freedom of assembly and the right of employees to engage in collective bargaining. Within its sphere of influence, Wienerberger guarantees the protection of fundamental human rights. It therefore goes without saying that Wienerberger tolerates neither child labor nor slave labor, nor any form of discrimination.

The most recent Communication on Progress (CoP) for 2018 is reproduced in this report, starting on page 156, and can also be found on the Wienerberger website ([www.wienerberger.com](http://www.wienerberger.com)).



**Our Sustainability Management in Detail**

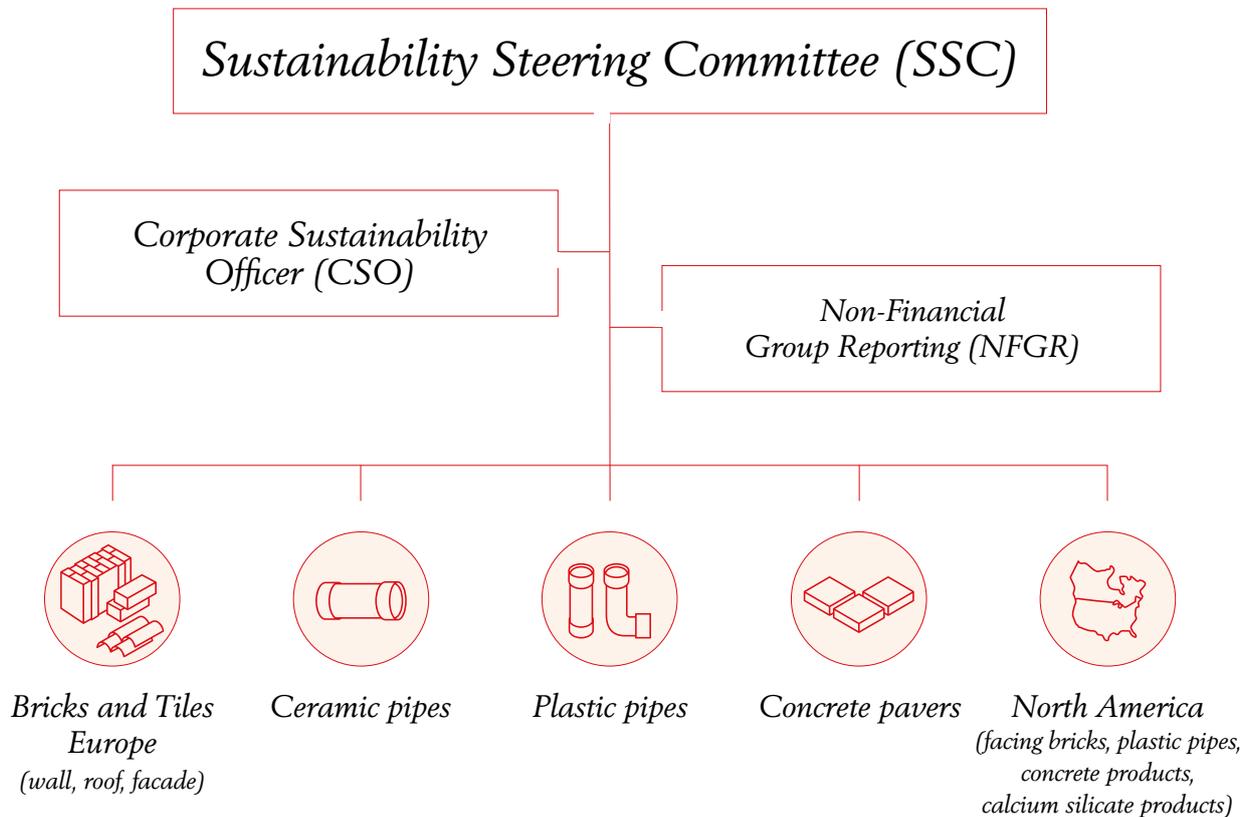
Wienerberger’s voluntary commitment to sustainability covers all stages of the Group’s value chain. To ensure a uniform approach and the attainment of our targets as well as efficient implementation of the measures adopted, we introduced clear structures and responsibilities for sustainability management throughout the Group.

**Organizational structure**

The Sustainability Steering Committee (SSC) is responsible for the Wienerberger sustainability strategy and the definition of the targets, deadlines and measures of the 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 in future the Chief Performance Officer) and is the top-level body in charge of sustainability management. Sustainability Management is a staff function headed by the Corporate Sustainability Officer (CSO). The CSO

reports directly to the CEO of Wienerberger AG, ensures Group-wide coordination of sustainability management and prepares Wienerberger AG’s sustainability reports. The CEOs of the Business Units are responsible for implementing the sustainability strategy and attaining the sustainability targets set for their respective Business Units. They are supported by sustainability officers engaged in continuous exchange with the CSO on current developments and progress achieved. This structure enhances their responsibilities and strengthens their influence on the integration of our sustainability strategy into the respective Business Units.

Non-Financial Group Reporting has been established as a central data management regime responsible for the consolidation of all non-financial indicators. The latter provide the basis for strategic decisions to be taken by the Business Units and at Group level.





### Our value creation process

In 2014, we specifically analyzed the value chains of our four main product groups. The analyses covered procurement along the entire supply chain, production and use of our products, and possible end-of-life scenarios for the respective products. We distinguished between the following product groups:

- › **Bricks:** Clay blocks, facing bricks, clay roof tiles and clay pavers (Clay Building Materials Europe, General Shale within the North America Division)
- › **Concrete pavers and concrete facade elements** (Semmelrock, Arriscraft within the North America Division)
- › **Ceramic pipes** (Steinzeug-Keramo)
- › **Plastic pipes** (Pipelife)

ImWe allocated potential ecological, social, ethical, regional and/or macroeconomic topics, as well as topics relating to the security of supply, to the individual stages of the four value chains. These topics then provided the basis for our stakeholder survey, which served to establish which topics our stakeholders regard as material for Wienerberger and its impacts on society.

For a detailed presentation of the individual value chains, please refer to the 2014 Sustainability Report (<https://sustainabilityreport14.wienerberger.com/>). The materiality analyses were performed in 2014 in accordance with the requirements of GRI G4, “core” option. Starting in 2019, the materiality analysis will be updated. In the course of this process, the value chains of the four main product groups will also be updated in accordance with the most recent developments.

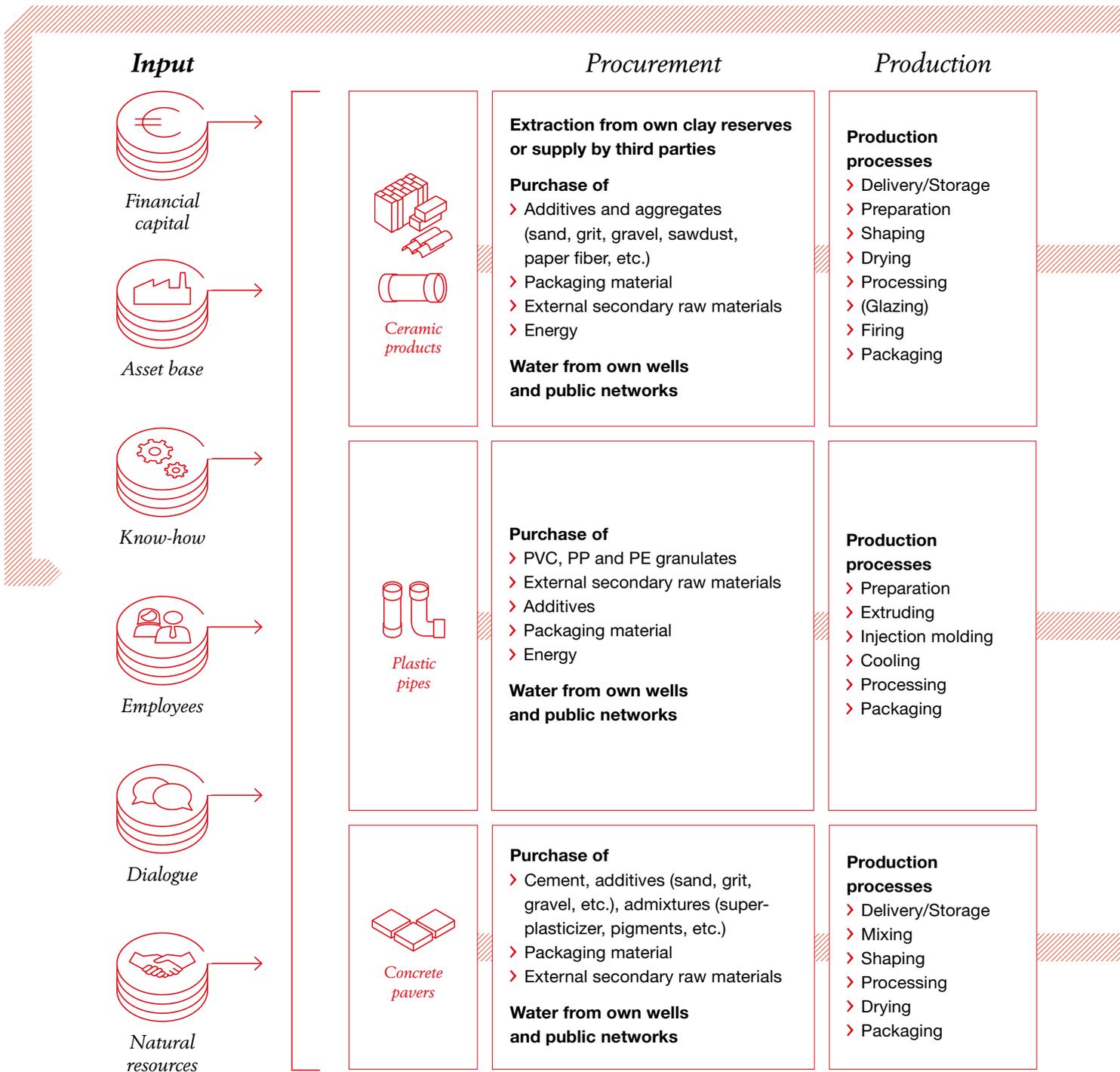
The diagram on pages 38-39 show an overview of Wienerberger’s entire value creation process.

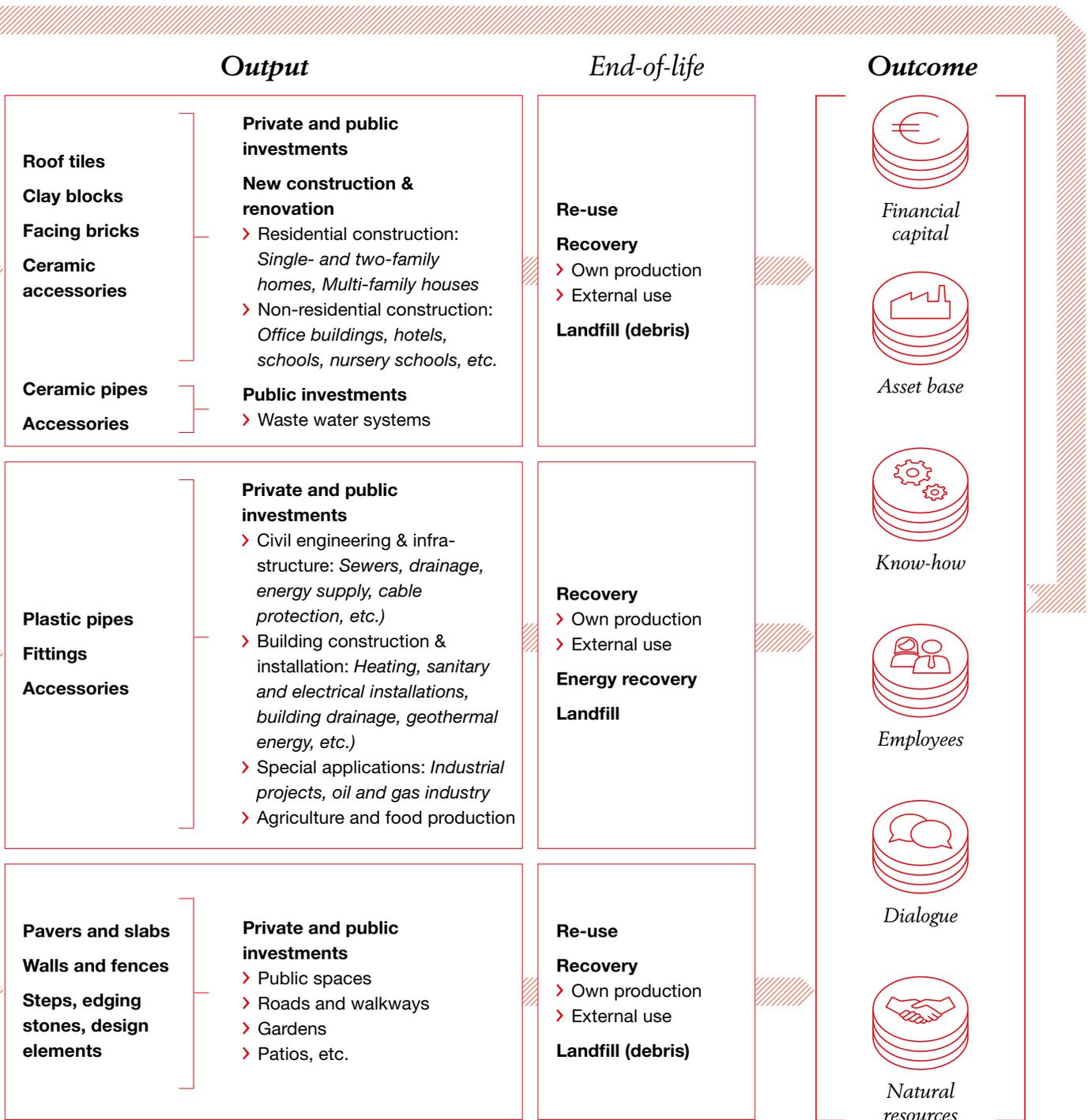
For further information on Financial Capital and our Asset Base as input factors, please refer to the 2018 Annual Report (pages 24/25). Details on Know-How and Natural Resources as additional input factors are contained in the chapters “Production” (starting on page 98) and “Products” (starting page 130). The two remaining input factors, i.e. Employees and Dialogue, can be found in the chapters “Employees” (starting page 66) and in the section on stakeholder management in this chapter.

Innovative building and infrastructure solutions represent the output of our industrial production processes. For detailed information, please refer to the chapter “Products” (starting on page 133).



Value Creation of the Wienerberger Group







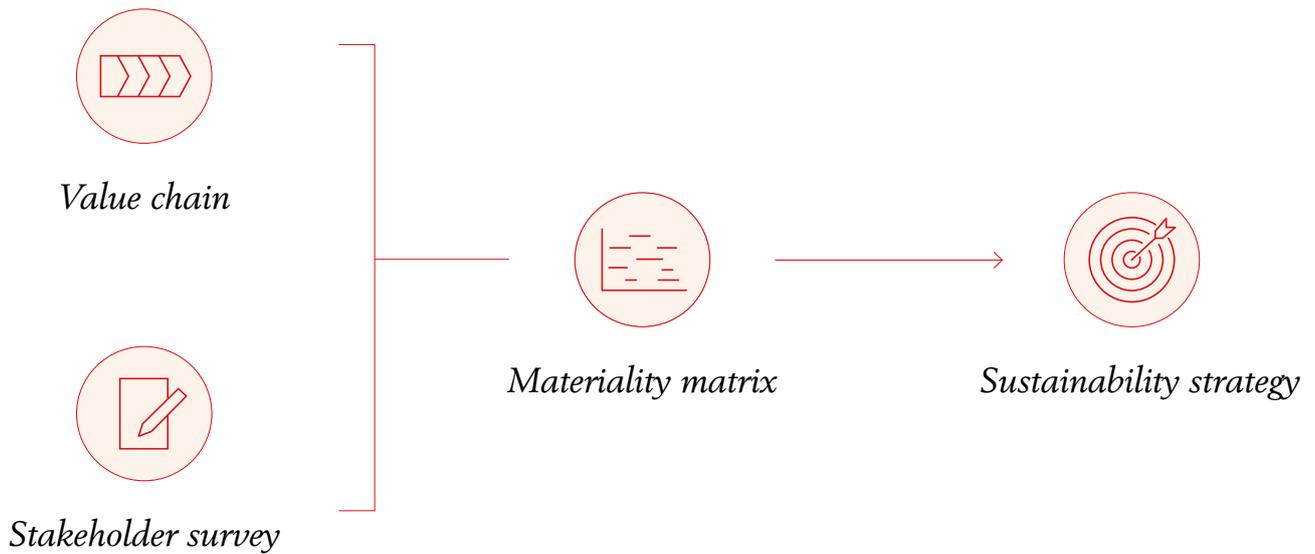
**The stakeholder survey**

The view of our internal and external stakeholders regarding the materiality of the topics identified was obtained through an online survey. The survey also served to establish our stakeholders' perception of Wienerberger's current engagement in respect of individual topics. The stakeholder survey was performed and evaluated by an external partner, who 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 influence on the company.

On the basis of this rating 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.

We invited close to 500 stakeholders to participate in the survey – 80% of them external stakeholders. Based on the stakeholders' responses, the material aspects 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.





### Results of the materiality analyses

The survey showed that the stakeholders perceived certain aspects as being of similarly high significance across all four product groups. Additionally, the aspects identified as material were aggregated at Group level. The result shows the aspects along the value chains of the four product groups that are equally relevant to the entire Wienerberger Group. These aspects, relating to specific topics, are presented in the following chapters “Employees”, “Production”, “Products”, and “Social and Societal Commitment”.

The result provided the basis for the further development of our sustainability strategy and the identification of targets and measures for our Sustainability Roadmap 2020, a five-year plan of action for the ecological, social and societal performance of Wienerberger (see page 42).

The results of the individual materiality analyses for each product group are described in detail in our 2014 Sustainability Report. <https://sustainabilityreport14.wienerberger.com/en/sustainability-at-wienerberger/>

The diagram on page 42 shows which topics and/or challenges were identified by the stakeholders as the most material ones for the Wienerberger Group as a whole and were therefore incorporated into the Wienerberger Sustainability Roadmap 2020.

### The Wienerberger Sustainability Roadmap 2020

The Wienerberger Sustainability Roadmap 2020 describes the sustainability targets 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 improving Wienerberger’s ecological, social, societal and economic performance.

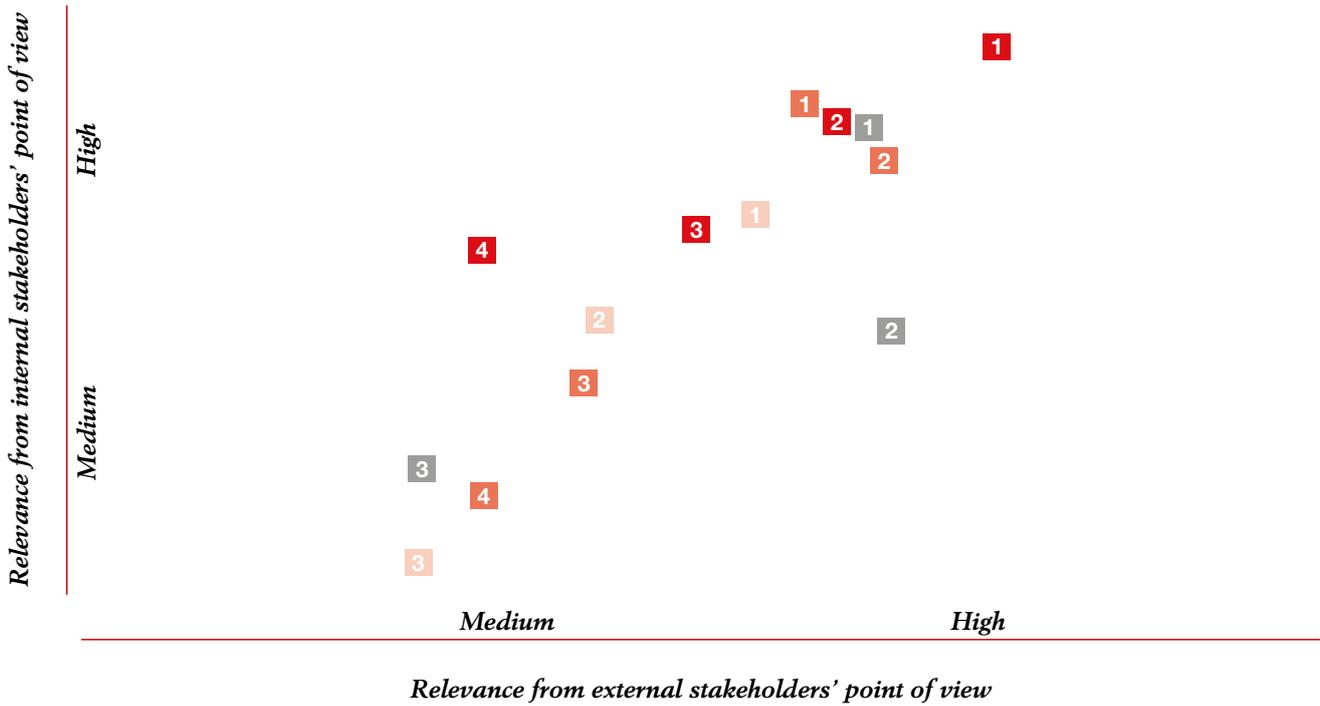
The measures implemented and the targets attained in 2018, as well as the next steps planned by the Business Units for 2019, are summarized in the tables on pages 43 to 47 and described in detail in the respective chapters of this report.

### Updating of the materiality analysis and the Wienerberger Sustainability Roadmap

Starting in 2019, Wienerberger will be conducting an updated materiality analysis, which will then serve as the basis for a new Wienerberger Sustainability Roadmap to enter into force in 2021.



The most relevant topics as the basis of the Sustainability Roadmap 2020



Caption

Group-wide supply chain topics		Group-wide product topics	
1	Availability of raw materials	1	Innovative and durable products
2	Avoidance of hazardous substances	2	Recyclability, recycling and re-use of products
3	Protection of local residents and employees, nature conservation, re-use of depleted extraction sites	3	Product-group-specific properties
Environmental topics in production		Social topics in production	
1	Energy efficiency	1	Health and safety of the employees
2	Climate action	2	Business ethics and compliance
3	Resource efficiency and waste management	3	Employee satisfaction and training
4	Sparing use of water	4	Communication with and involvement of employees



## Wienerberger Sustainability Roadmap 2020 – Overview 2018

Material topics QT ... Quantitative targets M ... Measures	Holding		CBME		North America <sup>1)</sup>		Pipelife <sup>1)</sup>		Semmelrock		Steinzeug-Keramo	
	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>
<b>Supply chain</b>												
Availability of raw materials			🎯	👍	🎯	👍	🎯	👍	🎯	👍	🎯	👍
Avoidance of hazardous substances				👍		👍		👍		👍		👍
Protection of local residents and employees; nature conservation and re-use of depleted clay pits		👍 W +		👍		👍		👍		👍		👍
<b>Environmental topics in production</b>												
Energy efficiency			🎯	👍	🎯 ✓	👍	📊🎯+	📊		👍		👍
Climate action			🎯	👍		👍	📊🎯+	📊		👍	🎯	👍
Resource efficiency and waste management				👍		👍		👍	🎯 ✓ +	👍		
Sparing use of water						👍	📊🎯+	📊		👍		
<b>Social topics in production</b>												
Safety of our employees	🎯 W	👍 W	🎯 W	👍	🎯 W	👍	🎯 W	👍	🎯 W	👍	🎯 W	👍
Health of our employees <sup>3)</sup>	🎯 W	👍	🎯 W	👍	🎯 W	👍				👍	🎯 W	👍
Business ethics and compliance	🎯 W ✓	👍 W	🎯 W ✓	👍 W	🎯 W ✓	👍 W	🎯 W ✓	👍 W	🎯 W ✓	👍 W	🎯 W ✓	👍 W
Employee satisfaction		👍 W		👍 W		👍 W		👍 W		👍 W		👍 W
<b>Products</b>												
Innovative and durable products			🎯 ✓	👍	🎯 ✓	👍	📊🎯	📊	🎯 ✓	👍	🎯 ✓	👍
Recyclability, recycling and re-use of products				👍		👍	🎯 ✓ +	👍		👍		👍
Ease of installation				👍								
Contribution to energy efficiency of buildings				👍		👍		👍				

1) Excl. Pipelife production site in North America  
 2) Measures: including measures relating to non-quantifiable targets  
 3) Group-wide target exclusively for ceramic production

🎯 Quantitative target being implemented  
 ✓ Realized  
 W Group-wide target or Group-wide measure

👍 Measure implemented  
 📊 Partially realized/implemented  
 + New target defined



## Wienerberger Sustainability Roadmap 2020 – Overview 2019 and 2020

Material topics	Milestones	Holding		CBME		North America <sup>1)</sup>		Pipelife <sup>1)</sup>		Semmelrock		Steinzeug-Keramo	
		QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>
<b>Supply chain</b>													
Availability of raw materials	2019			⊙	○	⊙	○	⊙	○	⊙	○	⊙	○
	2020				○		○		○		○		○
Avoidance of hazardous substances	2019				○						○		○
	2020				○								
Protection of local residents and employees; nature conservation and re-use of depleted clay pits	2019		○ W		○ W		○ W		○ W		○ W		○ W
	2020				○ W		○ W		○ W		○ W		○ W
<b>Environmental topics in production</b>													
Energy efficiency	2019			⊙	○	⊙	○	⊙+	○		○		○
	2020			⊙	○			⊙+	○				
Climate action	2019			⊙	○			⊙+	○		○	⊙	○
	2020			⊙	○			⊙+	○			⊙	○
Resource efficiency and waste management	2019				○		○			⊙	○		
	2020									⊙	○		
Sparing use of water	2019						○	⊙+	○		○		
	2020							⊙+	○				

1) Excl. Pipelife production site in North America

2) Measures: including measures relating to non-quantifiable targets

W Group-wide target or Group-wide measure

⊙ Quantitative target being implemented

○ Qualitative targets and measures planned

+ New target defined



Material topics	Milestones	Holding		CBME		North America <sup>1)</sup>		Pipelife		Semmelrock		Steinzeug-Keramo	
		QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>	QT	M <sup>2)</sup>
<b>Social topics in production</b>													
Security of our employees	2019	⊙ W	○	⊙ W	○	⊙ W	○	⊙ W	○	⊙ W	○	⊙ W	○
	2020	⊙ W	○	⊙ W	○	⊙ W	○	⊙ W	○	⊙ W	○	⊙ W	○
Health of our employees <sup>3)</sup>	2019	⊙ W	○	⊙ W	○	⊙ W	○		○		○	⊙ W	○
	2020	⊙ W	○	⊙ W	○	⊙ W	○					⊙ W	○
Business ethics and compliance	2019	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W
	2020	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W	⊙ W	○ W
Employee satisfaction	2019		○ W		○ W		○ W		○ W		○ W		○ W
	2020		○ W		○ W		○ W		○ W		○ W		○ W
<b>Products</b>													
Innovative and durable products	2019			⊙	○	⊙	○	⊙	○	⊙	○	⊙	○
	2020			⊙	○	⊙	○	⊙	○	⊙	○	⊙	○
Recyclability, recycling and re-use of products	2019				○		○	⊙+	○		○		○
	2020							⊙+	○				○
Ease of installation	2019				○								
	2020				○								
Contribution to energy efficiency of buildings	2019				○		○						
	2020				○								

- 1) Excl. Pipelife production site in North America
- 2) Measures: including measures relating to non-quantifiable targets
- 3) Group-wide target exclusively for ceramic production

- W Group-wide target or Group-wide measure
- ⊙ Quantitative target being implemented
- Qualitative targets and measures planned
- + New target defined



## Quantitative Targets of the Wienerberger Sustainability Roadmap 2020

Target definitions	Deadlines set	Performance			Status
		2016	2017	2018	
<b>Employees</b>					
<b>Safety of our employees</b>					
Group level: zero accidents	Every year	7	5	5	The accident frequency value* was reduced from 5.4 to 5.1, i.e. by almost 6%.
<b>Health of our employees</b>					
Group level: Percentage of ceramic production sites reporting core indicators on protection from exposure to respirable crystalline silica > 95%	2020	No data collected	98%	No data collected	The survey via NEPSI, the shared online platform (Negotiation Platform on Silica, <a href="http://www.nepsi.eu/de/nessi">www.nepsi.eu/de/nessi</a> ), is conducted every two years. Wienerberger is currently working independently on a new Group-wide standard for protection against respirable crystalline silica.
<b>Production</b>					
<b>Energy efficiency</b>					
North America <sup>1)</sup> : Reduction of natural gas consumption at selected production sites by 5% per site compared to 2015	2018	4%	4%	5%	The target for 2017 was extended by one year, as the complete conversion of all main production sites to natural gas as an energy source generating lower emissions naturally led to an increase in natural gas consumption.
Clay Building Materials Europe: Reduction of specific energy consumption in production by 20% compared to 2010	2020	10%	12%	13%	Compared to 2017, a further improvement by 1% (in absolute terms) was achieved.
PREVIOUS target for Pipelife <sup>2)</sup> : Reduction of specific energy consumption in production by 20% compared to 2010	2020	2%	-5%	-4%	The negative value indicates an increase. Specific energy consumption was 4% above the 2010 baseline. This is primarily attributable to the long-term trend towards lighter plastic pipe products with smaller diameters (which strongly influences the specific value, measured in tons of net additions to inventories).
<b>NEW</b> target for Pipelife <sup>2)</sup> : Reduction of specific energy consumption in production by 3% compared to 2010	2020	6%	0%	-1%	Starting from 2018, the target was redefined on account of changes in the product mix (see above). Our new target refers not only to electricity, but also to all other energy sources used.
<b>Climate action</b>					
Steinzeug-Keramo: Compensation of 5% of the annual CO <sub>2</sub> emissions generated in the respective plant through climate action projects	2018	>5%	>5%	>5%	The target was achieved again in 2018.
Clay Building Materials Europe: Reduction of specific CO <sub>2</sub> emissions from primary energy sources by 20% compared to 2010	2020	2%	4%	6%	Irrespective of the success achieved in reducing specific CO <sub>2</sub> emissions, the target for 2020 is highly ambitious.
PREVIOUS target for Pipelife <sup>2)</sup> : Reduction of specific indirect CO <sub>2</sub> emissions from electricity in production by 20% compared to 2010	2020	17%	16%	11%	The reductions of specific indirect CO <sub>2</sub> emissions have been decreasing since 2016. This development is primarily attributable to the trend towards lighter plastic pipe products with smaller diameters (which strongly influences the specific value, measured in tons of net additions to inventories). We have therefore defined a new target.
<b>NEW</b> target for Pipelife <sup>2)</sup> : Reduction of specific indirect CO <sub>2</sub> emissions from electricity in production by 11% compared to 2010	2020	17%	16%	11%	Starting in 2018, we defined a new target taking account of changes in the product mix (see above).

1) North America: excl. Pipelife production site. // 2) Pipelife: incl. the production site in North America until 2016. // \* Unit for accident frequency defined as follows: number of occupational accidents/number of hours worked x 1,000,000; including temporary and agency workers as well as employees under term contracts.



Target definitions	Deadlines set	Performance			Status
		2016	2017	2018	
<b>Production</b>					
<b>Water usage</b>					
PREVIOUS target for Pipelife <sup>2)</sup> : Reduction of specific water usage from public networks to 0.55 m <sup>3</sup> per ton of products produced	2020	0.81 m <sup>3</sup> /t	0.95 m <sup>3</sup> /t	1.02 m <sup>3</sup> /t	Specific water usage from public networks has been increasing since 2016. This development is primarily attributable to the trend towards lighter plastic pipe products with smaller diameters (which strongly influences the specific value, measured in tons of net additions to inventories). We have therefore defined a new target.
NEW target for Pipelife <sup>2)</sup> : Reduction of specific water usage from public networks to 0.85 m <sup>3</sup> per ton of products produced	2020	0.81 m <sup>3</sup> /t	0.95 m <sup>3</sup> /t	1.02 m <sup>3</sup> /t	Starting in 2018, we defined a new target taking account of changes in the product mix (see above).
<b>Resource efficiency and waste management</b>					
NEW target for Semmelrock: Reduction of the scrap rate to 2% by 2020	2020	3.1%	2.6%	2.1%	The previous target (-50% compared to 2014), which expired in 2017, was almost achieved. We have defined a new target to be reached by 2020, which provides for a reduction of the scrap rate by another 23% compared to 2017.
<b>Products</b>					
<b>Innovative Products</b>					
Clay Building Materials Europe: 25% share of innovative products in total revenues	Every year	26%	31%	31%	The target was surpassed again.
North America: 50% share of innovative products in total revenues	2018	49%	51%	51%	The target was achieved again.
Pipelife: 20% share of innovative products in total revenues	Every year	20%	19%	17%	The target was missed, the percentage of total revenues being significantly below the previous year's level. This is attributable to the product development cycles in this product group. For 2019, we expect the share of innovative products in revenues to rise again.
Semmelrock: 30% share of innovative products in total revenues	Every year	37%	38%	35%	The target was surpassed again.
Steinzeug-Keramo: 35% share of innovative products in total revenues	Every year	39%	42%	43%	The target was surpassed again.
<b>Recyclability, recycling and re-use</b>					
PREVIOUS target for Pipelife <sup>2)</sup> : Increase of the amount of secondary raw material to 70 kg per ton of products produced	2020	65.4 kg/t	67.2 kg/t	75.02 kg/t	The target was achieved in 2018, i.e. two years earlier than planned.
NEW target for Pipelife <sup>2)</sup> : Increase of the amount of secondary raw material to a total of 85 kg per ton of products produced	2020	65.4 kg/t	67.2 kg/t	75.02 kg/t	The use of secondary raw material is particularly relevant in plastic pipe production. We have therefore further increased the target value and defined a new, ambitious target for 2020.
NEW target for Pipelife <sup>2)</sup> : Increase of the amount of exclusively external secondary raw material to 50 kg per ton of products produced	2020	23.7 kg/t	30.89 kg/t	39.18 kg/t	Additionally, we have introduced a clear differentiation between external and internal secondary raw materials and defined a supplementary target for the share of exclusively external secondary raw material. This corresponds to a 250% increase compared to 2020.
<b>Social responsibility</b>					
<b>Business ethics &amp; compliance</b>					
Group level: zero incidents of corruption	Every year	0	0	0	The target was achieved again in 2018.

1) North America: excl. Pipelife production site. // 2) Pipelife: incl. the production site in North America until 2016.



### The 2018 impact and risk analysis

In 2018, an impact and risk analysis for Wienerberger's four main product groups – bricks (wall, facade and roof products), ceramic pipes, plastic pipes and concrete pavers – was launched on the basis of the specific value chains. The entire analytical process was accompanied and methodologically supported by independent external experts.

It included the following core steps:

- › Documentation of all potential thematic fields, broken down by impacts on and/or risks and opportunities for the environment, employees, and social issues, including respect for human rights and the fight against corruption
- › Qualitative evaluation of the significance of all potential impacts and risks identified by internal experts by product group and phase in the value chain within the framework of workshops
- › Identification of all relevant Sustainable Development Goals of the United Nations (SDGs) to the attainment of which Wienerberger is contributing, based on the specific impact and risk analyses of the four main product groups

The internal analysis was based on comprehensive expertise regarding relevant production topics and product characteristics. Procurement topics were based on assumptions by internal experts.

In the following, the impacts and risks relating to non-financial topics, which have been identified as material, are summarized for each product group. Further information on the management approaches and concepts applied is briefly presented on page 28 and covered in greater detail in the chapters "Employees", "Production", "Products", and "Social and Societal Commitment".



**Results of the impact and risk analysis in the brick segment (wall, facade and roof products)**

In the brick segment, employment and equal opportunities in clay extraction were assessed to be particularly relevant procurement topics, followed by the use of recycled material in the procurement of raw materials other than clay. The latter topic is also part of our Sustainability Roadmap 2020 (SR202). Corporate ethics and human rights in clay extraction as well as in energy sourcing were regarded as relevant risks in procurement.

In brick production, as the subsequent step in the value chain, employment, equal opportunities and energy

consumption were classified as particularly relevant impacts, while occupational safety was perceived as a particularly relevant risk. The latter two topics are also part of our Sustainability Roadmap 2020.

In product use, the efficient use of resources and climate action were seen as particularly relevant opportunities. The contribution to the preservation of the cultural heritage and the positive influence of our brick products on indoor climate were seen as relevant for favorable working conditions, the use of buildings in general, and society as a whole. The efficient use of natural resources was classified as a further opportunity.

*Results of the analysis:  
Impacts, risks and opportunities in the brick segment (wall, facade, roof)*

	Input // Sourcing	Production	Output // Products – End-of-life
	■ Employment in clay extraction	■ Employment	■ Efficient use of natural resources – Durability
	■ Equal opportunities in clay extraction	■ Equal opportunities	■ Climate action – Insulation – Natural disasters
SR	■ Use of recycled material in raw material sourcing	■ Skills development	■ Working conditions, users of buildings, society – Representation of cultural heritage – Indoor climate and indoor air quality
	■ Energy consumption in clay extraction	SR ■ Energy consumption	
	■ Emissions from raw material sourcing	SR ■ Greenhouse gas emissions	
	■ Use of renewable raw materials as additives	SR ■ Occupational safety	
	■ Business ethics in clay extraction		SR ■ Efficient use of natural resources – Product innovation
	■ Human rights in clay extraction and energy sourcing		
	■ Environmental contamination in raw material sourcing		
SR	■ Corruption in energy sourcing		

Topics marked SR were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.



**Results of the impact and risk analysis in the ceramic pipe segment**

In the ceramic pipe segment, our internal experts regarded employment and equal opportunities as well as technological developments in raw material sourcing as particularly relevant procurement topics. Potential environmental damage as well as leakages and contamination in energy generation for production were seen as relevant procurement risks. In production, as the subsequent step in the value chain, employment, skills development and emissions from transport were classified as

particularly relevant impacts, while occupational safety was perceived as a particularly relevant risk. The latter two topics are also part of our Sustainability Roadmap 2020.

The positive influence on working conditions, users of infrastructure and society as a whole due to the hygienic aspect of product use was regarded as a particularly relevant impact. Occupational safety on construction sites was seen as a particularly relevant opportunity.

*Results of the analysis:  
Impacts, risks and opportunities in the ceramic pipe segment*

Input // Sourcing	Production	Output // Products – End-of-life
■ Employment in raw material sourcing	■ Employment	■ Working conditions, users of infrastructure, society
■ Equal opportunities in raw material sourcing	■ Skills development	– Hygiene
■ Technology development and know-how in raw material sourcing	SR ■ Emissions from transport	■ Nature conservation
■ Energy consumption in raw material sourcing	SR ■ Fuel consumption in transport	– Impermeability
■ Energy consumption in clay extraction	SR ■ Energy consumption	– Use of hazardous substances
■ Consumption of land in clay extraction	SR ■ Emissions	SR ■ Working conditions, users of infrastructure, society
■ Emissions from raw material sourcing	SR ■ Occupational safety	– Safety in construction
■ Environmental contamination relating to energy sources		
■ Leakages and pollution in energy generation		
■ Political instability in energy sourcing		
■ Human rights in energy sourcing		
■ Occupational safety in energy sourcing		
■ Relocation of inhabitants in energy sourcing		
SR ■ Corruption in energy sourcing		

Topics marked **SR** were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.



**Results of the impact and risk analysis in the plastic pipe segment**

In the plastic pipe segment, employment, technological development and procurement know-how as well as noise and odor were perceived as relevant impacts, while corruption in raw material procurement was seen as a potential risk.

The use of secondary raw materials, employment, and product and production innovation were classified as the

most relevant impacts in production. Here, too, occupational safety was regarded as the most relevant risk.

As regards product use, the efficient use of natural resources, supported by appropriate product properties, and the influence on hygiene and affordability were classified as particularly relevant impacts on infrastructure users and society as a whole. The efficient use of natural resources was also seen as a particularly relevant opportunity.

*Results of the analysis:  
Impacts, risks and opportunities in the plastic pipe segment*

Input // Sourcing		Production		Output // Products – End-of-life		
■	Employment in raw material sourcing	SR	■	Secondary raw materials	■	Efficient use of natural resources
■	Technology development and know-how in raw material sourcing		■	Employment	–	Recyclability
■	Noise and odor		■	Product and production innovation	–	Product design
■	Political instability		■	Fuel consumption in transport	–	Durability
■	Human rights	SR	■	Emissions from transport	–	Resistance
SR	■	SR	■	Raw material consumption	■	Working conditions, users of infrastructure, society
	Corruption in raw material sourcing	SR	■	Occupational safety	–	Hygiene
					–	Affordability
					■	Efficient use of natural resources
					–	Percentage of material recycling (e.g. plastic recycling facilities)

Topics marked SR were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.



**Results of the impact and risk analysis in the concrete paver segment**

In the concrete paver segment, employment in raw material sourcing, energy consumption, and emissions from cement production were regarded as relevant impacts in procurement. Occupational safety and potential chemical substances in raw material sourcing were seen as relevant risks.

In our own production, employment, equal opportunities and skills development were classified as relevant impacts, while occupational safety was seen as a relevant risk.

In product use, the potentially positive influence on climate due to the heat storage capacity and/or the water permeability of concrete pavers was seen as a positive impact. The characteristics of the products in use, such as accessibility or anti-slip properties, were regarded as further relevant, positive impacts. The efficient use of natural resources through recovery and re-use or due to easy maintenance, were seen as a particularly relevant opportunity.

*Results of the analysis:  
Impacts, risks and opportunities in the concrete paver segment*

Input // Sourcing	Production	Output // Products – End-of-life
■ Employment in raw material sourcing	■ Employment	■ Climate action
■ Energy consumption in cement production	■ Equal opportunities	– Heat storage capacity
■ Emissions from cement production	■ Skills development	– Water permeability
■ Safety in raw material sourcing	SR ■ Raw material consumption	■ Working conditions, users of infrastructure, society
■ Chemical substances in raw material sourcing	SR ■ Occupational safety in production	– Accessibility
SR ■ Availability of raw materials	■ Safety in transport	– Anti-slip properties
SR ■ Secondary raw materials	SR ■ Secondary raw materials	■ Efficient use of natural resources
		– Cleanability
		– Durability
		– Repairability
		– Packaging waste in construction
		■ Efficient use of natural resources
		– Recovery
		– Re-use
		– Self-cleaning
		Climate action
		■ – Active air purification

Topics marked **SR** were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.



**Results of the impact and risk analysis of the Wienerberger Group**

The impacts and risks of the four main product groups currently identified as material were aggregated for the Wienerberger Group.

For the Wienerberger Group, employment, technological development and equal opportunities were regarded as particularly relevant topics in terms of their potential impacts in procurement, followed by energy consumption, emissions in raw material sourcing, and the use of secondary raw materials as potentially positive impacts. For the latter topic, quantitative targets are included in our Sustainability Roadmap 2020. Environmental contamination, human rights violations in energy and raw material sourcing, and corruption were seen as potential risks. The topic of corruption is also covered in our Sustainability Roadmap.

In production, as the subsequent lifecycle phase, employment, equal opportunities, and skills development were classified as particularly relevant social impacts. Energy consumption and emissions from the production process, raw material consumption and the use of secondary raw materials were classified as environmentally relevant impacts, while occupational safety was seen as a particularly relevant risk. The latter five topics are also part of our Sustainability Roadmap 2020, some of them with quantitative targets.

In product use, solutions to mitigate climate change and/or potential adaptations to climate change as well as the efficient use of resources were classified as particularly relevant positive impacts, followed by working conditions and impacts on product users and/or society as a whole. The efficient use of natural resources was classified as an opportunity.

**Results of the analysis:  
Overview of impacts, risks and opportunities for the Wienerberger Group**

Input // Sourcing	Production	Output // Products – End-of-life
■ Employment	■ Employment	■ Climate action and adaptation to climate change
■ Technological development, know-how	■ Equal opportunities	■ Efficient use of natural resources
■ Equal opportunities	■ Skills development	SR ■ Working conditions, product use, and impacts on society (e.g. health and hygiene)
■ Energy input	SR ■ Energy input in production	■ Efficient use of natural resources
■ Emission from raw material sourcing	SR ■ Emission from production	
SR ■ Use of secondary raw materials	SR ■ Raw material input	
SR ■ Environmental contamination	■ Use of secondary raw materials	
■ Human rights violations in energy and raw material sourcing	■ Energy input in transport	
	■ Emission from transport	
SR ■ Corruption	SR ■ Occupational safety	

**Method:** The topics indicated in the table have been identified as material for at least two product groups of the Wienerberger Group. For the lifecycle stage shown under Output // Products – End-of-life, the topics, being product-group-specific and therefore very heterogeneous, have been grouped in higher-order clusters. // Topics marked SR were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.



**The relevant UN Sustainable Development Goals**

Based on the findings of the impact and risk analysis, the UN Sustainable Development Goals (SDGs) and the related targets that are relevant to Wienerberger were identified and hence, also, the ways in which Wienerberger can make or already makes targeted contributions to the 2030 Global Agenda.

The relevance of the SDGs was evaluated by the following method:

- > Evaluation of the material impacts and risks on the basis of the impact analysis performed in 2018 and 2019, taking into account the top third of all evaluations by the workshop participants for each product group and each step in the value chain.
- > Allocation of relevant SDGs and targets on the basis of the impact description and external sources: GRI, UN Global Compact and WBCSD: SDG Compass

(<https://sdgcompass.org/>); PwC: Business Reporting on the SDGs: An analysis of the goals and targets. ; European Commission, 2018: Mapping the role of raw materials in sustainable development goals

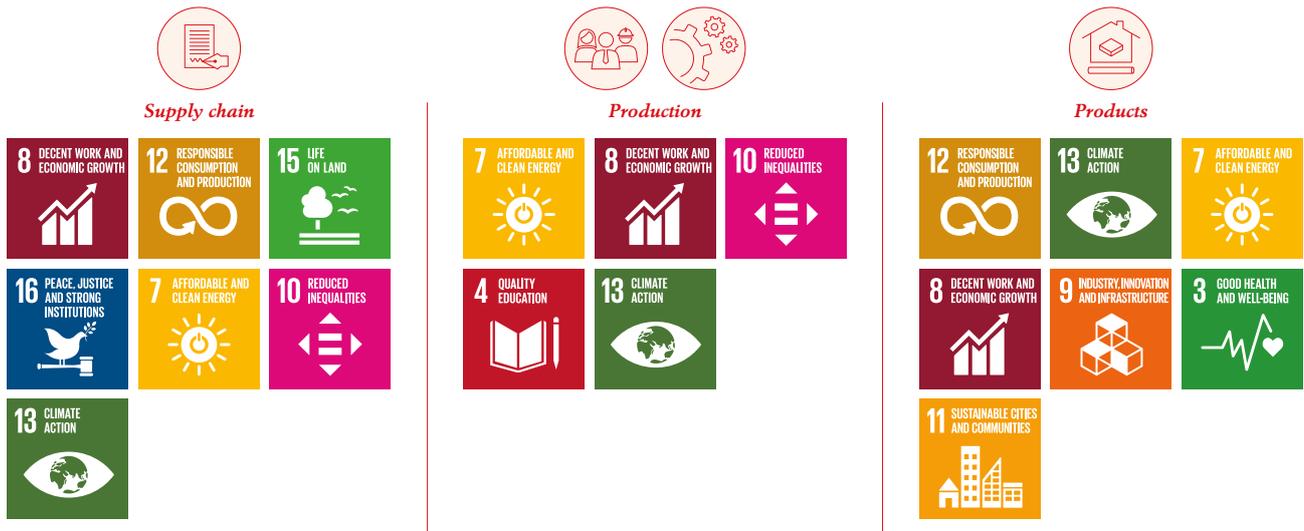
- > Determination of the relevance of the SDGs by the number of relevant targets per impact and SDG, and weighting on the basis of the impact assessment (impact assessment weight multiplied by the number of applicable targets)
- > Aggregation at Group level along the entire value chain

**Relevant SDGs for the brick segment (wall, facade, roof)**

In the brick segment, SDGs 7, 8, 10, 12 and 13 are relevant for at least two of the three lifecycle stages and rank among the first three SDGs. Given the enormous importance of the fight against corruption and bribery, SDG 16 is also highly relevant in procurement. The targets and Wienerberger’s contribution to their attainment in the brick segment are presented in the following.

**Relevant SDGs for the brick segment (wall, facade, roof)**

*Ranking by relevance based on the product-group-specific impact and risk analysis*





**SDGs particularly relevant to Wienerberger's brick segment <sup>1)</sup>**

**Targets relevant to Wienerberger's brick segment**

**Wienerberger's contribution in the brick segment**

<p><b>7. Affordable and clean energy</b></p>	<p>7.2. By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p>7.3. By 2030, double the global rate of improvement in energy efficiency</p>	<p>Wienerberger's absolute energy consumption is aggregated and reported at Group level. In 2018, as in the previous year, renewable energy accounted for 37% of total energy consumption, compared to 31% in 2016.</p> <p><b>Consumption:</b> On account of their thermal insulation properties, our clay blocks contribute towards enhancing the energy efficiency of buildings.</p> <p><b>Production:</b> We continuously strive to increase energy efficiency in production. In Europe, our target is to reduce specific energy consumption in production by 20% by 2020 compared to 2010. In 2018 we attained 13%.</p>
<p><b>8. Decent work and economic growth</b></p>	<p>8.4 Improve progressively, through 2030, global resource efficiency in consumption and production</p>	<p><b>Consumption:</b> In recent years, clay blocks filled with insulating material, clay blocks without infill material but with a special hole geometry for high thermal insulation, new facing brick formats for cavity walls, energy-saving upon-rafter insulation for pitched roofs, etc., were developed.</p> <p><b>Production:</b> In clay block production in Europe we use pore-forming agents for optimum thermal insulation properties. Some of the pore-forming agents used are secondary raw materials, such as saw dust, risk husks or sunflower seed shells. In 2018 almost 10% of the raw materials used were secondary raw materials.</p>
<p><b>10. Reduce inequalities</b></p>	<p>8.5 By 2030, achieve full and productive employment and decent work for all, and equal pay for work of equal value</p> <p>8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery, human trafficking and (by 2025) child labor</p> <p>8.8 Protect labor rights</p>	<p>Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our product-group-specific supplier codes of conduct, to be replaced as of 2019 by a Group-wide „Supplier Code of Conduct“.</p>
<p><b>12. Responsible consumption and production</b></p>	<p>10.2 By 2030, empower and promote the social, economic and political inclusion of all</p> <p>10.3 Ensure equal opportunity and reduce inequalities by eliminating discrimination</p>	<p>The principles of Wienerberger's human resources policy ensure equal rights and opportunities for all employees, regardless of age, gender, cultural background, religion, origin or other diversity features. In line with these principles, discrimination is not tolerated in any form. Developments regarding diversity and equal opportunities have been recorded since 2009 within the framework of our sustainability reports. Not a single incident of discrimination has been reported since the beginning of data collection.</p>
<p><b>13. Climate action</b></p>	<p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources</p> <p>12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle and significantly reduce their release to air, water and soil</p>	<p><b>Consumption:</b> With our innovative products and system solutions (e.g. high-performance insulating materials made from mineral raw materials) we facilitate compliance with the new energy standards.</p> <p><b>Production:</b> The partnership established for the deployment of masonry robots and the use of prefab wall elements was continued in 2018.</p> <p><b>Production:</b> Since 2017, an internal guideline on the use of recycled materials and the avoidance of hazardous substances in brick production has been applied.</p>
<p><b>15. Life on land</b></p>	<p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	<p>Our innovative products and/or system solutions can be used, for instance, for the construction of tornado-proof houses.</p>
<p><b>16. Peace, justice and strong institutions</b></p>	<p>15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands</p> <p>16.5 Substantially reduce corruption and bribery in all their forms</p>	<p>Biodiversity, nature conservation and meaningful re-use are crucial sustainability criteria for the operation of clay pits. For Wienerberger, this includes non-interference with protected areas and efforts to make the company's own depleted sites available for their intended re-use.</p> <p>Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>

1) For easier orientation, ranked in numerical order and not by relevance of SGDs.



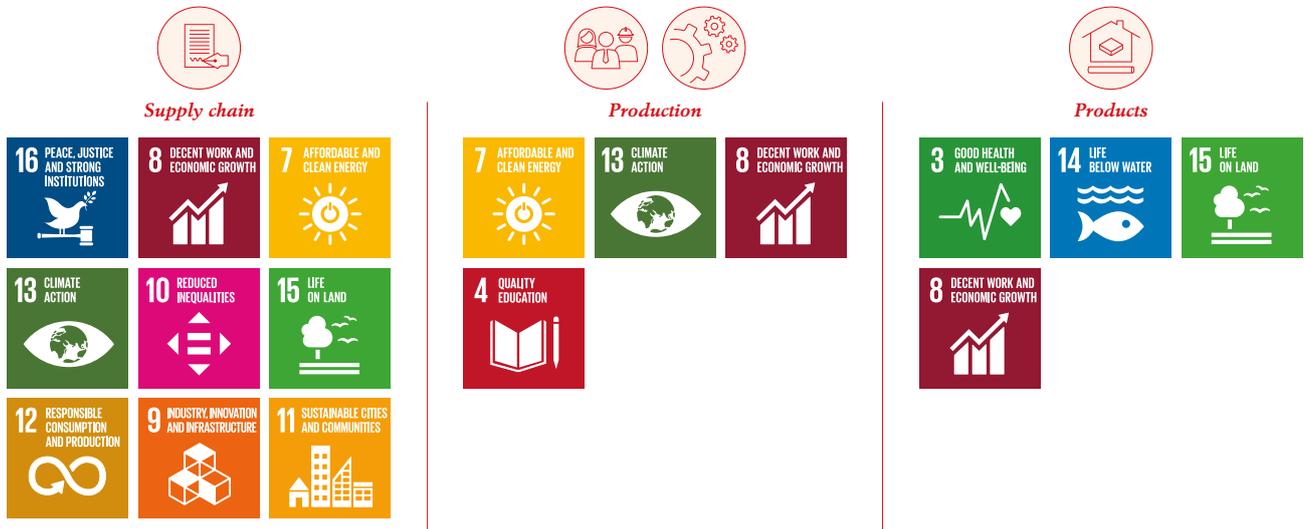
**Relevant SDGs for the ceramic pipe segment**

In the ceramic pipe segment, SDGs 7, 8 and 13 are relevant in procurement and production, i.e. they rank among the first three or four SDGs. This also applies to SDG 16, given the importance of the fight against corruption and bribery in procurement.

In product use, 3, 14 and 15 are the most important SDGs. The targets relating to these goals and Wienerberger's contribution to their attainment in the ceramic pipe segment are presented in the following.

**Relevant SDGs for the ceramic pipe segment**

*Ranking by relevance based on the product-group-specific impact and risk analysis*





**SDGs particularly relevant to Wienerberger's ceramic pipe segment <sup>1)</sup>**

**Targets relevant to Wienerberger's ceramic pipe segment**

**Wienerberger's contribution in the ceramic pipe segment**

<p><b>3. Good health and well-being</b></p>	<p>3.3 By 2030, end water-borne diseases and other communicable diseases</p> <p>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p>	<p>Our pipes can be used for the construction of sewage systems in developing countries, which has a positive impact on hygienic conditions and the health of the population.</p> <p>Wienerberger meets all legal requirements regarding the avoidance and substitution of hazardous materials, especially in raw materials, at European, national and regional level. Compliance is being monitored continuously and, where appropriate, corrective measures are taken without delay.</p>
<p><b>7. Affordable and clean energy</b></p>	<p>7.2. By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p>7.3. By 2030, double the global rate of improvement in energy efficiency</p>	<p>In 2018, 100% of the electricity consumed in this segment came from renewable sources.</p> <p>***</p>
<p><b>8. Decent work and economic growth</b></p>	<p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labor-intensive sectors</p> <p>8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p> <p>8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and (by 2025) child labor</p> <p>8.8 Protect labor rights</p>	<p>For years, innovative products have accounted for more than 40% of total revenues in this product group.</p> <p>Wienerberger demonstrates its global commitment to respect for human rights, fair working conditions, payment of adequate remuneration, the avoidance of excessive working hours, permanent employment contracts and respect for the freedom of assembly and the right of employees to engage in collective bargaining. Within its sphere of influence, Wienerberger guarantees the protection of fundamental human rights. It therefore goes without saying that Wienerberger tolerates neither child labor nor slave labor, nor any form of discrimination. Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>
<p><b>13. Climate action</b></p>	<p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	<p>***</p>
<p><b>14. Life below water</b></p>	<p>14.1 By 2025, prevent and significantly reduce marine pollution of all kinds</p>	<p>Our pipes can be used for the construction of sewage systems. Wastewater can therefore be treated before its is discharged into bodies of surface water or the sea.</p>
<p><b>15. Life on land</b></p>	<p>15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater eco systems and their services</p>	<p>In the ceramic pipe segment, we do not operate any clay pits of our own. Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>
<p><b>16. Peace, justice and strong institutions</b></p>	<p>16.5 Substantially reduce corruption and bribery in all their forms</p>	<p>Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>

1) For easier orientation, ranked in numerical order and not by relevance of SDGs. // \*\*\*: The results of our 2018/2019 impact and risk analysis as well as the related SDGs will be taken into account in the updated materiality analysis. On this basis, we will define the Wienerberger Sustainability Roadmap, effective as of 2021, and evaluate the respective activities.



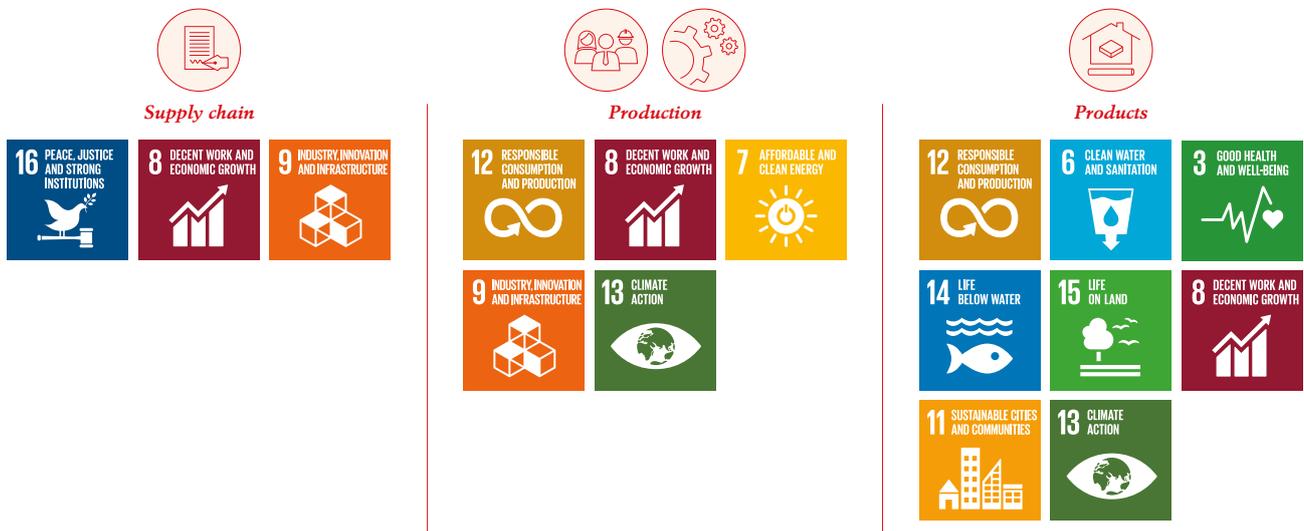
**Relevant SDGs for the plastic pipe segment**

In the plastic pipe segment, SDGs 16, 8 and 9 are relevant in procurement; in production, SDGs 12, 8 and 7 rank among the top three. In product use, SDGs 12 and 6

are the most important ones, followed by SDG 3. The targets relating to these SDGs and Wienerberger's contribution to their attainment in the ceramic pipe segment are presented in the following.

**Relevant SDGs for the plastic pipe segment**

Ranking by relevance based on the product-group-specific impact and risk analysis



**SDGs particularly relevant to Wienerberger's plastic pipe segment <sup>1)</sup>**

**3. Good health and well-being**

**Targets relevant to Wienerberger's plastic pipe segment**

- 3.3 By 2030, end water-borne diseases and other communicable diseases
- 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- 6.3 By 2030, among other measures, halve the proportion of untreated wastewater
- 6.4 By 2030, substantially reduce the number of people suffering from water scarcity

**6. Clean water and sanitation**

**Wienerberger's contribution in the plastic pipe segment**

Our pipes can be used for the construction of drinking-water supply and wastewater disposal systems in developing countries, which has a positive impact on hygienic conditions and the health of the population.

Our pipes can be used for the construction of drinking-water supply and wastewater disposal systems in developing countries, which has a positive impact on hygienic conditions and the health of the population.



<p><b>8. Decent work and economic growth</b></p>	<p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation</p> <p>8.4 Improve progressively, through 2030, global resource efficiency in consumption and production</p> <p>8.5 By 2030, achieve full and productive employment and decent work and equal pay for work of equal value for all</p> <p>8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and (by 2025) child labor</p> <p>8.8 Protect labor rights</p>	<p>For years, innovative products have accounted for 16% of total revenues in this product group. Our target is to reach 20%</p> <p>By 2020, we want to increase the amount of secondary raw materials to 85 kg, 50 kg of which exclusively external raw materials, per ton of products produced. In 2018, we achieved 75 kg/t and 39 kg/t, respectively.</p> <p>Wienerberger demonstrates its global commitment to respect for human rights, fair working conditions, payment of adequate remuneration, the avoidance of excessive working hours, permanent employment contracts and respect for the freedom of assembly and the right of employees to engage in collective bargaining. Within its sphere of influence, Wienerberger guarantees the protection of fundamental human rights. It therefore goes without saying that Wienerberger tolerates neither child labor nor slave labor, nor any form of discrimination. Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>
<p><b>9. Industry, innovation and infrastructure</b></p>	<p>9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes</p>	<p>We continuously strive to develop new systems for innovative infrastructure solutions. We have set ourselves a quantitative target of 20% for the annual volume of innovative products as a percentage of total revenues. Raineo Smart Meter, a measuring station consisting of several sensors, is a good example. It monitors water throughput in pipes and is able to predict floods. Four stations are currently in trial operation.</p>
<p><b>12. Responsible consumption and production</b></p>	<p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle and significantly reduce their release to air, water and soil</p> <p>12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle and significantly reduce their release to air, water and soil</p> <p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and re-use</p>	<p>By 2020, we want to increase the amount of secondary raw materials to 85 kg, 50 kg of which exclusively external raw materials, per ton of products produced. In 2018, we achieved 75 kg/t and 39 kg/t, respectively.</p> <p>As a matter of course, we comply fully with the requirements of REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), the EU regulation on chemicals. To ensure the health and safety of our customers and our employees in the best possible manner, we regularly verify if any of the substances used might in future be classified as hazardous under REACH.</p> <p>We contribute towards reducing the volume of waste through the use of internal and external secondary raw materials in plastic pipe production. By 2020, we want to increase the amount of secondary raw materials to 85 kg, 50 kg of which exclusively external raw materials, per ton of products produced. In 2018, we achieved 75 kg/t and 39 kg/t, respectively.</p>
<p><b>14. Life below water</b></p>	<p>14.1 By 2025, prevent and significantly reduce marine pollution of all kinds</p>	<p>Our pipes can be used for the construction of sewage systems; hence, wastewater can be treated before being discharged into bodies of surface water or the sea.</p>
<p><b>15. Life on land</b></p>	<p>15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial inland freshwater ecosystems and their services</p>	<p>Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>
<p><b>16. Peace, justice and strong institutions</b></p>	<p>16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all</p> <p>16.5 Substantially reduce corruption and bribery in all their forms</p> <p>16.6 Develop effective, accountable and transparent institutions at all levels</p> <p>16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels</p>	<p>Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>

1) For easier orientation, ranked in numerical order and not by relevance of SGDs.



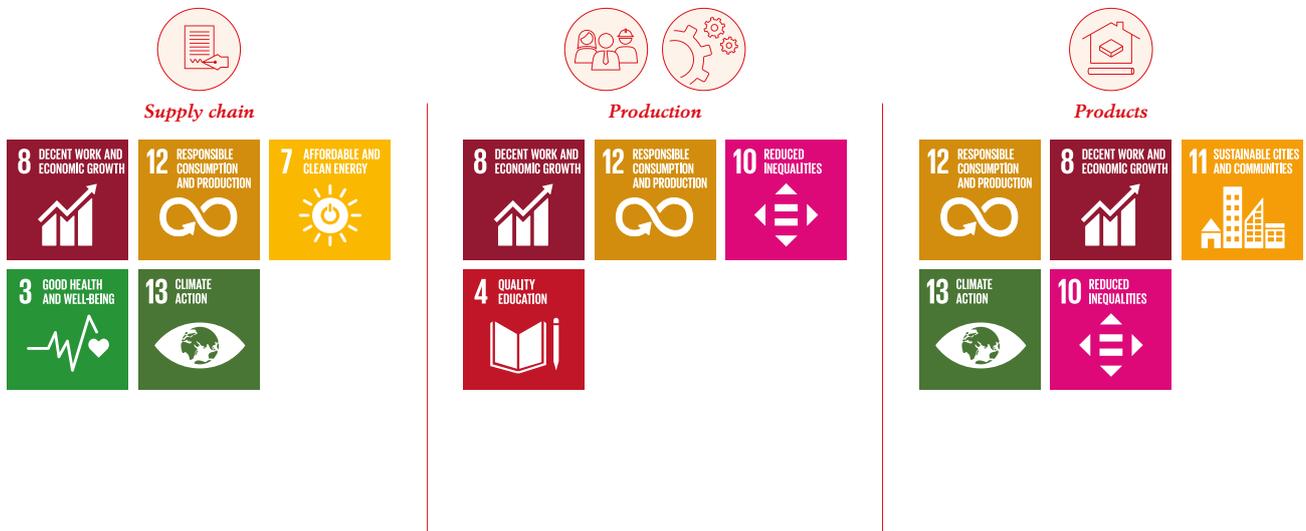
**Relevant SDGs for the concrete paver segment**

In concrete paver production, SDGs 12 and 8 are of particular relevance in all stages of the product lifecycle. Additionally, SDGs 7, 3 and 13 are relevant in procure-

ment, SDGs 10 and 4 in production, and SDGs 10, 11 and 13 in product use. The targets relating to these goals and Wienerberger's contribution to their attainment in the ceramic pipe segment are presented in the following.

**Relevant SDGs for the concrete paver segment**

*Ranking by relevance based on the product-group-specific impact and risk analysis*





**SDGs particularly relevant to Wienerberger's concrete paver segment <sup>1)</sup>**

**Targets relevant to Wienerberger's concrete paver segment**

**Wienerberger's contribution in the concrete paver segment**

<p><b>7. Affordable and clean energy</b></p>	<p>7.2. By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p>7.3. By 2030, double the global rate of improvement in energy efficiency</p>	<p>Wienerberger's absolute energy consumption is aggregated and reported at Group level. In 2018, as in the previous year, renewable energy accounted for 37% of total energy consumption, compared to 31% in 2016.</p> <p>Energy input in concrete paver production is relatively low. Nevertheless, we are evaluating possible optimization measures to achieve a higher degree of energy efficiency.</p>
<p><b>8. Decent work and economic growth</b></p>	<p>8.4 Improve progressively, through 2030, global resource efficiency in consumption and production</p> <p>8.5 By 2030, achieve decent work and equal pay for work of equal value</p> <p>8.8 Protect labor rights</p>	<p>Our quantitative target in this product segment is to reduce the scrap rate by 23% compared to 2017.</p> <p>Wienerberger demonstrates its global commitment to respect for human rights, fair working conditions, payment of adequate remuneration, the avoidance of excessive working hours, permanent employment contracts and respect for the freedom of assembly and the right of employees to engage in collective bargaining. Within its sphere of influence, Wienerberger guarantees the protection of fundamental human rights. It therefore goes without saying that Wienerberger tolerates neither child labor nor slave labor, nor any form of discrimination. Within the framework of our business relations, we pay attention to the observance of ecological and social standards by our suppliers; we communicate these standards in our "Supplier Code of Conduct".</p>
<p><b>10. Reduce inequalities</b></p>	<p>10.2 By 2030, promote diversity and the social, economic and political inclusion of all</p> <p>10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws</p>	<p>The principles of Wienerberger's human resources policy ensure equal rights and opportunities for all employees, regardless of age, gender, cultural background, religion, origin or other diversity features. In line with these principles, discrimination is not tolerated in any form. Developments regarding diversity and equal opportunities have been recorded since 2009 within the framework of our sustainability reports. Not a single incident of discrimination has been reported since the beginning of data collection.</p>
<p><b>11. Sustainable cities and communities</b></p>	<p>11.5 By 2030, significantly reduce the number of deaths and the number of people affected by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations</p> <p>11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</p> <p>11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities</p>	<p>We are continuously striving to develop new systems for innovative building and infrastructure solutions. For years, innovative products have accounted for far more than 30% (target value) of the total revenues in this product group. The definition includes product innovations with added value for the customer on account of their cost-effectiveness, their technical properties or their ecological benefits, such as concrete paver system for unsealed surfaces. Their quality features, such as water permeability, have a positive impact on the micro-climate and on groundwater, and help to avoid flooding.</p>
<p><b>12. Responsible consumption and production patterns</b></p>	<p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources</p> <p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and re-use</p>	<p>Within the framework of the Sustainability Roadmap 2020 we participate in research projects, such as recycling of concrete and climate-friendly cement production.</p>
<p><b>13. Climate action</b></p>	<p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	<p>With our products, such as water-permeable pavers (e.g. ASTI Breite Fuge), we contribute towards the design of climate-friendly urban areas.</p>

1) For easier orientation, ranked in numerical order and not by relevance of SDGs.



### ***Relevant SDGs relative to the entire Wienerberger Group***

As we have seen, along Wienerberger's entire value chain thirteen of the seventeen SDGs are more or less relevant, although in different lifecycle stages and product groups.

The SDGs relevant to the individual product groups are shown on pages 54-61. In the majority of cases, the relevance of an SDG is associated with one or two of its targets.

### ***Relevant SDGs – Relating to the entire Wienerberger Group***



### **Sustainability reporting**

Wienerberger's annual sustainability reports have been published since 2010. The reports focus on the ecological and social aspects of our activities along the entire value chain, as well as on future measures relating to employees, production, products and our social and societal commitment. In combination with the Sustainability Roadmap 2020, the sustainability report is an important instrument in support of Wienerberger's efforts to achieve its long-term targets.

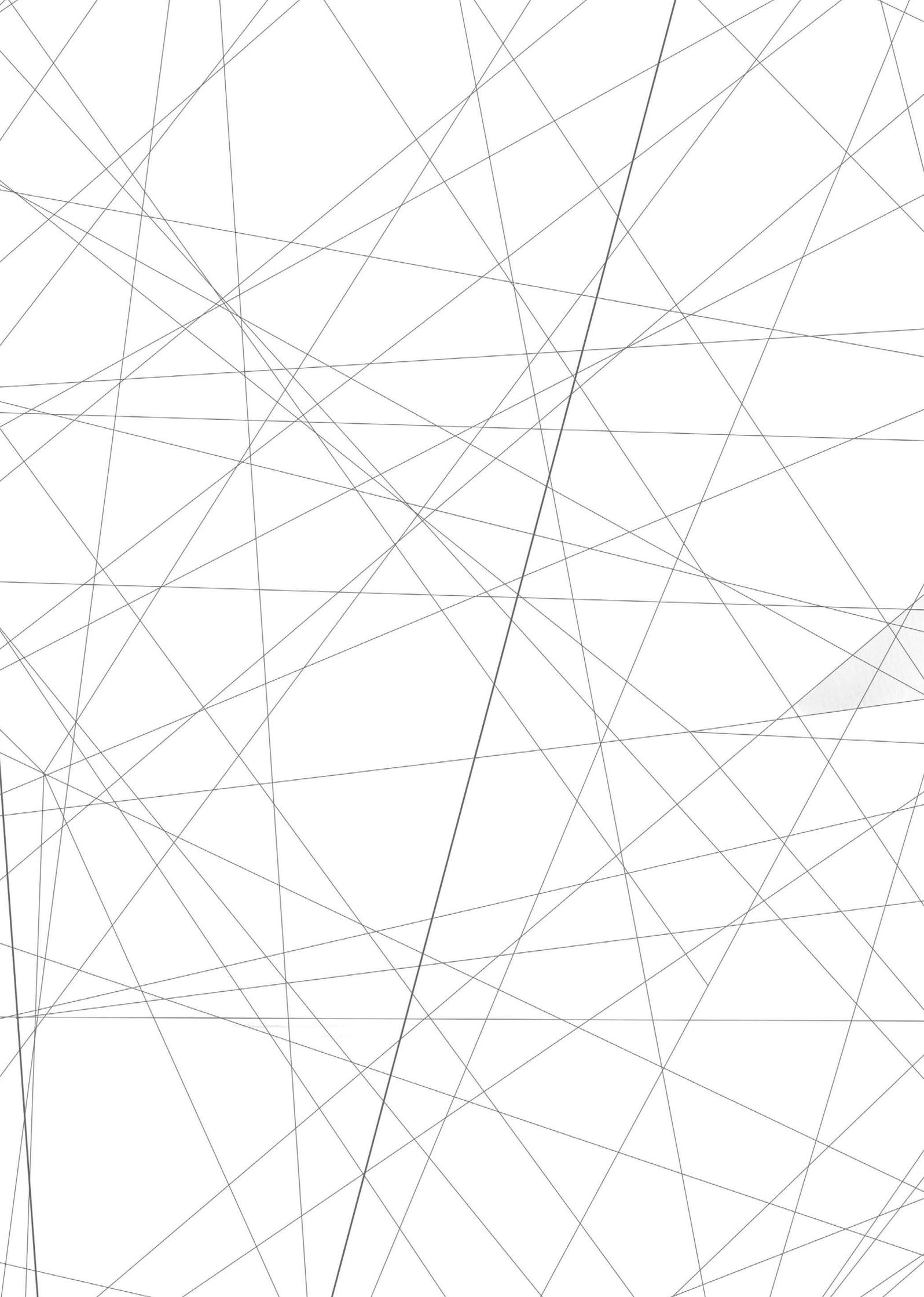
Wienerberger's sustainability reports are prepared by the Corporate Sustainability Officer in coordination with the Business Units and the specialized departments. They are released by the Sustainability Steering Committee (Chairman of the Managing Board, Chief Financial Officer, the managing boards of the Business Units, and in future the Chief Performance Officer). All Wienerberger

sustainability reports meet the requirements of the Global Reporting Initiative (GRI). The 2018 Sustainability Report was prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI), "core" option.

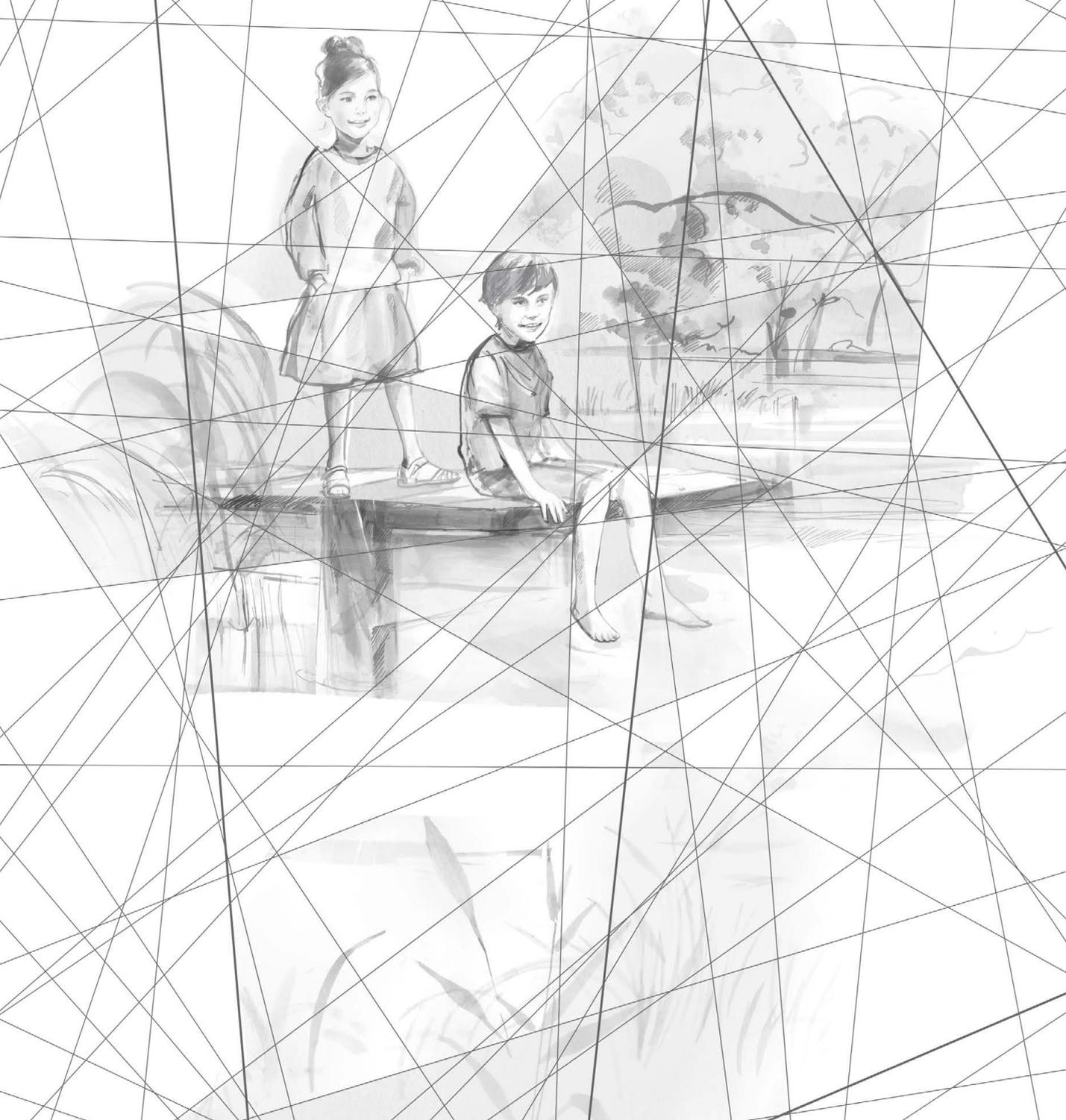
Sustainability reporting follows the scope of consolidation of the Wienerberger Group, which is described in detail on page 128 in the Notes to the 2018 Annual Report. Details on the reporting profile of the present Sustainability Report are contained in the chapter "Reporting Profile" on page 148.

In addition to the 2018 Sustainability Report, the Wienerberger Group again published a non-financial report for the business year 2018 as part of its 2018 Annual Report.





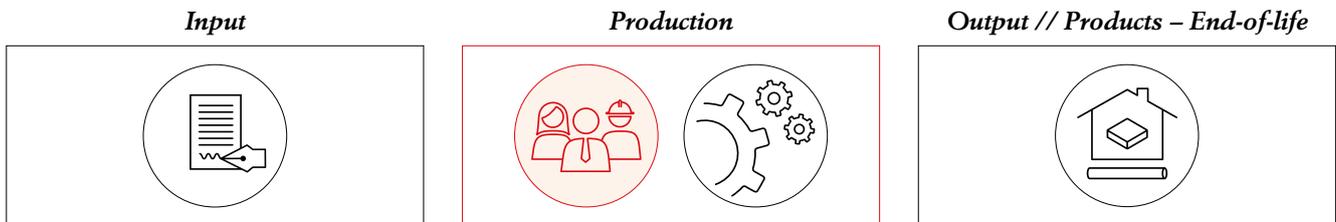
# Employees





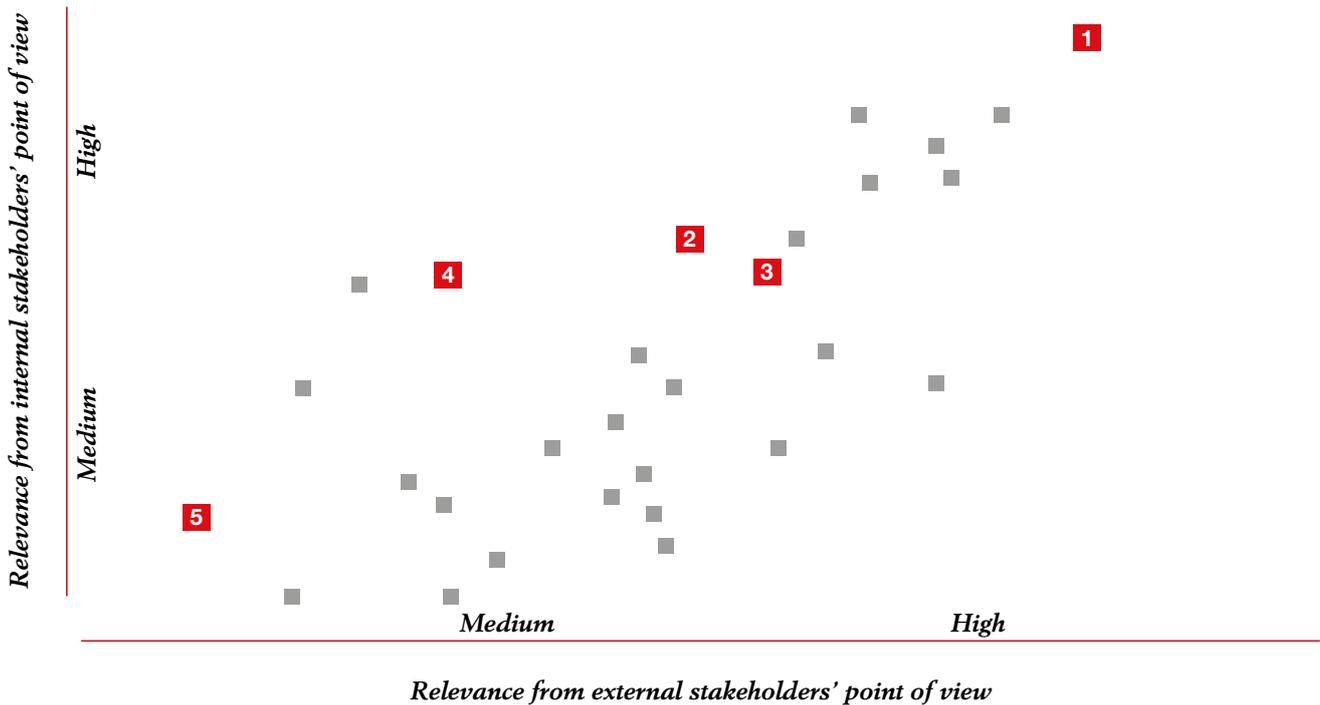
# Employees Coordinates at Group Level

## Stage in the value creation process



In this chapter, we address the topics relating to our employees. The subjects covered are part of the social topics to be dealt with in the production stage of the value creation chain.

## Excerpt from the Materiality Matrix – Relating to our Employees



Caption

**Social topics in production**

<b>1</b> Health and safety	<b>4</b> Communication with and involvement of employees
<b>2</b> Employee satisfaction	<b>5</b> Diversity and equal opportunities
<b>3</b> Training of employees	

In the 2014 materiality analysis, the topics highlighted were identified as particularly important in relation to our employees. Starting in 2019, we will perform another materiality analysis.

## Results of the Impact and Risk Analysis – Relating to our Employees



**Method:** The topics indicated in the table have been identified as material for at least two product groups of the Wienerberger Group. // Topics marked **SR** were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.

In 2018, an impact and risk analysis for Wienerberger’s four main product groups – bricks (wall, facade and roof products), ceramic pipes, plastic pipes and concrete pavers – was launched on the basis of the specific value chains. The entire analytical process was accompanied and methodologically supported by independent external experts.

The impacts and risks of the four main product groups currently identified as material have been aggregated for the Wienerberger Group. The table above shows the topics relating to our employees classified as relevant at Group level.

## Relevant SDGs – Relating to our Employees



On the basis of our impact and risk analysis, the Sustainability Development Goals of the United Nations highlighted in color have been classified as particularly relevant for our 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. We are committed to creating 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. Our values provide the basis for our entrepreneurial activity. Responsibility, integrity and respect are the values we regard as particularly important in our relationship with our employees.

## *Results of our 2014 Materiality Analysis*

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

- › Safety of our employees
- › Health of our employees
- › Employee satisfaction
- › Training of our employees
- › Communication and employee involvement

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 or minimize potential health and safety risks for our employees, especially in our production plants. In addition to instituting the necessary structural, technical and organizational measures, we specifically 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 involve themselves 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 company's performance. The general conditions at the workplace as well as the quality of the specific tools available to employees for the performance of their tasks play an important role. It is our task to create the prerequisites for dialogue and exchange across business areas, promote knowledge transfer and support efficient cooperation.

The results of our materiality analysis 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, Restatements*

Sustainability reporting follows the scope of consolidation of the Wienerberger Group, which is described in detail on page 128 in the Notes to the 2018 Annual Report. In substantive terms, this report covers the fully consolidated subsidiaries operating in Wienerberger's product groups, i.e. products for walls, roofs and facades, ceramic pipes, plastic pipes, and concrete and clay pavers. The only exceptions are two sites in the Netherlands acquired in 2018; the structures required to compile the non-financial indicators are not yet in place there and will be implemented in the course of 2019. Other deviations of individual indicators from the reporting scope are mentioned wherever applicable.

As of 2019, information regarding our employees will be reported on the basis of the new structure. The indicators and developments in the field of ceramic building materials for the building envelope will be communicated together with information on concrete pavers within the framework of the Business Unit "Wienerberger Building Solutions". Developments in our plastic pipe business and our ceramic pipe operations will be reported in the Business Unit "Wienerberger Piping Solutions". Reporting on North America as a separate Business Unit will remain unchanged.



## Restatements

For the 2017 Sustainability Update, employee turnover in the plastic pipes product group was calculated including the Pipelife production site in North America. For the 2018 reporting year, the site has been excluded from this calculation and the indicator is restated accordingly, given that the figures of the North America Division are not comparable to those of the other Divisions due to specific local legal provisions. The indicator of the Pipelife site in North America is now reported separately as part of the North America Division.

In the 2017 Sustainability Update, accident-related and non-accident-related sick-leave days were reported together as sick-leave days per employee not due to occupational accidents. In this report, non-accident-related sick-leave days are reported in a separate table and the indicators have been adjusted accordingly.

## Employment Trends

### Number of employees

In 2018, Wienerberger employed a workforce of 16,596 people (full-time equivalents), i.e. 1.8% more (299 FTEs) than in 2017. The highest increase (in FTEs) was reported by the Clay Building Materials Europe Business Unit (+237), followed by North America (+74) and Holding & Others (+16). In the latter, the increase in percentage terms is highest (+7.5%) on account of the low number of employees. Pipes & Pavers Europe was the only Business Unit to report a decrease in the number of employees: the workforce was reduced by 28 full-time equivalents or -0.7% compared to 2017.

### Ø Employees by operating segment <sup>1)</sup> full-time equivalents

	2016	2017	2018	Chg. in %
Clay Building Materials Western Europe	5,983	6,121	<b>6,262</b>	+2.3
Clay Building Materials Eastern Europe	4,350	4,451	<b>4,546</b>	+2.2
Clay Building Materials Europe	10,333	10,572	<b>10,808</b>	+2.2
Pipes & Pavers Western Europe	1,841	1,884	<b>1,892</b>	+0.4
Pipes & Pavers Eastern Europe	2,322	2,326	<b>2,290</b>	-1.5
Pipes & Pavers Europe	4,163	4,210	<b>4,182</b>	-0.7
North America	1,289	1,305	<b>1,380</b>	+5.7
Holding & Others	205	210	<b>226</b>	+7.5
<b>Wienerberger Group</b>	<b>15,990</b>	<b>16,297</b>	<b>16,596</b>	<b>+1.8</b>

1) All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences. // Temporary and agency workers are included as of their first hour of work at Wienerberger.



With an additional 277 full-time equivalents (+7.2%), the number of employees increased most strongly in sales (including marketing and inventories),

followed by production with an additional 30 full-time equivalents (+0.3%). In administration, the number of employees decreased by 8 FTEs (-0.5%).

#### Ø Employees by functional area <sup>1)</sup> full-time equivalent

	2016	2017	2018	Chg. in %
Production	10,778	10,962	<b>10,992</b>	+0.3
Administration	1,462	1,507	<b>1,499</b>	-0.5
Sales (incl. marketing and inventories)	3,750	3,828	<b>4,105</b>	+7.2
<b>Wienerberger Group</b>	<b>15,990</b>	<b>16,297</b>	<b>16,596</b>	<b>+1.8</b>

1) All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences. // Temporary and agency workers are included as of their first hour of work at Wienerberger.

As at 31/12/2018, 92% of the total workforce (headcount) employed by the Wienerberger Group was working full-time and 3% part-time. Temporary and agency workers (regardless of the duration of their employment at Wienerberger) 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 2017.

#### Employees by type of employment contract <sup>1)</sup> based on headcount



1) Employees directly employed by Wienerberger

#### Employees with permanent employment contracts <sup>1)</sup> based on headcount

	2016	2017	2018	Chg. in %
Clay Building Materials Western Europe	5,625	5,832	<b>5,796</b>	-0.6
Clay Building Materials Eastern Europe	4,220	4,397	<b>4,409</b>	+0.3
Clay Building Materials Europe	9,845	10,229	<b>10,205</b>	-0.2
Pipes & Pavers Western Europe	1,716	1,736	<b>1,729</b>	-0.4
Pipes & Pavers Eastern Europe	2,022	2,065	<b>2,066</b>	+0.0
Pipes & Pavers Europe	3,738	3,801	<b>3,795</b>	-0.2
North America	1,277	1,283	<b>1,258</b>	-1.9
Holding & Others	202	218	<b>229</b>	+5.0
<b>Wienerberger Group</b>	<b>15,062</b>	<b>15,531</b>	<b>15,487</b>	<b>-0.3</b>

1) All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.



As at 31/12/2018, 95% of all Wienerberger employees (based on headcount) had permanent employment contracts. The number of employees of the Wienerberger Group under term contracts as at 31/12/2018 was 797, up by 9.6% from the previous year.

The steep increase in the percentage of employees under term contract in the Holding & Others Business Unit is primarily due to the higher number of trainees at Wienerberger Holding. In the North America Division, it is not common practice to distinguish between permanent and non-permanent employees or to define the term of the employment contract in advance. The figures for the three-year trend are therefore all reported as zero.

<b>Employees under term contracts <sup>1)</sup></b> <i>based on headcount</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Vdg. in %</b>
Clay Building Materials Western Europe	391	399	<b>410</b>	+2.8
Clay Building Materials Eastern Europe	178	99	<b>152</b>	+53.5
Clay Building Materials Europe	569	498	<b>562</b>	+12.9
Pipes & Pavers Western Europe	88	111	<b>143</b>	+28.8
Pipes & Pavers Eastern Europe	156	117	<b>77</b>	-34.2
Pipes & Pavers Europe	244	228	<b>220</b>	-3.5
North America	0	0	<b>0</b>	-
Holding & Others	3	1	<b>15</b>	+100.0
<b>Wienerberger Group</b>	<b>816</b>	<b>727</b>	<b>797</b>	<b>+9.6</b>

1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.

## Employee turnover

Compared with the previous year, the rate of employee turnover (defined in footnote 1 in the following table) in the Wienerberger Group increased from 9.2% in 2017 to 12.2% in 2018. The only exception was the Pipes & Pavers Eastern Europe segment, which reported a slight decrease in employee turnover from 12.5% to 11.7%. 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.

A total of 1,743 employees left the company in the reporting year (headcount; excl. North America Division, which is not comparable to other Divisions due to specific local legislation). Restructuring measures, such as plant closures, led to the elimination of 299 jobs. 1,444 employees – 223 women and 1,221 men – left the Wienerberger Group for other reasons. 305 of these employees were younger than 30, 772 were between 30 and 49 years of age, and 367 were over 50 years of age.


**Employee turnover by operating segment <sup>1)</sup>**

in %	2016	2017	2018
Clay Building Materials Western Europe	7.6	7.0	<b>9.7</b>
Clay Building Materials Eastern Europe	9.3	10.5	<b>14.8</b>
Clay Building Materials Europe	8.3	8.5	<b>11.9</b>
Pipes & Pavers Western Europe	7.8	9.5	<b>15.1</b>
Pipes & Pavers Eastern Europe	14.0	12.5	<b>11.7</b>
Pipes & Pavers Europe	11.2	11.1	<b>13.2</b>
Holding & Others	5.4	8.6	<b>11.2</b>
<b>Wienerberger Group, excl. North America</b>	<b>9.0</b>	<b>9.2</b>	<b>12.2</b>
North America <sup>2)</sup>	28.4	30.0	<b>31.1</b>

1) Ratio of persons leaving the Wienerberger Group (termination by employee or employer or mutually agreed termination) to average number of employees (headcount) in permanent employment in the reporting year, 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. // All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences. 2) Figures not comparable with those of other Divisions due to special local legislation.

**Employee turnover excl. North America <sup>1)</sup>**

based on headcount

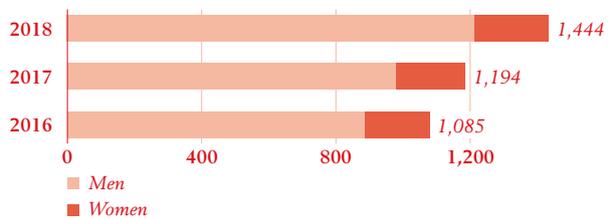


1) Employees with permanent employment contracts

**Leaves excl. restructuring by gender**

(excl. North America) <sup>1)</sup>

on headcount



1) Employees with permanent employment contracts

Broken down by functional area, the increase in employee turnover was highest in administration (+57%), in contrast to the Group-wide trend, followed by production (+21.4%) and sales (+6.5%). The differentiated

presentation of employee turnover, broken down by functional area, age and gender, supports our efforts to counteract employee turnover through targeted measures.



### Leaves excl. restructuring by age (excl. North America) <sup>1)</sup>

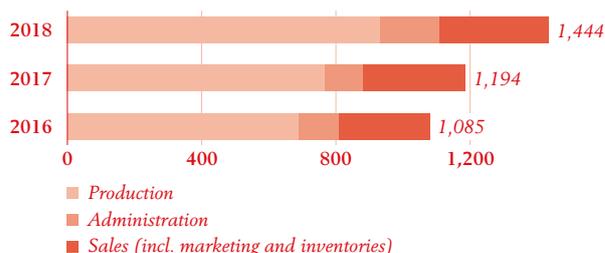
based on headcount



1) Employees with permanent employment contracts

### Leaves excl. restructuring by functional area (excl. North America) <sup>1)</sup>

based on headcount



1) Employees with permanent employment contracts

In 2018, the number of employees newly recruited by the Wienerberger Group exceeded the previous year's figure (based on headcount) by 194. With 22 new entrants, the increase in percentage terms (+95.7%) was highest in Holding & Others due to the low number of employees in that Business Unit. North America reported 129 more new employees in 2018 than in the previous year, which corresponds to a 45.7% increase. This is partly due to an acquisition. Moreover, unemployment in the USA is at a historic low, which resulted in substantial

employee turnover and recruiting activities. Furthermore, it is our policy to reduce the number of temporary workers and increase direct employment.

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 and an indication of a high level of employee satisfaction.

### Newly recruited employees by operating segment <sup>1)</sup>

based on headcount

	2016	2017	2018	Vdg. in %
Clay Building Materials Western Europe	497	793	660	-16.8
Clay Building Materials Eastern Europe	515	580	711	+22.6
Clay Building Materials Europe	1,012	1,373	1,371	-0.1
Pipes & Pavers Western Europe	216	244	244	0.0
Pipes & Pavers Eastern Europe	310	313	358	+14.4
Pipes & Pavers Europe	526	557	602	+8.1
North America	414	282	411	+45.7
Holding & Others	18	23	45	+95.7
<b>Wienerberger Group</b>	<b>1,970</b>	<b>2,235</b>	<b>2,429</b>	<b>+8.7</b>

1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.



### Employee satisfaction

In order to further increase the level of satisfaction of our employees, we completed the employee survey started in 2015 in cooperation with an experienced partner by rolling it out to another 24 organizations covering the entire Wienerberger Group in 2018. The employee survey conducted in 27 languages over a period of three years was designed to permit each and every employee to participate anonymously in the online survey via a personal link. The survey model used is based on the central dimensions of engagement and enablement. It evaluates the motivation of employees and their satisfaction with the working environment. The evaluation of psychological stress factors at the workplace, required by law in Austria, was performed at the same time by means of supplementary questionnaires. Across the Group, the average return rate was relatively high at 65%.

The crucial strengths of the Group, as perceived by its employees, included the strong focus on quality and customer proximity, the degree of freedom enjoyed by employees to use their own initiative in their daily work, and the high level of confidence in the local company management. The local results, broken down by Business Unit, were communicated to the employees at the respective sites, and specific measures were taken. The implementation of these measures was monitored by Corporate HR and will be supported even more intensively in the future.

A new round of the employee survey is to be launched in all country organizations of the Wienerberger Group in 2020 in order to evaluate the effect of the measures taken by that time and to obtain additional feedback from all employees. In this second round, the survey is to be performed simultaneously across the entire Wienerberger Group within a few weeks to ensure that the results obtained are comparable.

### *Occupational Health and Safety*

Wienerberger takes its responsibility for providing safe and healthy working conditions for its employees very seriously. The materiality analysis performed in 2014 confirmed this topic as an aspect of special relevance in our value chain. All normal capex and standard maintenance activities are 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 again stepped up. As in previous years, the implementation of this initiative was consistently pursued. The Safety Initiative and the related safety standards are binding throughout the Group, regardless of the geographic location of the production sites. No further provisions on occupational health and safety have been laid down in collective bargaining agreements.

In addition to the Wienerberger Safety Initiative, each Business Unit implements its specific internal health and safety programs to ensure the occupational health and safety of our employees. Our indicators on the frequency and severity of accidents at Group level confirm the success of these activities. 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. In 2018, we again succeeded in reducing the frequency of accidents in almost all operating segments. At Group level, accident frequency was further reduced by almost 6% from the previous year's level. The Pipes & Pavers Europe Division succeeded in reducing its accident frequency by a notable 22%, followed by North America with reductions of 18% and Clay Building Materials with over 14%. We are particularly proud of the steep reduction in accident frequency in the Pipes & Pavers Eastern Europe segment, which reported a decrease of almost 47%. This confirms the excellent success achieved through the consistent implementation of our program of occupational safety measures.

Due to a single accident in India, the Holding & Others Business Unit recorded an increase in accident frequency from 0.0% to 1.2%. Given the relatively small size of this Business Unit, a single accident has a comparatively strong influence on the accident indicator. It goes

without saying that the same safety standards apply at our country organization in India as at all other Wienerberger companies.

In the Clay Building Materials Europe Division, accident frequency increased by 2%. A particularly significant increase in accident frequency was reported by the Clay Building Materials Western Europe segment (+32.7%), in contrast to the notable decline in accident frequency in the Clay Building Materials Eastern Europe segment (-41.3%). The circumstances of the accidents were thoroughly analyzed and individual causes identified. Measures have been implemented and targeted training sessions organized, the objective being to ensure a constantly high level of attention among our employees and, at the same time, reduce risk-taking behavior.

We are continuing our intensive cooperation with 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. We are steadfastly pursuing our zero-accidents target for the entire Group.

Accident frequency by operating segment <sup>1)</sup>	2016	2017	2018	Chg. in %
Clay Building Materials Western Europe	8.3	6.0	8.0	+32.7
Clay Building Materials Eastern Europe	5.1	5.8	3.4	-41.3
Clay Building Materials Europe	6.9	5.9	6.0	+2.0
Pipes & Pavers Western Europe	15.1	7.4	7.3	-1.6
Pipes & Pavers Eastern Europe	2.2	4.8	2.6	-46.5
Pipes & Pavers Europe	7.6	5.9	4.6	-22.2
North America	1.9	1.5	1.3	-14.4
Holding & Others	0.0	0.0	1.2	+100.0
<b>Wienerberger Group</b>	<b>6.5</b>	<b>5.4</b>	<b>5.1</b>	<b>-5.7</b>

1) Number of occupational accidents / number of hours worked x 1,000,000 // Including temporary and agency workers (from their first hour of work at Wienerberger) and employees under term contracts. // All non-financial indicators are 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 throughout the Group in a year-on-year comparison from 173 to 155 (-10.5%). The Clay Building Materials Europe Division reported a 2% increase. The higher accident frequency in the Clay Building Materials Western Europe segment also led to more accident-related sick-leave days (+32.7%). The increase in accident severity reported by the Holding & Others Division was due to a single accident. We reacted to this development by fine-tuning our programs of occupational safety measures for these Business Units.

We note with satisfaction that the intensive occupational safety programs implemented in our plastic pipe and concrete paver operations not only led to a decline in accident frequency, but also had a highly positive impact on accident severity in Pipes & Pavers Europe (-36.2%).

In North America, accident severity dropped by almost 82% year on year. This was due, among other factors, to the return to work of an employee after a long period of accident-related sick leave, the improved coordination of safety management, new training tools, and the implementation of a new occupational safety incentive system.

Accident severity by operating segment <sup>1)</sup>	2016	2017	2018	Vdg. in %
Clay Building Materials Western Europe	218	216	239	+10.8
Clay Building Materials Eastern Europe	165	174	150	-14.2
Clay Building Materials Europe	195	198	201	+1.5
Pipes & Pavers Western Europe	328	175	148	-15.5
Pipes & Pavers Eastern Europe	71	162	75	-53.4
Pipes & Pavers Europe	179	168	107	-36.2
North America	71	50	9	-81.7
Holding & Others	0	0	37	+100.0
<b>Wienerberger Group</b>	<b>177</b>	<b>173</b>	<b>155</b>	<b>-10.5</b>

1) Accident-related sick-leave days / number of hours worked x 1,000,000 // Including temporary and agency workers (from their first hour of work at Wienerberger) and employees under term contracts. // All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.

Despite all measures taken and the occupational safety training provided, a fatal occupational accident occurred at a 50% subsidiary of Wienerberger. The accident victim was a production worker in Germany. Wienerberger deeply regrets this accident. Although the indicator is not within the reporting scope, we disclose the information on account of its high relevance and in the interest of transparency. We studied the circumstances of the accident in great depth and are consistently pursuing our measures aimed at increasing safety at work for our employees.

Going beyond the Group-wide safety standard, each Business Unit of the Wienerberger Group has implemented its own safety programs, which are summarized below. The activities implemented in 2018 or planned for 2019 by the individual Business Units are described in detail in the section "Targets and Measures Relating to Employees".



### ***Clay Building Materials Europe (CBME)***

- › CBME's Safety Management Department coordinates the implementation of the safety standards at central level and supports the countries in the introduction of preventive measures.
- › 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
- › Health and Safety Portal: archives for the documentation of safety-relevant incidents and measures taken; recording of all data from which safety indicators are derived. To be extended in 2019.
- › Mobile safety app: a simple application to report hazard spots, with automatic information transmission and measures for the controlled elimination and/or reduction of the risk
- › Safety Award: distinction awarded for outstanding performance in the field of safety, especially to production plants reporting long accident-free periods
- › Occupational safety targets serve as input factors for establishing the variable salary components of managing directors and plant managers
- › CBME's Safety Management Department coordinates the implementation of the Safety Roadmap, the Safety Alert and the Safety Award, and monitors compliance with safety standards.

### ***North America***

- › At local level, each plant has its safety appointee.
- › Monthly meetings are held to discuss safety issues and agree on the format of reporting between top management and the local management
- › Annual safety targets are defined for each production site
- › Product-group-specific communication tools on safety topics

### ***Pipelife***

- › Responsibility for implementation of Pipelife's safety program lies with the Manufacturing Excellence Officer
- › Program aimed at observing employee behavior: Behavior Observation Program (BOP)
- › Lock-out/Tag-out (LOTO): Locking systems to prevent unauthorized access to or manipulation of machines
- › 5 S, a 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: 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 deliberate regular rotation of 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 is available to all employees with an email address, serves as a work and information platform.
- › Extensive industry benchmarking and exchange of experience within TEPPFA (The European Plastic Pipe and Fittings Association)



### **Semmelrock**

- › Central Engineering coordinates the „Safety Activity“ program, 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 the 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**

- › Overall responsibility for safety at Steinzeug-Keramo lies with the Safety Board, which is chaired by the „Operations Director“ and comprises plant managers, works council members and experts.
- › Steinzeug-Keramo continued to apply DuPont™ STOP® (safety training observation program) in 2018 and organized training programs, which included the management at all production sites. Occupational safety targets were established for the attainment of variable remuneration targets of plant managers.
- › Risk analyses of workplaces in production
- › Assessment of all accidents and near-accidents
- › Plant optimization measures
- › Initial and further training in the field of occupational safety and avoidance of hazards through targeted, workplace-specific safety instructions
- › Health & Safety Day

### **Types of injuries**

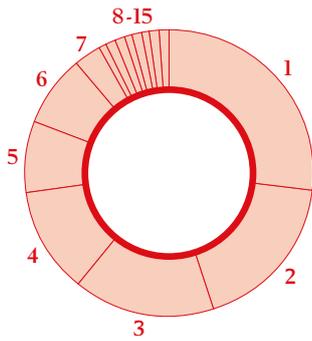
This is the first report in which Wienerberger discloses the types of accident-related injuries. Due to the fact that the individual Business Units apply different production processes and have their own specific safety programs, the figures are aggregated at Group level and reported separately for each Business Unit.

At Group level, the most frequent types of injuries were fractures, followed by cuts, bruising, sprains and strains. The circumstances and causes of every accident are analyzed in detail. Based on these findings, we consistently implement measures to increase the safety of our employees.



**Types of injuries <sup>1)</sup>**  
**Wienerberger Group**

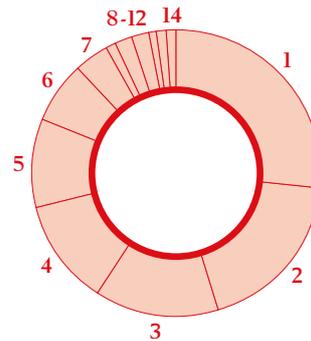
in %



- 1 Fracture 27%
- 2 Cut 18%
- 3 Bruising 16%
- 4 Sprains & Strains 12%
- 5 Crush 8%
- 6 Other 8%
- 7 Swelling 3%
- 8 Amputation 1%
- 9 Superficial 1%
- 10 Puncture / Rupture 1%
- 11 Dislocation 1%
- 12 Graze 1%
- 13 Medical 1%
- 14 Skin Rash 1%
- 15 Eye Injury / Vision Loss 1%

**Types of injuries <sup>1)</sup>**  
**Clay Building Materials Europe <sup>2)</sup>**

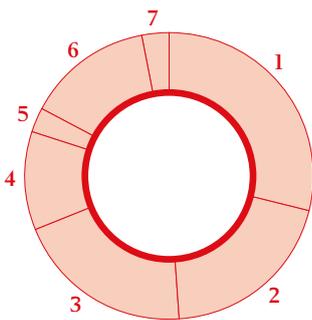
in %



- 1 Fracture 27%
- 2 Cut 19%
- 3 Bruising 14%
- 4 Sprains & Strains 12%
- 5 Crush 10%
- 6 Other 7%
- 7 Swelling 4%
- 8 Amputation 1%
- 9 Superficial 2%
- 10 Puncture / Rupture 2%
- 11 Dislocation 1%
- 12 Graze 1%
- 14 Skin Rash 1%

**Types of injuries <sup>1)</sup>**  
**Pipes and Pavers Europe**

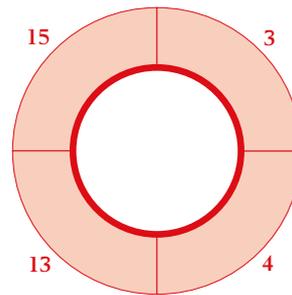
in %



- 1 Fracture 29%
- 2 Cut 20%
- 3 Bruising 20%
- 4 Sprains & Strains 11%
- 5 Crush 3%
- 6 Other 14%
- 7 Amputation 3%

**Types of injuries <sup>1)</sup>**  
**North America**

in %



- 3 Bruising 25%
- 4 Sprains & Strains 25%
- 13 Medical 25%
- 15 Eye Injury / Vision Loss 25%

1) Accident-related injuries resulting in at least one day of sick leave in 2018. // Based on the specific definitions used by the individual Business Units.

2) Clay Building Materials Europe plus one accident in Holding & Others.



### Sick-leave days

The average number of sick-leave days per employee of the Wienerberger Group (excl. the North America Division) increased slightly from 10.2 in 2017 to 10.5 in 2018. The Clay Building Materials Western Europe segment reported the highest increase in the average

number of sick-leave days from 11.4 to 12.5 (+9%), which drove the Clay Building Materials Europe Divisions' average up from 10.3 to 10.9 (+5%). This development is primarily due to changes in Germany as a result of comprehensive restructuring measures.

Sick-leave days per employee by operating segment <sup>1)</sup>	2016	2017 <sup>2)</sup>	2018	Chg. in %
Clay Building Materials Western Europe	11.3	11.4	<b>12.5</b>	+9.0
Clay Building Materials Eastern Europe	7.8	8.8	<b>8.6</b>	-1.6
Clay Building Materials Europe	9.8	10.3	<b>10.9</b>	+5.1
Pipes & Pavers Western Europe	10.5	12.1	<b>12.1</b>	-0.1
Pipes & Pavers Eastern Europe	8.4	8.7	<b>8.1</b>	-6.3
Pipes & Pavers Europe	9.3	10.3	<b>10.0</b>	-2.6
Holding & Others	4.1	3.6	<b>3.5</b>	-3.5
<b>Wienerberger Group, excl. North America</b>	<b>9.6</b>	<b>10.2</b>	<b>10.5</b>	<b>+2.9</b>
North America <sup>3)</sup>	3.4	2.9	<b>3.1</b>	+6.6

1) Accident-related and non-accident-related sick-leave days. Agency and temporary workers are included in data on accident-related sick-leave days. Data on non-accident-related sick-leave days includes all employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences. // 2) In the 2017 Sustainability Update both accident-related and non-accident-related sick-leave days were all reported as non-accident-related sick-leave days per employee. In the present report the figures are shown separately. // 3) Due to special local legal provisions (regarding employees on sick leave) the indicators are not comparable to those of other Divisions and therefore reported separately.

The number of non-accident-related sick-leave days per employee of the Wienerberger Group (excluding the North America Division) increased from 9.9 in 2017 to 10.2 in the reporting year. This development is attributable to a higher number of long-term sick leaves, especially in

the Clay Building Materials Western Europe segment (+8:9%), the main causes being comprehensive restructuring measures in Germany. The numbers and percentages of sick-leave days in North America are not comparable with the data for the rest of the Wienerberger Group.



Non-accident-related sick-leave days per employee by operating segment <sup>1)</sup>	2016	2017 <sup>2)</sup>	2018	Chg. in %
Clay Building Materials Western Europe	10.9	11.1	12.0	+8.9
Clay Building Materials Eastern Europe	7.5	8.5	8.4	-1.1
Clay Building Materials Europe	9.4	10.0	10.5	+5.2
Pipes & Pavers Western Europe	10.0	11.8	11.8	+0.4
Pipes & Pavers Eastern Europe	8.2	8.4	8.0	-4.4
Pipes & Pavers Europe	9.0	9.9	9.8	-1.5
Holding & Others	4.1	3.6	3.4	-6.9
<b>Wienerberger Group, excl. North America</b>	<b>9.3</b>	<b>9.9</b>	<b>10.2</b>	<b>+3.2</b>
North America <sup>3)</sup>	3.2	2.8	3.0	+9.8

Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences. // 2) In the 2017 Sustainability Update both accident-related and non-accident-related sick-leave days were reported as non-accident-related sick-leave days per employee. In the present report the figures are shown separately and the indicators are restated accordingly. // 3) Due to special local legal provisions (regarding employees on sick leave) the indicators are not comparable to those of other Divisions and are therefore reported separately.

In view of the increasing numbers of long-term sick-leave periods, prevention is a particularly important health-promoting factor. Besides regular health screenings, company physicians are available across the Group, workplaces are analyzed for their ergonomic characteristics, and individual fitness and health programs are available.

All full-time employees of the North America Division are covered by additional health insurance, the scope of which exceeds that of the Affordable Care Act (ACA).

### Protection against respirable crystalline silica

Since 2008, companies from numerous industries have reported regularly, on a voluntary basis, on measures taken to protect employees from exposure to respirable crystalline silica. The survey is conducted every two years within the framework of the NEPSI social partnership agreement between employees and employers (Negotiation Platform on Silica, [www.nepsi.eu/nepsi](http://www.nepsi.eu/nepsi)). The NEPSI system collects data on potential hazards for employees, health checks, training, the distribution and use of personal protective equipment, and technical measures, such as the enclosure of the production lines concerned.

Within the framework of the 2017 survey, Wienerberger remained within the scope of the NEPSI system and exclusively reported data for its ceramic production sites in Europe. Details on the results are shown on pages 38 to 40 of the 2017 Wienerberger Sustainability Update. No survey of data on exposure to respirable crystalline silica was scheduled in 2018.

Irrespective of the NEPSI social partnership agreement, Wienerberger is making every effort to protect its employees against respirable crystalline silica. In 2018, work on a new standard on the protection of employees from exposure to respirable crystalline silica was begun; the standard is to be completed and implemented in 2019.

Apart from the indicators on the protection of employees from exposure to respirable crystalline silica, Wienerberger does not collect any other data on potential occupational diseases. It goes without saying that Wienerberger complies with all provisions on occupational health and safety and the protection of employees from health hazards. Going beyond that, we actively work towards solutions for optimal protection of the health of our employees, especially at our production sites. For instance, a Health Roadmap is being developed by the Clay Building Materials Europe Business Unit to be rolled out in 2019. Implementation will be coordinated by an employee of the Business Unit's health and safety department.



### **Health, safety and human rights at our own raw material extraction sites**

When we examined the supply chain within the framework of our materiality analysis, we first took a closer look at our own clay pits. Within its sphere of influence, Wienerberger guarantees the protection of fundamental human rights. When signing the Wienerberger Social Charter, Wienerberger undertook to comply with the conventions and recommendations of the International Labor Organization (ILO). It goes without saying that these also apply to our clay extraction sites. Avoiding occupational accidents as well as protecting workers from dust emissions and noise at our own extraction sites are our top priorities.

Wienerberger's safety standards and the safety programs implemented at its plants apply across the Group for all workers at clay pits operated by Wienerberger.

### ***Communication and Employee Involvement***

Our goal is to further strengthen the values of our corporate culture through continuous communication measures and to 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.

To a growing extent, we rely on interactive communication processes and use two-way communication tools that facilitate dialogue. Communication measures used at Group level and in the individual Business Units to foster employee involvement include the following:

- › Townhall meetings open to employees from all over the Group via live streaming and an interactive dialogue tool
- › Group-wide intranet
- › Social media; for additional information, see our website at <https://wienerberger.com/en/privacy-policy>
- › Two-way communication tools available during events informing employees on topical issues
- › Group-wide and subject-specific newsletters and video messages
- › Knowledge bases or app stores (such as the safety app for the documentation of accidents and near-accidents)
- › Events and specialized 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 contracts and respect for the freedom of assembly and the right of employees to engage in collective bargaining. In 2018, about 72% of all Wienerberger employees were covered by collective bargaining agreements.

The European Works Council was established in 2011 as the successor to the European Forum. 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, 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 on the European Works Council by 33 delegates. The steering committee of the European Works Council includes five elected delegates from Austria, Germany, France, Poland and Hungary. The European Works Council meets twice a year; the steering committee also holds at least two meetings a year. Several employee representatives are members of the Supervisory Board of Wienerberger and, as such, are closely involved in the strategic development of the Wienerberger Group. The Works Council was also closely involved in the Wienerberger employee survey and the communication of its results.

A Group Works Council with employee representatives from all Wienerberger companies was established in Austria in November 2013. Currently, it has nine members and meets at least four times a year, or more often, if required. Similar structures also exist in other European countries. 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 laws and regulations, collective bargaining agreements, wage agreements, trade union agreements, plant agreements or individual arrangements.

### **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 training programs offered include internal as well as external initial and further training measures. The average number of hours per employee spent in training increased from 13.6 in 2017 to 15.8 in 2018 (+7.1%). Efforts in the field of safety training were stepped up as well. In particular, training within the framework of our safety programs enjoys a high priority and is being thoroughly and 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 Ready4Excellence or the Leadership Journey, which are organized centrally and financed by the holding company. In contrast to the local initiatives, the number of hours per employee spent in international training decreased by 28% from the previous year's level. This development was due to the fact that Ready4Excellence, our international training program, was reorganized in 2018 and will be relaunched in 2019. Including international training events and on-the-job training, the number of hours per Wienerberger employee spent in training amounted to 16.1 in 2018 as compared to 14.1 hours in 2017.

<b>Training hours per employee and year by operating segment <sup>1)</sup></b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. in %</b>
Clay Building Materials Western Europe	14.6	13.7	<b>16.0</b>	+16.3
Clay Building Materials Eastern Europe	10.6	15.2	<b>15.4</b>	+1.5
Clay Building Materials Europe	12.9	14.3	<b>15.7</b>	+9.7
Pipes & Pavers Western Europe	13.8	13.3	<b>18.1</b>	+36.8
Pipes & Pavers Eastern Europe	7.5	10.9	<b>15.8</b>	+44.8
Pipes & Pavers Europe	10.4	12.0	<b>16.9</b>	+40.9
North America	12.8	10.5	<b>11.3</b>	+7.1
Holding & Others	50.5	28.4	<b>26.6</b>	-6.2
<b>Wienerberger Group</b>	<b>12.7</b>	<b>13.6</b>	<b>15.8</b>	<b>+16.1</b>

1) Internal and external initial and further training measures per employee. International training events are not included in this table. // Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.

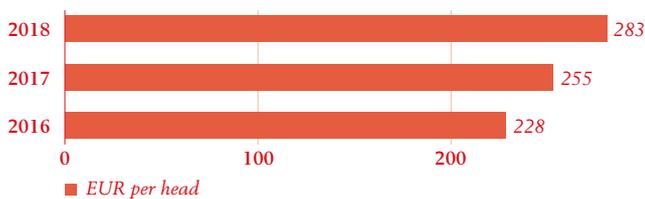


The data collection tools currently used by Wienerberger do not permit a Group-wide breakdown of hours spent in training by gender, age group, functional area or position of the employee. In the interest of further differentiation, indicators on safety training will be included in our sustainability report as of 2019.

We are convinced that investments in the development of our employees generate added value for Wienerberger. The average training expenses per employee in 2018, including international training programs, amounted to € 283, which corresponds to an increase of € 28 per employee over the previous year's value (+11.0%).

### Average training expenses per employee <sup>1)</sup>

based on headcount



*1) Internal and external initial and further training measures per employee directly employed by Wienerberger. International training hours are included in this table.*

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 the previous year, initiatives aimed at promoting and supporting employees and facilitating international knowledge transfer were implemented in 2018. Here are a few examples:

### **Ready4Excellence NEW:**

- Ready4Excellence is Wienerberger's Group-wide program for the development of key personnel. Consisting of four modules, it focuses on soft skills and hard facts regarding communication, the Process Communication Model® (PCM), feedback, corporate culture and intercultural management as well as topics specific to Wienerberger, such as project management, key performance indicators (KPIs), etc.
- In 2019, the program will be partly redesigned and differentiated by target group, i.e. there will be a second Group-wide development program alongside Ready4Excellence. The existing Ready4Excellence program will still be provided for key people across the Group on an international basis, but only targeted at those with the perspective of an international career in various fields and functions (program contents: strategy, change management, leadership, etc.). For key people aiming at an international career in a specific field, a second program will be created (program contents: focus on lateral leadership, self-management, etc.). Elements of the program that have proved successful in the past, such as feedback and communication culture, personal development instruments or intercultural interaction, will be retained as part of the program for both target groups. Moreover, the possibility of exchanges of and networking between the participants of both programs is being planned.

### **Plant Manager Program:**

- This program, which has existed in its current form since 2016, is targeted at new and potential future plant managers in the field of ceramic production (as of 2020 including concrete pavers) in Europe. This annual program consists of four modules over a period of one year. It covers topics such as leadership qualities, feedback and communication culture, safety at work, motivation of employees, and plant-specific topics (Plant Improvement Program, energy efficiency, etc.).



### **Diversity and Equal Opportunities**

Being aware of the great diversity of talents in our society, Wienerberger is making every effort to identify, address and tap this talent pool. We are convinced that our sustainable economic success is based on the skills and dedication of our employees as well as on our corporate culture. We therefore want to bring together people with a variety of talents, personality features, career histories and cultural backgrounds. The resultant diversity of competencies and the internationality of our employees reflect the diversity of our customers, investors, business partners and markets, reaffirm our innovative mindset and make us fit for the challenges of a dynamic and fast-changing business environment.

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. In 2009, we started to collect data on diversity and equal opportunities within the framework of our sustainability reporting. Since the beginning of data collection, no incidents of discrimination have been reported.

Our values include integrity and respect. As an international Group with a decentralized corporate structure, 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 between different functional areas and country organizations, which enables people to gain deeper insights and new perspectives in various fields of work. Wienerberger's corporate and cultural identity is characterized by cultural diversity and decentralized structures.

### **Gender**

As at 31/12/2018, the total percentage of women employed by the Wienerberger Group was 14.3%, i.e. slightly above the previous year's value (13.8%). The percentages of women in the individual functional areas remained almost unchanged.

<b>Numbers and percentages of women by functional area <sup>1)</sup></b>		<b>31/12/2016</b>	<b>31/12/2017</b>	<b>31/12/2018</b>
Female employees	<i>headcount</i>	2,155	2,248	<b>2,328</b>
Production	<i>in %</i>	4.2	4.3	<b>4.5</b>
Administration	<i>in %</i>	48.1	47.3	<b>47.9</b>
Sales (incl. marketing and inventories)	<i>in %</i>	24.1	25.1	<b>25.9</b>
<b>Total</b>	<i>in %</i>	<b>13.6</b>	<b>13.8</b>	<b>14.3</b>

1) All employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.

We are convinced that a higher percentage of women in executive positions has a positive impact on a company's success. We are therefore determined to increase the number of women in senior management and executive positions. By nominating an above-average number of

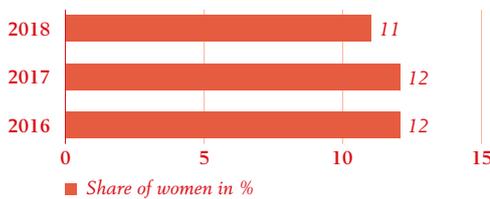
women for internal training and talent development programs for future executives, we ensure that high-potential women candidates are guided toward senior management positions and have the chance to embark on a suitable career path.



Due to restructuring measures, the percentage of women in senior management positions across the Group dropped to 11% in 2018 as compared to 12% in the previous year. We continue to give preference to women in new appointments to senior management and executive positions, provided their qualifications are equivalent to those of male candidates.

### Share of women in senior management positions

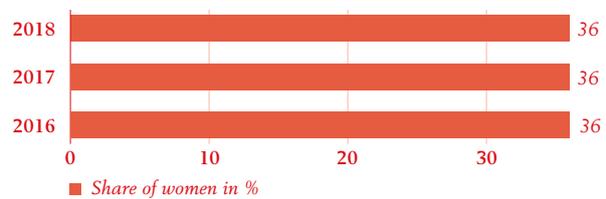
*based on headcount*



Nomination decisions are based on a uniform catalogue of criteria, which is used for the evaluation of both internal and external candidates. As of 1 June 2019, an internal woman candidate was appointed to the newly created position of Chief Performance Officer, which increases the number of Managing Board members to three. The percentage of women will then be 33.3%.

### Share of women on the Supervisory Board

*based on headcount*



In an international group of companies like Wienerberger, the members of the top executive body must have outstanding professional qualifications and international leadership experience. The Managing Board of Wienerberger AG fully meets this requirement, consisting of two personalities distinguished by international careers of different length, complementary professional expertise, a profound knowledge of the industry, and different national and cultural backgrounds. In the event of a new appointment, this qualifications profile guides the search for suitable candidates, which is to include both women and men.

In 2018, there were no women on the Managing Board. In the interest of long-term succession planning, the Supervisory Board and the Managing Board are making a continuous effort to identify and promote high-potential candidates for top level positions, if possible within the Wienerberger Group.

In 2018, six nationalities were represented among the eight capital representatives on the Supervisory Board. The mandatory 30% quota for women on supervisory boards introduced in 2018 has been more than fulfilled by Wienerberger since 2015, with 36% of its Supervisory Board members being women.

For further information on our diversity policy, please refer to pages 54-56 of our 2018 Annual Report.

We collect data not only on the percentage of women in the functional areas, but also on the numbers and percentages of newly recruited women and men and on employees working part-time. Alongside data on the percentage of women in permanent employment, broken down by full-time and part-time work, we also collect data on the percentage of women under term contracts. On the basis of these indicators, we can take a more differentiated approach in human resources management in order to position the company as an attractive employer now and in the future.



**Number of newly recruited employees by gender and functional area <sup>1)</sup>**

*Headcount as at 31/12/2018*

	<b>Women</b>	<b>Women in %</b>	<b>Men</b>	<b>Men in %</b>
Production	69	4.2	1,576	95.8
Administration	154	55.6	123	44.4
Sales (incl. marketing and inventories)	167	32.9	340	67.1
<b>Total</b>	<b>390</b>	<b>16.1</b>	<b>2,039</b>	<b>83.9</b>

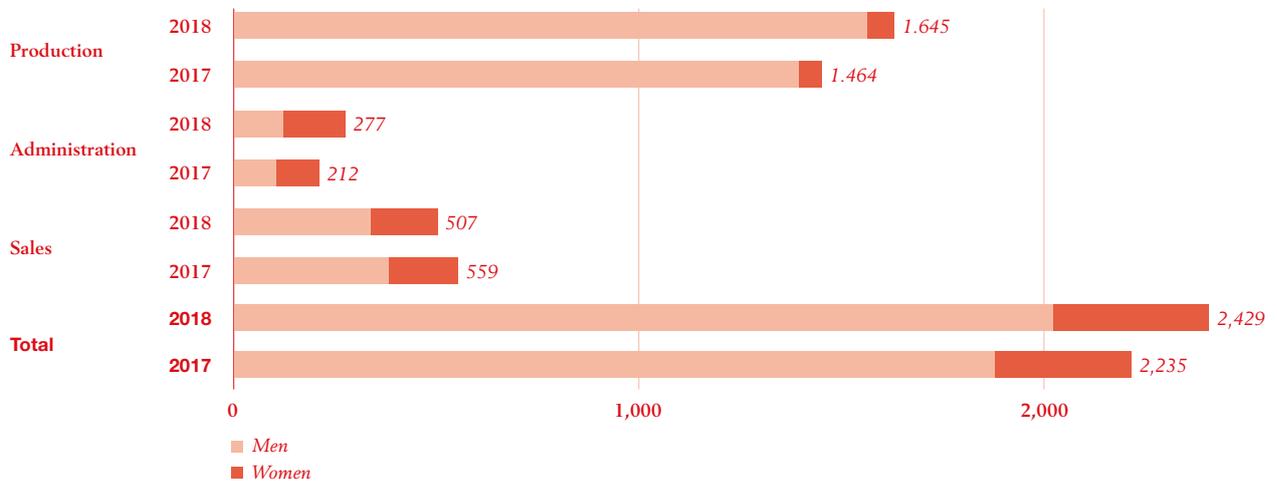
1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.

In 2018, the number of new entrants was 2,429, i.e. 194 more than in 2017. The number of women among the new entrants rose from 342 to 390 in 2018, the number of men from 1,893 to 2,039. The percentage of

women among the new entrants increased further from 15.3% to 16.1%, while the percentage of men continued to decline from 84.7% to 83.9%.

**Number of new entrants by gender and functional area 2018/2017 <sup>1)</sup>**

*based on headcount*



1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.

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 women as well as men employed by Wienerberger.



### Numbers and percentages of permanently employed women and men working part-time <sup>1)</sup>

Headcount as at 31/12/2018

	Total	of which part-time	Part-time in %
Women	2,215	336	15.2
Men	13,272	222	1.7
<b>Total</b>	<b>15,487</b>	<b>558</b>	<b>3.6</b>

1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.

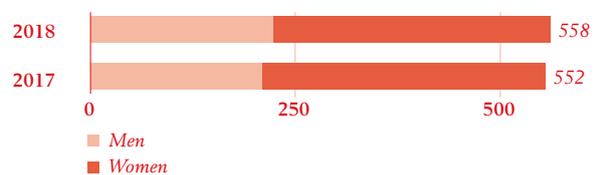
In 2018, the percentage of Wienerberger employees in permanent employment working part-time remained at the 2017 level of 3.6%. The percentage of permanently employed women working part-time declined again from the previous year's value by 0.9 percentage point to 15.2%, while the percentage of men working part-time increased slightly to 1.7% in 2018 (+0.1 percentage points). Nevertheless, the percentage of women working part-time remains relatively high.

The number of employees directly employed in the Wienerberger Group under term contracts and working part time cannot be differentiated by gender for the time being. No such differentiation is being planned, as the percentage of employees concerned is comparatively low at slightly less than 5% (see also section "Employment trends" on pages 69-71).

The percentage of women directly employed by Wienerberger under term contracts is slightly less than 5%, i.e. the same as that of men directly employed by Wienerberger under term contracts.

### Numbers and percentages of permanently employed women and men working part-time 2017/2018 <sup>1)</sup>

based on headcount



1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.

### Employees by employment contracts and gender <sup>1)</sup>

Headcount as at 31/12/2018

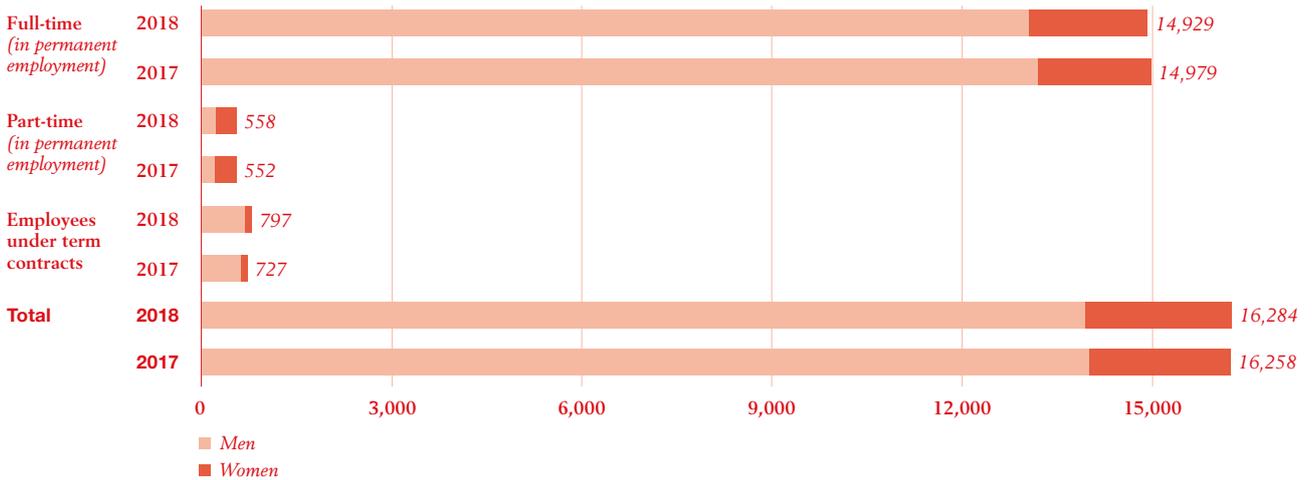
	Women	Women in %	Men	Men in %
Full-time (in permanent employment)	1,879	80.7	13,050	93.5
Part-time (in permanent employment)	336	14.4	222	1.6
Employees under term contracts	113	4,9	684	4.9
<b>Total</b>	<b>2,328</b>	<b>100.0</b>	<b>13,956</b>	<b>100.0</b>

1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.



**Employees by type of employment contracts and gender 2017/2018 <sup>1)</sup>**

based on headcount



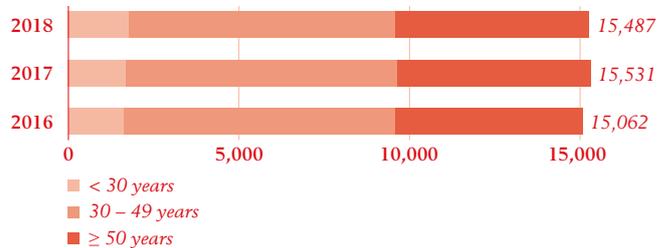
1) Employees directly employed by Wienerberger. // All non-financial indicators are calculated on the basis of non-rounded figures. // Electronic data processing may result in rounding differences.

**Age**

As in previous years, the long average length of service of 13 years with the company was reflected in the age structure of our permanently employed workforce in 2018, which hardly changed in comparison with 2017. In 2018, 51% (-1 percentage point) of our employees were between 30 and 49 years of age. As in the previous year, 12% (+1 percentage point) were younger than 30 and 37% were older than 50.

**Age structure of our employees <sup>1)</sup>**

based on headcount



1) Employees with permanent employment contracts



Among new entrants, the number of employees between 30 and 49 years of age increased from 1,070 in 2017 to 1,208 in 2018, which corresponds to almost 50% of all new entrants and is 2 percentage points higher than in the previous year. The number of new entrants younger than 30 increased from 825 to 894 in 2018 and corresponds to the previous year's level of almost 37% of all new entrants. Conversely, the percentage of new entrants above the age of 50 dropped from 340 in 2017 to 327 in 2018, which corresponds to almost 14% of all new entrants and is 2 percentage points below the previous year's level.

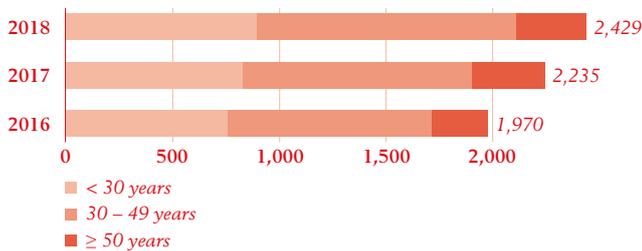
### **Targets and Measures Relating to Employees**

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

The data for North America or Pipelife along the Sustainability Roadmap 2020 do not include the Pipelife site in North America. Nevertheless, the targets and measures defined for the Wienerberger Group also apply to this production site.

#### **New entrants by age structure <sup>1)</sup>**

*based on headcount*



*1) Employees with permanent employment contracts*

In this context, we pay special attention to Group-wide training and development measures for young employees and to long-term succession management. In order to ensure continuity in positions that are critical for Wienerberger's success, we have defined key positions and prepared succession plans for them. At the same time, we are identifying internal talents and high-potential employees, who are to be gradually prepared for succession to such key positions through targeted training measures, such as the new Ready4Excellence Program or the Plant Manager Program (see pages 83-84). 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.



## Social topics in production

### Safety of our employees

#### At Group level

#### Quantitative target

- › The long-term target is zero accidents within the Wienerberger Group.

#### Clay Building

#### Materials Europe

#### 2018

- › A Health & Safety Roadmap was defined for 2018 and first implementation steps were taken.
- › The implementation of the Health & Safety Standards was audited at 57 production sites.
- › A Health & Safety Conference was organized.
- › The internal Health & Safety IT Portal was launched.
- › A smartphone app for reporting near-accidents and hazards went live.
- › The standardization of workwear and personal protective equipment (PPE) was prepared.
- › Exoskeleton technology was tested.
- › In cooperation with Corporate HR and the key countries, a new remuneration system with targets for occupational safety was introduced for all executive levels in production.

#### 2019

- › Safety audits will be performed at all production sites.
- › Rollout of the new remuneration scheme for all executive levels in production will begin.
- › The Health & Safety standards will be updated with an even stronger focus on occupational safety.
- › The Health & Safety IT Portal and the smartphone app will be fully operational for the reporting of accidents, hazards and near-accidents, and for use as a training platform.
- › The standardization of workwear and personal protective equipment (PEE) will be implemented.

#### North America

#### 2018

- › A program to record hazard alarms was introduced, with monthly publication of the data reported. For the first time, data on near-accidents, which did not result in injuries but could have done so if conditions had only been slightly different, are included.
- › New criteria for success were introduced to foster more active involvement of employees in matters of occupational safety.

#### 2019

- › At one production site, the grinding and powdering processes are to be relocated from the main factory floor to another area, which will have a direct positive impact on occupational health and safety for the employees (reduced exposure to dust and noise) in two areas.



## Safety of our employees

---

### *Pipelife*

#### **2018**

- › The best occupational safety performance ever since the inception of data collection in the Wienerberger Group (2012) was achieved, with excellent developments of the indicators on accident frequency (-38.7%) and accident severity (-62.8%) compared to the previous year.
- › The “Take Care” campaign and the Pipelife Safety Portal were continued.
- › Best practices were exchanged not only within Pipelife between the individual plants and the country organizations, but also with other member companies of TEPPFA (The European Plastic Pipes and Fittings Association).
- › 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 2017.

#### **2019**

- › The processes outlined above are being continued.
- › The position of a safety engineer will be created. Through this appointment, the occupational safety department will be equipped with additional resources needed to implement the safety standard and advance the safety program.
- › The organization within the Business Unit reporting the longest accident-free period will be honored with the Pipelife Safety Award for 2018 within the framework of the Zero Accident Club.

---

### *Semmelrock*

#### **2018**

- › Each plant received its own Safety Improvement Plan (SIP) with guidelines on safety matters.
- › Verification of compliance with and implementation of the guidelines through internal safety audits was begun.
- › Conformity and workplace assessments (machine safety strategy) were begun at a plant in Slovakia.
- › Implementation of the safety app designed to record, analyze and track incidents, accidents or potentially dangerous situations was started.
- › Locally organized leadership training for shift leaders was prepared.

#### **2019**

- › Verification of compliance with and implementation of guidelines through internal safety audits is being continued.
  - › Conformity and workplace assessments (machine safety strategy) will be performed in additional plants.
  - › Poster campaigns – one per quarter – will be organized to foster awareness for occupational safety.
  - › The first locally organized leadership training sessions for shift leaders will take place.
-



## Safety of our employees

---

### *Steinzeug-Keramo*

#### 2018

- › DuPont™ STOP® (safety training observation program) was continued at all production sites.
- › Further risk analyses of workplaces in production were carried out.
- › A complete assessment of accidents and near-accidents was performed.
- › A monthly health day was introduced, dealing for instance with the topic of nutrition.
- › Health and safety targets were set for the variable wage components of all production workers up to plant manager and management level.
- › A Health & Safety Day was organized at Bad Schmiedeberg (Germany) and Hasselt (Belgium).

#### 2019

- › The activities outlined above are being continued.
- › A health & safety standard is being set for Steinzeug-Keramo.

## Health of our employees

---

### *At Group level*

#### Quantitative target

At least 95% of all ceramic production sites reporting on measures to protect employees from respirable crystalline silica.

#### 2018

- › The development of a new standard for the protection of employees from exposure to respirable crystalline silica was begun.
- › As scheduled, data on exposure to respirable crystalline silica and measures to protect employees from exposure was not collected via NEPSI, (Negotiation Platform on Silica, [www.nepsi.eu/de/nepsi](http://www.nepsi.eu/de/nepsi)), the shared online platform in the reporting year.

#### 2019

- › The new standard for the protection of employees from exposure to respirable crystalline silica is being completed and implemented.
- › The measures to protect our employees from exposure to respirable crystalline silica are being continued.

---

### *Clay Building*

### *Materials Europe*

#### 2018

- › Work on the topic of exposure to respirable crystalline silica was continued within the framework of the Health & Safety Program.
- › Best practice documents on how to avoid dust formation were created.
- › Further technological improvements were implemented.

#### 2019

- › Measures to protect our employees from exposure to respirable crystalline silica are being continued.
  - › Work on the development of a CBME Health Program is initiated.
-



## Health of our employees

---

### *North America*

#### **2018**

- › An external expert performed measurements of respirable crystalline silica at all relevant production sites.
- › Supplementary 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.

#### **2019**

- › Measurements of respirable crystalline silica by an external expert are being continued.
  - › Supplementary health insurance coverage will again be 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.
- 

### *Pipelife*

#### **2018**

- › Various measures were again taken at local level, such as annual health checks performed at several production sites.

#### **2019**

- › The local measures are being continued. We regard these measures as matters of course and will therefore no longer mention them explicitly in our future reports.
- 

### *Semmelrock*

#### **2018**

- › See also measures regarding the safety of our employees.

#### **2019**

- › A self-audit is being initiated.
  - › Monitoring of physical and mental factors of influence is introduced.
  - › See also measures regarding the safety of our employees.
- 

### *Steinzeug-Keramo*

#### **2018**

- › 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.

#### **2019**

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



## Communication and employee involvement

---

### *At Group level*

#### **2018**

- › The user-friendliness of the Intranet (iComm) was further improved and Group-wide access via mobile devices was made possible.

#### **2019**

- › We will apply more interactive communication processes and use two-way communication instruments to facilitate dialogue. Our objective is to foster interaction among employees, inform employees about current developments within the company and provide a framework for all employees to contribute to current topics.

## Employee satisfaction

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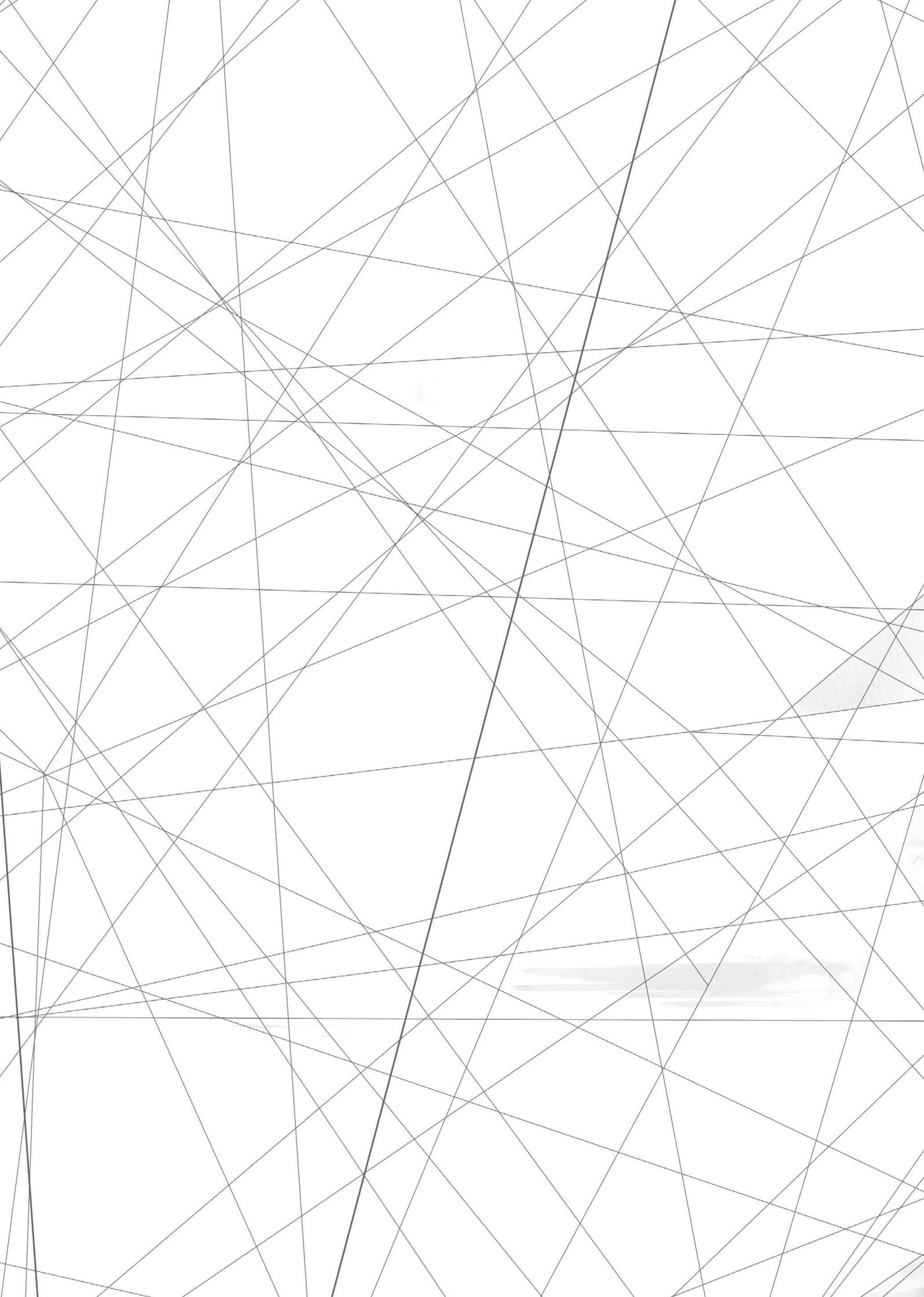
### *At Group level*

#### **2018**

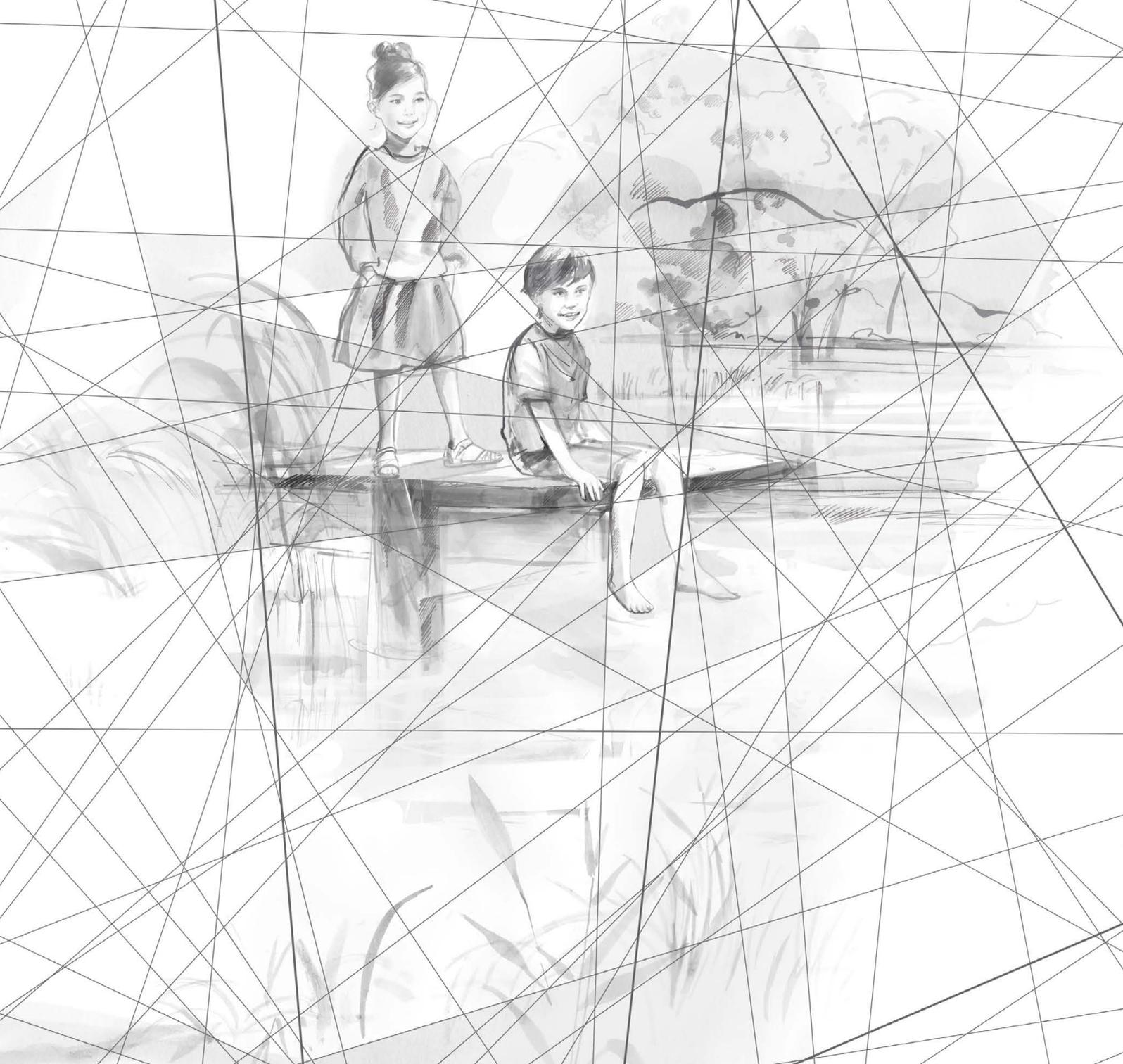
- › The employee survey performed across the entire Wienerberger Group was completed.

#### **2019**

- › Action plans derived from the results of employee surveys are being developed and implemented. The measures taken are based on the survey results and will therefore differ from country to country.
-



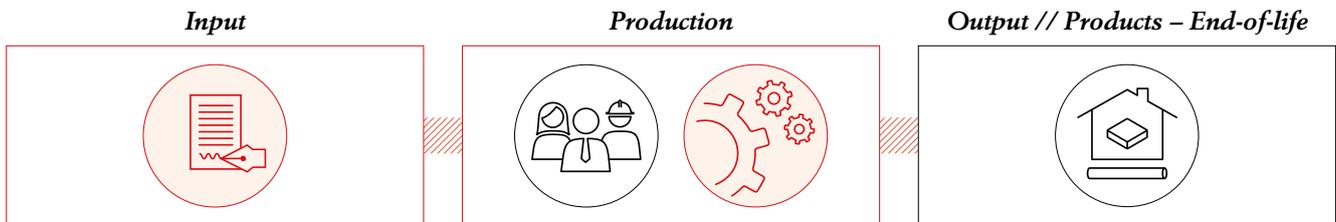
# Production





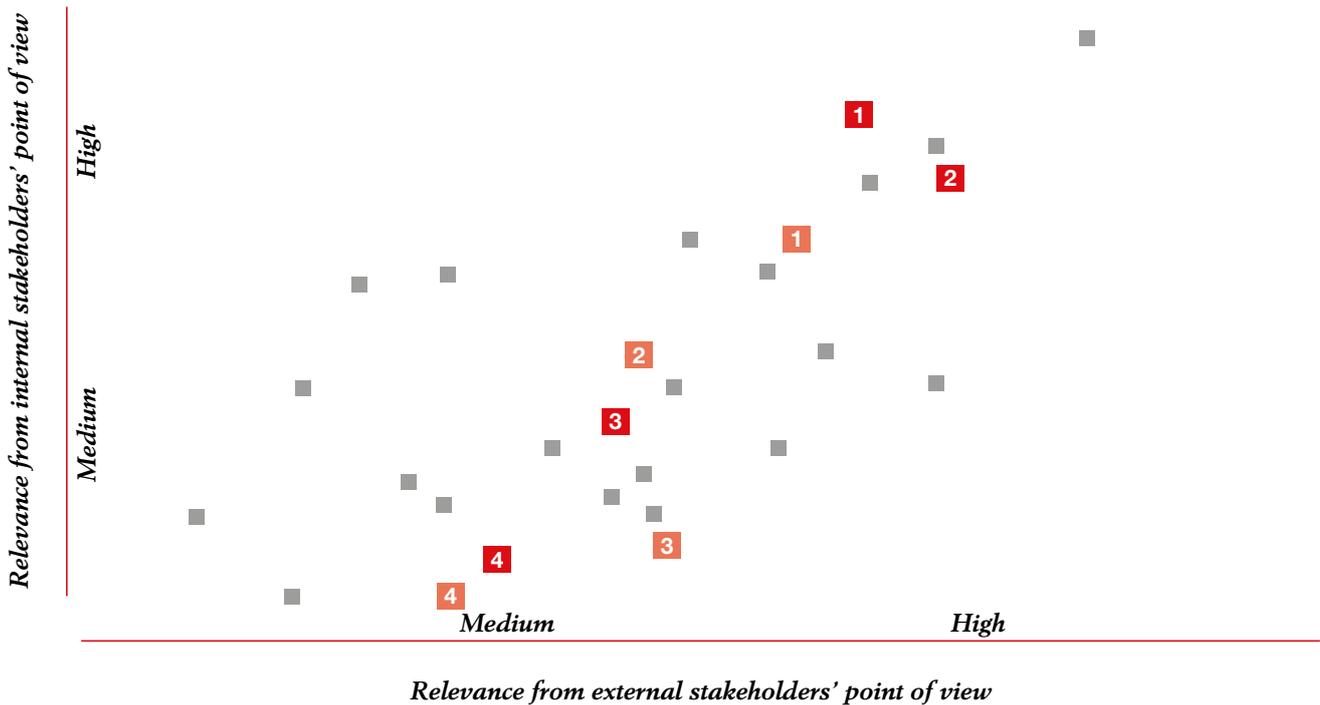
# Production Coordinates at Group Level

## Stages in the value creation process



In this chapter, we address the topics relating to production. The subjects covered relate to the input stage of the value chain and the environmental topics to be dealt with in the production stage of the value chain.

## Excerpt from the Materiality Matrix – Relating to our Supply Chain and to our Production



**Caption**

**Group-wide topics of our supply chain**

- 1** Availability of raw materials
- 2** Avoidance of hazardous substances
- 3** Nature conservation and re-use of supplier-operated depleted clay pits
- 4** Use of recycled material

**Environmental topics in production**

- 1** Energy efficiency
- 2** Climate action
- 3** Resource efficiency and waste management
- 4** Sparing use of water

In the 2014 materiality analysis, the topics highlighted were identified as particularly important in relation to our supply chain and to environmental topics in production. Starting in 2019, we will perform an updated materiality analysis.

## Results of the Impact and Risk Analysis – Relating to Environmental Topics in Sourcing and Production

Input // Sourcing		Production		Output // Products – End-of-life	
SR	Energy efficiency	SR	Energy input in production		
	Emissions from raw material sourcing	SR	Emissions from production processes		
SR	Input of secondary raw materials	SR	Raw material input		
SR	Environmental contamination	SR	Input of secondary raw materials		
			Energy input in transport		
			Emissions from transport		

**Method:** The topics indicated in the table have been identified as material for at least two product groups of the Wienerberger Group. // Topics marked SR were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.

In 2018, an impact and risk analysis for Wienerberger’s four main product groups – bricks (wall, facade and roof products), ceramic pipes, plastic pipes and concrete pavers – was launched on the basis of the specific value chains. The entire analytical process was accompanied and methodologically supported by independent external experts.

The impacts and risks of the four main product groups currently identified as material have been aggregated for the Wienerberger Group. The above table shows the environmental topics relating to sourcing and production classified as relevant at Group level.

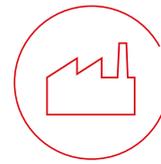
### Relevant SDGs – Relating to Sourcing



### Relevant SDGs – Relating to Environmental Topics in Production



On the basis of our impact and risk analysis, the Sustainability Development Goals of the United Nations highlighted in color have been classified as particularly relevant for our sourcing activities and for the environmental topics in production.



# Production

## *Principles, Processes and Instruments*

Wienerberger strives to make its production processes as environment-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. By increasing energy efficiency and taking further measures to reduce our CO<sub>2</sub> emissions, we contribute to the fight against climate change. At the same time, we strive to increase the amount of recycled materials used in all Business Units, wherever technically and economically feasible.

Research and development (R&D) are among the priorities of Wienerberger's strategic planning. Among the core activities of our R&D are the optimization of production processes and the development of innovative products and services (see chapter "Products" from page 132). R&D expenditure in 2018 amounted to almost € 16 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 production sites. Where appropriate, some production sites have additionally been certified according to ISO 14001 (Environmental Management Systems). Additionally, all Steinzeug-Keramo production sites and the Pipelife site in Germany have been certified according to DIN EN ISO 50001:2011 (Energy Management Systems).

Technical controlling systems have been installed in all fields of production 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.

## *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 action
- > Resource efficiency and waste management
- > Sparing use of water

### *In our supply chain:*

- > Availability of raw materials
- > Avoidance of hazardous substances
- > Protection of local residents, nature conservation, re-use of depleted extraction sites
- > Use of recycled material (the chapter "Products", starting on page 136, also addresses a topic relating to quality)

In the course of a differentiated analysis of our various fields of production performed in 2014, specific environmentally relevant factors of influence from our production processes were identified. These are being re-evaluated within the framework of further product-specific materiality analyses performed in 2019/2020 and will be communicated in our Sustainability Report.

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***

The data contained in this chapter, unless otherwise indicated, exclusively refer to our production sites. In the course of the further development of our data collection methods throughout the Wienerberger Group, the indicators concerned were adjusted accordingly. In the interest of transparency and comparability, the previous year's figures were restated. All restatements and adjustments are explained in the following and, in addition, shown in footnotes to the tables.

Since 2017, strategic decisions on sustainability management at the Pipelife production site in North America have no longer been taken by the Pipelife Business Unit, but by the North America Division. Hence, the production site is no longer part of Pipelife's sustainability roadmap 2020 and will be integrated into the North America Division's sustainability roadmap from 2020 onward, once the new Wienerberger Sustainability Roadmap is defined. This change has no influence on the production-related indicators, which are shown separately for each product group.

All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.

### **Calculation methods and conversion factors**

#### ***Production volume:***

The production volume is a value measured exclusively on the basis of finished products ready for sale and reported in tons. The conversion factor for the respective product weight is included in the product-group-specific data collection system and updated annually. The production volume provides the basis for the calculation of the specific indicators (energy input, CO<sub>2</sub> emissions, water used) relative to the quantity of products produced and ready for sale.

#### ***Energy input:***

The data on energy consumption corresponds to the actual consumption values of the entire Group. Absolute energy consumption and the data on specific energy consumption, relative to the respective production volume, are converted on the basis of the measured consumption values into a unit harmonized across the Group.

The values on energy consumption and the source of energy used are recorded on the basis of incoming invoices and, additionally, through internal measuring systems. Energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible. Absolute energy consumption is reported in MWh throughout the Group; the respective national rules are applied to the conversion factors from other units.

For the calculation of specific energy consumption, absolute energy consumption in kWh is related to the volumes of production in tons. Specific energy consumption is represented as an index in % related to the defined reference year, the values of which are set at 100%.



### ***Direct CO<sub>2</sub> emissions (Scope 1)***

Direct CO<sub>2</sub> emissions result from the combustion of fossil fuels and the release of CO<sub>2</sub> from lime/dolomite and/or the combustion of organic components in the raw materials used in ceramic production (process emissions). The absolute volume of CO<sub>2</sub> emissions is recorded and calculated throughout the Group in accordance with the calculation method of the European Union Emissions Trading System (EU ETS). The data source used is the EU Transaction Log (EUTL). The calculations are based on EU standard emission factors within the EU and on national rules in countries outside the EU ETS (e.g. USA, Canada, Switzerland, India). The respective quantities are recorded in Wienerberger's CO<sub>2</sub> monitoring system in accordance with national rules. The national conversion factors are applied. Process emissions are measured annually by the individual ceramic production sites within the framework of the EU ETS. Process emissions from the plants of the North America Division are also recorded and reported.

The specific CO<sub>2</sub> emissions are calculated on the basis of the absolute CO<sub>2</sub> emissions in kg of CO<sub>2</sub>, relative to the production output in tons. We report this value as an index in % relative to the defined reference year, the values of which are set at 100%.

### ***Indirect CO<sub>2</sub> emissions from the use of electricity***

Electric energy is primarily used in the production of plastic pipes and concrete pavers. The resulting indirect CO<sub>2</sub> emissions are to be attributed to the energy producer.

The consumption of electric energy in concrete paver production is low. As regards plastic pipe production in Europe, we have set ourselves a quantitative target for the reduction of indirect CO<sub>2</sub> emissions from electricity. We record these emissions by applying a standardized conversion factor, which remains the same for three years for reasons of comparability.

### **Restatements**

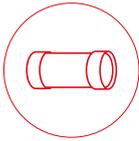
Index of specific CO<sub>2</sub> emissions, sum total from ceramic production: In previous years, the sum total from ceramic production was reported including concrete products of the North America Division. The latter are now being calculated separately and the indices have been adjusted.

Specific water usage: The 2017 data for the Pipelife production site of the North America Division was corrected and the indicators were restated accordingly.

### ***Volumes Sold by Product Group***

The total volumes of products supplied by the Wienerberger Group for building construction and infrastructure solutions in 2018 are illustrated on the following page.

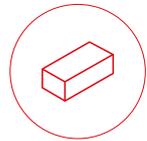
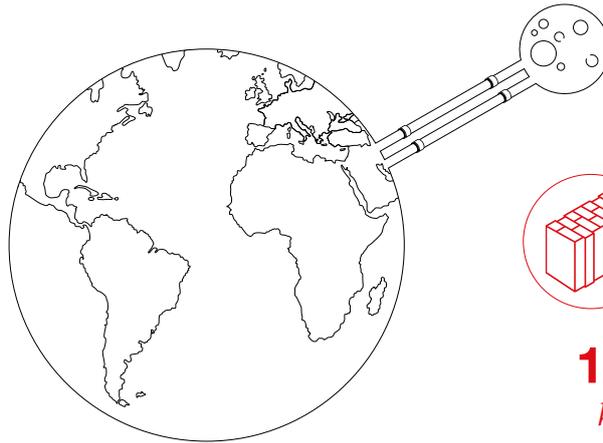
# Volumes Sold by Product Group



**745,000**  
km of pipes laid

*Once to the moon and back ...*

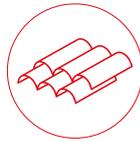
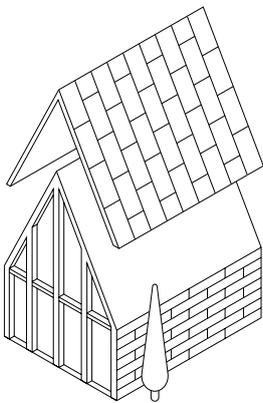
Or more than 18 times around the world with our pipes: Roughly 745,000 kilometers of plastic pipes and ceramic pipes are laid every year – enough to go around the world more than 18 times.



**180,000**  
houses built

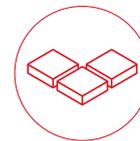
*Every year a small town ...*

From facing bricks for the façade to clay blocks for interior walls: Every year, about 180,000 houses are built with Wienerberger bricks, corresponding to the size of a small town.



**290,000**  
roofs covered

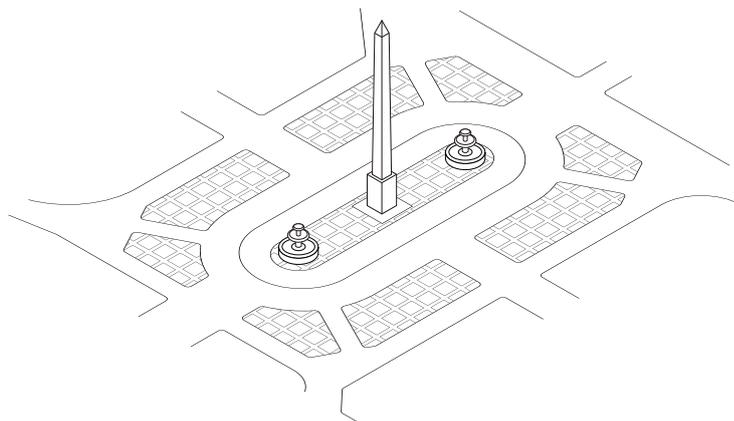
For new construction or renovation: Every year, 290,000 roofs are covered with Wienerberger clay roof tiles. These durable natural products open up a whole range of possibilities for roof and façade design.



**17,000,000**  
m<sup>2</sup> of surface paved

*248 times the size of  
Place de la Concorde*

From pedestrian precincts to private patios: Every year, surfaces adding up to 1,700 hectares are protected and embellished with Wienerberger products. To visualize the size, this corresponds to 248 times the surface of Place de la Concorde.





### **Environmental Topics in Production: Energy Efficiency**

The following indicators on energy consumption cover the entire Wienerberger Group. Compared to the previous year, the Group's total energy consumption in 2018 increased by 3.3%. The main reasons for the increase are higher production volumes of bricks and acquisitions in Europe, increasing production of concrete and calcium silicate products in North America, and acquisitions in 2018.

The percentage of renewable energy sources in the consumption of electricity in 2018, based on kWh per ton, remained at the previous year's level. We do not record the consumption of other renewable energy sources, as the percentages used in our production processes have been negligible so far. Data on energy sold is irrelevant and therefore not reported.

#### **Absolute energy consumption by energy source <sup>1)</sup>** *in GWh*

	2016	2017	2018	Vdg. in %
Natural gas	6,331	6,665	<b>6,923</b>	+3.9
Coal	114	50	<b>32</b>	-35.5
Fuel oil	7	7	<b>8</b>	+15.9
Liquefied natural gas	60	55	<b>52</b>	-4.6
Electricity	1,078	1,112	<b>1,134</b>	+2.0
<b>Wienerberger Group</b>	<b>7,591</b>	<b>7,889</b>	<b>8,149</b>	<b>+3.3</b>
Percentage of renewable energy in the consumption of electric energy	31%	37%	<b>37%</b>	-

1) Total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible. // All non-financial indicators are calculated on the basis of non-rounded values. Electronic data processing may result in rounding differences.

Wienerberger is making continuous efforts to convert production processes to low-emission energy sources. As in the previous year, the substitution of fuel oil and coal with other sources of energy is again reflected in the figures for 2018. In 2017, all active production sites of the North America Division were converted completely from coal to natural gas, which resulted in a further steep reduction in coal input and a simultaneous increase in natural gas consumption in 2018. The Group-wide consumption of coal was reduced by more than one third in 2018 compared to the previous year's level (-35.5%). The somewhat higher absolute consumption of fuel oil was attributable to the increasing volume of concrete roof tiles produced in Great Britain.

#### **Energy sources used in our production processes** *Ceramic production (facing bricks, clay blocks, roof tiles and ceramic pipes)*

Most of the energy used in ceramic production is thermal energy, i.e. fuels such as natural gas and liquefied natural gas, oil or coal. Energy is used primarily for the drying process and to heat the tunnel kilns for the firing of our products. A major part of the heat released during cooling is recovered and used in the drying process. Electric energy is of minor importance in ceramic production; it is used for the mixing and preparation of the raw material components, for extrusion and for grinding and transport facilities.

**Plastic pipe production:**

In plastic pipe production, electric energy is used primarily for the operation of plant and equipment and to heat the plastic granulates. As no direct CO<sub>2</sub> emissions result from the production process, our plastic pipe operations are not covered by the EU Emissions Trading System.

**Production of concrete and calcium silicate products in the North America Division**

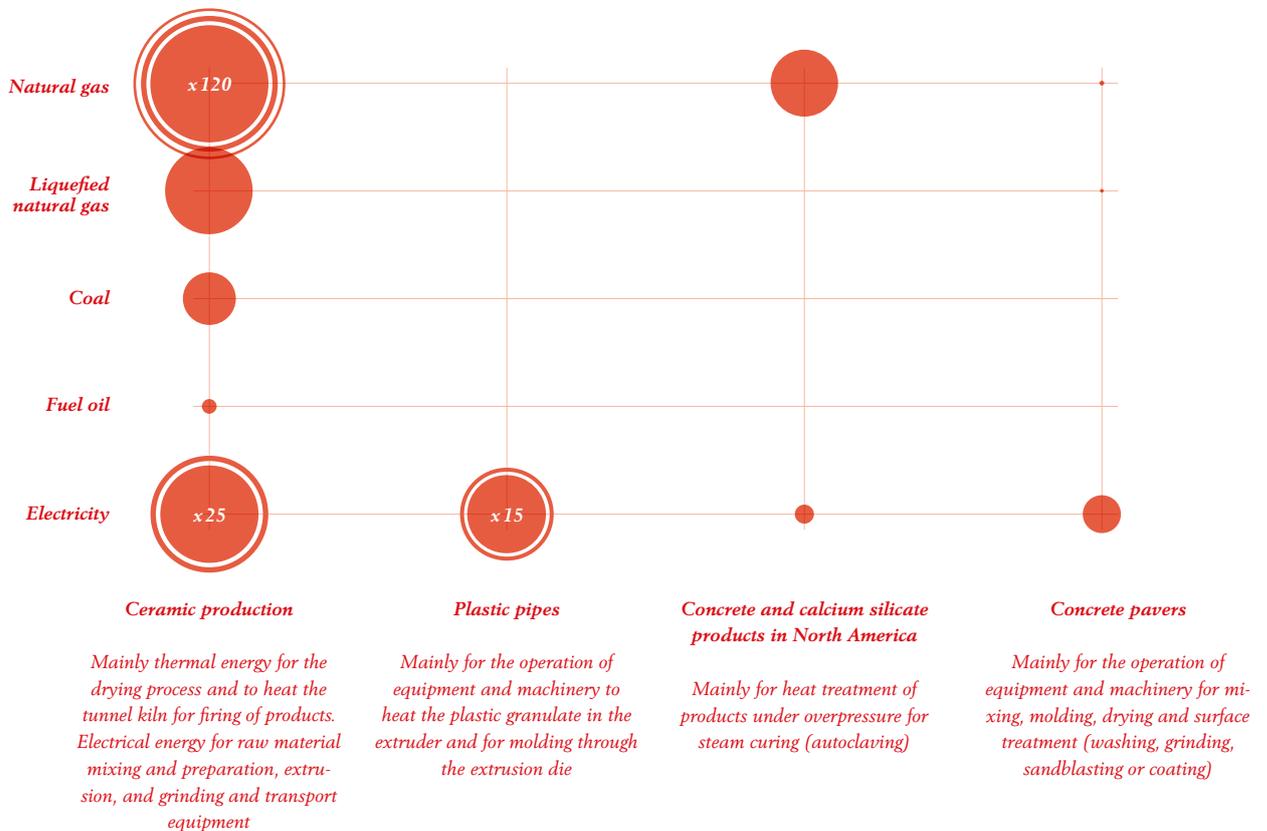
The products undergo a process of steam curing, in which they are hardened through heat treatment under overpressure. The process is called autoclaving. The process primarily requires natural gas; electricity is used in significantly smaller amounts.

**Production of concrete pavers:**

Energy is required to operate the machines used in the production process, including the mixing of the raw materials, material transport and the subsequent molding of concrete parts through pressing or casting. Various surface treatment processes, such as washing, grinding, sandblasting or coating, are applied before or after the drying process. Energy consumption in the production of concrete pavers is relatively low. The electric energy used to operate the machines does not result in direct CO<sub>2</sub> emissions.

**Energy input and types of energy use in production**

*broken down by energy source and field of production*





## Specific energy consumption

Specific energy consumption (calculated as an index in % based on kWh/ton) reflects 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. Up to 2016, the figures from 2010 were used as a basis. However, due to the further development of data collection methods and the integration of new product groups in 2016 (see 2016 Sustainability Report, pages 58 and 59, Collection of Indicators, Restatements), 2010 can no longer be used as the reference 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. For these product groups, we therefore use the indicators from 2013 as the new reference value for the index of specific energy consumption (based on kWh/ton) for the entire Wienerberger Group.

In 2018, specific energy consumption was further reduced, dropping by 0.8% from the previous year's level in the Wienerberger Group as a whole and by 2% in ceramic production alone. Compared to the baseline year 2013, the reductions were even more significant, amounting to 1.6% for the Group as a whole and 4.4% for ceramic production.

<b>Index of specific energy consumption <sup>1)</sup></b> <i>in % based on kWh/ton (2013 = 100%)</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. against 2017 in %</b>	<b>Chg. against 2013 in %</b>
Clay blocks	93.4	91.2	<b>91.0</b>	-0.2	-9.0
Roof tiles	87.9	87.8	<b>86.3</b>	-1.7	-13.7
Facing bricks	101.7	101.1	<b>98.7</b>	-2.3	-1.3
Ceramic pipes	111.8	122.0	<b>116.4</b>	-4.6	+16.4
<b>Ceramic production</b>	<b>99.3</b>	<b>97.6</b>	<b>95.6</b>	<b>-2.0</b>	<b>-4.4</b>
Plastic pipes	100.8	101.5	<b>102.9</b>	+1.3	+2.9
Concrete and calcium silicate products North America	102.7	100.3	<b>108.7</b>	+8.4	+8.7
Concrete pavers	98.1	100.1	<b>82.4</b>	-17.7	-17.6
<b>Wienerberger Group</b>	<b>100.0</b>	<b>99.1</b>	<b>98.4</b>	<b>-0.8</b>	<b>-1.6</b>

1) Total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible.

In 2018 again, our continuous efforts to reduce specific energy consumption were particularly successful in the Clay Building Materials Europe (CBME) Division and the North America Division. The higher volume of production and the associated optimal utilization of capacities at the CBME production sites made an additional contribution to the reduction of specific energy consumption. In particular, specific energy consumption decreased by 2.3% in facing brick production.

Throughout 2018, CBME continued the consistent rollout of the "Plant Improvement Program". Details on the current program and CBME's ongoing activities to increase energy efficiency are described in the section "Targets and Measures Relating to Production", starting on page 117.

In the field of ceramic pipes, the closure of a plant in Germany resulted in lower specific energy consumption than in the previous year (-4.6%). This was partly due to higher capacity utilization at other production sites still in operation. Moreover, the resultant change in the product mix led to lower energy input in production.

However, compared to 2013, specific energy consumption in this area was 16.4% higher due to the fact that capacity utilization was higher in 2013 than in 2018. Moreover, the plant closed in 2018 remained in operation for almost four months in the reporting year. The plant closure also led to a transfer of production to other plants still in operation and an increase in specific energy consumption there because of start-up effects.



The increase in specific energy consumption in plastic pipe production in 2018 is primarily attributable to lower capacity utilization at the production site in North America, where more energy was consumed than in the previous year.

In 2015, the target set for plastic pipe production in Europe within the framework of the Sustainability Roadmap 2020 was to reduce specific energy consumption from electricity in production by 20% compared to 2010. In 2018, we had to adjust our original target one of the reasons being substantial changes in the product mix with a trend towards lighter products with smaller pipe diameters. We regard this trend as a long-term development, which will have a significant impact on our specific performance measured per ton of product ready for sale. Even if the energy required per ton of product remains the same, this will lead to higher specific energy consumption in purely mathematical terms. This development also concerns specific indirect CO<sub>2</sub> emissions (see page 112) and specific water usage (see page 114) in production. Despite these challenging developments, we intend to reduce specific energy consumption in plastic pipe production in Europe by 2020 by at least 3% compared to 2010.

In the field of concrete pavers, the divestment of the Austrian country organization was one of the factors contributing to the reduction in specific energy consumption.

In North America, specific energy consumption for concrete and calcium silicate products increased significantly in 2018 (+ 8.7%) on account of a higher volume of cut products, the production of which is more energy-intensive.

The Clay Building Materials Europe Division (CBME) is developing new roof tile and facing brick products, one of the objectives being to increase resource efficiency and to further improve the product properties. To reflect this development, 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. The indicators for 2018 confirm the successful implementation of measures taken by CBME to enhance energy efficiency and/or reduce specific energy consumption in the production of roof tiles (-1.3%) and facing bricks (-3.3%), as compared to the previous year.

<b>Index of specific energy consumption CBME <sup>1)</sup></b> <i>in % based on kWh/m<sup>2</sup> (2013 = 100%)</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. against 2017 in %</b>	<b>Chg. against 2013 in %</b>
Roof tiles	84.4	83.6	<b>82.6</b>	-1.3	-17.4
Facing bricks	95.6	95.2	<b>92.0</b>	-3.3	-8.0

1) Clay Building Materials Europe; total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible



For Clay Building Materials Europe (bricks) and Pipelife (plastic pipes), the indicators from 2010 serve as reference values for the quantitative targets regarding the increase in energy efficiency by 2020. We are therefore able to additionally present the index of specific energy consumption for most of the product groups (excluding concrete and calcium silicate products in North America and ceramic pipes) relative to 2010. The target of minus 20% set for the Clay Building Materials Europe Division was not only achieved but in fact surpassed at 22.7% for clay blocks in 2018. We are also making good progress with roof tiles (-15.7%). In all other product groups, we will step up our efforts to reach our self-defined targets in 2020.

For plastic pipe production in Europe, we had to adjust our original target in 2018, one of the reasons being substantial changes in the product mix with a trend towards lighter products with smaller pipe diameters (see also “Specific energy consumption” on page 107). Despite these challenging developments, we intend to reduce specific energy consumption in plastic pipe production in Europe by at least 3% by 2020, as compared to 2010. Our new target refers not only to electricity, but also to all other sources of energy used. The respective indicators are shown in the table “Quantitative targets of the Wienerberger Sustainability Roadmap” on page 46 and in the section “Targets and Measures Relating to Production” from page 116.

<b>Index of specific energy consumption <sup>1)</sup></b> <i>in % based on kWh/ton (2010 = 100%)</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. against 2017 in %</b>	<b>Chg. against 2010 in %</b>
Clay blocks	79.3	77.5	<b>77.3</b>	-0.2	-22.7
Roof tiles	85.8	85.7	<b>84.3</b>	-1.7	-15.7
Facing bricks, CBME only	98.4	98.0	<b>95.8</b>	-2.2	-4.2
<b>CBME total</b>	<b>89.9</b>	<b>88.3</b>	<b>86.8</b>	<b>-1.8</b>	<b>-13.2</b>
Facing bricks incl. North America	104.3	103.6	<b>101.2</b>	-2.3	+1.2
Plastic pipes	98.2	98.9	<b>100.2</b>	+1.3	+0.2
Concrete pavers	93.1	95.0	<b>78.2</b>	-17.7	-21.8

1) Total energy consumption includes energy consumed in production, but excludes administration, except for countries where separate accounting is not possible.

### **Environmental Topics in Production: Climate Action and CO<sub>2</sub> Emissions**

#### **Carbon dioxide equivalents (CO<sub>2e</sub>)**

“Carbon dioxide equivalents” or “CO<sub>2e</sub>” is a term used to describe the global warming potential (GWP) of various greenhouse gases in a single unit.

On this basis, any quantities and types of greenhouse gases in different compositions can be expressed as carbon dioxide equivalents by multiplying the quantity of each greenhouse gas by its global warming potential and adding up the products to obtain a total value. The reference value for all greenhouse gases is fossil CO<sub>2</sub> with a GWP of 1. Greenhouse gases with a significantly higher GWP, such as methane, nitrous oxide or chlorofluorocarbon (CFC), are irrelevant in our production. Our figures on CO<sub>2</sub> emissions therefore correspond to carbon dioxide equivalents.

### **Emissions of carbon dioxide equivalents in ceramic production**

#### **Carbon dioxide emissions (CO<sub>2</sub>)**

CO<sub>2</sub> emissions from ceramic production in Europe are regulated and covered by the EU Emissions Trading System – EU ETS). CO<sub>2</sub> emission from the primary energy sources used as well as CO<sub>2</sub> emissions from the combustion of the raw materials used (process emissions) are taken into account.

We record and report the direct CO<sub>2</sub> emissions of the entire Wienerberger Group, including those from plants not subject to the EU ETS. We apply the EU ETS method throughout the Group.



### **Methane (CH<sub>4</sub>)**

Methane is the main component of natural gas, which is used as a source of energy. Given its complete combustion in our processes, only CO<sub>2</sub> emissions from combustion are relevant for the calculation, while methane itself is irrelevant.

### **Other greenhouse gases**

Other greenhouse gases, such as nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), fluoroform (CHF<sub>3</sub>) and the like, are non-existent in industrial emissions from ceramic production or present only in negligible traces (see also the Reference Documents (BREF) of the Best Available Techniques/BAT and the Industrial Emissions Directive 2010/75/EU (IED)<sup>1</sup>.

Hence, the absolute carbon dioxide emissions from our production processes are equal to the carbon dioxide equivalents. In our climate action management and reporting, we therefore focus on carbon dioxide emissions instead of carbon dioxide equivalents.

### **Our CO<sub>2</sub> emissions**

For the collection of CO<sub>2</sub> emission data, we apply the method of the European Union Emissions Trading System (EU ETS system), which only records direct CO<sub>2</sub> emissions resulting from production processes, but excludes indirect CO<sub>2</sub> emissions resulting from the electricity used. Accordingly, the only relevant data are CO<sub>2</sub> emissions from our ceramic production (Scope 1). Only electric energy is used in the production of plastic pipes and concrete pavers; the related CO<sub>2</sub> emissions are attributed to the respective electric power producer.

CO<sub>2</sub> emissions from primary energy sources (fuels) vary in line with energy consumption, whereas so-called process emissions in ceramic production result from the raw material and, in clay block production, from the use of pore-forming agents. The increase in absolute CO<sub>2</sub> emissions in all categories results primarily from the higher volume of production due to more incoming orders and from the higher carbon content of clay in some countries.

<b>CO<sub>2</sub> emissions</b> <i>kilotons per year</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. in %</b>
From primary energy sources	1,074	1,126	<b>1,151</b>	+2.3
From processes	720	800	<b>883</b>	+10.3
<b>Total – covered by ETS <sup>1)</sup></b>	<b>1,793</b>	<b>1,926</b>	<b>2,034</b>	<b>+5.6</b>
Plants not covered by ETS <sup>2)</sup>	253	245	<b>288</b>	+17.5
From biogenic inputs <sup>3)</sup>	249	268	<b>296</b>	+10.4

1) <http://ec.europa.eu/environment/industry/stationary/ied/legislation.htm> // 2) Calculation in accordance with national rules (Switzerland) or EU standard emission factors. For plants in the USA, CO<sub>2</sub> process emissions are also reported. // 3) Quantities derived from Wienerberger's CO<sub>2</sub> monitoring in accordance with national rules.

1) <http://ec.europa.eu/environment/industry/stationary/ied/legislation.htm>



In the interest of increased transparency in reporting the development of our CO<sub>2</sub> emissions, these are presented for the first time in absolute figures, broken down by product group, and shown in a three-year trend. This form of presentation shows the development of the product groups that cause direct CO<sub>2</sub> emissions from production processes, primarily through drying and firing as well as steam curing. Compared to the previous year, absolute CO<sub>2</sub> emissions increased in 2018, especially in the production of clay blocks (+8.4%) and facing bricks (+6.7%), as well as in roof tile production (+1.6%). This is due to higher incoming orders and the resultant increase in production volumes in all product groups, as well as the related increase in absolute energy consumption and higher process emissions from the clay used for these product groups.

Absolute CO<sub>2</sub> emissions from the production of concrete and calcium silicate products in the North America Division increased by one kiloton, due to the fact that production volumes were higher than in the previous year. Given the relatively low quantities of CO<sub>2</sub> emissions, the increase is highest in percentage terms (+17.5%).

In the field of ceramic pipes, the closure of a plant and the resultant decrease in absolute energy consumption as well as changes in the product mix led to a significant reduction in absolute CO<sub>2</sub> emissions (-28.7%).

<b>CO<sub>2</sub> emissions in kilotons per year – ETS and non-ETS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. in %</b>
Clay blocks	1,301	1,412	<b>1,531</b>	+8.4
Roof tiles	357	360	<b>366</b>	+1.6
Facing bricks	586	617	<b>659</b>	+6.7
Ceramic pipes	42	43	<b>31</b>	-28.7
Concrete and calcium silicate products North America	8	7	<b>8</b>	+13.6
<b>Wienerberger Group</b>	<b>2,295</b>	<b>2,439</b>	<b>2,593</b>	<b>+6.3</b>

1) EU Transaction Log (EUTL) // 2) Calculation in accordance with national rules (Switzerland) or EU standard emission factors. For plants in the USA, CO<sub>2</sub> process emissions are also reported. // 3) Quantities derived from Wienerberger's CO<sub>2</sub> monitoring in accordance with national rules.

### Specific CO<sub>2</sub> emissions

Within the framework of the materiality analysis performed in 2014, our stakeholders ranked only fuel-related CO<sub>2</sub> emissions, which can be directly influenced by Wienerberger, as a material topic 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 CO<sub>2</sub> emissions from primary energy sources by 20% as compared to 2010. Changes in specific energy consumption provide an approximate basis for the assessment of target attainment, as the volume of CO<sub>2</sub> emissions correlates with the quantity and composition of primary energy sources used.

Reductions can be achieved through enhanced efficiency in production (i.e. lower energy consumption per ton of products produced), on the one hand, and the replacement of CO<sub>2</sub>-intensive fuels (coal, fuel oil) by less CO<sub>2</sub>-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 CO<sub>2</sub> emissions.

Since the transition to the third trading period of the European Union Emissions Trading System, the indicators from 2013 for the calculation of specific CO<sub>2</sub> emissions from primary energy sources (in % based on kg CO<sub>2</sub>/ton) have been used as the new reference base for further developments.



<b>Index of specific CO<sub>2</sub> emissions <sup>1)</sup></b> <i>in % based on kg CO<sub>2</sub>/ton (2013 = 100%)</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. against 2016 in %</b>	<b>Chg. against 2013 in %</b>
Clay blocks	92.1	89.6	<b>89.7</b>	+0.1	-10.3
Roof tiles	87.1	87.4	<b>85.7</b>	-1.9	-14.3
Facing bricks	95.0	93.0	<b>90.2</b>	-3.1	-9.8
Ceramic pipes	111.9	123.8	<b>111.7</b>	-9.8	+11.7
<b>Ceramic production</b>	<b>96.1</b>	<b>94.0</b>	<b>91.8</b>	<b>-2.4</b>	<b>-8.2</b>

1) Specific CO<sub>2</sub> emissions exclusively refer to fuel emissions. // In previous years, the sum total of "Ceramic production" included concrete products from North America. These are no longer included this year and the index has been restated.

In ceramic production, the index of specific CO<sub>2</sub> emissions from primary energy sources in kg CO<sub>2</sub> per ton of products produced in 2018 was further reduced by a satisfactory 2.4% compared to the previous year and by 8.2% compared to 2013. Specific CO<sub>2</sub> emissions from primary energy sources declined more strongly than specific energy consumption in ceramic production (-2% compared to 2017 and -4.4% compared to 2013). This is due to the steady and consistent reduction in the use of CO<sub>2</sub>-intensive energy sources, such as coal and fuel oil, and the conversion to natural gas.

The reduction of specific CO<sub>2</sub> emissions from the production of facing bricks (-3.1%) and roof tiles (-1.9%) compared to the previous year's levels was due, in particular, to optimized capacity utilization.

Specific CO<sub>2</sub> emissions from the production of ceramic pipes dropped significantly in 2018 as a result of a plant closure in Germany (-9.8%). Comparable to the development of specific energy input in this field of production (see page 106), this is partly due to higher capacity utilization of the remaining production sites. Moreover, the associated change in the product mix led to lower specific CO<sub>2</sub> emissions from production. However,

compared to 2013, specific CO<sub>2</sub> emissions in this area were 11.7% higher, due to the fact that capacity utilization was higher in 2013 than in 2018. Additionally, the plant closed in 2018 remained in operation for almost four months in the reporting year. At the same time, the plant closure led to a transfer of production to other plants still in operation and resulted in an increase in specific energy consumption there because of start-up effects.

The Clay Building Materials Europe Division is developing new roof tile and facing brick products, one of the objectives being to increase resource efficiency and to further improve the product properties. To reflect this development, 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 additional indicator, emission volumes were found to develop parallel to the reduction in fuel consumption. The following table, which represents the development of the index of specific CO<sub>2</sub> emissions relative to square meters of product surface (in % based on kg of CO<sub>2</sub>/m<sup>2</sup>), shows the reduction in specific CO<sub>2</sub> emissions from the production of facing bricks (-3.2%) and roof tiles (-1.4%).

<b>Index of specific CO<sub>2</sub> emissions CBME <sup>1)</sup></b> <i>in % based on kg CO<sub>2</sub>/m<sup>2</sup> (2013 = 100%)</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Chg. against 2017 in %</b>	<b>Chg. against 2013 in %</b>
Roof tiles	83.7	83.2	<b>82.0</b>	-1.4	-18.0
Facing bricks	93.6	93.2	<b>90.3</b>	-3.2	-9.7

1) Specific CO<sub>2</sub> emissions exclusively refer to fuel emissions.



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<sub>2</sub>-intensive. Within the framework of the Sustainability Roadmap 2020, Semmelrock has undertaken to reduce these emissions, for instance by implementing research projects on the use of recycled concrete and climate-friendly 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<sub>2</sub> intensity of the raw materials used in the production of plastic and concrete products.

In 2015, within the framework of the Sustainability Roadmap 2020 for our plastic pipe production, we have set the target of reducing the specific indirect CO<sub>2</sub> emissions from the use of electricity in production by 20% from the level reported in 2010. In 2018, we had to adjust our original target, one of the reasons being substantial changes in the product mix with a trend towards lighter products with smaller pipe diameters (see also the section "Specific energy consumption", page 107). Despite these challenging developments, we intend to reduce specific indirect CO<sub>2</sub> emissions from the use of electricity in plastic pipe production in Europe by 11% by 2020, as compared to 2010, and maintain them at that level. In 2018, Pipelife's indirect CO<sub>2</sub> emissions (primarily from electricity consumption) were 11% below the 2010 baseline.

### ***Environmental Topics in Production: Resource Efficiency and Waste Management***

Wienerberger is making a continuous effort to further improve the properties and the high quality of its products and, at the same time, to enhance resource efficiency in production. 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 the recycling of production waste and residual substances into produc-

tion. The steady reduction of scrap rates is another essential topic.

In concrete paver production, we reduced the scrap rate by 45% between 2014 and 2017 and we intend to reduce the scrap rate by another 23% compared to 2017 by 2020. Figures on the total amount of raw materials used by the Wienerberger Group cannot be disclosed for reasons of proprietary formulations and production technologies.

### **Resource efficiency and the use of secondary raw materials**

From the viewpoint of resource efficiency, the use of secondary raw materials is an important topic for the future. However, technical feasibility largely 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 major challenge. While residual material from our own plants can easily be recycled into production on account of its high degree of purity, the use of secondary ceramic material from external sources is inefficient in most cases, at least for the time being. In order to obtain secondary raw materials of adequate quality, construction debris needs to be carefully sorted and processed.

In the production of clay blocks in Europe, we use pore-forming agents to optimize their thermal insulation properties. Some of the pore-forming agents used are secondary raw materials, such as saw dust, rice husks or sunflower seed shells. The quantities are recorded in the raw material report for the product group. In 2018, almost 10% of the raw materials used were secondary raw materials.

Our target set for plastic pipe production in Europe, i.e. to increase the percentage of secondary raw material to 70kg per ton of products produced by 2020, was already exceeded in 2018. We have therefore set ourselves a new and even more ambitious target; at the same time, we have fine-tuned the definition of the secondary raw materials used. The new target is outlined in the chapter "Products" (page 136).

A total of 147,560 tons of waste was generated by the Wienerberger Group in 2018, less than 1% of which was hazardous waste. As in previous years, almost all the waste generated by the Wienerberger Group is non-hazardous waste, the major part of which was collected and recycled in 2018 (79%).

### Waste generation

in tons



1) The volumes of waste reported for 2016 in the 2016 Sustainability Report were corrected due to an update of the data for concrete pavers (Semmelrock) and adjusted to the indicators of the Wienerberger Group for 2016. The waste volume data of other reporting years are not influenced by this adjustment.

### 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. Water usage is a topic of particular relevance in plastic pipe production, given that water is used for cooling in the production process.

The Wienerberger Group's absolute water usage in 2018 was 5.4% higher than in the previous year. This was primarily due to a significant increase of production volumes in some areas as well as changes in the product mix. The percentage of water drawn from public networks increased slightly, not least because of the very hot summer in 2018. While water required for cooling in plastic pipe production is usually drawn from bodies of surface water, water temperatures sometimes were too high for this purpose in 2018. Usage of water from our own wells remained almost unchanged, while water drawn from our own ponds or similar sources was reduced slightly.

Water usage		2016	2017	2018	Chg. in %
<b>Wienerberger Group</b>	<i>in Mio. m<sup>3</sup></i>	<b>4.2</b>	<b>4.2</b>	<b>4.4</b>	<b>+5.4</b>
of which from public networks	<i>in %</i>	33.5	33.7	<b>34.9</b>	-
of which drawn with own pumps (wells)	<i>in %</i>	19.4	21.2	<b>21.4</b>	-
of which from own ponds. etc.	<i>in %</i>	47.2	45.1	<b>43.7</b>	-

### Specific water usage

Specific water usage, based on net additions to inventories, increased in 2018 in almost all product groups. Notwithstanding the Wienerberger Group's commitment to a sparing use of water, wherever possible in closed circuits, changes in the product mix and higher production volumes in some areas had an impact on specific water usage. This development was due to a variety of reasons.

In the field of ceramic pipes, the production of jacking pipes was stepped up in view of the forthcoming plant closure in 2018. Milling of pipes from the previous year's production led to higher water usage. Another site unfortunately experienced two water main bursts, which drove up specific water usage enormously (+77.1%).



Specific water usage is relatively high in plastic pipe production, where water is needed for cooling. Owing to long-term changes in the product mix, specific water usage increased by 4.2% in 2018. Water from public networks for plastic pipe production accounted for 16.7% of total specific water usage 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 conformity with

the legal provisions in effect and, thus, does not count as consumption in the true sense of the term.

Water usage in concrete paver production increased on account of the higher percentage of washed products. The increase in water usage for concrete and calcium silicate products in North America is attributable to the higher volume of wet-cut products.

Specific water usage in m <sup>3</sup> /ton of products	2016	2017	2018	Chg. in %
Brick of products	0.154	0.148	0.147	-0.8
Ceramic pipes	0.263	0.242	0.429	+77.1
Plastic pipes <sup>1)</sup>	5.110	5.040	5.250	+4.2
Concrete pavers	0.055	0.050	0.055	+9.2
Concrete and calcium silicate products North America	0.401	0.329	0.509	+54.8

1) The 2017 data for the Pipelife production site of the North America Division were corrected and the indicators were restated accordingly.

Our target in plastic pipe production in Europe, set in 2015, was to reduce the volume of water drawn from public networks to 0.55m<sup>3</sup> per ton of products produced by 2020. Here, too, the original target of the Sustainability Roadmap 2020 was adjusted on the basis of current developments and changes in the product mix due to the trend towards lighter products with smaller pipe diameters (see sections “Specific energy consumption”, page 107 and “Specific CO<sub>2</sub> emissions”, page 112) and revised to 0.85m<sup>3</sup> per ton of products produced, to be reached by 2020.

### Sustainability Topics in our Supply Chain

Within the framework of our business relations, we also pay attention to the observance of ecological and social standards by our suppliers.

In 2018, the scope of Wienerberger’s procurement function was extended at Group level, the objective being to optimize existing processes, utilize synergies, and, as in other areas, achieve a higher level of efficiency. The new structure also influences the way we conduct our supplier management in respect of non-financial matters.



So far, it has been common practice for production segments in Europe to apply minimum standards, laid down in specific “supplier codes of conduct” (SCOCs), which suppliers have to sign when doing business with Wienerberger. In the field of brick production in Europe, for example, 1,569 suppliers signed the segment-specific supplier code of conduct by the end of 2018. Given the new Group-wide procurement structure headed by Corporate Procurement, a uniform “Supplier Code of Conduct” is to be introduced for the entire Wienerberger Group. It will be elaborated and rolled out in 2019.

In 2018, an external certification body provided targeted training for employees working in Corporate Procurement, who will carry out supplier audits. As of 2019, supplier audits are to be performed in those areas of procurement where the biggest potential risks are assumed to exist. These audits will cover essential non-financial matters, such as the fight against corruption and bribery, human rights, health and safety of employees, and environmental protection. Based on the audit results, conclusions will be drawn as to Wienerberger’s future business relations with its suppliers.

### **Availability of raw materials**

The long-term availability of raw materials is a crucial aspect of corporate responsibility. Availability of raw materials for at least 20 years is aimed at. To avoid the risk of potential shortages, Wienerberger is making special efforts to enhance raw material efficiency through a reduced scrap rate and less waste, increased recycling (see above), the early identification of possible problems, and a diversification of sources of supply.

### **Avoidance of hazardous substances**

Wienerberger meets all legal requirements at European, national and regional level regarding the avoidance and substitution of hazardous substances, especially in raw materials. Compliance is being monitored continuously, and corrective measures, if necessary, are taken without delay. For additional information on this topic, see the section “Health and safety of our customers and product users” on page 137 in the chapter “Products”.

### **Protection of employees at and local residents in the vicinity of clay extraction sites**

The health and safety of our employees working at our own clay extraction sites are of special importance for us. Preventing occupational accidents, minimizing dust exposure and protecting workers from noise are matters of top priority. Wienerberger’s safety standards and its safety programs in brick production apply across the Group, covering all employees working in clay pits operated by Wienerberger. Clay for ceramic pipe production does not come from our own clay pits. Developments regarding the health and safety of our employees at our own clay pits are included in the indicators recorded by us. For further information on occupational health and safety, please refer to the chapter “Employees” (from page 74).

The health and safety of local residents in the vicinity of clay extraction sites and good relations with them are matters of importance for Wienerberger. We therefore engage in open dialogue with the residents concerned.



### **Biodiversity, nature conservation and the re-use of depleted clay extraction sites**

Biodiversity, nature conservation and a meaningful re-use of depleted sites are significant criteria for the responsible operation of clay pits. For Wienerberger, this includes non-interference with protected areas and efforts to make the company's own depleted sites available for their intended re-use.

In Europe, Wienerberger continuously monitors all its clay pits used for brick production. This includes information on their intended re-use. As a rule, the competent public authority defines the type of re-use of depleted clay pits at the time of approval of clay extraction. Environmental impact assessments and ecological studies are always part of the approval procedure.

Given the fact that clay pits are to be operated as long and as sustainably as possible, the question of re-use usually arises only after several decades.

Depleted clay pits can be re-used for a variety of purposes: landfilling, agricultural use, conversion into recreational areas for leisure-time activities, or complete re-naturalization, which leads to an improvement in local biodiversity.

In principle, depleted clay pits, with enough open space and water gathering in ponds, have the potential to become an ideal habitat for rare plants and animals.

In special cases, Wienerberger even takes measures to renaturalize parts of the clay pit while extraction is still going on. In cooperation with experts, every effort is made to create the best possible living conditions for rare species. For example, we support the planting of vegetation selected by experts.

### ***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 or Pipelife does not include the Pipelife production site in North America. This influences the development of indicators relative to the quantitative target definitions for North America and Pipelife as compared to previous year.



## Environmental topics in production

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### Energy efficiency

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#### *Clay Building*

#### *Materials Europe*

#### **Quantitative target**

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

#### **2018**

- › Specific energy consumption in production was 13% below the value reported for 2010 (calculated as an index in % based on kWh/ton; 2010 = 100%).
- › Benchmarks were set and best practices exchanged.
- › The Energy Award was again given out as an incentive for the country organizations.
- › A pilot plant was converted and equipped with new technology for a significant reduction in specific energy consumption (“demo plant”).

#### **2019**

- › Benchmark setting and the exchange of best practices are being continued.
- › Energy Awards will again be given out as an incentive for the country organizations.
- › Further specific investments are being made in order to reduce energy consumption.
- › The pilot plant equipped with new technology for a significant reduction in specific energy consumption (“demo plant”) is being further optimized and the results obtained will be rolled out to other plants.
- › Rollout of the findings obtained at the pilot plant to other plants will begin.

---

#### *North America*

#### **Quantitative target**

- › By 2018, the North America Division will reduce its natural gas consumption at selected production sites by 5% per site as compared to 2015.

#### **2018**

- › The quantitative target was achieved.
- › Specific energy consumption (fuels and electricity) was reduced by 4.6% compared to 2017 (calculated as an index in % based on kWh/ton).

#### **2019**

- › Appropriate measures to reduce specific energy consumption are being implemented and monitored.
-



## Energy efficiency

---

### *Pipelife*

#### Previous quantitative target

- › Reduction of specific energy consumption in production by 20% compared to 2010.

#### New quantitative target

- › By 2020, total specific energy consumption in production is to be reduced by 3% compared to 2010. Our new target refers not only to electricity, but also to other sources of energy, such as fuels, and therefore ensures greater transparency and provides a complete picture of the actual situation.

#### 2018

- › The quantitative target for specific energy consumption was redefined on the basis of most recent findings.
- › At 101% of the value reported in 2010, total specific energy consumption was slightly above the reference value. This was primarily attributable to the long-term trend towards lighter plastic pipe products with smaller pipe diameters (which has a strong influence on the specific value measured per ton of net additions to inventories).
- › Best practice examples were exchanged and benchmarks set.
- › Energy checks were performed. A group of experts analyzed negative influences and positive developments in energy efficiency at various production sites.

#### 2019

- › The scheduled investments will be continued in order to replace old extruders and injection molding machines by new ones that consume less energy.

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### *Semmelrock*

#### 2018

- › Findings resulting from measures to enhance energy efficiency taken at a new production plant in Austria in 2017 were rolled out to other country organizations.
- › Implementation of the plan of action for the other Semmelrock production plants was begun and the plan of action was confirmed.

#### 2019

- › Implementation of the plan of action is being continued.

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### *Steinzeug-Keramo*

#### 2018

- › Energy efficiency monitoring at the production sites was continued.
- › The working group set up jointly with Clay Building Materials Europe continued its activities and regular exchanges of scientific data with the Division took place.
- › Projects aimed at a continuous increase in energy efficiency were implemented.

#### 2019

- › The processes described above are being continued.
  - › As in the previous year, best practice examples are exchanged and benchmarks set.
-



## Climate action

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### *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% compared to 2010, and by 13% compared to 2013.

#### **2018**

- › The conversion of the pilot plant equipped with new technology for a significant reduction in specific energy consumption was implemented.
- › Benchmarks were set and best practice experience was exchanged on a regular basis.
- › The Energy Award was again given out as an incentive for the country organizations.
- › CBME continued to pursue the strategy of its R&D roadmap to reduce specific CO<sub>2</sub> emissions from primary energy sources.
- › Studies on the use of alternative energy generation systems / sustainable energy sources were begun and/or performed in various countries, such as installation of an ORC (Organic Rankine Cycle) facility operating on waste heat from kilns.

#### **2019**

- › CBME continues to pursue the strategy of its R&D roadmap to reduce specific CO<sub>2</sub> emissions from primary energy sources.
- › Further possibilities of using alternative energy generation systems / sustainable energy sources are being investigated and tests are being continued.
- › Benchmarks are being set and best practice experience is again exchanged on a regular basis.
- › The Energy Award will again be given out as an incentive for the country organizations.
- › Findings from the pilot plant are being rolled out to other plants.

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### *North America*

See targets and measures relating to energy efficiency.

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### *Pipeline*

#### **Previous quantitative target**

- › Reduction of specific indirect CO<sub>2</sub> emissions from electricity in production by 20% compared to 2010.
-



## Climate action

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### *Pipelife*

#### **New quantitative target**

- › By 2020, specific indirect CO<sub>2</sub> emissions (from electricity in production) are to be reduced by 11% compared to 2010. The new value takes the general trend in our product mix towards lighter products and smaller diameters into account. The increasing production volume in countries with high CO<sub>2</sub> conversion rates is also taken into account.

#### **2018**

- › The quantitative target for specific indirect CO<sub>2</sub> emissions (from electricity in production) was redefined in accordance with the most recent findings.
- › Indirect CO<sub>2</sub> emissions (from electricity in production) were 85% below the baseline value from 2010. This improvement was primarily due to the increase in energy efficiency compared to 2010.
- › Indirect CO<sub>2</sub> emissions (from electricity in production) exceeded the 2017 value by 5 percentage points. The main reason for the increase in specific CO<sub>2</sub> emissions, as compared to the previous year, was the closure of a plant in France, a country with a very low CO<sub>2</sub> conversion rate.
- › Best practice examples were exchanged and benchmarks set.

#### **2019**

- › The processes described above are being continued.
- 

### *Semmelrock*

#### **2018**

- › Further possibilities of minimizing the use of cement and/or using a binder with a lower percentage of cement clinker were studied in cooperation with external partners.
- › A first test with geopolymer pavers was performed by our cooperating partner. These pavers do not contain conventional cement, but a binder produced through the chemical activation of substances such as slag or fly ash. Compared to Portland cement, geopolymer binders reduce CO<sub>2</sub> emissions by 80 to 90%.

#### **2019**

- › A long-term test with geopolymer binders will be started.
- 

### *Steinzeug-Keramo*

#### **2018**

- › 100% of the electricity consumed came from renewable sources.
- › Within the framework of Cradle to Cradle® re-certification, 5% of the annual CO<sub>2</sub> emissions of the respective plant were offset by climate action projects.

#### **2019**

- › As in the previous year, 100% of the electricity consumed comes from renewable sources.
  - › Within the framework of Cradle to Cradle® re-certification, 5% of the annual CO<sub>2</sub> emissions of the respective plant will again be offset by climate action projects.
-



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**Resource efficiency and waste management**

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**Clay Building****Materials Europe****2018**

- › A new guideline for the use of recycled materials was successfully applied.
- › Additional roof tile models were optimized in terms of mechanical strength and product weight by means of the finite elements method (FEM).
- › An annual raw material report was again prepared in accordance with the new requirements defined in 2017.
- › Regular benchmarking of scrap rates was again performed and measures to reduce scrap were taken.

**2019**

- › Regular benchmarking of scrap rates will again be performed and measures to reduce scrap are being taken.
- › Internally defined priority projects and initiatives are being implemented.
- › Additional roof tile models are being optimized by means of FEM.

---

**North America****2018**

- › Work on optimizing the closed resource cycle was continued.
- › As in the previous year, new possibilities of using secondary materials as additives were tested.
- › Continued efforts were made to reduce the volume of waste generated. At several brick production sites, fired brick waste was returned into the production process.
- › At a number of production sites fired bricks were crushed and marketed as landscaping material.
- › At numerous production sites in the vicinity of local recycling facilities equipped to accept post-consumer waste, plastic, paper, aluminum and cardboard waste were collected for recycling.

**2019**

- › The measures described above are being continued.
-



## Resource efficiency and waste management

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### *Semmelrock*

#### **Quantitative target**

- › The scrap rate in production, which was 2.1% in 2018, is to be reduced to 2.0% by 2020. This corresponds to a 23% reduction.

#### **2018**

- › The target set for the reduction of the scrap rate was achieved.
- › A new target for the reduction of the scrap rate in production was defined.
- › Efforts were made to further reduce the scrap rate through the optimization of technologies, tools and workflows and by building awareness among our employees for the topic of resource efficiency.
- › The best practice measures implemented were analyzed and further optimization measures were derived from the results obtained.
- › Efforts were made to introduce a closed resource cycle in production.
- › Further possibilities of concrete recycling, with a special focus on the re-use of dry scrap, were evaluated.

#### **2019**

- › Continued efforts are being made to further reduce the scrap rate through the optimization of technologies, tools and workflows and by building awareness among our employees for the topic of resource efficiency.
  - › The best practice measures implemented will again be analyzed and further optimization measures will be derived from the results.
  - › Efforts to introduce a closed resource cycle in production are being continued.
-



## Sparing use of water

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### *North America*

#### **2018**

- › Several plants installed water treatment and recycling systems for the cutting of thin facing bricks.
- › For the first time, hot waste water from the vacuum system was used at a production plant to pre-wet the clay mix during molding.

#### **2019**

- › The recycling of water used in the production of thin facing bricks is being evaluated and measures are taken on the basis of the results obtained.
- 

### *Pipelife*

#### **Previous quantitative target**

- › Reduction of specific water usage from public networks to 0.55 m<sup>3</sup> per ton of plastic pipes produced.

#### **New quantitative target**

- › By 2020, the quantity of water drawn from public networks is to be reduced to 0.85m<sup>3</sup> per ton of products. The original target of the Sustainability Roadmap 2020 (reduction to 0.55m<sup>3</sup>/t) was adapted to current developments. There is a general trend in our product mix towards lighter products with smaller diameters. Moreover, the higher temperature of surface water – not least as a result of climate change – limits its use as cooling water and leads to a corresponding increase in water usage from public networks.

#### **2018**

- › Compared to the previous year, the quantity of water drawn from public networks increased from 0.95m<sup>3</sup>/t to 1.02m<sup>3</sup>/t of products. The increase was primarily attributable to the hot summer of 2018.

#### **2019**

- › Checks for leakages are being continued.
- 

### *Semmelrock*

#### **2018**

- › Water recycling systems were installed at the Ogulin plant (Croatia).
- › Installation of a new water recycling system was begun at the Ocsa plant (Hungary).

#### **2019**

- › Installation of a new water recycling system for pavers and slabs at the Ocsa plant (Hungary) will be completed.
-



## Group-wide topics along our supply chain

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### Availability of raw materials

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#### *Clay Building Materials Europe*

##### **2018**

- › All relevant clay pits and their characteristics were monitored and measures were taken to ensure the availability of raw materials for at least 20 years.
- › An annual raw material report was again prepared on the basis of the new criteria defined in 2017.

##### **2019**

- › The measures described above are being implemented and rolled out to newly acquired sites.
- 

#### *North America*

##### **2018**

- › Regular monitoring of raw material availability from our own clay pits for at least 20 years of operation on the basis of the „raw material availability map“ was continued.

##### **2019**

- › The measures described above are being implemented consistently.
- 

#### *Pipelife*

##### **2018**

- › A strategy for the avoidance of supply shortages was implemented on the basis of a list of all products and their suppliers for all essential product groups.

##### **2019**

- › The strategy for the avoidance of supply shortages is being pursued.
- 

#### *Semmelrock*

##### **2018**

- › The raw material procurement strategy was consistently implemented by all country organizations and at all plant levels.

##### **2019**

- › The raw material procurement strategy is being pursued.
- 

#### *Steinzeug-Keramo*

##### **2018**

- › Supplier audits were performed in accordance with the internal audit plan. No critical risks were identified.

##### **2019**

- › Further supplier audits are being performed in accordance with the internal audit plan.
-



## Avoidance of hazardous substances

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### *At Group 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.

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### *Clay Building*

#### *Materials Europe*

#### **2018**

- › The measures provided for by the internal guideline for the use of recycled materials and the avoidance of hazardous substances were implemented.

#### **2019**

- › The measures are being implemented continuously and in accordance with the internal guideline.
  - › The internal guideline for the use of recycled materials and the avoidance of hazardous substances will be updated.
- 

### *North America*

#### **2018**

- › A project aimed at providing voluntary digital access to the mandatory safety data sheets (SDS) was initiated, but had to be abandoned for various reasons: problems with access to the Internet, password and license provisions, costs, etc.

#### **2019**

- › Information and training for all employees regarding the standards to be observed when handling hazardous substances is continued.
- 

### *Pipelife*

#### **2018**

- › Within TEPPFA (The European Plastic Pipes and Fitting Association), an HSE Group (Health, Safety, Environment) was set up, which issues early warnings if problems are anticipated. The first mid-year update in 2018 showed that none of the substances used by Pipelife have been newly classified as hazardous substances.
- › The question of the classification of ADCA (azodicarbonamide, a blowing agent) is still open, as a decision has not yet been taken by REACH.
- › ADCA is still being used in a few products, but in much smaller amounts than by other companies.

#### **2019**

- › Close monitoring and cooperation with TEPPFA is being continued.
- 

### *Semmelrock*

#### **2018**

- › An updated list of all chemicals used within the Group was drawn up.
  - › The classification of all additives on the basis of safety data sheets (SDS) for all updated chemical was begun.
  - › The substitution of substances identified as potentially hazardous with less hazardous substances was begun.
-



### Avoidance of hazardous substances

---

#### *Semmelrock*

**2019**

- › The classification of all additives on the basis of safety data sheets (SDS) for all updated chemicals will be completed. A process is being developed to have all chemicals used in construction evaluated once a year.
- › The substitution of substances identified as potentially hazardous with less hazardous substances is being continued.

#### *Steinzeug-Keramo*

**2018**

- › The use of potentially hazardous substances in production supplied by first-level suppliers was reviewed and excluded within the framework of Cradle to Cradle® re-certification.

**2019**

- › This review is being continued within the framework of Cradle to Cradle® re-certification and/ or the preparatory measures taken for re-certification.

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

---

#### *At Group level*

Up till now, the minimum standards of almost all business areas were reflected in their specific "Supplier Codes of Conduct" (SCOC), which had to be signed by suppliers upon conclusion of a contract. Given the new, Group-wide procurement structure headed by Corporate Procurement, a uniform "Supplier Code of Conduct" is to be developed for the entire Wienerberger Group.

**2018**

- › A new, Group-wide procurement structure headed by Corporate Procurement was established.
- › It was decided to introduce a uniform "Supplier Code of Conduct" for the entire Wienerberger Group.

**2019**

- › A uniform "Supplier Code of Conduct" will be developed and rolled out to the entire Wienerberger Group.

#### *Clay Building*

#### *Materials Europe*

**2018**

- › The CBME supplier code of conduct was applied by all country organizations as a binding instrument. It requires suppliers to act responsibly in dealing with people and the natural environment.
- › Own clay pits were renaturalized.
- › A first survey on the renaturalization of clay pits owned by third parties was performed.

**2019**

- › The CBME supplier code of conduct is being applied until the uniform "Supplier Code of Conduct" for the entire Group enters into force.
-



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

---

### *North America*

#### **2018**

- › The regular annual checks for dust emissions and water quality were performed at the production sites.
- › Open and transparent communication with local residents and local authorities was continued. We engage in an active open-door policy with our neighbors.

#### **2019**

- › The measures described above are being continued.
- 

### *Pipelife*

#### **2018**

- › The „Pipelife Supplier Code of Conduct“ for a responsible way of dealing with people and the natural environment continued to apply.

#### **2019**

- › The “Pipelife Supplier Code of Conduct” continues to apply until the uniform “Supplier Code of Conduct” for the entire Wienerberger Group enters into force.
- 

### *Semmelrock*

#### **2018**

- › The supplier code of conduct for all country organizations was applied as a binding instrument during negotiations with suppliers.

#### **2019**

- › The Semmelrock supplier code of conduct continues to apply until the uniform “Supplier Code of Conduct” for the entire Wienerberger Group enters into force.
- 

### *Steinzeug-Keramo*

#### **2018**

- › Measures relating to nature conservation and the meaningful re-use of clay pits were implemented according to the company’s own standards.
- › A supplier audit was performed.

#### **2019**

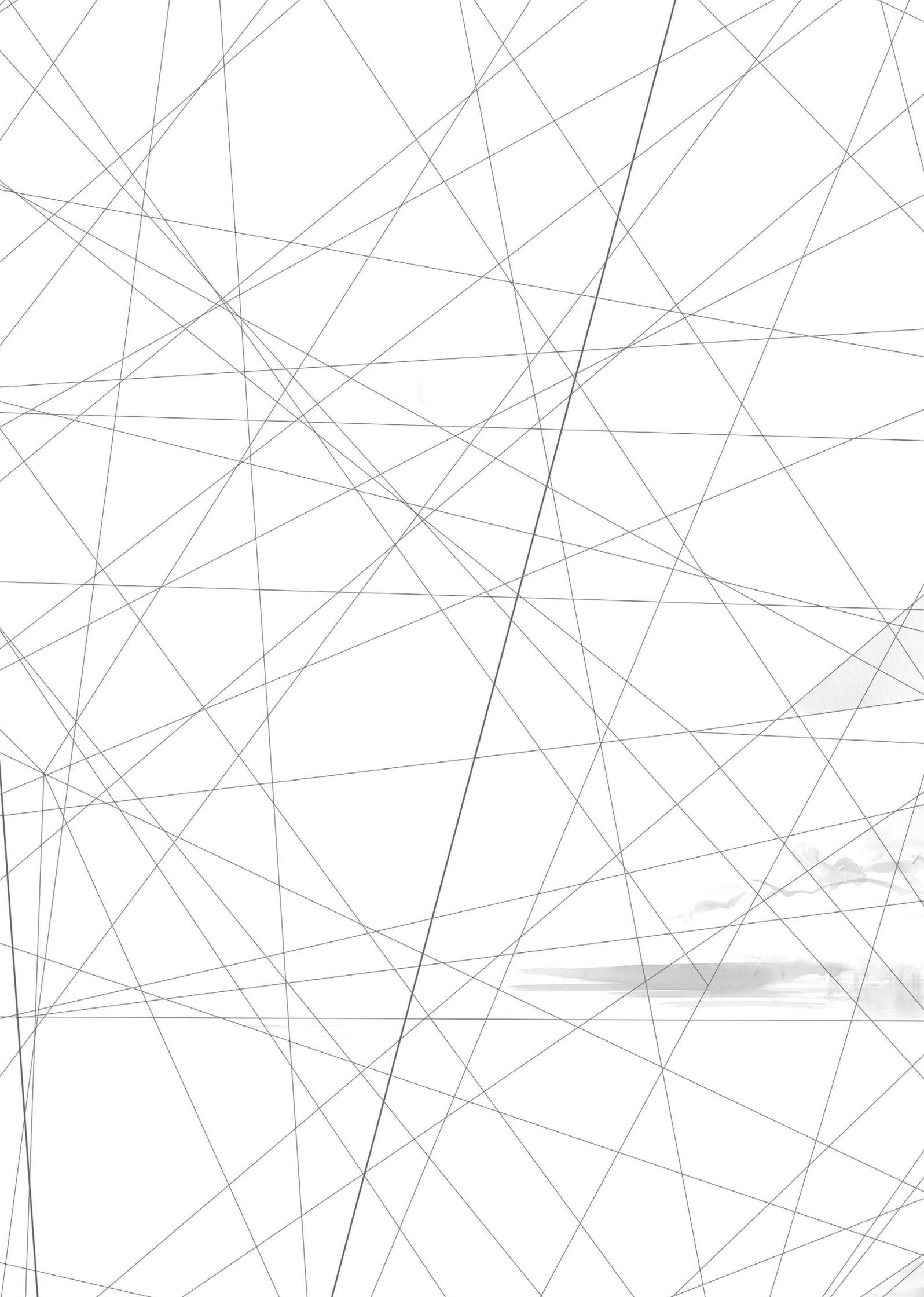
- › Steinzeug-Keramo will continue to apply the measures described above.
- 

## Use of secondary raw materials

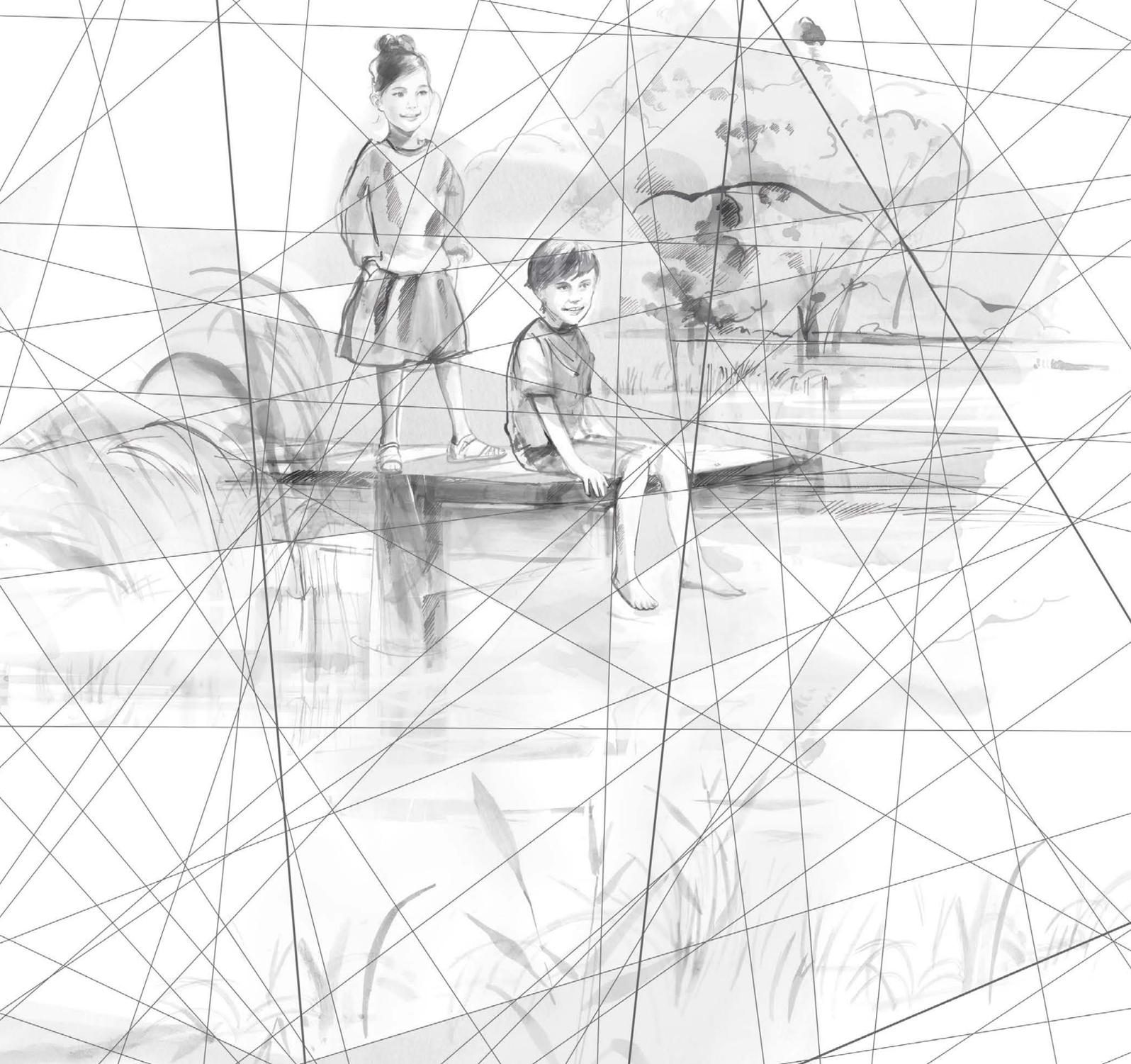
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Starting with this report, the quantitative targets and activities are presented in the chapter “Products”, as the use of secondary raw materials is primarily a product quality topic.

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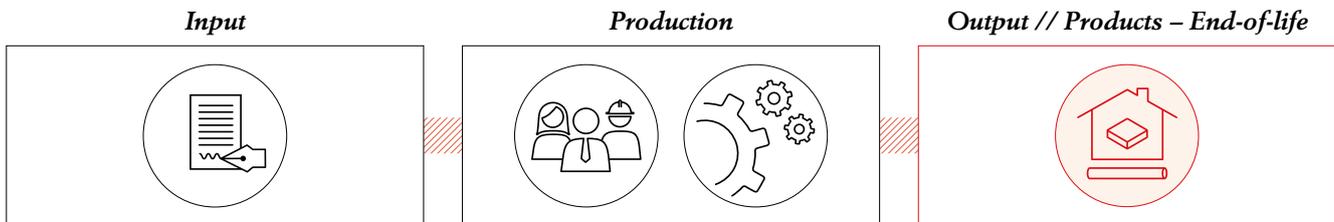
# Products





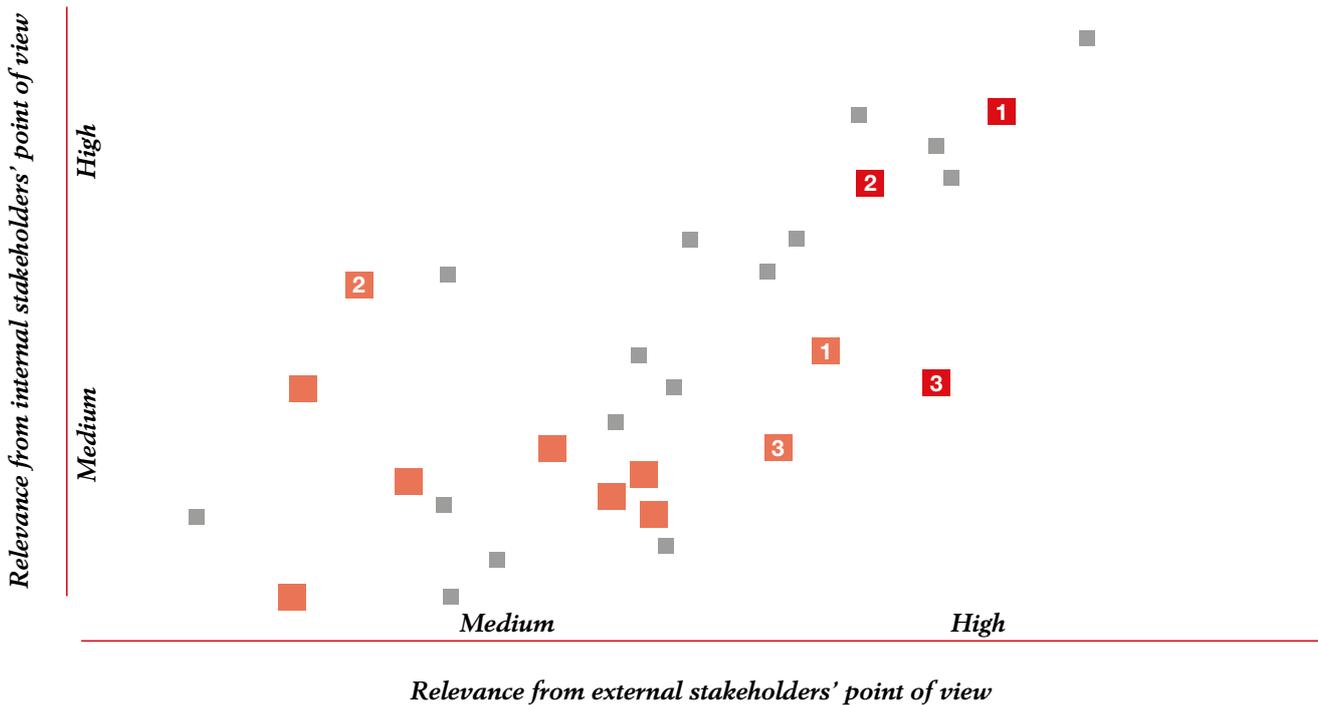
# Products Coordinates at Group Level

## Stage in the value creation process



In this chapter, we address the topics relating to our products. The subjects covered relate to the input stage of the value chain as well as to products and their end-of-life stage.

## Excerpt from the Materiality Matrix – Relating to our Products



**Caption**

**Group-wide product topics**

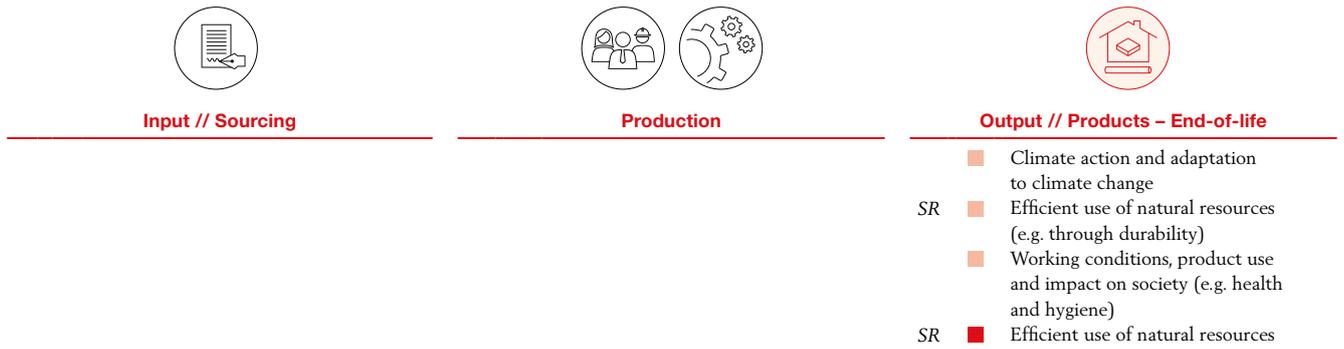
- 1** Durability and lasting value of products
- 2** Innovative products
- 3** Recyclability, recycling and re-use of products

**Product-group-specific topics**

- 1** Contribution to energy efficiency of buildings
- 2** Ease of installation
- 3** Maintenance and repairability
- Other product-group-specific topics

In the 2014 materiality analysis, the topics highlighted were identified as particularly important in relation to our products. Starting in 2019, we will perform an updated materiality analysis.

### Results of the Impact and Risk Analysis – Relating to our Products



**Method:** The product-group-specific topics are highly heterogeneous and have therefore been grouped in higher-order clusters. // Topics marked **SR** were classified as highly relevant in the Wienerberger materiality matrix (2014) and therefore provided the basis for the Wienerberger Sustainability Roadmap 2020. // Topics marked ■ were classified as impacts. // Topics marked ■ were classified as risks or opportunities.

In 2018, an impact and risk analysis for Wienerberger’s four main product groups – bricks (wall, facade and roof products), ceramic pipes, plastic pipes and concrete pavers – was launched on the basis of the specific value chains. The entire analytical process was accompanied and methodologically supported by independent external experts.

The impacts and risks of the four main product groups currently identified as material have been aggregated for the Wienerberger Group. The above table shows the topics relating to products classified as relevant at Group level.

### Relevant SDGs – Relating to our Products



On the basis of our impact and risk analysis, the Sustainability Development Goals of the United Nations highlighted in color have been classified as particularly relevant for our 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 durable and innovative building material and infrastructure solutions.

Rising expectations to be met in the design of affordable and efficient housing and infrastructure represent new challenges we have to address with our system solutions. We are therefore committed to working on the continuous improvement of our processes and products.

Wienerberger brick products are an integral part of sustainable building concepts. They are extremely durable, therefore resource-efficient and contribute to a high quality of life and to the fight against climate change, not least on account of 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. Durability and innovative strength are quality criteria that we regard as particularly important across all product groups.

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 becoming 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.

## **Research and development**

Wienerberger operates several research centers in Europe, each of which specializes in a different product group. Our product management experts 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.

With our L.A.B. (Learn-Act-Build), we provide a platform for projects and ideas focused on innovation, Industry 4.0 and digitalization outside the usual structures.

Wienerberger aims to secure and further strengthen its market positions through leadership in cost efficiency and technology as well as product innovations. Therefore, research and development (R&D) are among the priorities of Wienerberger's strategic planning.

## **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 do not have to become waste at the end of their useful life, but can become raw materials for new products in a cycle. Regular re-certification ensures continuous improvement of the products in accordance with the Cradle to Cradle® principles.

### ***Results of our 2014 Materiality Analysis***

At Group level, the following topics relating to our products, their useful life and their “end-of-life” disposal were identified as being material

- › Innovative and durable products
- › Recyclability, recycling, and re-use of products
- › Product-group-specific properties, for instance:
  - › Sustainability in construction and demolition
  - › Ease of installation
  - › Sustainability in construction and dismantling

The targets and measures of the individual Business Units relating to product-group-specific properties focus on the product properties identified as being material for the respective product groups. These are presented at the end of the chapter in the section “Targets and Measures Relating to Products”.

### ***Innovative and Durable Products***

Taking the lead in innovation is part of our commitment to our shareholders; it enables us to create value and distinguish ourselves from our competitors.

As the innovation leader in our industry, we are striving to steadily improve and further develop our products and system solutions for all fields of application. We use our strong market positions for the supra-regional introduction of successful innovations. Our development priorities include:

- › Innovations in the application and use of our products
- › Research on new materials
- › Optimization of existing production processes and development of new ones
- › Resource-efficient use of raw materials
- › Re-use of our products

At Wienerberger, 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 2015, the Business Units elaborated definitions of the innovative character of their products and system solutions on the basis of current market requirements, which facilitate Group-wide comparisons. These definitions refer, in particular, to properties identified by our stakeholders as being material, depending on the type of product or system solution. Durability, recyclability, recycling and re-use, contributions to energy efficiency, climate action and the preservation of the architectural heritage, as well as cost efficiency and ease of installation, are considered to be of material importance.

In 2018, innovative products and system solutions accounted for 29% 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 2018, are shown in the following overview.



<b>Target: Contribution of innovative products to revenues</b>	<b>Period</b>	<b>2017 in %</b>	<b>2018 in %</b>	<b>Anmerkungen</b>
Clay Building Materials Europe: 25%	Annually	30.7	<b>30.9</b>	Innovations include new products and system solutions that are durable and cost-efficient, contribute to climate action and the energy efficiency of buildings, ensure security and health for users of the buildings, facilitate correct planning, are easy to use and well-suited for interesting architectural designs.
North America <sup>1)</sup> : 50%	By 2019	51.0	<b>50.8</b>	The definition includes products 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. Moreover, these products allow for greater flexibility in terms of design and execution.
Pipelife: 20%	Annually	19.1	<b>16.7</b>	The definition includes product innovations that represent either a completely new development or a significant improvement of an existing product in respect of the production process, cost efficiency, technical properties or ecological advantages.
Semmelrock: 30%	Annually	37.6	<b>35</b>	The definition includes product innovations that offer an added value for customers in terms of cost efficiency, technical properties, and/or ecological advantages, such as water-permeable paving systems for unsealed surfaces.
Steinzeug-Keramo: 35%	Annually	42.0	<b>43</b>	The definition includes recently introduced products (e.g. KeraPort manholes), products for particularly innovative applications (e.g. jacking pipes for trenchless installation), and particularly sustainable products in terms of energy efficiency and climate action (e.g. climate-neutral pipes).

1) North America: excl. the Pipelife site



### **Innovative building solutions**

Wienerberger's system solutions and services for buildings are developed with a particular focus on the residents' needs. Special efforts are being made to meet the growing demand for affordable housing that contributes to a high quality of life.

Development priorities range from innovative ways of applying our products through research on new materials and production processes to the resource-efficient use of raw materials.

Here are some examples:

#### ***Creating affordable housing***

##### ***– Speed and precision***

To help contractors save time and costs at the construction site, Wienerberger is cooperating with innovative companies, such as Fastbrick Robotics (FBR) in Australia. The company's masonry robot Hadrian X automatically erects brick walls with maximum precision according to digital designs. For example, it takes no more than a day to finish the shell of a single-family house. Within the framework of a pilot project, special bricks are being developed and tested in cooperation with FBR.

Another example is the stake acquired by Schlagmann Poroton GmbH CoKG, a 50% subsidiary of Wienerberger, in Redbloc, a German supplier of prefabricated brick elements. Redbloc produces wall elements by means of a fully automatic process and a unique dry bonding system according to a digital design. On the construction site, the individual wall elements are quickly assembled to form the shell of the building. Schlagmann joined forces with Redblock in 2017, contributing both know-how and capital. In 2018 alone, 90,000 square meters of brick walls were built using this method. This corresponds to roughly 360 single-family houses.

### ***High-performance insulating materials as a new field of business***

Wienerberger is breaking new ground through its strategic partnership with Interbran. The German R&D start-up succeeded in developing high-performance insulating materials made from mineral raw materials. Their insulation values are significantly higher than those of commercially available products. Moreover, they are fireproof. We see great potential there for a new field of business with applications in both new construction and renovation. This innovation offers us the opportunity to broaden our product range of infill bricks. Wienerberger acquired a stake in Interbran in the fall of 2018 and is closely involved in the product development process. Step by step, the products are to be tested and developed to market maturity. Industrial production and marketing will then be launched at a pilot site.

### **Innovative infrastructure solutions**

The innovative character of our infrastructure solutions is being enhanced for our customers' benefit through developments pursued at our own Group-wide research centers. At the same time, we are continuously analyzing potential value-creating acquisitions as we strive to explore new applications and broaden our geographic market coverage.

Here are some examples:

#### ***KERA.Box***

"KERA.Box", the new, innovative service line from Steinzeug-Keramo, consists of a construction site container and an app which accelerate planning and operations on construction sites and generated added value. The boxes are preconfigured for the respective construction site, which means that workers have immediate access to all they need. If anything is missing, orders can be placed via the KERA. App and direct connection to the company store.



### ***Cradle to Cradle® certification***

For the time being, Steinzeug-Keramo is the only supplier certified according to the Cradle to Cradle® concept of circular production, both as a producer and for its complete range of ceramic pipes and fittings. All the parts used are completely recyclable at the end of their useful life.

### ***Isoterm***

Since 2018, the Norwegian market leader in pre-insulated, frost-resistant pipes has been part of Pipelife. Isoterm produces special pipes for infrastructure projects, above all for water and waste water management in remote regions. Pre-insulated pipes can be laid above the frost line, i.e. at a relatively shallow depth where the ground that freezes at cold temperatures, which means enormous cost savings during installation.

### ***Raineo Smart Meter***

Pipelife's Raineo Smart Meter is a measuring station consisting of several sensors. It monitors water throughput in the pipe system and is able to predict floods. Four stations are currently in trial operation.

### ***Smart Probe***

Based on an entirely new technology, this add-on greatly facilitates the attachment of different types of sensors to the pipe. Smart probes are able to accurately locate defects in the pipe and perform measurements without any interruption of supply to the user.

### ***Recyclability, Recycling and Re-use of Products***

From the viewpoint of resource efficiency, the use of recycled or secondary raw materials and the re-use of products are important topics for the future. However, technical feasibility largely depends on the types of products and their applications. The topic of resource efficiency and the use of recycled materials are particularly relevant in plastic pipe production in Europe.

In ceramic production, secondary raw materials are also used as additives. In 2018, secondary raw materials and/or recycled materials accounted for roughly 10% of the raw material used in the Clay Building Materials Europe Division (see also chapter "Production", section "Resource efficiency and use of secondary raw materials" starting on page 112). In its European brick production operations, Wienerberger records information on the percentage of external recycling materials used within the framework of its raw material monitoring regime. External raw materials include saw dust and sunflower seed shells as well as recycled ceramic materials, such as refractory materials used in the production of clay pavers.

In 2015, the target set for plastic pipe production in Europe was to increase the percentage of recycled material to 70 kg per ton of products produced by 2020. With 75.02 kg of recycled material used per ton, this target was reached, and in fact exceeded, in 2018, i.e. two years earlier than planned. Within the framework of the redefinition of targets for plastic pipe production in Europe (see also chapter "Production", starting on page 107), we set ourselves a new and even more ambitious target, taking the high relevance of this topic into account: By 2020, we want to increase the percentage of recycled material to 85 kg per ton of products produced. Moreover, we are now making a clear distinction between external and internal recycling material and have defined an additional target for the percentage of recycled materials exclusively coming from external sources. By 2020, we intend to increase the amount of external recycled material to 50 kg per ton of products produced, which corresponds to a 250% increase compared to 2010. In 2018, the percentage of external recycled materials used was 39.18 kg/t.

We will continue working on our research projects, aiming to establish the optimal ratio between primary and secondary raw materials in our products. The technical feasibility of using recycled material will be analyzed and production sites suitable for practical implementation will be identified.



### ***Health and Safety of our Customers and Users of our Products***

Contributing to the health and safety of our customers and users of our products is part of our commitment to improving people's quality of life with our building and infrastructure solutions. Our well-trained and qualified employees as well as our service centers provide optimal support to our customers in the application of our products and system solutions.

It goes without saying that Wienerberger meets all legal requirements at European, national and regional levels regarding the avoidance and substitution of hazardous substances. Compliance with all laws and regulations is being monitored and corrective measures are taken whenever necessary.

The CBME Division, for instance, applies an internal guideline for the avoidance of hazardous substances. The guideline provides for strict classification of all inputs and contains clear and binding instructions for the individual production sites regarding the use of recycled materials and the avoidance of hazardous substances. Compliance with the guideline is verified on the basis of an annual raw materials report. The guideline has been very well accepted in all countries. Since its adoption, the topic has received increasing attention and is being managed professionally throughout the Division. The guideline will be revised in the course of 2019. On the one hand, it has to be adjusted to the structural changes within the Wienerberger Group. (As of 2019, we will be reporting on our European activities in ceramic building materials for the building envelope and our business in concrete pavers within the framework of a Business Unit called "Wienerberger Building Solutions", the successor to the Clay Building Materials Europe Division; see also chapter "Wienerberger at a Glance" on page 22). On the other hand, the scope of the analysis will be adjusted to the materials and substances used and take currently relevant parameters into account.

Plastic pipe production is subject to REACH, the EU regulation on chemicals (Registration, Evaluation, Authorization and Restriction of Chemicals). As a matter of course, Wienerberger complies fully with the requirements of this regulation. To ensure the health and safety of our customers and our employees in the best possible manner, Pipelife regularly verifies if any of the substances used might in future be classified as hazardous under REACH.

### ***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 and Pipelife do not include the Pipelife production site in North America. This influences the development of indicators relative to the quantitative target definitions for North America and Pipelife as compared to previous years. As of 2020, the Pipelife site will define its activities and targets within the framework of the new materiality analysis and the new sustainability roadmap to be derived from it.



## Group-wide topics of our products

### Innovative and durable products

#### *Clay Building Materials Europe*

##### **Quantitative target**

- › The percentage of innovative products is to be maintained at no less than 25% of the Business Unit's total revenues through continuous product development and market launches.

##### **2018**

- › Innovative products accounted for 30.9% of the Business Unit's revenues.
- › Innovative products were rolled out to additional markets (for example: increased production capacities for plane-ground clay blocks and clay blocks filled with mineral wool, optimized strength of roof tiles).
- › Ongoing product optimization processes and innovation management activities were continued.

##### **2019**

- › The product optimization and innovation management processes will be further advanced.

#### *North America*

##### **Quantitative target**

- › For 2018, the target for the percentage of innovative products was set at 50% of the Business Unit's revenues, to be achieved through continuous product development and market launches.

##### **2018**

- › As in the previous year, innovative products accounted for 51% of the Business Unit's revenues.
- › Product tests were again performed at the production sites and reported to the Research Committee.
- › The Research Committee again held its quarterly review meetings to release new products or decide on changes in the product development strategy.

##### **2019**

- › The activities described above are being continued.

#### *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.

##### **2018**

- › Innovative products accounted for 17% of the Business Unit's revenues.
- › Marketing of MASTER 3 PLUS, a modern, three-layer drainage system with excellent sound insulation properties, was begun.



## Innovative and durable products

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### *Pipelife*

#### 2018

- › Ongoing research and development projects aimed at product optimization as well as further innovation management measures were continued on the basis of the most recent findings.
- › More than 245 new ideas were implemented.
- › Together with a renowned external consultant, a process aimed at identifying the best ideas was started, workshops were organized, and cooperation with start-ups was initiated.

#### 2019

- › The market launch of Stormbox II will be started.
  - › New projects will be launched within the framework of a newly established, topic-specific working group on product development.
  - › The activities described above are being pursued intensively in order to again reach the targeted percentage of innovative products.
- 

### *Semmelrock*

#### Quantitative target

- › The percentage of innovative products is to be maintained at no less than 30% of the Business Unit's revenues through continuous product development and market launches.

#### 2018

- › Innovative products accounted for 35% of the Business Unit's revenues.
- › Product solutions for water-permeable surfaces were rolled out; the first step was the market launch of the ASTI Breite Fuge product system in Hungary, which had originally been planned for 2017.

#### 2019

- › Additional product solutions for water-permeable surfaces are being developed.
- 

### *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.

#### 2018

- › Innovative products accounted for 43% of the Business Unit's revenues.
- › Work on the innovation process was continued.

#### 2019

- › Activities relating to the innovation process are being continued.
-




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**Recyclability, recycling and re-use // Use of secondary raw materials**


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**Clay Building  
Materials Europe**
**2018**

- › Secondary raw materials continued to be used in production wherever this was possible, economically justifiable, and in accordance with our internal guideline.
- › Projects aimed at investigating various possibilities of using recycled materials were launched.
- › The internal re-use of own ceramic scrap was further investigated and, where appropriate, implemented and/or continued (e.g. use of dust from the production of plane-ground bricks as a raw material).
- › Possibilities of separating ceramic waste, i.e. roof tiles from demolished buildings, and re-using it for the production of new bricks were investigated. However, for the time being, this option has been found to be completely uneconomical.

**2019**

- › The projects and initiatives launched in the previous year are being continued.
- › Possibilities of developing new products on the basis of recycled brick material are being investigated.

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**North America**
**2018**

- › The closed resource cycle in production was reviewed for potential further optimization.
- › In several plants, non-polluted material from raw material extraction, normally used to backfill depleted mines, was used as an additive in the clay preparation.
- › In accordance with the Group-wide supplier management strategy, a supplier guideline was elaborated to promote the re-use and/or recycling of packaging material.

**2019**

- › Investigations on the use of secondary raw materials are being continued.

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**Pipelife**
**Previous quantitative target**

- › Increase of the amount of secondary raw material per ton of products produced to 70kg.

**New quantitative targets**

- › Increase of the amount of secondary raw material per ton of products produced to 85 kg. The use of secondary raw material is of special relevance in plastic pipe production. We have therefore stepped up the target to a new level for 2020.
  - › Increase of the amount of purely external secondary raw material to 50 kg per ton of products produced. A clear distinction is made between external and internal secondary raw materials.
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**Recyclability, recycling and re-use // Use of secondary raw materials**

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**Pipelife****2018**

- › The amount of secondary raw material per ton of products produced was 75 kg (previous year: 67.2 kg). Thus, the previous target was achieved in 2018, i.e. two years before the deadline set.
- › Studies on the technical feasibility of using secondary raw material and the suitability of production sites for this purpose were continued.
- › The target was further increased and a new ambitious target was defined for 2020.
- › Additionally, a clear differentiation between external and internal secondary raw materials was implemented; a supplementary target was defined for the amount of purely external secondary raw materials, which corresponds to a 250% increase over the 2010 value.

**2019**

- › The possibility of using secondary raw material from additional external sources is being investigated.

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**Semmelrock****2018**

- › ARTE grey and ARTE segmental arch pavers, produced in Klagenfurt, were re-certified by the Cradle to Cradle® Products Innovation Institute in cooperation with EPEA Hamburg.
- › Cradle to Cradle® certification was started at Semmelrock Romania.
- › A pilot project regarding the preparation of dry waste material and the possibility of using recycled concrete was prepared and launched.
- › Studies on possibilities of substituting secondary raw materials for primary raw materials without any negative impact on product quality were continued.

**2019**

- › the steps necessary for the rollout of Cradle to Cradle® certification and/or biannual re-certification are being taken.
  - › A three-year project aimed at developing products made from eco-concrete (concrete with a reduced CO<sub>2</sub> footprint) will be started.
  - › The pilot project regarding the preparation of dry waste material and the possibility of using recycled concrete will be completed and evaluated.
  - › Production trials are being performed to test the use of dust from ceramic grinding as a filler to optimize ceramic formulations.
  - › Production trials are being performed to test the use of crushed bricks for the production of concrete blocks with special sound-insulating properties.
  - › Work on the substitution secondary raw materials for primary raw materials without any negative impact on product quality is being continued.
-



## Recyclability, recycling and re-use // Use of secondary raw materials

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### *Steinzeug-Keramo*

#### 2018

- › The scheduled Cradle to Cradle® re-certification was cancelled due to the closure of the Frechen plant. In the other plants, special emphasis was placed on the reorganization of the production of former Frechen products.
- › Further possibilities of improving the technical properties of the materials used, while increasing the recycling rate as much as possible, were evaluated.

#### 2019

- › The evaluation of further possibilities of improving the technical properties of the materials used, while increasing the recycling rate as much as possible, is being continued.

## Product-group-specific topics of our products

### Ease of installation

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#### *Clay Building*

#### *Materials Europe*

#### 2018

- › Successful solutions (e.g. Dryfix, Stormfix) were rolled out to additional markets.
- › The development of new products and/or system solutions designed to speed up and facilitate flawless masonry work on the construction site was continued with a view to further optimization.
- › Special analog and digital planning tools as well as personal support services were provided to familiarize architects and designers with the best possible ways of using brick products.
- › A pilot partnership to test the use of masonry robots for the erection of walls on the construction site was launched with an external partner.

#### 2019

- › The solutions available for the applications described above are being further improved and upgraded.
  - › Activities within the framework of the aforementioned “pilot partnership” are being continued.
-



## Contribution to the energy efficiency of buildings

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### *Clay Building Materials Europe*

The continuous development of product solutions that contribute to the energy efficiency of buildings is a high priority for Clay Building Materials Europe. In recent years, clay blocks filled with insulating material, high thermal insulation clay blocks without infill material but with a special hole geometry, new facing brick formats for double-shell exterior walls, energy-efficient upon-rafter insulation for pitched roofs, etc. were developed.

#### **2018**

- › Work on products and solutions designed to enhance the energy efficiency of buildings was continued.
- › Various projects were implemented and new insulating materials for infill clay blocks were tested.
- › Investment projects were launched to increase the production capacity for clay blocks filled with mineral wool with high thermal insulation properties.

#### **2019**

- › The solutions available for the applications described above are being further optimized and upgraded.
- › Investment projects launched in the previous year are being finalized and new projects will be prepared.

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### *North America*

#### **2018 und 2019**

- › North America is working continuously 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.

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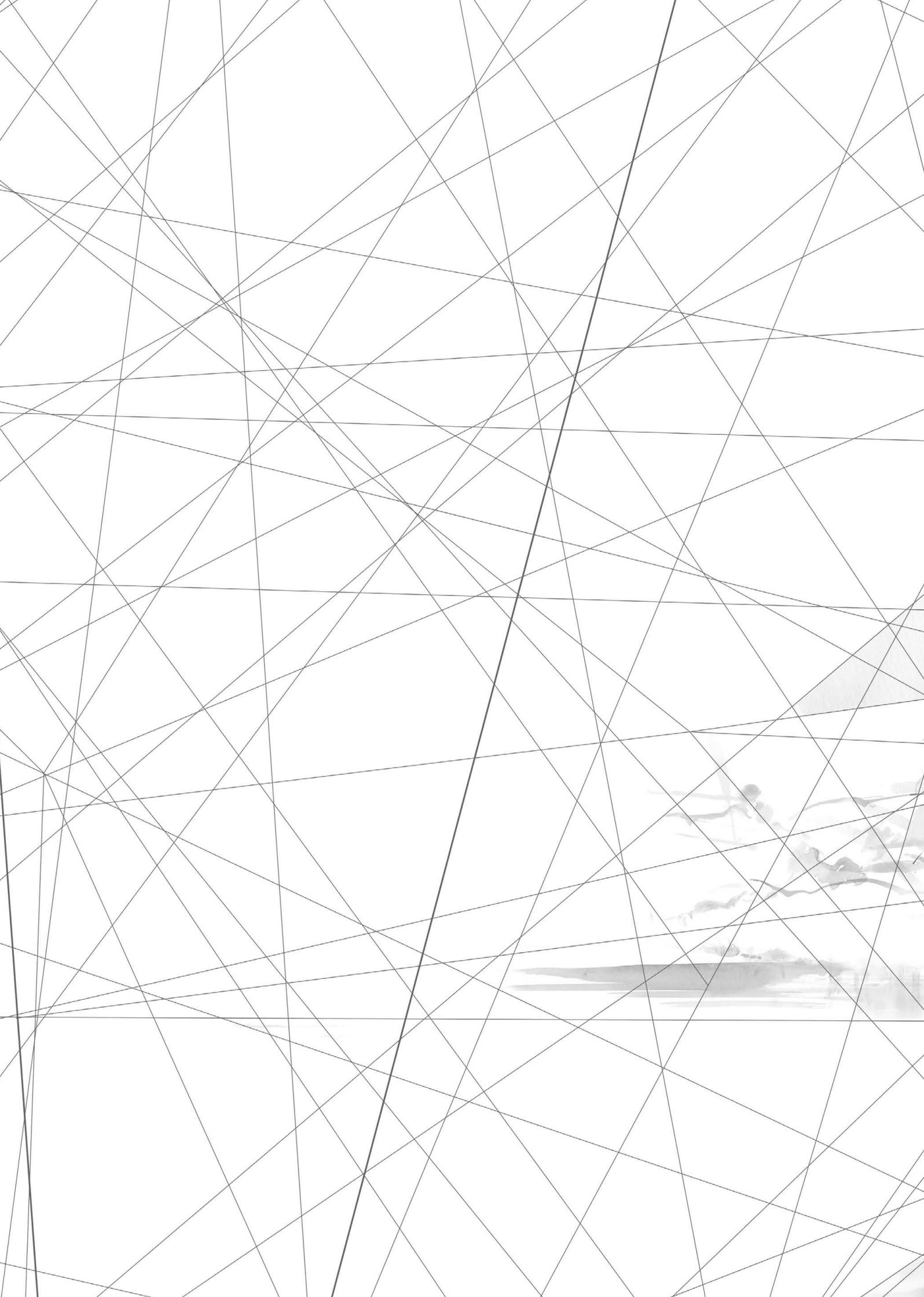
### *Pipelife*

#### **2018**

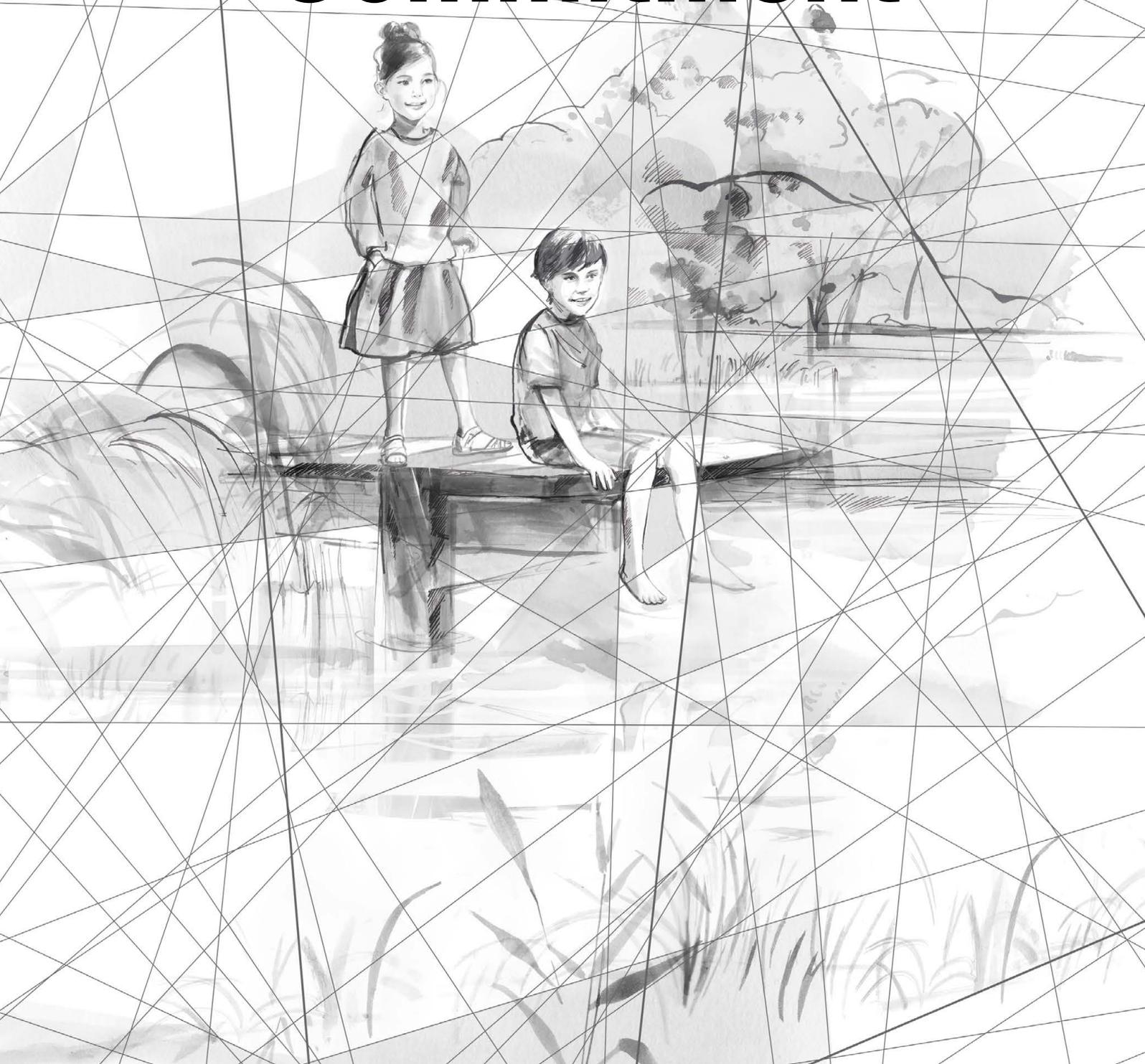
- › Pipelife continuously optimized and enlarged the range of planning tools that can be used to calculate the heat loss and the heat requirements of individual residential units and entire buildings as a basis for the design of more efficient heating systems.

#### **2019**

- › The range of products available for these applications is being 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 topics of material importance that are equally relevant for all product groups. Details relating to these topics are contained in the chapter “Management Approach”, which also outlines our quantitative targets and the corresponding measures.

## *Social Commitment and Donation Activities*

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. We are convinced that we can help best in our fields of core competence, i.e. through the provision of solutions for building construction and infrastructure and the transfer of sustainable building know-how.

We therefore focus primarily on supporting people in need in a targeted manner through product donations. The Wienerberger donations guideline, which was revised in 2017 and clearly differentiates between social commitment and cooperation with local initiatives, was applied across the Group in 2018.

## **Cooperation with Habitat for Humanity**

Affordable housing is a fundamental human right and should be recognized as such. In 2012, Wienerberger therefore began to cooperate with Habitat for Humanity, an international non-profit organization (NPO). Habitat for Humanity was founded in the USA in 1976. Its activities are focused on the provision of sustainable housing for and with people in the poorest regions in many countries of the world. All projects are based on the principle of “helping people to help themselves”. Habitat for Humanity actively advocates every human being’s right to shelter. In our cooperation with this humanitarian organization, we contribute our core competencies through the provision of building materials and infrastructure solutions and the transfer of sustainable building know-how. By cooperating with Habitat for Humanity, we also contribute toward building public awareness of the need for affordable housing.

The 2015 cooperation agreement concluded between Wienerberger and Habitat for Humanity expired in 2018. Given the highly positive experience gained by both partners since the beginning of their cooperation in 2012, Habitat for Humanity and Wienerberger signed a further cooperation agreement in 2018, which will be running until 2021. For this third period of cooperation, the geographic scope was extended to two more countries, with activities now covering seven countries (Bulgaria, North Macedonia, Poland, Romania, Slovakia, Hungary and Great Britain).

In 2018 alone, we were able to help another 37 families and over 290 children and adolescents within the framework of our partnership. Since the beginning of the second round of cooperation from July 2015 to June 2018, help was provided for a total of 1,134 people in need, among them 82 families.

As in previous years, so-called “housing forums” were co-organized with Habitat for Humanity in 2018, the objective being to make politicians as well as public authorities aware of the importance of social housing.



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.

### **Local partnerships and cooperation projects**

Besides our cooperation with Habitat for Humanity, which is coordinated at Group level, we also carry out joint projects with other partners at local level, such as Caritas or the Elijah Association, aimed at the creation of housing for people in need.

In Romania, Wienerberger donates products to the Elijah Association (<http://www.elijah.ro>) run by Father Georg Sporschill SJ and Ruth Zenkert, which is devoted to the goal of building a better future for families and their children. In 2018, for instance, homes were built for seven families. Moreover, utility buildings (such as storage sheds, barns, animal housing, workshops) were renovated and/or newly built. Wienerberger provided clay blocks and roof tiles for this purpose.

We also carry out joint projects in cooperation with Caritas, a humanitarian organization, and contribute to the creation of housing for groups of people in need in various countries. For example, we have been involved in projects in Ukraine since 2010.

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.



# Reporting Profile

Wienerberger reports once a year on the Group's non-financial indicators. In accordance with past practice, a full Sustainability Report is published every two years, which alternates with a concise update presenting the most essential facts and figures for the year between. The last full Sustainability Report for 2016 was published in June 2017. The 2020 Sustainability Report will be published according to schedule in June 2021.

The present Sustainability Report covers Wienerberger's activities in 2018. The indicators shown also refer to the years 2016 and 2017 and thus reflect a three-year trend. The report focuses on the ecological, social and societal 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 2018 Annual Report, which is available online at ([www.annualreportwb.com/en/](http://www.annualreportwb.com/en/)).

Sustainability reporting follows the scope of consolidation of the Wienerberger Group, which is described in detail on page 128 in the Notes to the 2018 Annual Report. In substantive terms, the present report covers the fully consolidated subsidiaries operating in Wienerberger's product groups, i.e. products for walls, roofs and facades, ceramic pipes, plastic pipes, and concrete and clay pavers. The only exceptions are two sites in the Netherlands acquired in 2018; the structures required to compile the non-financial indicators are not yet in place there and will be implemented in the course of 2019. Other deviations of individual indicators from the reporting scope are mentioned wherever applicable.

The data presented in the chapter "Production" only refer to our production sites, whereas all other data include all sites of the Wienerberger Group. Deviations from the reporting scope are indicated in the respective sections.

The topics and key indicators presented in the report are based on the materiality analysis performed in 2014 and were elaborated by subject-specific working groups in cooperation with the Corporate Sustainability Officer. The decision on the selection of topics was taken by the Wienerberger Sustainability Steering Committee (SSC).

Wienerberger's sustainability reports are prepared by the Corporate Sustainability Officer in coordination with the Business Units and the specialized departments. They are released by the Sustainability Steering Committee (Chairman of the Managing Board, Chief Financial Officer and the managing boards of the Business Units).

The 2018 Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards: Core option.

The data presented in this report are based primarily on internal statistics. Important topics covered by the report 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 content index

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102-16	Values, principles, standards, and norms of behavior	146-147		
<b>Governance</b>				
102-18	Governance structure	36, Website, Annual Report 48-71	CG-Report reviewed by Deloitte	
<b>Stakeholder engagement</b>				
102-40	List of stakeholder groups	32-33		
102-41	Collective bargaining agreements	31		
102-42	Identifying and selecting stakeholders	40		
102-43	Approach to stakeholder engagement	32-34, 40		
102-44	Key topics and concerns raised	33-34, 40-42, Materiality Analysis 2014		

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



## GRI 102 (2016): General Disclosures

<i>Disclosure</i>	<i>Page in Sustainability Report</i>	<i>Omission, Explanation</i>	<i>Part of external assurance</i>	<i>UN Global Compact Principles</i>
<b>Reporting practice</b>				
102-45	Entities included in the consolidated financial statements	148, Annual Report 212-215		
102-46 - 102-47	Defining report content and topic Boundaries, list of material topics	40-53	2014 by PwC	
102-48	Restatements of information	68-69, 101-102 and in the respective footnotes to the individual indicators.		
102-49	Changes in reporting	41-53		
102-50 - 102-52	Reporting period, date of most recent report	148		
102-53	Contact point for questions regarding the report	160		
102-54	Claims of reporting in accordance with the GRI Standards	148		
102-55	GRI content index	151-154		
102-56	External assurance	149-153, 162-163		



## Topicspecific Standards – Economic

	<i>Disclosure</i>	<i>Page in Sustainability Report</i>	<i>Omission, Explanation</i>	<i>Part of external assurance</i>	<i>UN Global Compact Principles</i>
<b>GRI 201 (2016): Economic performance</b>					
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	17-19, 28, 36-62			
201-1	<i>Direct economic value generated and distributed</i>	Annual Report, Overview of Key Indicators			
201-3	<i>Defined benefit plan obligations and other retirement plans</i>	Annual Report 175-178			
<b>GRI 203 (2016): Indirect economic impacts</b>					
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	17, 36-62, 146			
203-1	<i>Infrastructure investments and services supported</i>	146-147			
<b>GRI 205 (2016): Anti-corruption</b>					
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28-31, 36, 41-62			UNGC 10
205-1	<i>Operations assessed for risks related to corruption</i>	31			UNGC 10
205-3	<i>Confirmed incidents of corruption and actions taken</i>	31			UNGC 10
<b>GRI 206 (2016): Anti-competitive behavior</b>					
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28-31, 36, 41-62			
206-1	<i>Legal actions for anti-competitive behavior, anti-trust, and monopoly practices</i>	30			



## Topicspecific Standards – Environmental

	Disclosure	Page in Sustainability Report	Omission, Explanation	Part of external assurance	UN Global Compact Principles
<b>GRI 301 (2016): Materials</b>					
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28-31, 36, 41-62, 112-113, 115, 136			UNGC 7, 8, 9
301-2	Recycled input materials used	136, 140-142	For the time being, the input of recycled raw material can only be indicated as a percentage for brick production in Europe and in kg/ton for plastic pipes. Data collection in other operating segments is being evaluated.		UNGC 7, 8, 9
<b>GRI 302 (2016): Energy</b>					
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28, 32, 36, 41-62, 100-101		yes	UNGC 7, 8, 9
302-1	Energy consumption within the organization	101, 104-105		yes	UNGC 7, 8, 9
302-3	Energy intensity	101, 106-108		yes	UNGC 7, 8, 9
302-4	Reduction of energy consumption	101, 104-108			UNGC 7, 8, 9
<b>GRI 303 (2016): Water</b>					
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28, 32, 36, 41-62, 113			UNGC 7, 8, 9
303-1	Water withdrawal by source	113-114			UNGC 7, 8, 9



<i>Disclosure</i>	<i>Page in Sustainability Report</i>	<i>Omission, Explanation</i>	<i>Part of external assurance</i>	<i>UN Global Compact Principles</i>
<b>GRI 304 (2016): Biodiversity</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28, 32, 36, 41-62, 115-116		
304-3	<i>Habitats protected or restored</i>	115-116		
		Quantitative information on the size and location of the protected or restored areas at depleted clay pits and the status of these areas is not available. The re-use of clay pits is determined in the course of the approval procedure and depleted clay pits are made available accordingly by Wienerberger.		
<b>GRI 305 (2016): Emissions</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28, 32, 36, 41-62, 100-101	yes	UNGC 7, 8, 9
305-1	<i>Disclosure 305-1 Direct (Scope 1) GHG emissions</i>	101-102, 108-110	yes	UNGC 7, 8, 9
305-4	<i>GHG emissions intensity</i>	101-102, 110-112	yes	UNGC 7, 8, 9
305-5	<i>Reduction of GHG emissions</i>	101-102, 108-112		UNGC 7, 8, 9
<b>GRI 308 (2016): Supplier environmental assessment</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28, 36, 41-62, 100		UNGC 7, 8
308-2	<i>Negative environmental impacts in the supply chain and actions taken</i>	49-53, 99, 114-115		UNGC 7, 8
		Information on supplier audits is currently not available; supplier audits are conducted as of 2019.		



## Topicspecific Standards – Social

Disclosure	Page in Sustainability Report	Omission, Explanation	Part of external assurance	UN Global Compact Principles
<b>GRI 401 (2016): Employment</b>				
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28, 31-32, 36, 41-62, 68	yes	UNGC 3, 4, 5, 6
401-1	New employee hires and employee turnover	69-73, 87, 90	yes	UNGC 3, 4, 5, 6
<b>GRI 403 (2016): Occupational health and safety</b>				
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28, 31-32, 36, 41-62, 67-68	yes	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	74-76, 78-81	yes	Occupational diseases: Complete and detailed data are not yet available. A GRI-compliant presentation is being evaluated.
403-3	Workers with high incidence or high risk of diseases related to their occupation	81-82		
403-4	Health and safety topics covered in formal agreements with trade unions	74		
<b>GRI 404 (2016): Training and Education</b>				
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28, 31-32, 36, 41-62, 68, 82-84		
404-1	Average hours of training per year per employee	83		Training programs broken down by functional area and diversity feature: Complete and detailed data are not yet available. Additional detailed reporting, in order to gradually achieve GRI-compliant presentation, is being planned for the next report.
<b>GRI 405 (2016): Diversity and equal opportunity</b>				
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28, 31-32, 36, 41-62, 68, 85		UNGC 6
405-1	Diversity of governance bodies and employees	85-86, 90		Employees under term contracts, broken down by age group: Complete and detailed data are not yet available. GRI-compliant presentation is being evaluated.
<b>GRI 406 (2016): Non-discrimination</b>				
103-1 - 103-3	Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach	28, 31-32, 36, 41-62, 68, 85		UNGC 6
406-1	Incidents of discrimination and corrective actions taken	85		UNGC 6



<i>Disclosure</i>	<i>Page in Sustainability Report</i>	<i>Omission, Explanation</i>	<i>Part of external assurance</i>	<i>UN Global Compact Principles</i>
<b>GRI 412 (2016): Human rights assessment</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28, 31, 35-36, 41-62, 68, 82		
412-1	<i>Operations that have been subject to human rights reviews or impact assessments</i>	48-53	<i>In 2018 an impact and risk analysis was performed at Group level.</i>	
<b>GRI 413 (2016): Local Communities</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	33-34, 41-62		
413-2	<i>Operations with significant actual and potential negative impacts on local communities</i>	115-116		
<b>GRI 414 (2016): Supplier social assessment</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28, 36, 41-62, 100-101, 114-115		
414-2	<i>Negative social impacts in the supply chain and actions taken</i>	114-115	<i>For the time being, GRI-compliant presentation is not possible, as the information is not yet available. Supplier audits are performed as of 2019.</i>	UNGC 1, 2
<b>GRI 416 (2016): Customer health and safety</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28, 36, 41-62, 137		
416-2	<i>Disclosure 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services</i>	137		
<b>GRI 419 (2016): Socioeconomic compliance</b>				
103-1 - 103-3	<i>Explanation of the material topic and its Boundary, the management approach and its components, evaluation of the management approach</i>	28-30, 30, 41-62		
419-1	<i>Non-compliance with laws and regulations in the social and economic area</i>	30		



# UN Global Compact: Communication on Progress 2018

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. 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.

Wienerberger was founded 200 years ago and has been listed on the Vienna Stock Exchange for 150 years. Since that time, we have always been aware of our responsibility for generations to come. Once a year, we report on progress achieved in respect of our self-imposed obligations, especially in the context of our sustainability program (Sustainability Roadmap 2020), and our commitment to the UN Global Compact.

The 2018 Communication on Progress in respect of the UN Global Compact forms part of our 2018 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 and 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 fundamental human rights. By adopting the Wienerberger Social Charter in 2001,

Wienerberger committed itself to comply with the conventions and recommendations of the International Labor Organization (ILO). This includes providing safe and healthy working conditions. Respecting human rights has always been a matter of course for Wienerberger. Health and safety is a topic of particular importance for us. We are doing our utmost to make the workplaces of our employees safe, healthy and fit for the future and to reach our Group's target of zero accidents. We also expect our suppliers to respect human rights and act accordingly.

### **Progress in 2018**

In 2014, the Group-wide safety standards implemented in 2010 were upgraded for the entire Wienerberger Group and activities within the framework of the Safety Initiative were stepped up.

Additionally, each Business Unit implements its specific internal occupational safety programs, which are described in detail on pages 77 and 78 of the 2018 Sustainability Report. As in the previous year, targeted measures were taken by each Business Unit in 2018 in order to further increase the level of safety for our employees. Every occupational accident is analyzed by the Business Unit concerned; core aspects of occupational safety and individual initiatives are evaluated annually. In 2018, we again succeeded in reducing the frequency of accidents within the Wienerberger Group. Accident frequency was reduced from 5.4 occupational accidents per million hours worked in 2017 to 5.1 in 2018, which corresponds to a further reduction by almost 6%. Accident severity, expressed in accident-related sick leave days per million hours worked, also dropped from 173 in 2017 to 155 in 2018 (-10.5%). However, it saddens us to report that a fatal occupational accident occurred at a 50% subsidiary of Wienerberger. We deeply regret this accident. Although the indicator is not within the reporting scope (given that the company concerned is not fully consolidated), we disclose the information on account of its high relevance and in the interest of transparency. We studied the circumstances of the accident in great depth and are



consistently pursuing our measures aimed at increasing safety at work for our employees.

Health is a human right. Wienerberger therefore ensures safe and healthy working conditions at all its production sites. In 2018, the average number of non-accident-related sick leave days per employee at Group level (excluding the North America Division) increased to 10.2 from 9.9 in the previous year<sup>1</sup>. This development is due to the higher frequency of long sick-leave periods. The North America Division is not included, as its absolute numbers and percentages are not comparable with those of the other Divisions of the Group due to local legal provisions.

In view of the increasing numbers of long-term sick-leave periods, prevention is a particularly important health-promoting factor. Besides regular health screenings, company physicians are available across the Group, workplaces are analyzed for their ergonomic characteristics, and individual fitness and health programs are available.

All full-time employees of the North America Division are covered by supplementary health insurance, the scope of which partly exceeds that of the Affordable Care Act (ACA).

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. Since 2008, Wienerberger has voluntarily reported extensively on its measures to protect employees from exposure to respirable crystalline silica. The survey is conducted every two years within the framework of the NEPSI social partnership agreement between employees and employers (Negotiation Platform on Silica, [www.nepsi.eu/nepsi](http://www.nepsi.eu/nepsi)).

Our target at Group level is to ensure that at least 95% of all ceramic production sites report on measures taken to protect employees from respirable crystalline silica. With almost 98% of all ceramic plants reporting on their measures, the target was not only attained, but surpassed at Group level in 2017, as the most recent survey showed. In accordance with the survey schedule, no data on exposure to and protection from respirable crystalline silica were collected via the joint NEPSI online platform in 2018.

Irrespective of the NEPSI social partnership agreement, Wienerberger is making every effort to protect its employees against respirable crystalline silica. In 2018, work on a new standard on the protection of employees from exposure to respirable crystalline silica was begun; the standard is to be completed and implemented in 2019.

In 2018, the scope of Wienerberger's procurement function was extended at Group level, the objective being to optimize existing processes, utilize synergies, and, as in other areas, achieve a higher level of efficiency. The new structure also influences the way we conduct our supplier management in respect of social and ecological matters. Given the new Group-wide procurement structure headed by Corporate Procurement, a uniform "Supplier Code of Conduct" is to be introduced for the entire Wienerberger Group. It will be elaborated and rolled out in 2019. Starting in 2019, supplier audits are to be performed in those areas of procurement where the biggest potential risks are assumed to exist. These audits will cover essential social and ecological matters, such as respect for human rights.

*In the 2017 Sustainability Update both accident-related and non-accident-related sick-leave days were all reported as non-accident-related sick-leave days per employee. In the present report the figures are shown separately.*



## **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 acts in accordance with the recommendations of the International Labor Organization (ILO).

Besides safe and healthy working conditions, fair remuneration and the right of assembly and collective bargaining are high priorities for us. In our effort to rule out 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 2018**

In 2018, 72% of all Wienerberger employees were covered by a collective bargaining agreement. Companies of the building materials industry traditionally have a high percentage of male employees. As at 31/12/2018, the total percentage of women employed by the Wienerberger Group was 14.3%, i.e. slightly above the previous year's

value (13.8%). The percentages of women in the individual functional areas remained almost unchanged compared to 2017. Due to structural changes, the percentage of women in senior management positions across the Group dropped by one percentage point to 11% in 2018. In 2018, Wienerberger recruited 2,429 new employees, i.e. 194 more than in 2017.

The number of women among the new entrants rose from 342 to 390 in 2018, the number of men from 1,893 to 2,039. The percentage of women among the new entrants increased from 15.3% to 16.1%, while the percentage of men continued to decline from 84.7% to 83.9%. We continue to give preference to women in new appointments to senior management and executive positions, provided their qualifications are equivalent to those of male candidates. Being convinced of the added value of diversity in our company, we strive to increase the number of women in senior management and executive positions by enabling them to embark on suitable career paths in an early phase of their professional development. On 1 June 2019, Ms. Solveig Menard-Galli, previously responsible for the management of our Fast Forward 2020 program, joined the Managing Board as our new "Chief Performance Officer" (CPO).

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 women as well as men. In 2018, the percentage of Wienerberger employees working part-time remained unchanged at 3.6%. The percentage of women in part-time employment amounted to 15.2% in 2018, down by 0.9 percentage points from the previous year. At the same time, the percentage of men working part-time increased slightly to 1.7% in 2018 (+0.1 percentage points).



## **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 and procurement processes. 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 the consumption of resources and a certain degree of interference with the natural environment, and we therefore consider it our duty to make every effort to minimize such interference.

### **Progress in 2018**

Specific energy consumption and specific CO<sub>2</sub> emissions are two of the essential indicators of environmentally friendly production technologies. Wienerberger's target is to reduce these indicators by 20% each in ceramic production by 2020 compared to 2010. However, in 2018 the Wienerberger Group's total energy consumption increased by 3.3% over the previous year's level. There are two main reasons for the increase: higher production volumes due to higher demand for bricks in Europe and concrete and calcium silicate products in North America, and acquisitions made in 2018.

Specific energy consumption (calculated as an index in % based on kWh/ton of products) reflects the development over time, with the values reported for a specific reference year serving as the basis for index calculation. In 2018, specific energy consumption was further reduced, dropping by 0.8% from the previous year's level in the Wienerberger Group as a whole and by 2% in ceramic production alone. Compared to the baseline

year 2013, the reductions were even more significant, amounting to 1.6% for the Group as a whole and 4.4% for ceramic production.

In 2015, the target set for plastic pipe production in Europe within the framework of the Sustainability Roadmap 2020 was to reduce specific energy consumption from electricity in production by 20% compared to 2010. In 2018, we had to adjust our original target, one of the reasons being the persistent trend in the product mix towards lighter products with smaller pipe diameters. On the one hand, this means higher resource efficiency: less material is needed for a product providing the same or even better performance. On the other hand, however, specific water usage (see page 114), energy consumption and CO<sub>2</sub> emissions (see pages 107 and 112), measured per ton of products produced, increase, while energy input and water usage remain the same. We have therefore adjusted our new targets to this development. Despite these challenging developments, we are determined to reduce specific energy consumption in plastic pipe production in Europe by 2020 by at least 3% compared to 2010. At the same time, we want to reduce specific indirect CO<sub>2</sub> emissions from electricity by 11% compared to 2010 and maintain them at that level. In 2018, indirect CO<sub>2</sub> emissions (primarily from electricity consumption) in plastic pipe production were 11% below the 2010 baseline.

Wienerberger is making continuous efforts to convert its production processes to low-emission energy sources in order to further reduce its greenhouse gas emissions. In 2017, all active production sites of the North America Division were converted completely from coal to natural gas, which resulted in a further steep reduction in coal input and a simultaneous increase in natural gas consumption in 2018. The Group-wide consumption of coal was reduced by more than one third in 2018 compared to the previous year (-35.5%). The percentage of renewable sources of energy in electricity consumption in 2018, based on kWh per ton, remained at the previous year's level.



In ceramic production, the index of specific CO<sub>2</sub> emissions from primary energy sources in kg CO<sub>2</sub> per ton of products produced was further reduced by a satisfactory 2.4% compared to the previous year and by 8.2% compared to 2013.

The reduction of specific CO<sub>2</sub> emissions from the production of facing bricks (-3.1%) and roof tiles (-1.9%) compared to the previous year was due, in particular, to optimized capacity utilization. Specific CO<sub>2</sub> emissions from primary energy sources declined more strongly than specific energy consumption in ceramic production (-2% compared to 2017 and -4.4% compared to 2013). This is due to the steady and consistent reduction in the use of CO<sub>2</sub>-intensive energy sources, such as coal and fuel oil, and the conversion to natural gas.

Wienerberger is making a continuous effort to enhance resource efficiency in production and, at the same time, to 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 steady reduction of scrap rates and the recycling of production waste and residual substances into production. In concrete paver production, we reduced the scrap rate by 45% between 2014 and 2017, and we intend to achieve a further reduction by 23%, compared to 2017, by 2020. On the basis of improved technologies, tools and processes as well as a growing awareness in our plants for the importance of resource efficiency, we are confident of further reducing the scrap rate.

Our target set for plastic pipe production in Europe, i.e. to increase the percentage of recycled material to 70 kg per ton of products produced by 2020, was already exceeded in 2018. We have therefore set ourselves a new and even more ambitious target; at the same time, we have fine-tuned the definition of the recycled materials used. By 2020, we want to increase the amount of secondary raw materials to 85 kg per ton of products produced, at least 50 kg thereof coming from external sources.

A total of 147,569 tons of waste was generated by the Wienerberger Group in 2018, less than 1% of which was hazardous waste. As in previous years, almost all the waste generated by the Wienerberger Group is non-hazardous waste, the major part of which was collected separately and recycled in 2018 (79%).

Specific water consumption is another indicator of environment-friendly technologies. Specific water usage, based on net additions to inventories, increased in 2018 in almost all product groups. Notwithstanding the Wienerberger Group's commitment to a sparing use of water, wherever possible in closed circuits, changes in the product mix and higher production volumes in some areas had an impact on specific water usage in 2018.

Our target in plastic pipe production in Europe was to reduce the volume of water drawn from public networks to 0.55m<sup>3</sup> per ton of products produced by 2020. Specific water usage is relatively high in plastic pipe production, given that water is used for cooling. Here, too, long-term changes in the product mix led to an increase in specific water usage (+4.2%). Specific water usage from public networks accounted for 16.7% of total specific water usage 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 conformity with the legal provisions in effect and, thus, does not count as consumption in the true sense of the term.

In line with the precautionary principle applied in dealing with environmental problems, Wienerberger has for many years been working intensively on the voluntary preparation of eco-balances and environmental product declarations (EPDs) for its entire product range. Moreover, all ceramic pipes and fittings produced by Wienerberger, as well as selected paver production lines, have been 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 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.

### **Progress in 2018**

In 2018, internal audits were performed in 27 companies (listed in the 2018 Annual Report, starting on page 212, “Group Companies”) with a special focus on organization, purchasing, materials management, sales and human resources, as well as corruption and anti-trust legislation. Other priorities of the audits included compliance with the Group-wide standards on health and safety for our employees.

In 2018, no corruption charges were filed against Wienerberger; no judgment was pronounced against Wienerberger for corruption, nor were any penalty payments due.

## ***Global Compact Principles – Implementation in the Supply Chain***

To an increasing extent, Wienerberger verifies compliance with the principles of the UN Global Compact along its supply chains and therefore obliges its suppliers to observe social and ecological minimum standards. Wienerberger demands observance of the ten principles of the UN Global Compact on human rights, occupational health and safety, environmental protection and the fight against corruption along its supply chain. All Business Units in Europe have laid down their minimum requirements in specific supplier codes of conduct. Within the framework of the Wienerberger Group’s new purchasing structure with Corporate Procurement as a centralized department, a uniform “Supplier Code of Conduct” for the entire Group is being elaborated and rolled out in 2019. Moreover, additional instruments for responsible supplier management, including supplier audits, are being implemented.

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# Courtesy Translation of the Independent Assurance on Non-Financial Reporting <sup>\*)</sup>

## Introduction

We performed procedures to obtain limited assurance on the non-financial performance indicators “GRI 302-1 Energy consumption within the organization”, “GRI 302-3 Energy intensity”, “GRI 305-1 Direct (Scope 1) GHG emissions”, “GRI 305-4 GHG emissions intensity”, “GRI 401-1 New employee hires and employee turnover” and “GRI 403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities” in the Sustainability Report 2018 of Wienerberger AG (hereafter referred to as “Report”).

## Management's Responsibility

The preparation of the Report in accordance with the reporting principles as well as the selection of the scope of the engagement is the responsibility of the management of Wienerberger AG. The reporting principles include the in the GRI-Standards 2016 contained principles of reporting issued by the Global Sustainability Standards Board (GSSB).

This responsibility of the management includes the selection and application of appropriate methods for preparing the Report, making assumptions and estimates of individual non-financial disclosures that are plausible under the given circumstances. The responsibility of the management also includes designing, implementing and maintaining internal controls, which have been determined as necessary for the preparation of the Report free from material – intended or unintended – misstatements.

## Responsibility of the auditor

Our responsibility is to express a limited assurance opinion on the non-financial performance indicators “GRI 302-1 Energy consumption within the organization”, “GRI 302-3 Energy intensity”, “GRI 305-1 Direct (Scope 1) GHG emissions”, “GRI 305-4 GHG emissions intensity”, “GRI 401-1 New employee hires and employee turnover” and “GRI 403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities” included in the Report based on our review.

We conducted our engagement in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised), “Assurance Engagements Other Than Audits or Reviews of Historical Financial Information” issued by the International Auditing and Assurance Standards Board (IAASB) in order to obtain limited assurance on the subject matters.

ISAE 3000 (Revised) requires us to plan and perform the engagement in a way that enables us to obtain limited assurance that nothing has come to our attention that causes us to believe that the non-financial performance indicators mentioned above have not, in any material aspect, been prepared in accordance with the reporting criteria of GRI Standards.

In a limited assurance engagement, the evidence-gathering procedures are more limited than in a reasonable assurance engagement and therefore, less assurance can be obtained. The choice of audit procedures lies in the due discretion of the auditor.

*\*) The German wording of the signed Independent Assurance Report, which refers to the German Version of the Report, is the only binding one. The English translation is not binding and shall not be used for the interpretation of the English Version of the Report.*

As part of our audit, we have performed, inter alia, the following audit procedures and other activities as far as they are relevant to the limited assurance engagement:

- › Interviews of the employees named by Wienerberger AG regarding the sustainability strategy, the sustainability principles and the sustainability management
- › Interviewing employees to assess the methods of data collection, data processing and internal controls
- › Inspection of the relevant documentation of the systematics and processes for the collection, analysis and aggregation of the data of the audit-relevant performance indicators of the Report during the reporting period
- › Site-visit of the production facility in Hennersdorf
- › Video conference with the responsible parties for non-financial data at country level in Germany
- › Matching the non-financial disclosures that are shown in the report and lie within the audit scope, with the calculation documents and records provided

### Summarized Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the non-financial performance indicators “GRI 302-1 Energy consumption within the organization“, “GRI 302-3 Energy intensity“, “GRI 305-1 Direct (Scope 1) GHG emissions“, “GRI 305-4 GHG emissions intensity“, “GRI 401-1 New employee hires and employee turnover“ and “GRI 403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities“ stated in the Report have not, in all material aspects, been prepared in accordance with the reporting criteria of the GRI Standards.

### Terms of engagement

The basis for this engagement are the “General Conditions of Contract for the Public Accounting Professions“, as issued by the Chamber of Tax Advisers and Auditors in Austria on April 18, 2018 (“AAB 2018”). In accordance with chapter 7 AAB 2018, our liability shall be limited to intent and gross negligence. In cases of gross negligence, the maximum liability is limited to a maximum of five times the fee. This amount constitutes a total maximum liability cap, which may only be utilized once up to this maximum amount, even if there is more than one claimant or more than one claim has been asserted.

Vienna, 26 June 2019

Deloitte Audit Wirtschaftsprüfungs GmbH

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### **Illustration**

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### **Portrait photography**

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### **Print production**

Lindenau Productions  
Print: Gerin Druck



### **Our product solutions, business areas and brand names**

#### **We are Wienerberger**

Clay blocks, facing bricks, roof tiles, clay pavers in Europe:  
**Clay Building Materials Europe**. Facing bricks, plastic pipes,  
concrete products, calcium silicate products in North America:  
**North America**. Ceramic pipes: **Steinzug-Keramo**. Concrete  
Pavers: **Semmelrock**. Plastic pipes: **Pipelife**.

#### **Remark**

The Wienerberger Sustainability Report 2018 is  
available in English and German. Both documents  
are available online and can be downloaded under  
[www.wienerberger.com](http://www.wienerberger.com).

