

**Annual Report**  
2018

Report  
to  
share  
our  
vision  
for  
tomorrow









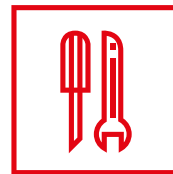
# Overview

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# ROCKWOOL Group at a glance

We release the natural power  
of stone to enrich modern living

**5**  
Brands:



**45**  
Manufacturing  
facilities



**39**  
Countries  
where we  
are present

**61**  
Nationalities  
worldwide

**37%**  
Women in  
white-collar  
positions

**11,600**  
Highly-skilled  
individuals

## Employees by region



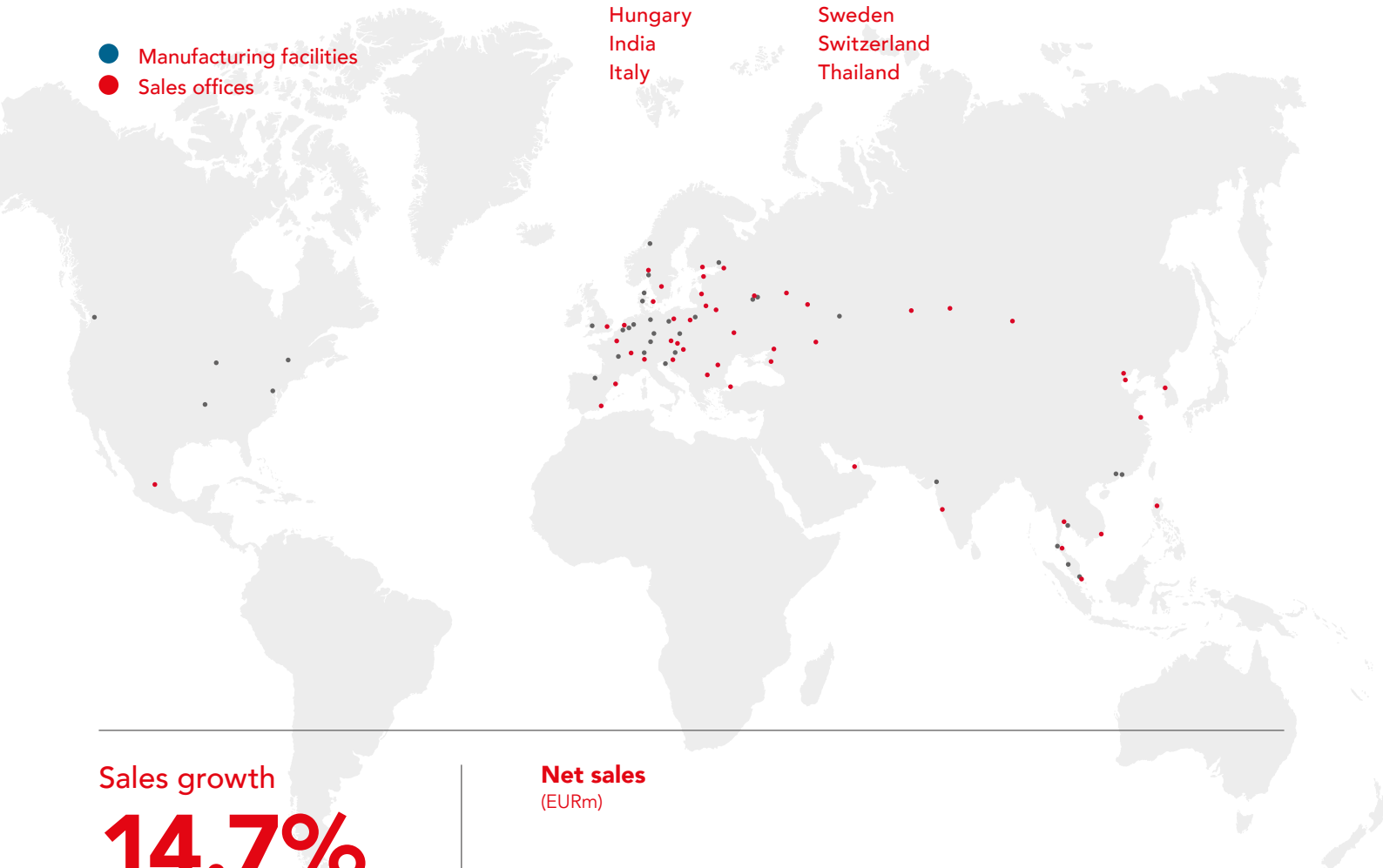


# World leader with local presence

We create sustainable solutions to protect life, assets, and the environment today and tomorrow.

- Austria
- Belarus
- Belgium
- Bulgaria
- Canada
- China
- Croatia
- Czech Republic
- Denmark
- Germany
- Estonia
- Finland
- France
- Hungary
- India
- Italy
- Korea
- Latvia
- Lithuania
- Malaysia
- Mexico
- Norway
- Philippines
- Poland
- Romania
- Russian Federation
- Singapore
- Slovakia
- Spain
- Sweden
- Switzerland
- Thailand
- The Netherlands
- Turkey
- Ukraine
- United Arab Emirates
- United Kingdom
- United States of America
- Vietnam

- Manufacturing facilities
- Sales offices



Sales growth

# 14.7%

In local currencies

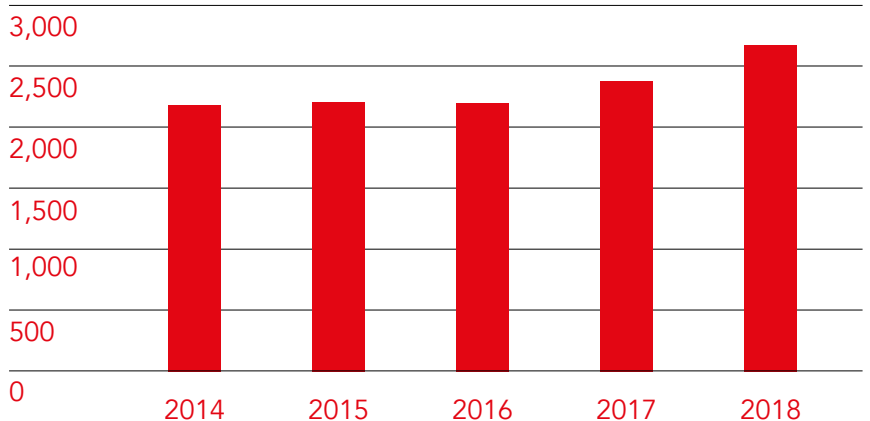
EBIT

# 341 EURm

Up 33% compared to last year

**Net sales**

(EURm)



# Five-year overview

	2018 (DKKm)	2018 EURm	2017 EURm	2016 EURm	2015 EURm	2014 EURm
<b>Income statement items</b>						
Net sales	19,911	2,671	2,374	2,202	2,208	2,180
EBITDA	3,776	507	417	389	*322	312
Depreciation, amortisation and write-downs	1,233	166	159	160	187	150
EBIT	2,543	341	258	229	*135	161
Financial items	-48	-7	-11	-7	-4	-6
Profit before tax	2,500	335	275	225	133	157
Profit for the year	1,975	265	214	166	91	113
<b>Balance sheet items</b>						
Non-current assets	10,963	1,468	1,383	1,409	1,446	1,431
Current assets	7,189	963	781	591	559	560
Total assets	18,153	2,431	2,164	1,999	2,005	1,991
Equity	14,012	1,877	1,684	1,536	1,367	1,303
Non-current liabilities	903	121	122	128	119	121
Current liabilities	3,234	433	358	336	519	566
Net interest-bearing cash / (debt)	2,800	375	241	116	-93	-175
Net working capital	1,479	198	190	175	162	173
Invested capital	11,515	1,542	1,452	1,433	1,467	1,484
Gross investment in plant, property and equipment	1,640	220	123	92	167	234
<b>Cash flow</b>						
Cash flow from operating activities	3,044	408	332	326	297	206
Investments and acquisitions	1,577	212	165	89	201	257
Free cash flow	1,467	196	167	237	97	-52
<b>Others</b>						
R&D costs	284	38	32	32	32	32
Number of patents granted	268	268	201	280	165	98
Number of full time employees (year-end)	11,511	11,511	11,046	10,414	10,601	11,031
<b>Ratios</b>						
EBITDA margin	19.0%	19.0%	17.6%	17.7%	*14.6%	14.3%
EBIT margin	12.8%	12.8%	10.8%	10.4%	*6.1%	7.4%
Pay-out ratio	33.3%	33.3%	33.3%	33.3%	37.1%	29.7%
ROIC	22.8%	22.8%	17.9%	15.8%	*9.1%	11.3%
Return on equity	14.9%	14.9%	13.3%	11.5%	6.8%	8.7%
Equity ratio	77.2%	77.2%	77.5%	76.8%	68.2%	65.5%
Leverage ratio	-0.74	-0.74	-0.58	-0.29	0.28	0.56
Financial gearing	-0.20	-0.20	-0.14	-0.08	0.07	0.13

\* Adjusted with redundancy costs of EUR 15 million from the Business Transformation Programme and write-downs in Asia of EUR 21 million, EBITDA for 2015 was EUR 337 million with an EBITDA margin of 15.3%, EBIT for 2015 was EUR 172 million with an EBIT margin of 7.8% and ROIC amounted to 11.6%.

For definitions of key figures, ratios and exchange rates see pg. 112.



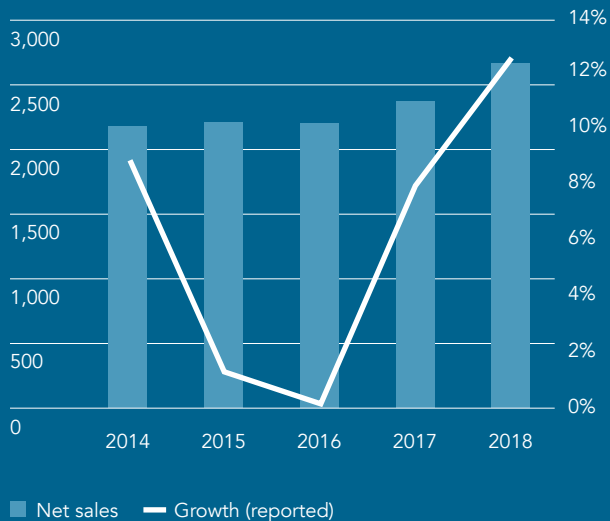
# Highlights

## Sales growth

# 14.7%

in local currencies

### Net sales & sales growth (EURm)

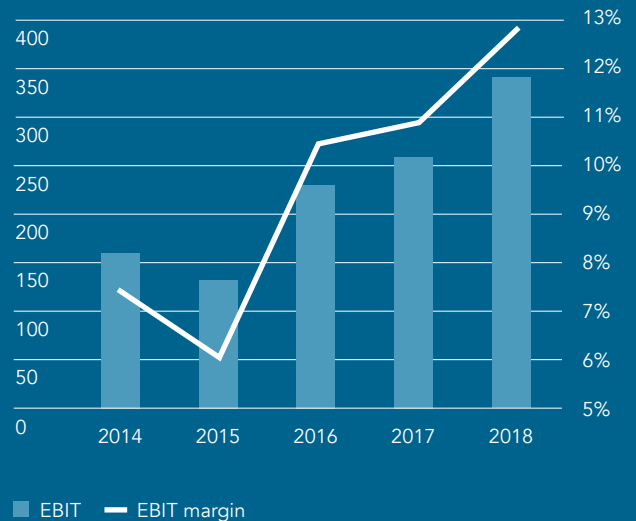


## EBIT

# 341 EURm

Up 33% compared to last year

### EBIT & EBIT margin (EURm)

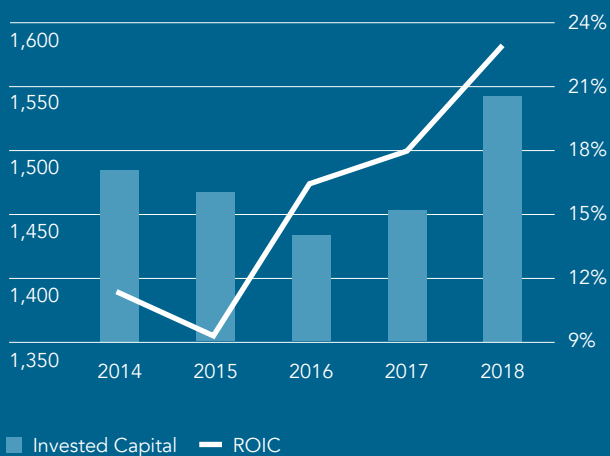


## ROIC

# 22.8%

Up from 17.9% last year

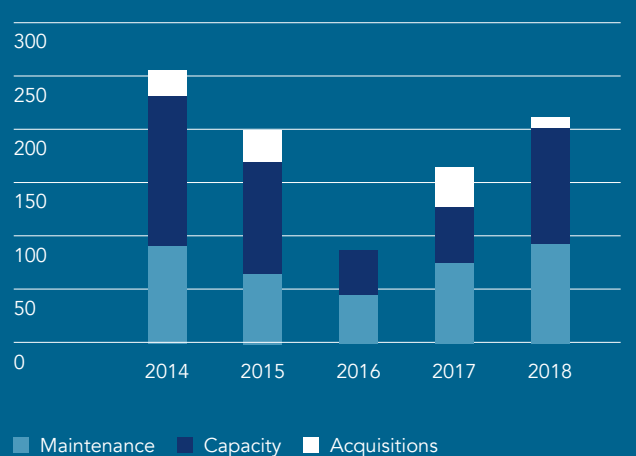
### ROIC & Invested Capital (EURm)



## Investments in new capacity

# 108 EURm

### Investments (EURm)



# Reshaping tomorrow, today

## Dear stakeholders,

Together we achieved a great deal in 2018. Our company is financially solid, expanding operations to meet customer demand, and benefiting from strong brand awareness and reputation.

## Rock solid financials

The attractive mix of high organic growth and productivity has contributed to a financial result in which net sales increased close to 15 percent in local currencies; EBIT margin grew by two percentage points, reaching almost 13 percent; and net profit reached EUR 265 million, a EUR 51 million improvement over 2017. Importantly, we remain net debt free with net positive cash position of EUR 375 million.

Our customer satisfaction scores are up eight percent this year, indicating that we continue to serve our customers' business needs with quality products and services. This is good news and important for us to reach short- and long-term ambitions for the company.

Also in 2018, we formally launched two innovative new products – the Rockzero wall system, a pioneering way to build nearly zero-energy buildings; and Rockflow, a groundbreaking urban water management product that helps cities and towns deal with excessive rainfall that can result from extreme weather events. Following their positive reception, we expect demand for both to grow.

## Climate change and the future of cities

What we do as a company and how we do it go well beyond our balance sheet and share price. Our responsibility to our shareholders extends to our employees, to the communities where we operate, the partners with whom we work, and the world in which we live.

Climate change is one of the most sobering challenges facing humanity, and buildings are on the front lines. ROCKWOOL has an important role to play in improving the energy efficiency in buildings, which matters greatly as buildings already account for around 30 percent of global energy consumption and CO<sub>2</sub> emissions – a figure that is much higher in OECD countries.

According to the UN, 4.2 billion people or 55 percent of the world's population live in cities today, a number that is expected to rise to 6.7 billion or 68 percent by 2050, putting enormous pressure on urban infrastructure, services and energy requirements. To accommodate our growing numbers and simultaneously meet climate goals, society will need to build more intelligently, ensuring the highest energy efficiency possible in both the new and existing building stock.

## Smarter building and renovation

For the same investment, the world can achieve the largest carbon emissions reductions in the building sector – 40 percent more than the next most cost-effective sector, according to the UN Intergovernmental Panel on Climate Change (IPCC).

The savings can only come if we do two things: require new buildings to meet the highest energy efficiency requirements such as those set by the nearly Zero Energy Building (nZEB) standard; and renovate existing buildings to meet the same high standards.

Since more than half the global building stock will be standing in 2050 (more in the OECD countries), renovating for energy efficiency is an absolute prerequisite to reduce CO<sub>2</sub> emissions sufficiently to meet the 2015 COP21 climate goals agreed to in Paris to keep global temperature rise to well below two degrees Celsius, according to the International Energy Agency. Installing proper insulation alone achieves a lot, reducing energy consumption for heating and cooling by 70 percent.

The cities and communities that lead these efforts will benefit directly, with lower energy consumption and related pollution and greater job creation, putting qualified construction people to work, also in times of economic volatility when new build activity slows down.

By building smarter and renovating existing buildings to be highly energy efficient, fire resilient, and acoustically comfortable, we can make urban environments healthier, safer, more sustainable and more attractive places to live and work, for the benefit of everyone.





“The seriousness of climate change cannot be overstated. ROCKWOOL has an important role to play”.

### Growing to meet demand

Based on longer-term macro trends, we believe that sales of our stone wool products should grow on average at least one percentage point faster in our core markets than the market overall. We expect this trend to continue in the years ahead. As market leader, we are investing to meet this growing demand for stone wool products, with new greenfield factories in the United States and Romania, plus capacity and logistics expansions in Poland, Germany and the United Kingdom.

And while we have benefited from generally strong macroeconomic growth, global trends toward climate action and healthier, more energy efficient buildings are leading to greater market awareness of the value and versatility of stone wool building materials for fire safety and thermal comfort, health and wellbeing. The United Kingdom is a prime example. Traditionally a plastic foam insulation market, sales of our non-combustible insulation and cladding grew significantly in 2018 compared to the year before.

### Safety

Tragically, the year also included the loss of a ROCKWOOL family member. A 24-year old man who had worked with us for eight years passed away due to injuries sustained in a fall through a roof skylight at the facility in Gladbeck, Germany in July.

It is our first workplace fatality since 2012 and is a powerful reminder that the safety of our colleagues must come first in everything we do.

### Looking ahead

As we look ahead into 2019, we anticipate positive developments in construction activity, though at

lower growth levels, in an environment with greater volatility and uncertainties for the sector and the global economy.

Continuous improvement initiatives at our manufacturing sites together with investments in new manufacturing capacity are aimed at supporting short- and long-term growth for ROCKWOOL. We are also investing in improving our existing manufacturing facilities to become more energy efficient and with less environmental impact.

We project a 2019 sales growth in the range of 4-8 percent in local currencies and an EBIT margin around 12 percent. Investments excluding acquisitions are expected to reach around EUR 330 million for the year. We will remain alert and agile in reacting to changes in market conditions.

Our results in 2018 were historically positive. We want to thank our tremendously engaged employees as well as our loyal customers who made this possible.

Hedehusene, February 2019

Henrik Brandt  
Chairman

Jens Birgersson  
CEO

# The ROCKWOOL purpose and strategy



At the pinnacle of ROCKWOOL's strategy is our corporate Purpose: to release the natural power of stone to enrich modern living. This reflects our Purpose's unifying nature, conveying that stone is our core raw material and the bedrock on which our business is based.

And while the stone we use may be millions of years old, what we do with it is cutting-edge. Every day, ROCKWOOL's creative and entrepreneurial employees are developing and applying new technologies and innovations to release the potential of stone to enrich modern living.

As we look to the future, stone wool and the products we make with it will play an increasingly significant role in addressing two of the megatrends influencing virtually every aspect of modern society – urbanisation and climate change.

Every week, about 1.5 million people move to urban environments. By 2030, there will be an estimated 43 megacities around the globe with more than 10 million inhabitants. And by 2050, the earth's population is expected to be close to 10 billion, nearly 70 percent of whom will live in cities.

The combination of more people living in more densely populated urban areas and the worsening consequences of climate change will increase the demand for modern housing and energy. At the same time, the world must feed its growing population using fewer resources, while also managing the effects of more frequent extreme weather events, particularly in urban environments.

## Megatrends



# 12 years

Time to limit global temperature rise to 1.5°C above pre-industrial levels and prevent catastrophic climate change.

### Climate change

For the same investment, the buildings sector is where we can achieve the largest carbon emissions reductions – 40 percent more than the next most cost-effective sector.



# 1/3

The building sector produces approximately one-third of all global waste, much of which ends up in landfills.

### Circularity

In a circular economy, waste is a valuable resource that can be turned into something new. In the case of stone wool, it can be recycled and reused repeatedly without degrading its quality.



→ The ROCKWOOL business strategy is driven by a passion for sustainably converting global trends into profitable business opportunities by creating superior solutions to protect life, assets, and the environment, and to create comfortable, healthy, and attractive spaces. In other words, by enriching modern living.



# 6.7 billion

Expected global urban population in 2050, up from 4.2 billion today.

#### Urbanisation

By 2050, 68 percent of the world's population will live in urban areas (up from 55 percent today), putting significant strains on energy, infrastructure and the environment that will require more sustainable behavior.



# 15 vs 60 litres

Water needed to grow 1 kg of tomatoes in a greenhouse with stone wool vs. in a field.

#### Resource scarcity

To meet global population growth, innovative technologies are needed to ensure more sustainable production of healthy food.

The ROCKWOOL business strategy is driven by a passion for sustainably converting these global trends into profitable business opportunities by creating superior solutions to protect life, assets, and the environment, and to create comfortable, healthy, and attractive spaces. In other words, by enriching modern living.

Our aspiration is to grow faster than the market overall by offering superior products and services, strengthening our brand, building long-term customer relations, and driving an operationally effective business across all segments and geographies where we are active.

As our business is inherently capital intensive, we focus on exploiting our natural strengths to balance risks, which includes a differentiated approach across selected geographies.

In North America, for example, we are expanding our production capacity to capture significant growth opportunities within all major business areas.

In Europe, we will grow faster than the market by launching new products and services, while improving our customer-facing activities and the productivity of our production platform. We will expand capacity where needed to meet steadily growing demand in and near core markets and enhance our geographic coverage and customer service level.

In Asia, the approach is different, in that we will develop and grow our business selectively where there is a clear demand for our premium quality offerings.

At ROCKWOOL, everything we do is based on releasing the natural power of stone to enrich modern living. Profitably offering solutions to address the challenges created by enduring global megatrends will help ensure our successful future growth. ●

## There is something truly remarkable about the natural power of stone.

What do we mean when we say our purpose "is to release the natural power of stone to enrich modern living"? So far, we have identified 7 strengths that are inherent in the properties of stone wool that give it extraordinary versatility. Seven reasons why we believe the world's most abundant resource can be engineered to create uniquely useful and exciting solutions for our customers. And by applying these 7 strengths to everything

we do, we passionately believe that we can address some of the biggest challenges facing our world. We're sure that there are even more strengths of stone to be discovered. And when we discover them, we'll turn those strengths into new products that improve the quality of life of everyone who experiences them. That's why these 7 strengths lie at the heart of every ROCKWOOL product. ●



### Fire-resilience

Withstand temperatures above 1000°C.



### Thermal properties

Save energy by maintaining optimum indoor temperature and climate.



### Acoustic capabilities

Block, absorb or enhance sounds.



### Robustness

Increased performance and greater stability with lower costs.



### Aesthetics

Match performance with aesthetics.



### Water properties

Manage our most precious resource.

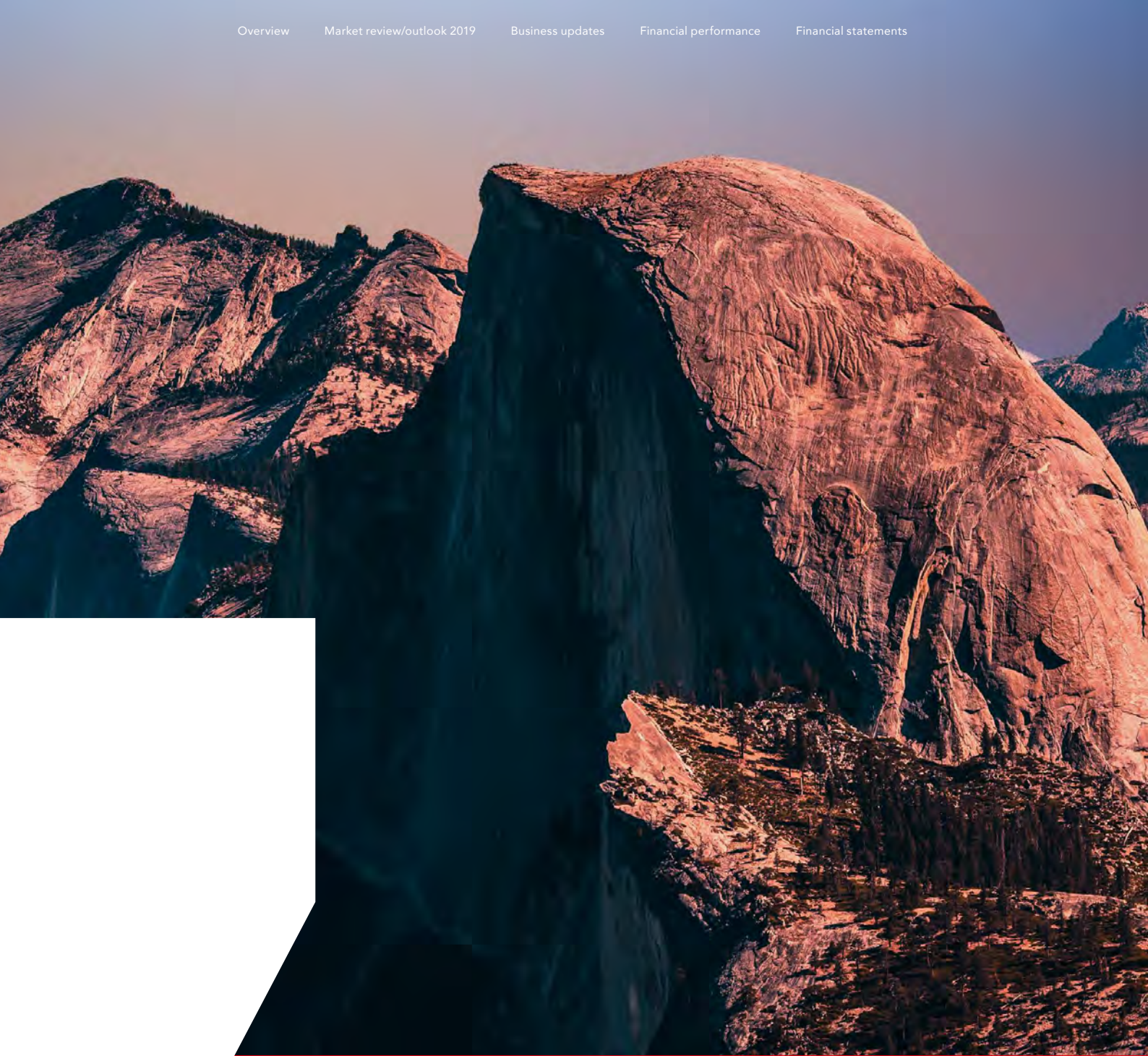


### Circularity

Reusable and recyclable material.

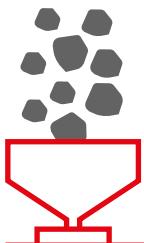
# The





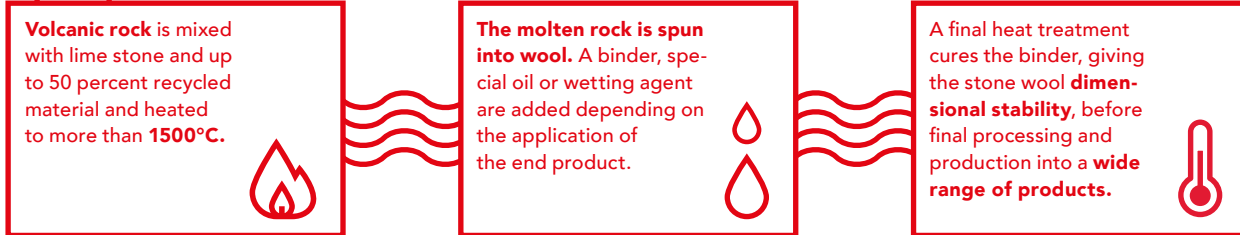
# strengths of stone

# Our business model

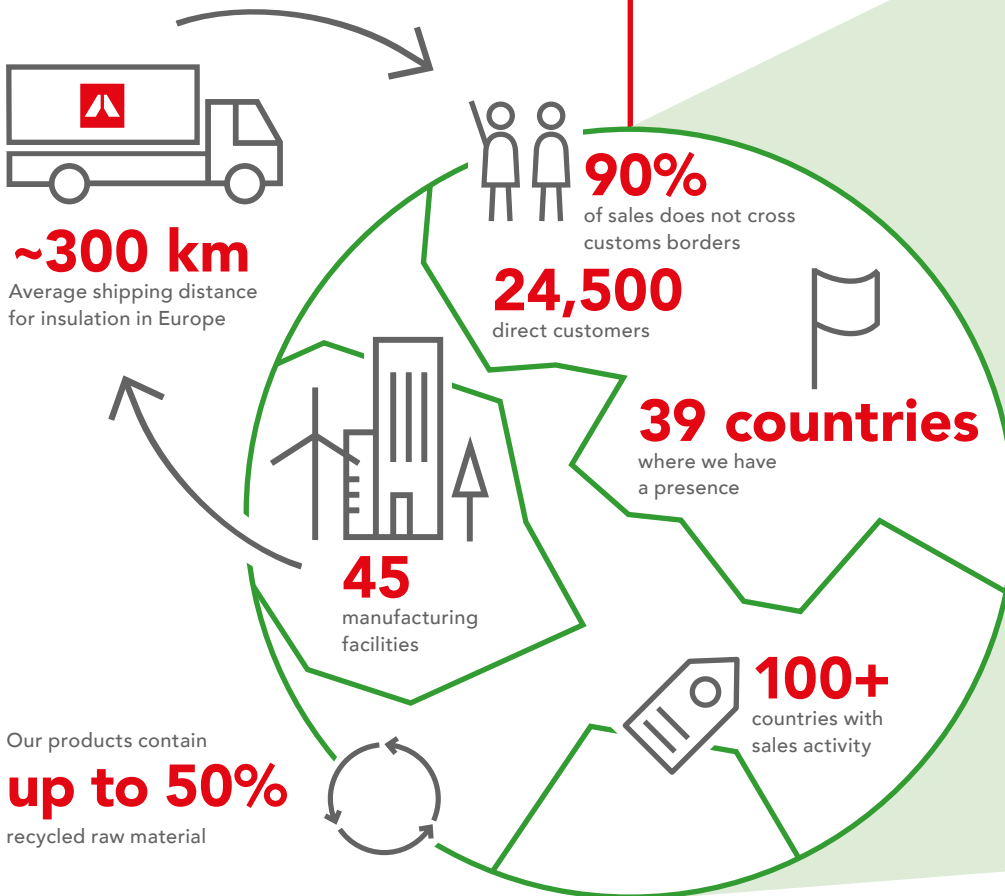


## What does ROCKWOOL Group do?

We transform volcanic rock into stone wool, a versatile material with many natural strengths that make it ideal for use in a range of applications in buildings, transportation, horticulture and water management.



- Our business is defined by:**
- Low-risk transactional sales
  - Local business
  - Capital intensive production
  - Conservative financial strategy





# Our impact on society

We see enormous opportunity to leverage the natural power of stone to create products that accelerate progress towards a **safer, healthier, low-carbon future.**



Stone wool is fully recyclable

## Grodan®

More than **90%** of tomatoes and sweet peppers in the Benelux countries are grown in stone wool.



## Lapinus®

Lapinus Rockflow can absorb up to **95%** of its volume in water without losing its rigidity and strength.



## Rockfon®

In schools with no sound absorption, up to **70%** of the consonants spoken by teachers cannot be heard by the children.



## ROCKWOOL®

Proper insulation alone can reduce heating needs by **70%**.

## Rockpanel®

All Rockpanel boards are as **durable as stone** and resistant to the effects of moisture, temperature, fire and the weather.



# Market review, outlook 2019 and trends over the business cycle

Favourable construction market conditions that took hold in 2016 continued through 2018.

Growing demand for stone wool insulation contributed to good growth across all markets, where Central & Eastern Europe, the United Kingdom and North America performed particularly well. After a slow start in 2018, the Russian market turned positive during the year.

We saw a healthy growth in most countries across South-East Asia, especially in Malaysia, Thailand and Indonesia. Construction growth was modest in China compared to recent years, though there is a growing recognition of the value of high-quality stone wool insulation, which supported good growth for ROCKWOOL in this market.

## Fire safety and climate change

Across Europe, there is an increased focus on fire safety in buildings, with the combustibility of building materials becoming part of the political agenda in several countries.

The focus on stronger fire-safety regulation affected the UK and Polish markets, contributing to greater demand for non-combustible stone wool building materials. Ongoing reviews of fire regulations in other European countries confirm a positive trend toward greater focus on fire safety.

In other markets, such as the United States, where glass wool and plastic foam are the dominant insulation, we see a growing recognition of the strengths

of stone wool in applications such as insulation and acoustic ceilings.

Another factor influencing the insulation market is climate change. Buildings are responsible for roughly 30 percent of global energy consumption and emissions and is the sector where the largest carbon emission reductions for the same investment can be achieved – 40 percent more than the next most cost-effective sector (Industry) according to the UN Intergovernmental Panel on Climate Change (IPCC).

## Increasing importance of renovation

There is a consensus amongst experts that renovation to improve energy efficiency is an absolute prerequisite to reduce CO<sub>2</sub> emissions sufficiently to





meet the climate goals agreed to in Paris in 2015 at COP21 to keep global temperature rise to well below two degrees Celsius and to pursue efforts to stay below 1.5 degrees. For cities and their residents, it will provide many other benefits, including reduced energy consumption and air pollution as well as creating more construction jobs when new build activity slows.

Recent legislative efforts in the EU, including subsidy schemes and new financing tools, are already encouraging additional activity. Starting in 2020, all new buildings must be "nearly zero energy", while EU legislation is already in place for all buildings to be renovated to the same high standard by 2050.

In October, ROCKWOOL Group launched its renovation-campaign "*Renovate today, reshape tomorrow*" to help inform and educate public officials, builders and homeowners about the total value of renovation in terms of energy efficiency, health and wellbeing and the bigger role it will play in reducing global carbon emissions.

#### **More than just insulation**

Grodan continues to play an important part in the trend toward more sustainable growing methods. Our new Grodan line in Russia represents an important geographic expansion in our ability to supply the demand for sustainable, local food production. →



Although we experienced a weak year for Grodan in the United States in 2018, we believe the market has reached the bottom. Investment in new innovative digital tools to supplement our crop technical advisory service is expected to strengthen the brand further over the coming years.

The Rockpanel business, with its high-quality façade offerings is benefitting from the increasing focus on fire safety and a renewed portfolio of products that offer more choices to customers from basic applications to premium facades.

With Lapinus, our range of stone wool products designed for reducing vibration, noise and dust continues to benefit from the trend towards urbanisation. In 2018, Lapinus formally launched its ground-breaking Rockflow urban water management product line that helps cities and towns deal with excessive rainfall that can result from extreme weather events driven by climate change. Lapinus completed a number of Rockflow pilot projects in 2018, primarily in the Netherlands.

Rockfon enjoyed good growth in North America where demand for stone wool acoustic ceiling solutions continues expanding. As the importance of effective passive acoustics becomes more widely recognised, we expect further demand for Rockfon solutions both in European and North American markets.

### Outlook 2019

Overall, we see greater market volatility related among other things to trade tensions, the volatile geopolitical climate and general business cycle uncertainties for the global economy. With a solid backlog of building permits, however, we see a positive outlook for construction in 2019, though at a lower growth level than 2018. Euroconstruct currently anticipates an overall construction sector growth of around two percent, which is about one percentage point lower than in 2018.

For ROCKWOOL's core markets in Central & Eastern Europe and North America, the fundamentals of the industry remain supportive of continued growth. For Europe in general, the expectation is positive, though at a slower growth rate than in 2018. As new construction slows, we expect the greater interest in the less cyclical renovation segment to persist.

In North America, building permits and housing starts are up year-over-year, while remodelling activity is strong in the United States, indicating the pace of growth should continue for now. In general, we see a resilient market demand in North America as

the virtues of stone wool become more widely recognised and the current market penetration is low. In Russia, we expect continued single-digit market growth for stone wool products.

For 2019, we are committed to maintaining a high degree of availability and appropriate delivery times. Our production-based operational excellence programme together with investments in new manufacturing capacity and debottlenecking are aimed at releasing capacity to enable another year of growth for ROCKWOOL.

While we still consider the growth opportunities for our stone wool products to be strong, the uncertainties surrounding general market developments lead us to project a sales growth in the range of 4-8 percent in local currencies for 2019 with higher certainty to the market conditions early in the year. We will remain alert to identifying and agile in reacting to changes in market conditions.

## Outlook 2019



Sales growth

**4-8%**

in local currencies

EBIT margin around

**12%**

Investment  
excl.  
acquisitions



**330**

EURm



We are continuing to improve productivity and throughput at our manufacturing sites, though the logistics challenge to serve customer demands will constrain leverage on growth and earnings. We assume that inflation will increase relative to 2018 especially during the first half of the year, and at this stage expect an EBIT margin around 12 percent for the full year 2019.

Ongoing investments in new manufacturing capacity and other measures to get products more efficiently to market will include greenfield expansions in the United States and Romania as well as capacity and logistics expansions in Poland, Germany and the United Kingdom. In addition, we plan to invest in manufacturing capacity for Rockfon and Grodan, with overall Group investments, excluding acquisitions, expected to reach around EUR 330 million for the full year.

The main capacity coming on-line during 2019, primarily towards the end of the year, includes the expansions in Poland and the United Kingdom and the new factory in Romania. The larger capacity investments in Germany and the United States are planned to begin production during 2020 and will impact the investment level also in 2020.

#### **Trends over the business cycle**

Due to the volatile global political and economic climate, macroeconomic activity is unusually challenging to predict. Our solid financial position equips us to resist market downturns while continuing to invest in the business, primarily in new capacity, R&D and digitalisation.

Below we outline our view on the development over a full business cycle.

#### *Revenue potential*

There are several macro trends that support long-term above average growth for the stone wool market:

- Focus on energy efficiency as the key to achieving the climate goals agreed to at COP21 in Paris will lead to greater use of insulation materials in new buildings as well as in the renovation of existing buildings. For the same level of investment, energy efficiency will save more than 40 percent more carbon emissions than decarbonising the energy supply (renewable energy, district heating, heat pumps, etc.).
- Trend towards improved resilience and fire safety and the use of non-combustible insulation will help convert applications from other types of insulation materials to stone wool. Stronger fire regulations in the United Kingdom is a prime example of the trend we see in European markets.
- A societal trend to reduce the use of plastics in places and applications where it is easily substitutable in favour of more natural materials, such as stone wool.
- Urbanisation which drives renovation and multi-unit housing more than the single-family-houses new building segment. →

- Increased and sustainable food production productivity – produce more food with fewer resources.
- Healthy indoor climates, with a focus on good passive acoustics and healthy indoor space.
- Storm and flood water management to combat the effects of climate-driven weather change.

In our core insulation markets, we have seen a trend in the last several years toward a gradual and sustained conversion to stone wool.

We are conscious of our exposure to a downturn in the business cycle, especially within the new building residential segment, and are preparing our market approach accordingly. A slowdown in the general economy will affect investments in new build; however, we believe governments have the incentive to accelerate investment in deep renovation of existing buildings to lower energy usage and create local employment opportunities.

We estimate that just under half of the Group's revenue is less affected by a general slow-down in the construction market primarily owing to the System Division segment, the proportion of the insulation market within renovation, and the United States and the United Kingdom, where the low stone wool penetration allows for a higher growth rate. Over the last three decades, ROCKWOOL has recorded negative growth in only four calendar years, after which the lost top-line has been recovered in one to two years. Only in the wake of the Lehman Brothers crash did it take longer – three years to recover the lost growth in absolute terms.

In summary, supported by the above long-term trends, we believe that sales of our stone wool products should grow on average at least one percentage point faster in our core markets than the market overall.

#### *Earnings potential*

There has been good operational leverage on the growth delivered in the past three to four years, mainly from increased manufacturing capacity utilisation and productivity gains from our support functions. The operational leverage on growth based on the current output and utilisation level will be constrained until we have increased capacity in high-demand areas.

We have stepped up investment in R&D, branding and digital initiatives over the past couple of years. We want to continue to invest in further product

innovation; new technology including automation to improve our competitiveness and environmental footprint within manufacturing; new digital solutions to serve our customers better; and to strengthen the value of our brand.

The average EBIT margin over the last 10, 20 and 30 years has been around eight percent, but due to the business transformation we have come close to 10 percent in the last five years. The main contributing improvements have been a structured pricing approach, improved procurement, operational cost improvements, productivity improvements, and high capacity utilisation.

We believe that the continued efforts on operational excellence, digitalisation including automation and shorter shipping distances, will improve profitability over the next business cycle.

#### *Investments*

New manufacturing lines, whether greenfield or expansions of existing sites, bring costs for start-up and protective capacity, which affect the earnings in the mid-term. We are confident however that the investments will generate a healthy long-term return for the company.

The last 10 years' average capital expenditures as a percentage of revenues has been around 11 percent, while for the last three years the investment ratio has been lower at around six percent on average.

Directionally, including current plans and already announced investments, over the next couple of years we see a higher level of capital expenditure to catch up on capacity. As the market leader in stone wool we regard this increased rate of capacity investment as necessary to safeguard the growth of stone wool as a category, supported by the macro trends listed above. However, our investment plans will always be subject to the market outlook.

We have the ambition to keep return on invested capital (ROIC) above 15 percent over the business cycle. ●





# Singapore's urban calm

With nearly 6 million people and a limited land area not much larger than Manhattan, the island nation of Singapore is building vertically to accommodate a growing urban population.

Singapore has built more than 4,300 skyscrapers, most of them in its downtown area. The four towers that comprise the Marina One multi-purpose complex in the heart of the financial district are some of the latest and tallest. The design and construction demonstrate the country's desire to build sustainable urban infrastructure that supports the health and wellbeing of the occupants.

For the architect, Christoph Ingenhoven, one of the biggest challenges to achieving calm inside Marina One was controlling the indoor noise levels for the thousands of occupants in the offices, residences

and retail outlets while also shielding them from the outside sounds of one of the busiest cities on Earth.

The solution? More than 150,000 square metres of ROCKWOOL, non-combustible stone wool insulation inside the interior partition walls of Marina One. It keeps the regular noise of business and life from travelling from room to room and keeps the noise of the city out, creating a comfortable and quiet indoor environment for residents and workers alike.

As the world's population continues growing and looking to cities for jobs, services and opportunity, Marina One is a perfect example of how creative design and carefully selected building materials can create the ideal urban environments of the future. ●





## Business update

Proper insulation alone can reduce heating needs by

# 70%

We are the world's leading manufacturer of fire-safe, stone wool insulation. We offer products and solutions for all major application areas for residential and non-residential buildings as well as technical insulation to the process, offshore, and marine industries and customised core solutions for industrial partners and original equipment manufacturers (OEM).

The largest segment in the ROCKWOOL Group, our insulation business benefited overall from positive market and macroeconomic conditions in 2018 as well as from the increasing awareness of the importance of using non-combustible insulation materials.

Building insulation has shown solid growth across all our markets throughout 2018, with particularly strong performance in the European, North American and Russian markets. We have seen good development in the new-build and renovation segments, and a significant increase in demand for our thermally efficient and fire-safe stone wool insulation in both. In Europe, we have started to see a growing awareness of and conversation about the critical importance of renovating the existing building stock to achieve UN climate-related goals and mitigate climate change.

The market for technical insulation showed moderate growth again in 2018, whereas we saw significant growth in the OEM and sandwich panel segments, also supported by the increasing demand for non-combustible core material.

On many fronts this year we have seen several competitors announcing plans to expand their stone wool business, which we believe is caused by a greater understanding of the multitude of benefits from insulating with stone wool rather than other materials.



### Insulation solutions

ROCKWOOL offers fire-resilient, thermally-efficient, highly durable, and fully recyclable stone wool insulation.





# New heights in energy savings and comfort

As the world's tallest certified Passive House building, the 88-meter Bolueta Towers in Bilbao, Spain is the latest example of the flexibility of this voluntary building standard and its positive impact as a cost-effective, sustainable building solution.

Like all Passive Houses, the Bolueta Towers does not use an active cooling or heating system. Instead, the 171 apartments – a mix of social housing units and regular units – maintain a comfortable indoor climate through a combination of a mechanical ventilation system, triple-glazed windows, an airtight building envelope and a high amount of thermal insulation.

"We chose ROCKWOOL insulation because of its dual density, rigid slab, designed for ventilated facades", says German Velázquez, architect with Varquitectos. "At the same time, it provided the highest possible insulation performance for our Passive House design. It was easy to install and most importantly it delivers high energy efficiency that will benefit residents and continue to reduce their energy bills".

The insulation ensures no irritating drafts or temperature fluctuations and its A1 energy rating will help residents reduce their heating needs by as much as 80 percent. It will also improve comfort; the insulation allows the walls to breathe, contributing to a higher indoor air quality in summer and winter, and reduced noise due to its acoustic performance. ●





## Business update

In schools with no sound absorption, up to

# 70%

of the consonants spoken by teachers cannot be heard by the children.

We provide customers with complete acoustic ceiling systems, combining stone wool ceiling tiles with suspension grid systems and accessories. Our ceiling systems are a fast and simple way to create beautiful, comfortable spaces. Easy to install and durable, they improve acoustic comfort and don't contribute to the spread of fire.

Rockfon, the largest unit in our Systems segment, grew revenue during the year in Europe and North America. In the United States, the new production line is ramping up and fine-tuning around production processes and will be key in supporting future growth in this important market.

We are encouraged by the growing interest, particularly in North America in our smooth, high-performing acoustic ceiling systems.



### Ceiling solutions

Rockfon ceiling solutions improve acoustic performance and indoor climates, while resisting humidity and inhibiting mould growth.







# A giant among giants

Since construction began in 2012, the multi-billion dollar Hudson Yards megaproject has been reshaping Manhattan's iconic skyline. The giant among the buildings in the project – the largest private real estate investment in U.S. history – is 30 Hudson Yards.

The silver, spear-shaped tower reaches up 395 metres, making it New York's third tallest building. When it opens in 2019, its 73 floors of high-end office space will fill up with thousands of employees from the world's leading companies.

Above their heads, keeping noise levels to a minimum so conversations don't travel and business can be done without disturbance, will be approximately 116,000 square metres of Rockfon acoustic ceiling tile. The specifying architect, Gensler, chose Rockfon for its high performance in sound absorption, durability and fire safety.

The prestigious 30 Hudson Yards construction project is a proud achievement for Rockfon after only five years in the North American market. ●





## Business update

More than

# 90%

of tomatoes and sweet peppers in the Benelux countries are grown in stone wool.

We are the global leader in the supply of innovative, sustainable stone wool growing media solutions for the professional horticulture industry. Based on Precision Growing principles, these solutions are used for the cultivation of different crops.

We also offer customer-specific advice and tailor-made analytic tools, facilitating the sustainable production of healthy, safe, and fresh produce for consumers worldwide.

Growers continue to show increasing interest in Grodan's hydroponic horticultural products because of the benefits of our growing media, including a more efficient use of nutrients, water, energy and land, resulting in a higher yield. The high-tech vegetable growers practicing Precision Growing continue to be our main market segment.

New business initiatives during the year included e-Gro, a tool that integrates major data points in a greenhouse in a user-friendly interface that enables total greenhouse management. This tool will facilitate a broad range of growers to professionalise their business with greater productivity and better products.



### Precision Growing

Precision Growing is a highly efficient form of growing focused on using minimum input materials to generate maximum output.





## Sweeter in stone wool

Frédéric Garcia is the third generation in his family to make a living growing high-quality produce, but the first to embrace soilless, high-tech farming techniques – and with mouth-watering results.

After using Grodan's stone wool growing media and greenhouse management technology to improve his tomato quality and yields, Garcia chose to try the same with his strawberries.

"As with my tomatoes, I wanted to manage the cultivation of my strawberries more precisely to encourage greater productivity", says the 41-year old Garcia from his farm in Mauguio, southern France.

After one year in the stone wool substrate, production is more regular, the final yield is greater and there's a significant improvement in the taste and storage characteristics of the strawberries, he says. Additionally, the technology is helping him learn more about his products and improve his processes.

"The GroSens sensors enable me to extend watering times a little and to adapt the frequency of watering. I also noticed that, in contrast to the tomato, the peaks of water and fertiliser consumption for the strawberry are in the morning and evening, giving me a better understanding of how the strawberry plant functions". ●





## Business update

**All Rockpanel boards** are as durable as stone and resistant to the effects of moisture, temperature and the weather.

We manufacture board material mostly used in ventilated constructions, for façade cladding, roof detailing, soffits and fascia. Our cladding and boards are fire resistant, robust, flexible, and fit perfectly with modern architectural trends such as organic shapes, colours, and sustainability, while also providing cost efficiency and short installation times.

Some important developments during the year included our entry into Sweden, a new market with interesting potential; and strong growth in the United Kingdom where we see increasing interest in our non-combustible cladding solutions.

Overall, it was a good year, driven largely by customer-focused initiatives, which included a changed product portfolio and a new website. The result has been a broader market understanding of the total potential of our products and our ability to help customers find the right product for the job.



### Design freedom

Whether shape, colour, engraving or even bending the boards, design freedom is at the heart of Rockpanel facades.





# New life for Lion Farm Estate

Fifty years after Harry Price, Hackwood and Wallace changed the skyline in the town of Oldbury, England, the three 13-story residential towers received a well-deserved renovation this year.

Built as affordable housing for more than 200 families, the towers – known as Lion Farm Estate – were in dire need of radical improvements to the thermal efficiency, security and aesthetics.

The Sandwell Metropolitan Borough Council saw the project as an opportunity to breathe new life into the local community with substantially improved living conditions, green spaces and even work assistance programs.

The contractor selected a combination of ROCKWOOL products for the job. Installed on

the exterior wall of the buildings is ROCKWOOL stone wool insulation, combined with Rockpanel façade boards. Together, they significantly improve the building's thermal, sound and fire-safety performance as well as appearance so that residents can feel safe and comfortable as well as proud of where they live.

"This is a major programme of work which will deliver important physical improvements for people's homes as well as lasting community benefits for the area", says Carl Yale, Regional Refurbishment Director of Lovell, the main contractor handling the project. "The use of ROCKWOOL and Rockpanel delivers a safe, low maintenance solution and will mean an end to fuel poverty for the Estate's residents". ●





## Business update

Lapinus Rockflow can absorb up to

# 95%

of its volume in water without losing its rigidity and strength.

We develop and supply versatile and innovative, stone wool-based products used in a wide range of applications, such as friction and water management, train tracks, coatings, gaskets and fences. With more than a quarter-century track record, we help global industries improve quality of life by developing solutions that address noise and dust reduction, vibration isolation, and water management.

The market for precision-engineered stone wool products grew satisfactorily in 2018. Lapinus products for car brake pads, noise-reduction fences and vibration control in train tracks continue building on their strong position in existing markets. The Rockflow product line for urban storm water management is growing steadily, with positive expectations for 2019.



### Precision engineering

Lapinus precision-engineered stone wool solutions contribute to reducing vibration, noise, dust and to better water management.







# Dutch water wranglers

For the borough of old-Maasbracht, a sewer system capable of handling an extreme rain event was a must, but replacing the existing one with a system designed for a deluge was too expensive for the municipality.

With Rockflow, a specially engineered stone wool capable of absorbing 95 percent of its volume in water without losing its strength, the borough got exactly what it needed – a water management solution built to stand the test of time and unpredictable weather.

Now when it rains in old-Maasbracht, the rain water is diverted away from the waste water sewer into a rainwater sewer made of Rockflow that runs underneath all 2.5 km of the borough's streets.

It absorbs the rainwater quickly and releases it slowly into the surrounding soil over a period of 24 hours. And because Rockflow is as strong as rock, even when full of water, life and activity on the roads above continues as usual.

The result is a solution that takes peak pressure off the Maasbracht municipal sewer system, prevents damage to local infrastructure in case of extreme rain fall, and allows the borough to manage a valuable natural resource, its water. ●



# Sustainability

We strive to maximise our positive impact and minimise our negative impact on people and society. For instance, the energy saved over the lifetime of our building insulation will be 100 times greater than the energy used to produce it. When we consider global sales of our building insulation in 2018, the energy saved from this is equal to five percent of the total energy consumption of the EU.

We recognise that operating with integrity and as a sustainable business is equally important and underpins everything we do. We set non-financial goals reflecting our key material issues within our operations that help us drive improvements in our environmental performance.

## Environmental management

We continuously aim to minimise the impacts of our processes on people and the environment. We are committed to reducing the environmental

footprint of our operations and have set goals for reduction of CO<sub>2</sub> emissions, energy consumption in offices, water consumption and waste to landfill. When we are building new production facilities or expanding existing ones, we use state-of-the-art abatement technology.

By the end of 2018, 80 percent of our mineral wool production facilities will be externally certified for their environmental management. In 2018, our French production facility in Saint-Éloy-les-Mines became the first to achieve a certification on all four Safety, Health, Environment & Quality areas: ISO 18001 (Health & Safety), ISO 14001 (Environment), ISO 50001 (Energy) and ISO 9001 (Quality).

We conduct internal audits and are also obliged to conduct external ones to improve the safety, health and environmental performance and awareness across the Group. →



The energy saved over the lifetime of our building insulation will be 100 times greater than the energy used to produce it.



# Renovate to combat climate change

From our homes and schools to our office towers and hospitals, buildings comprise much of the world’s critical infrastructure. They are also the source of around 30 percent of global energy consumption and emissions. Renovating these buildings to meet the highest energy efficiency standards is essential to mitigating climate change.

### Cities need to lead

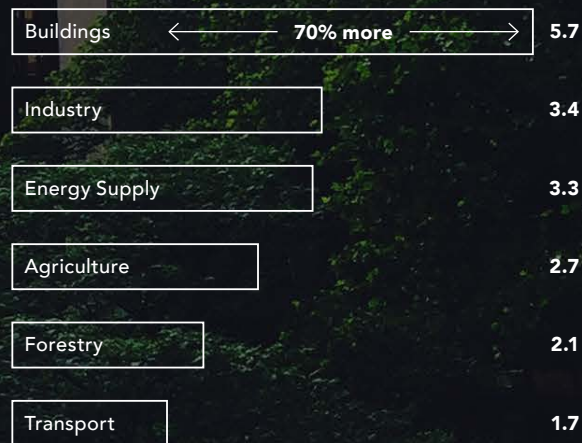
More than 50 percent of existing buildings will still be in use in 2050 (75-90 percent in OECD countries) and they are in desperate need of energy renovation. In Europe, less than three percent meet the highest energy efficiency standards.

Renovation on a global scale is needed if it is to be effective and will require governments and cities to lead by example, with ambitious, long-term commitments and supportive policies that encourage partnerships and investment.

### Companies need to advise and innovate

ROCKWOOL is working with the C40 Climate Leadership Group – 90 of the world’s greatest cities representing more than 650 million people – to develop a tool (ready early 2019) to make the business case for energy renovation that reflects the real value of the investment including co-benefits (e.g. impact on job creation, productivity, savings on energy and maintenance costs).

For the same amount of money, buildings can save **70%** more carbon emissions than the next most cost-effective sector.



Source: IPCC, "Climate change 2007 – Mitigation of climate change."

GtCO<sub>2</sub>e/year at a carbon price <50 USD/tCO<sub>2</sub>e in 2030

Governments and cities must lead by example. Some cities have already set ambitious goals:

- New York (80% greenhouse gas reduction/climate neutral by 2050)
- Stockholm (fossil fuel-free in 2040)
- Copenhagen (carbon neutral in 2025)



## Climate change and energy efficiency

Our products help save energy and combat climate change on a large scale and we work to increase the positive climate impact even more, for example, through product innovations. We are also committed to reducing the carbon intensity of our production.

We will report on progress toward achieving several intermediate goals for 2022 in our 2018 Sustainability Report. By 2030, our goal is to reduce our carbon emission intensity by 20 percent and to improve energy efficiency in our office buildings by 75 percent, in both cases compared to our performance in 2015. Our performance on CO<sub>2</sub> emissions is regularly disclosed to stakeholders and through international reporting platforms such as the Carbon Disclosure Project (CDP).

We focus on leadership, training, knowledge-sharing and awareness programs to create a culture of continuous improvement to facilitate reaching our CO<sub>2</sub> goal through increased energy efficiency in production.

In 2018, we have continued the roll out of a live performance energy monitoring tool for our production. The tool helps the production facilities to assess energy efficiency by highlighting potential areas of improvement for the operators, process engineers and management. It is now in operation in five factories with nine more planned for 2019.

In addition, investments were approved for significant energy efficiency improvements at three of our offices in 2018. These investments will be followed by more and result in energy efficiency performance at Nearly Zero Energy levels and are planned to be finalised in 2019/20.

## Water and waste

We have a goal to reduce waste from operations to landfill by 85 percent by 2030 compared to 2015. In 2018, we installed plants at three South Asian factories to recycle the waste from the factories' production and approved the investment for a recycling plant at one of our factories in Russia, to begin operation in 2019.

We currently offer established recycling services in five countries and have a roadmap to increase this to 30 countries by 2030. Focus in 2018 was on establishing these kinds of "reverse logistics systems" in three countries and extending our existing system in others.

We are implementing more systematic water management at all factories including comprehensive water mapping and installation of additional water

metres to meet our Group goal in 2030 to reduce water consumption per ton of product by 20 percent compared to 2015.

## Stakeholder engagement

We regularly engage with stakeholders across our value chain to understand their needs and expectations of us as a business.

Key groups with which we engage include customers, employees, shareholders, suppliers, NGOs, think tanks, sustainability thought leaders, government authorities and industry associations, especially for the construction and fire-safety sectors, and the communities near our operations.

When building greenfield or significantly expanding manufacturing facilities, there is a general trend toward greater community awareness and activism. We need to engage with local communities more extensively and earlier in the process than we have in the past. This is clearly among the valuable insights we have gained, for example, as we build our newest North American facility in Ranson, West Virginia.

## Safety first

We strive to create safe and healthy work places and conditions for all employees and people working with us across the world. As an industrial company, there is potentially a high level of safety risk for our employees, the management of which we take extremely seriously.

We have a goal of zero fatalities for people working with and for us and have an ambition to incrementally reduce the Lost Time Incident (LTI) rate by 10 percent every year. In July, we experienced a tragic, fatal accident at our production facility in Gladbeck, Germany. An employee from the maintenance department passed away due to injuries he sustained in a fall through a skylight in a roof.



In April, ROCKWOOL Group will publish its Group Sustainability Report that provides detailed information on the Group's sustainability performance.

Following the fatal incident, we reviewed safety regulations and practices for how we work at heights in the Group. Learnings have been shared among all the production facilities. The fatal accident has been a tragic reminder that constant vigilance and focus on safety is required every day. ●

## Safety, health and wellbeing



→ **Our goal:**

Reduce Lost Time Incident (LTI) frequency rate by 10% and ensure 0 fatalities annually.

# 10%

Reduce Lost Time Incident (LTI) frequency rate, annually

## Water consumption



→ **Our goal:**

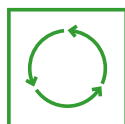
Reduce water consumption intensity within our manufacturing facilities by 20% by 2030.



# 20%

Reduction of water consumption by 2030

## Reclaimed waste



→ **Our goal:**

Increase the number of countries to 30 where we offer recycling services for our products by 2030.

# 5 → 30

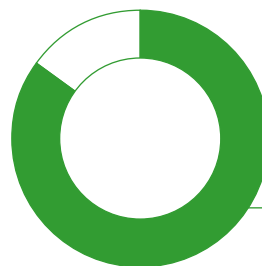
The number of countries from five to 30

## Landfill waste



→ **Our goal:**

Reduce landfill waste from our manufacturing facilities by 85% by 2030.



# 85%

by 2030

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



→ **Our goal:**

Reduce CO<sub>2</sub> intensity from our manufacturing facilities by 20% by 2030.

# ↓ CO<sub>2</sub>

20% by 2030

## Energy efficiency



→ **Our goal:**

Increase energy efficiency within own (non-renovated) offices by 75% by 2030.

# ↑ 75%

by 2030

# Business integrity

Our Code of Conduct serves as our most important instrument to communicate and provide guidance on the ROCKWOOL Group's way of doing business with integrity. The Code of Conduct includes Group policies related to anti-corruption, gifts and hospitality, conflict of interest, competition law, data privacy, human rights and labour rights, health and safety, and environment.



The Code of Conduct is always included in the enrolment package for new employees. From 2019, the enrolment package will also include the e-learning version of the Code of Conduct.

We are continuously working to expand awareness of the Code of Conduct both inside the organisation and in relation to third parties. Organisational knowledge of the Code of Conduct is also an integral part of our internal audits.

An e-learning course on our Code of Conduct, with focus on business ethics, anti-corruption and conflict of interest, was launched at the end of 2018, with a relevant target group of approximately 6,000 employees. Special emphasis is put on how and where to seek the necessary guidance and how to report concerns.

## Tackling corruption

ROCKWOOL Group has zero tolerance towards any kind of fraud, corruption, bribery and facilitation payments. The anti-corruption policy also applies to suppliers, agents and other third-parties.

In 2018, the Group adopted a new policy and manual on gifts and hospitality that covers appropriate use of gifts and hospitality and required approval levels, and is aligned with the U.S. Foreign Corrupt Practices Act and the UK Bribery Act. As a part of the policy, ROCKWOOL Group employees are no longer allowed to receive gifts from business partners.

Using Transparency International's annual country risk assessment for bribery and corruption, we identified four countries where we provided training to staff in anti-corruption and bribery. The training, conducted



Our awareness activities in 2018 on privacy and data protection have included specialist training in addition to a Group-wide e-learning programme that was rolled out to a relevant target group of approximately 4,000 employees.



by the Group Legal department, was done in the local language and was directed at staff with contacts to third parties such as sales, marketing, procurement, operation managers, HR and finance.

## Whistleblower system

All employees are encouraged and required to report knowledge or suspicion of non-compliance with the ROCKWOOL Code of Conduct to management, the Integrity Officer or through the whistleblower procedure. We do not accept any form of negative employment consequences for employees reporting actual or suspected non-compliance in good faith.

In 2018, we received a total of 15 integrity cases of various sorts. This is an increase of three cases compared to 2017. The clear majority of cases were reported directly from employees to management or through the Rocketik whistle blower arrangement.

All reported integrity cases resulted in the launch of investigations. The reported cases involved fraud, conflict of interest, breach of legislation, bribery, working conditions, etc. Out of the 15 investigated cases, ten resulted in ROCKWOOL initiating corrective actions.

The management and our Integrity Officer continue to promote and increase the awareness and knowledge of business ethics and the whistle blower





arrangement in the ROCKWOOL Group, using tools like the new e-learning course.

The Audit Committee is informed about all whistleblower cases. To create awareness of unethical behaviour and underline the Group's zero-tolerance policy, a summary of integrity cases is communicated to all employees on Group intranet to make sure that we learn from past mistakes and breaches.

### Respecting human rights

In 2018 we continued to scrutinise our internal processes with respect to due diligence of human rights issues for our employees and in our supply chain. In 2019, we will carry out a human rights risk assessment to better understand our risk profile in this area.

### Due diligence in our supply chain

There is always a risk that ROCKWOOL engages with suppliers who do not fully comply with all international, national and local laws and guidelines relating to employment, environmental and manufacturing practices as well as ethics and bribery, particularly in relation to purchasing. This risk is higher within certain geographies and categories, but actual problems can arise anywhere.

ROCKWOOL's Supplier Code of Conduct is designed to mitigate this risk by explaining

our expectations in detail to all our suppliers. ROCKWOOL Group expects suppliers to enforce these guidelines towards their own suppliers. Any new ROCKWOOL Group supplier must register in our online tool and either accept the ROCKWOOL Supplier Code of Conduct or upload their own requirements to be qualified as a supplier.

Our online e-procure system to supplier management, selection and contracting is now fully implemented, and this means that almost all expenditures within the Group are managed centrally, instead of partly decentralised with our subsidiaries.

This also means that there is a large population of existing suppliers that are in the process of being reassessed, also regarding sustainability. Of our existing suppliers, 43 percent have been reassessed for acceptance of ROCKWOOL Supplier Code of Conduct and the rest are expected during 2019.

Six of our suppliers were audited by third parties in 2018, which has led to zero corrective action plans and one scheduled re-audit, as the external auditor was not allowed access to the required documentation.



### Stone suppliers in focus

From May to October 2018, we conducted a pilot with our stone suppliers for risk screening and supplier collaboration.

We are implementing a risk-based, due diligence and collaborative approach to sustainable sourcing during 2018-2020, where we want to work with suppliers to assess gaps, build awareness, and incentivise sustainable improvements.

### Privacy and data protection

Privacy compliance is a cornerstone in gaining and maintaining the trust of our employees, customers and suppliers. A global privacy organisation with a regionally anchored presence ensures support and governance.

To enable our employees to act in accordance with their daily work requirements, our privacy compliance programme includes a privacy policy, a privacy manual and a handbook with guidelines for selected business areas as well as specialised templates and privacy notices. Additional e-learning has been targeted at employees in functions with highest potential risk. ●

# Our people

## Commitment and purpose

Everyone at ROCKWOOL is committed to making a positive impact on society. In June 2018, we helped raise awareness and engagement across the Group with an internal campaign celebrating and personalising the UN Sustainable Development Goals. The response of our employees – more than 2,000 testimonials – is a tribute to our common passion for sustainability.



In ROCKWOOL, establishing a high-level of engagement is a priority and we strive to be among the best performing companies in this category. Our annual RockPulse employee engagement survey gives us an opportunity as leaders and employees to understand and further increase the engagement levels across the Group.

Many areas are covered in the survey including strategic direction, customer focus, organisational effectiveness, management & leadership, trust & empowerment, performance management, personal development, social and environmental responsibility & safety.

For our office-based employees, participation in the engagement survey was high again this year. Scores improved in all areas compared to last year, except for two that scored the same. Encouragingly, these employees rate ROCKWOOL at the same level as the external High Performance Norm benchmark in overall "Sustainable Engagement" and in "Management & Leadership" categories.

For our employees working in our production facilities, the participation rate was somewhat lower this year compared to 2017. In "Trust & Empowerment", the score improved one percentage point while scores in the other categories fell one percentage point. We are proud that these employees rate ROCKWOOL above the external High Performance Norm benchmark in the "Immediate Manager" category and very close to it in "Sustainable Engagement".

## Developing people

In ROCKWOOL, we aim to offer strong learning and development opportunities to our employees. In the beginning of 2018, we launched RockWise, an online, global learning management and collaboration platform.

RockWise has been applied to ensure the completion of mandatory trainings, to give access to specific and tailored e-learning programs as well as provide our employees the opportunity to download and read professional e-books.

RockWise offers employees across geographies and cultures the opportunity to engage in learning activities within a large range of topics at their convenience, and to share and discuss topics of their interest with likeminded colleagues. With RockWise, our new employees can now also participate in our first global, digital on-boarding programme with access to material which will enable them to develop new competencies.

The Operational Excellence Programme, designed to develop the next generation of ROCKWOOL leaders, was also launched in 2018.





### **Supporting and engaging our employees**

We are committed to provide equal opportunities, promote diversity and work against all forms of discrimination of our employees. Promoting and raising awareness of policies and procedures is important and can be challenging in a global, culturally diverse organisation.

Reflecting the global nature of our company, more than 11,000 ROCKWOOL employees work in 39 countries. Of those, 800 work in Denmark at two production facilities and the company's offices.

### **Women in management**

It is our ambition in ROCKWOOL to have a diverse working environment and we are continuously working to increase diversity in our management teams as well as our Group functions.

As our industry has traditionally been male dominated, our primary focus has been to increase the number of women in different levels of management. While the gender split across the Group has been relatively stable in the last few years with a 18/82 ratio of females to males, the proportion of females is higher at executive and middle management level.

In 2018, Group Management set a target for 2020 of 25 to 35 percent female leaders in executive and middle management positions. Additionally, a target was agreed (also for ROCKWOOL A/S, in Denmark) to have at least one female member of the Board of Directors.

In 2018, 27 percent of leaders in executive and middle management positions are women, the same as in 2017. Within this group, the number of women reporting directly to Group management has increased significantly from 16 to 25 percent. One of the initiatives to maintain the gender composition, is to ensure a higher proportion of women amongst the newly hired line managers for middle management positions below Group Management. In 2018 39 percent were women compared to 28 percent in 2017. In 2018, the ROCKWOOL Board of Directors had only male members elected by the shareholders, as there was no change in the year; ROCKWOOL A/S had one female member of the Board. ●

# Risk management

## Systems and processes

The Board of Directors is responsible for ensuring that the Group's risk exposure is consistent with the targeted risk profile, and evaluates that appropriate awareness and management processes are in place. Risk Management is part of the Chief Financial Officer's area of responsibility and includes providing regular updates to the Audit Committee and Board of Directors. All managing directors of our subsidiaries and Group functional heads must ensure that a risk review within their areas of responsibility is conducted at least once a year; that risks are discussed, described, scored for severity and likelihood, and quantified in terms, such as predicted financial impact.

Appropriate mitigating actions for identified risks are proposed by the company or Group function and studiously evaluated to ensure effective risk management at Group level.

The Group has an Enterprise Risk Management (ERM) Committee, consisting of members from both business segment and Group functions. The committee is responsible for reviewing and updating the internal risk management framework and for implementing related processes.

With these systems and processes, the Group identifies and mitigates, though cannot always eliminate, risks. The objective is to ensure that any residual risks are at an acceptable level.

On request from the Audit Committee, the Group's risk management was reviewed by an external consulting firm in spring 2018. The result was that the current design of the processes was above average, for comparable companies and that the implementation of ERM complies with legislation and is at level with the average peers.



## Risks

### IT security

Like all other companies, ROCKWOOL Group is exposed to potential breaches of our IT infrastructure. With increased digitalisation of business processes, the Group is vulnerable to disruptions of operations and is increasingly engaged in the protection of data and intellectual property.

IT security has a high priority within the Group and one of the objectives for IT security is to prevent digital theft of intellectual property (know-how, recipes, and product details), limit and quickly rectify operational disruptions, and to protect employee information from digital theft or misuse, along with protecting the rights of our external and internal data subjects.





Managing risk is a natural part of doing business in the Group.

Another focus is protecting our sales and anyone dependent on our products against product flow disruptions. Also high on the IT security agenda is the protection of consumers against misinformation or misuse of ROCKWOOL brands.

Finally, we strive to safeguard shareholders against value-destroying cyber-attacks on ROCKWOOL brands and products or on ROCKWOOL Group's and its partners' value-delivery systems.

Group IT focuses on mitigating risks based on our own assessments as well as external IT auditors' findings. Part of this mitigation includes heightening IT security, testing disaster-recovery plans and improving dataflow and network activity monitoring.

Risk management

### Competition law compliance

Guided by our ethical values, ROCKWOOL Group competes in a fair manner on prices, quality, customer service, innovative products and more. The Group is committed to complying with national and international competition and antitrust laws.

A variety of measures are continuously provided to relevant employees to equip them with sufficient knowledge to make business decisions in accordance with applicable competition and antitrust laws as well as internal policies.

Our compliance programme includes a competition law compliance manual, accompanied by specific guidelines for selected business areas; interactive training seminars; and a selected review of documents and interview sessions in legal entities in ROCKWOOL Group.

Group Legal Affairs personnel are also readily available to handle support requests. Furthermore, an e-learning programme with a dedicated content section including training and guidance on compliance with competition and antitrust laws has been rolled out and completed across the Group in 2018 to approximately 2,400 employees.

### Corruption and bribery

Based on the 2017 risk assessment the ERM Committee adopted risk mitigation measures to reduce the risk of corruption and bribery in four selected countries.

The countries were selected based on Transparency International's annual country risk assessment for bribery and corruption, previously identified incidents and input from local management. The training included around 450 employees and was based on the country-specific characteristics. Training was conducted in cooperation with an external specialist consulting firm.

### Financial risks

As a global business, ROCKWOOL Group is exposed to many financial risks related to currency and interest rate fluctuations, liquidity and credit risks. Please refer to note 4.2 for further information on these risks. ●

# Corporate governance

Corporate governance at ROCKWOOL Group regulates the interaction among shareholders, the Board of Directors and Group Management, with the aim to ensure optimal operational performance while at the same time securing an appropriate level of accountability and transparency of our business practices.

## Organisation

The supervision and management of ROCKWOOL Group is divided among the Annual General Meeting (AGM) of shareholders, the Board of Directors (with well-defined committees), and Group Management.

## The Annual General Meeting

The Annual General Meeting is the supreme body of the corporate governance structure and elects the Board of Directors as well as independent auditors. The company is not aware of shareholder agreements containing pre-emption rights or restrictions on voting rights. There is an agreement among members of the founding Kähler family to meet regularly to discuss their interests in the company, including items at AGMs, but there is no requirement for them to vote jointly.

## The Board of Directors

The Board of Directors outlines the overall purpose and strategy of the company and ensures that the business development is on track toward agreed short- and long-term goals. The majority of the members of the Board of Directors are non-executive members in accordance with the Danish Companies Act.

The Board of Directors today consists of nine members. Six are elected by shareholders at AGMs for a period of one year and may be re-elected. Of these, four members, including the chairman, are deemed independent, per the Danish Recommendations on Corporate Governance. Three members are elected by employees, for a period of four years, pursuant to the Danish Companies Act. The next election is in 2022.

The Board of Directors conducted its annual evaluation in May 2018. Every second year, the evaluation is

facilitated by an external consultancy firm. This year's evaluation was conducted without such facilitation. Based on the evaluation, the Board concluded that its present composition is appropriate and sufficient for it to perform its tasks. As for the special competences of each Board member, reference is made to the CVs listed on the website, [www.rockwoolgroup.com](http://www.rockwoolgroup.com).

## Group Management

The CEO, together with his Group Management team, is responsible for the day-to-day management, strategy execution and timely reporting to the Board of Directors. The team currently consists of nine executives, of which the CEO and CFO are the registered directors with the Danish Business Authority.

## Board Chairmanship and Committees

Three substructures have been established by the Board of Directors.

### *The Chairmanship*

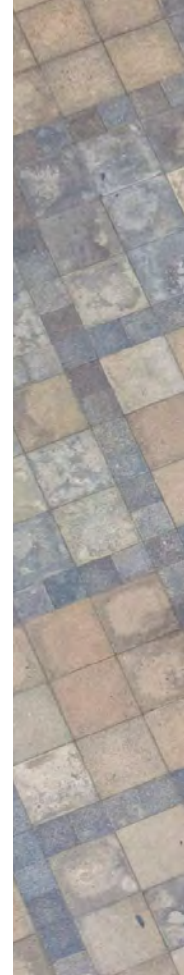
The Board of Directors has established a Chairmanship consisting of the Chairman and the two Deputy Chairmen. They prepare the Board meetings and undertake a number of the functions of a nomination committee.

### *Audit Committee*

The Board of Directors has appointed an Audit Committee consisting of three members. The majority of its members are independent. The Audit Committee monitors accounting and audit policies plus conditions which, if determined by the Board of Directors or the Audit Committee, should be subject to thorough evaluation. Further, the Audit Committee evaluates internal control and risk systems.

### *Remuneration Committee*

The Board of Directors has appointed a Remuneration Committee consisting of three of its members. The majority of its members are independent. With an overall goal of being able to attract and retain high-performing top executives, the Remuneration Committee prepares the Remuneration Policy and Incentive Guidelines, which are approved by the shareholders at the AGM.







The Remuneration Committee annually evaluates and brings forward recommendations for the remuneration of the Board of Directors, again subject to approval by the shareholders at the AGM.

The Remuneration Committee is authorised by the Board of Directors to approve remuneration for senior executives.

### **Internal control**

#### *Control environment*

ROCKWOOL Group considers strong internal control to be an essential management tool. The control environment in ROCKWOOL Group is based on clear guidelines and accountability and a constant effort to strengthen the control environment with due consideration of materiality and risk.

The entire structure of the Group is designed based on the Group's commercial activities with a clear segregation of management responsibilities.

All Group policies are approved by Group Management and assigned to one Group Management member who has the responsibility to ensure implementation of the policy throughout the line organisation. Policies and manuals have been adopted within all essential areas of operation, legal compliance and financial reporting.

#### *Control activities*

Minimum requirements of internal controls are stipulated in ROCKWOOL Group Standards, based on the risks identified. The control activities include procedures for authorisation, approval, reconciliation and separation of functions. The control system includes both manual and automated controls.

The local management teams are responsible for ensuring that the control environment in each local entity is sufficient to meet local and Group requirements.

#### *Information and communication*

ROCKWOOL Group has established standardised information and reporting systems to identify, collect and communicate relevant information and reports on an ongoing basis and on all levels to facilitate an effective, reliable workflow. In addition, an in-depth business review is performed each quarter with participation of relevant members of Group Management.

The Group's position on risk management and changes in the reporting requirements is regularly communicated at financial meetings for the local finance directors, through the Group intranet and dialogue. →

### Monitoring

The internal control systems in relation to the presentation of financial statements are monitored at various levels e.g. monthly reports to Group Management on segments and markets and by regular control visits to the local entities. In addition, the Group's Integrity Committee consisting of the CEO, CFO, a member of Group Management, the Group General Counsel and Group Integrity Officer, monitor integrity compliance and launch appropriate new initiatives to constantly improve compliance. The Integrity Committee furthermore reports on integrity issues to the Audit Committee.

### Recommendations

As a Danish listed company, we are guided by the recommendations issued by the Danish Committee on Corporate Governance. The company is generally in compliance with such recommendations but has, in four cases, chosen to differ as described below. The variations are generally due to company-specific views on the recommendations to optimise value for its shareholders.

The company complies with the new recommendation, 3.1.5. The company's Board of Directors will, however, not exclude that a situation can arise, where the Board of Directors may wish to constitute itself with a former member of the company's management as Chairman or Deputy Chairman.

ROCKWOOL Group publishes its statutory report on Corporate Governance for the financial year 2018 cf. the Danish Financial Statements Act §107b on the company's website, including a detailed description of the Board of Directors' consideration regarding all the recommendations. The statutory report on Corporate Governance can be found at [www.rockwoolgroup.com/aboutus/corporate-governance](http://www.rockwoolgroup.com/aboutus/corporate-governance).

## Exceptions

To a broad extent, the company is following the Committee for Corporate Governance's recommendations, except for the following four sub-recommendations, where the company concludes that its present set-up is more appropriate:

### 3.1.3

#### Recommendation

The Committee recommends that the selection and nomination of candidates for the Board of Directors be carried out through a thoroughly transparent process approved by the overall Board of Directors.

#### Explanation

The Board of Directors has authorised the chairmanship to nominate qualified candidates to the Board of

Directors. The Board of Directors will then evaluate the candidates before it recommends them for election at the Annual General Meeting.

### 3.3.2

#### Recommendation

The Committee recommends that the management report includes the following information about the number of shares, options, warrants and similar in the company, and other Group companies, owned by the member, as well as changes in the portfolio of the member of the securities mentioned which have occurred during the financial year.

#### Explanation

The company considers the portfolio, and changes in the portfolio during the financial year, of shares, options warrants and similar in the company of each member of the Board of Directors to be a private matter, and it is the company's judgement that disclosure of such information will not add additional value for shareholders and other stakeholders.

### 3.4.6

#### Recommendation

The Committee recommends that the Board of Directors establish a nomination committee.

#### Explanation

The Board of Directors has not established a nomination committee. Instead, the chairmanship performs duties recommended concerning the candidates for the Board of Directors.

The Board of Directors selects candidates to the positions as CEO and other Registered Directors based on their qualifications.

### 4.2.3

#### Recommendation

The Committee recommends that the company prepares a remuneration report that includes information on the total remuneration received by each member of the board of directors and the executive board from the company and other companies in the group and associated companies for the last three years, including information on the most important content of retention and resignation arrangements and that the correlation between the remuneration and company strategy and relevant related goals be explained.

#### Explanation

The remuneration of each member of the Group Management is seen to be a private matter and it is the company's judgement that disclosure of the remuneration paid to each individual member of the



Group Management will not add additional value for shareholders and other stakeholders.

The remuneration of the members of the Board of Directors and committees is available on pg. 46 and our website.

### Responsible tax

We acknowledge that tax is an important part of society and an equally important part of responsible corporate citizenship. Tax matters and risks as well as our tax policy are governed by the Board of Directors and discussed on a regular basis with the Audit Committee.

Tax matters are operationally managed and monitored by the CFO and the Group Tax department in close relationship with the financial management of ROCKWOOL Group subsidiaries.

The aim of our tax policy is to reflect and support our business by ensuring a sustainable tax rate, mitigating tax risks and complying with rules and regulations in the jurisdictions in which we operate.

In all tax matters we apply the same values and integrity as in our general Code of Conduct by making sure that our primary focus is the ordinary operation of the Group. We only adopt tax positions that are defensible under full disclosure.

We are committed to being a responsible tax payer and avoid aggressive tax planning. We have a clear and transparent corporate structure with no contrived entities or structures.

There are many transactions among ROCKWOOL Group companies, and the transfer pricing policy for these transactions is driven by the activities undertaken and the value created in each part of our businesses. The key component in our profit allocation is our transfer pricing setup and methods in which we are committed to the principle of paying tax where value is created.

We acknowledge that international tax matters are increasingly complex and we are committed to assigning the necessary resources to ensure compliance with relevant tax laws and regulations.

ROCKWOOL Group is at the same time committed to being as transparent about its tax matters as can reasonably be expected and we pursue an open dialogue and relationship with tax authorities as a proactive approach to handle uncertainties. For example, we have in 2018 applied for bilateral

advance pricing agreements between Denmark and two key countries and once these are established our ambition is to expand this to other key markets. An advance pricing agreement is an up-front agreement between the tax authorities in two or more countries, covering the pricing methodologies of five tax years, thereby determining the level of taxable income for the countries in question.

In addition to an open dialogue with tax authorities, we also participate and engage in tax matters through industry associations and other external bodies.

From time to time, ROCKWOOL Group is allocated different types of tax incentives. Tax incentives are government measures that are intended to influence business decision-making or to encourage businesses to invest in a particular way by reducing the amount of tax they have to pay. Several of the territories in which we operate offer incentives of various kinds and we seek to use these incentives where they are aligned with our business and operational objectives. ●

# Remuneration report

Remuneration of the Board of Directors and Group Management is based on the principles in our Remuneration Policy for the Board of Directors, Group Management and Senior Executives of ROCKWOOL International A/S and the separate General Guidelines for Incentive-Based Remuneration of Group Management of ROCKWOOL International A/S both approved at the Annual General Meeting on 6 April 2016. The guidelines are designed to ensure that remuneration for the target group is aligned to the company strategy and goals. In 2018, no revisions were made to the remuneration structures for executives.

## Remuneration of the Board of Directors

Board members receive a fixed annual base fee as approved at the Annual General Meeting each year. Members of the Board of Directors are not offered pension arrangements or any type of incentive-based remuneration.

The last revision of the Board fees was approved at the Annual General Meeting in 2016, and the previous one before that at the Annual General Meeting in 2012.

Annual Board fees (DKK)	Since April 2016
Chairman	990,000
Deputy Chairmen	660,000
Other members	330,000
Supplement for Audit Committee Chairman	275,000
Supplement for Audit Committee members	165,000
Supplement for Remuneration Committee members	82,500

## Remuneration of Group Management

The remuneration package of Group Management includes base salary; variable pay in the form of short-term incentive schemes (annual bonus) and long-term incentive schemes (stock options or restricted share units); pension and other benefits, such as company car, free phone and internet.

The short-term variable part of the total remuneration (annual cash bonus) is dependent on achievement of financial targets for the Group as well as the relevant business area for Group Management members with profit and loss responsibility.

The long-term variable part of the total remuneration (stock options/RSUs) is dependent on continuous service to the company.

The variable annual bonus can give up to maximum 40 percent of the base salary for all Group Management members. The long-term incentive program is set to 20 percent of the base salary for Group Management, 30 percent for the CEO. Both vehicles are subject to a clawback in cases where an incentive pay-out was made based on data which proved to be materially inaccurate.

## Share-based payments

On 20 March 2018, the Stock Option program granted in March 2015 vested. The exercise period expires in 2023. The exercise price per share is DKK 769. At the time of vesting, the share price was DKK 1,818.

In 2018, a Restricted Share Unit allocation with a total fair value of EUR 2.3 million was granted after approval by the Board of Directors in accordance with the General Guidelines for Incentive-Based Remuneration of Group Management of ROCKWOOL International A/S. Similar to 2016 and 2017, the Restricted Share Units (RSUs) were allocated to a group of 65 employees in leading



positions including Group Management and are subject to a vesting period of three years. After the vesting period the shares are transferred to the participants, subject to continued employment with the ROCKWOOL Group in the vesting period.

#### Value of RSU grant in 2018

(EUR)	At grant date*		At year end	
	Value per share	Total value (EURm)	Value per share	Total value (EURm)
Group Management	241	0.9	227	0.9
Registered Directors	241	0.4	227	0.4

\*) The value at grant date is equal to the share price of the ROCKWOOL B share at the date of grant adjusted for expected dividend.

#### Other terms and conditions

The terms and conditions in the employment contracts for Group Management are considered common practice for Danish listed companies with regards to terms of pension, insurances, notice and non-competition. The non-Danish Group Management members' terms and conditions are considered common practice for executives in the relevant countries.

The aggregate notice period and severance pay for Danish registered Directors do not exceed 24 months. No early retirement or other special pension schemes are in place for the Danish registered Directors. ●

Aggregate remuneration	Group Management				
	2018	Change to last year	2017	Change to last year	2016
EURm					
Salaries	4.4	6%	4.2	10%	3.8
Annual bonus	1.4	17%	1.2	69%	0.7
Annual granted RSUs (value at year-end)	0.9	-30%	1.2	22%	1.0
Pension	0.6	8%	0.6	3%	0.6
Social security and other benefits	0.4	-15%	0.4	2%	0.4
<b>Total remuneration</b>	<b>7.7</b>	<b>1%</b>	<b>7.6</b>	<b>17%</b>	<b>6.5</b>

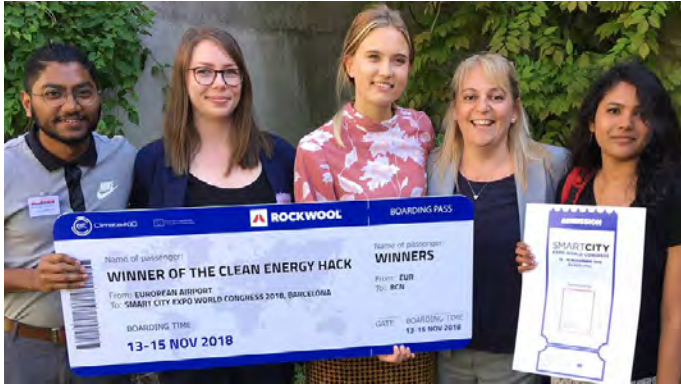
Aggregate remuneration	Registered Directors*				
	2018	Change to last year	2017	Change to last year	2016
EURm					
Salaries	1.8	6%	1.7	8%	1.5
Annual bonus	0.7	31%	0.5	103%	0.3
Annual granted RSUs (value at year-end)	0.4	-28%	0.6	23%	0.5
Pension	0.2	7%	0.2	9%	0.2
Social security and other benefits	0	-1%	0	0%	0
<b>Total remuneration</b>	<b>3.1</b>	<b>4%</b>	<b>3.0</b>	<b>21%</b>	<b>2.5</b>

\* Registered Directors in ROCKWOOL International A/S are the CEO and CFO.

# The year in pictures



↑ New music therapy studio, La Paz Hospital in Madrid, sponsored by Hard Rock Heals and ROCKWOOL Group.



↑ Presenting the winner of the "Clean Energy Hack", Smart City Expo World Congress in Barcelona.



→ Flooding hits Grand Forks, British Columbia and the local ROCKWOOL manufacturing site.



→ ROXUL, the North American division of ROCKWOOL Group, is rebranded ROCKWOOL.



↑ Rockzero product launch – "Walls should stand for something".





↑ Welcoming Yangzhou Kewo Energy Conservation to the ROCKWOOL family.



→ Meeting with concerned citizens about the new manufacturing site in Ranson, West Virginia.



← Employees support the UN Sustainable Development Goals #iRockGlobalGoals.



↑ Grodan opens a manufacturing site in Elabuga, Republic of Tatarstan, Russia.

↓ NYC Climate Week: CEO Jens Birgersson and Anthony Abbotts, Director of Group Sustainability.



# Renovate Today

↓ The Renovation campaign kicks off in New York City.



# Board of Directors

## Henrik Brandt

### Chairman

**Elected to the Board:** 2017

### Other positions related to the company

Member of the Chairmanship, Chairman of the Remuneration Committee.

### Positions in other companies

Chairman of the Boards of Toms Gruppen A/S, Intervare A/S, nemlig.com A/S, Danish Bake Holding ApS ("Ole & Steen") and Fritz Hansen A/S. Vice Chairman of the Board of Scandinavian Tobacco Group A/S. Member of the Boards of Gerda and Victor B. Strands Fond & Gerda and Victor B. Strand Holding A/S and Ferd Holding AS, Norway.

Henrik Brandt participated in all Board and Remuneration Committee meetings during 2018.

## Carsten Bjerg

### First Deputy Chairman

**Elected to the Board:** 2011

### Other positions related to the company

Member of the Chairmanship, Chairman of the Audit Committee, Member of the Remuneration Committee.

### Positions in other companies

Chairman of the Boards of Hydrema Holding ApS, Bogballe A/S and Bogballe Investment

A/S, Ellepot A/S, Ellegaard Investment I A/S and Ellegaard Investment II A/S, Guldager A/S and CapHold Guldager ApS, Robco Engineering A/S and Robco Engineering Investment A/S and PCH Engineering A/S and PCH Investment A/S. Member of the Boards of Vestas Wind Systems A/S, Agrometer A/S, Agrometer Investment A/S, Dansk Smede- og Maskinteknik A/S and IBP H ApS and TCM Group A/S, TCM Group Investment ApS and TMK A/S.

Carsten Bjerg participated in all Board, Audit and Remuneration Committee meetings during 2018.

## Søren Kähler

### Second Deputy Chairman

**Elected to the Board:** 2013

### Other positions related to the company

Member of the Chairmanship, Member of the Remuneration Committee, Member of the Audit Committee, Member of the Board of the ROCKWOOL Foundation, Member of the Kähler Family Meeting.

### Positions in other companies

Chairman of the Board of A/S Saltbækvig.

### Other positions

Member of the Board of the Foundation Sagnlandet Lejre.

Søren Kähler participated in all Board, Audit and Remuneration Committee meetings during 2018.

## Thomas Kähler

**Elected to the Board:** 2008

Senior Vice President, Head of Systems Division, ROCKWOOL International A/S.

### Other positions related to the company

Member of Group Management, and Senior Vice President, Head of Systems Division, Member of the Kähler Family Meeting.

### Other positions

Member of the Board of Energy Technology Development and Demonstration Programme (EUDP), Denmark.

Thomas Kähler participated in all Board meetings during 2018.

## Andreas Ronken

**Elected to the Board:** 2016

CEO of Alfred Ritter GmbH & Co. KG.

### Other positions

Member of Advisory Boards of Otto Cosmetic GmbH, Groß Rohrheim and of the Melitta Group GmbH & KG, Minden, Germany.

Andreas Ronken participated in all Board meetings, except the meeting held on 11 April 2018.





Board of Directors (from L to R): Carsten Bjerg, Henrik Brandt, Jørgen Tang-Jensen, Thomas Kähler, René Binder Rasmussen, Andreas Ronken, Connie Enghus Theisen, Søren Kähler, Christian Westerberg.

### **Jørgen Tang-Jensen**

**Elected to the Board:** 2017

#### **Other positions related to the company**

Member of the Audit Committee.

#### **Positions in other companies**

Member of the Boards of Coloplast A/S, VKR Holding A/S and Maj Invest Holding A/S, Fondsmæglerselskabet Maj Invest A/S and Maj Invest Equity A/S, Denmark, Geberit AG, Switzerland and Altaterra Kft., Hungary.

#### **Other positions**

Chairman of the Danish Green Investment Fund.

Jørgen Tang-Jensen participated in all Board and Audit Committee meetings during 2018.

### **René Binder Rasmussen**

**Elected to the Board:** 2018

District Manager, ROCKWOOL Nordics.

René Binder Rasmussen participated in all Board meetings during 2018.

### **Connie Enghus Theisen**

**Elected to the Board:** 2006

Director Stakeholder Engagement, ROCKWOOL International A/S.

#### **Other positions**

Member of the Advisory Committee of AktivPLUS, Germany.

Connie Enghus Theisen participated in all Board meetings during 2018.

### **Christian Westerberg**

**Elected to the Board of Directors:** 2018

Project Manager, ROCKWOOL International A/S.

#### **Other positions related to the company**

Member of the Board of the ROCKWOOL Foundation.

Christian Westerberg participated in all Board meetings during 2018

For further information about independence and competencies of the board members, please refer to [www.rockwoolgroup.com](http://www.rockwoolgroup.com).

# Group Management



Group Management (from L to R): Henrik Frank Nielsen, Kim Junge Andersen, Gilles Maria, Camilla Grönholm, Bjørn Rici Andersen, Thomas Kähler, Volker Christmann, Mirella Vitale, Jens Birgersson.

**Jens Birgersson**

**President and Chief Executive Officer (CEO)**

Member of the Registered Directors (in Danish: Direktionen).

**Member of Group Management: 2015**

**Positions in other companies**

Chairman of the Board of Randers Reb International A/S, Denmark and member of the Board of dormakaba Group, Switzerland.

**Kim Junge Andersen**

**Senior Vice President, Chief Financial Officer (CFO)**

Member of the Registered Directors (in Danish: Direktionen).

**Member of Group Management: 2016**

**Bjørn Rici Andersen**

**Senior Vice President, Group Operations & Technology**

**Member of Group Management: 2018**

**Volker Christmann**

**Senior Vice President, Head of Insulation Central Europe**

**Member of Group Management: 2015**

**Positions in other companies**

Vice President, FMI Fachverband Mineralwolleindustrie e.V., Germany (association of mineral wool industry). Member of the Board of FIW Forschungsinstitut für Wärmeschutz, Germany (research institute for thermal protection). Chairman of BUVEG Bundesverband energieeffiziente Gebäudehülle e.V., Germany (federal association of energy-efficient building envelope). Member of the Board of H+H International A/S, Denmark.

**Camilla Grönholm**

**Senior Vice President, Group Human Resources**

**Member of Group Management: 2012**

**Thomas Kähler**

**Senior Vice President, Head of Systems Division**

**Member of Group Management: 2015**

**Other positions related to the company**

Member of the Board of Directors and the Kähler Family Meeting.

**Other positions**

Member of the Board of Energy Technology Development and Demonstration Programme (EUDP), Denmark.

**Gilles Maria**

**Senior Vice President, Head of Insulation South West Europe and Insulation Asia**

**Member of Group Management: 2007**

**Henrik Frank Nielsen**

**Senior Vice President, Head of Insulation North East Europe & Russia**

**Member of Group Management: 2007**

**Positions in other companies**

Member of the Board of Betterhome ApS, Denmark.

**Mirella Vitale**

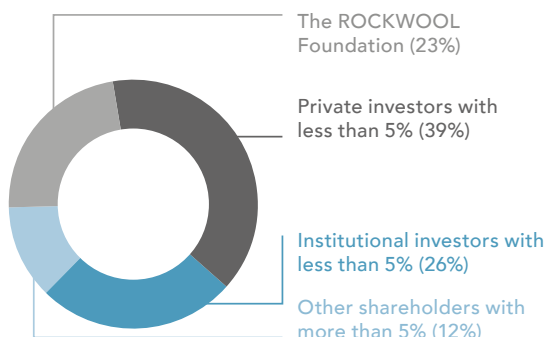
**Senior Vice President, Group Marketing, Communications and Public Affairs**

**Member of Group Management: 2016**

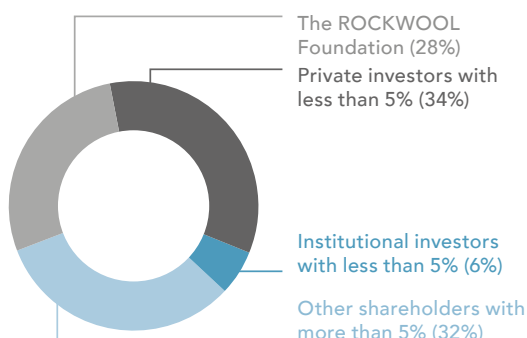


# Shareholder information

## Ownership per shareholder category (%)



## Votes per shareholder category (%)



## ROCKWOOL shares

ROCKWOOL International A/S is listed on NASDAQ Copenhagen in two share classes – ROCKWOOL A and ROCKWOOL B. Each A share carries 10 votes, while each B share carries one vote.

Both the A and B shares are included in the NASDAQ OMX Large Cap and the B share is a part of NASDAQ OMX C25. In addition to NASDAQ Copenhagen, the company's shares are traded on a number of other equity exchanges, e.g. Bats, Turquoise and CHI-X.

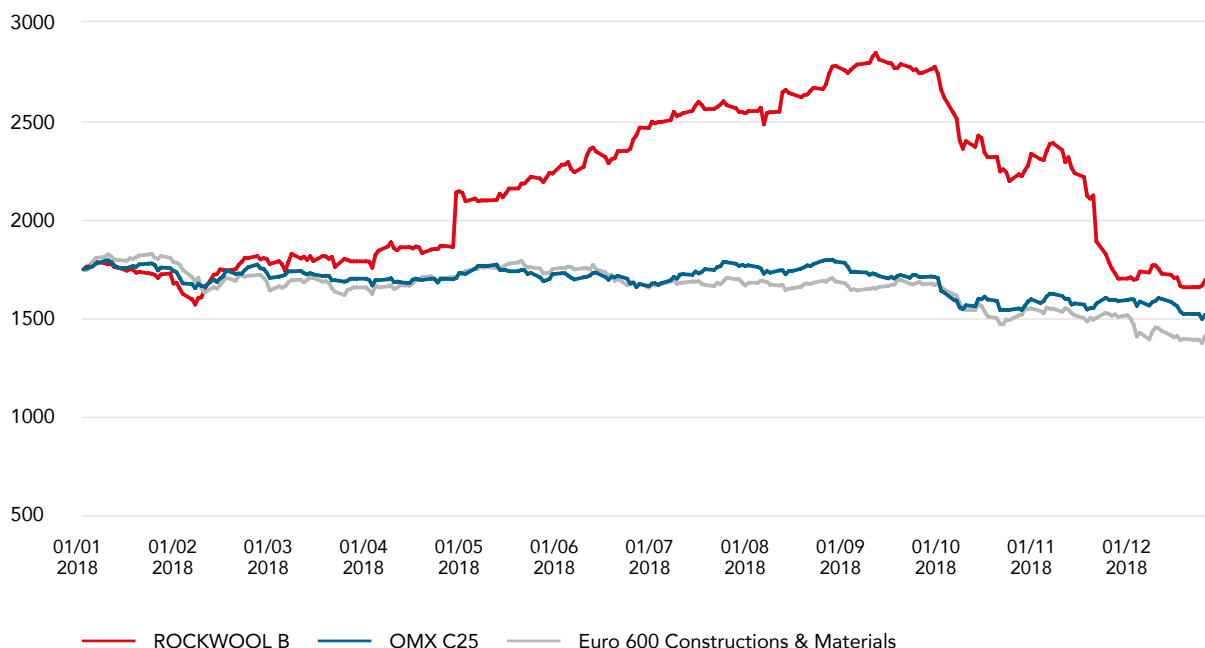
In 2018, the ROCKWOOL B share price decreased by 3 percent. The ROCKWOOL A share decreased by 10 percent.

## Trading of shares

By the end of 2018, both shares had decreased in price by an average of 7 percent, against end of 2017. That compares with a 19 percent decrease in the benchmark index 'STOXX® Europe 600 Construction & Materials' and a 13 percent decrease in the Danish OMX C25 index during 2018.

## Share price development 2018

(DKK)



	2018	2018	2017	2016	2015	2014
	(EUR)	DKK	DKK	DKK	DKK	DKK
<b>Stock market information</b>						
Earnings per share	12	91	73	57	31	39
Dividend per share	4.0	29.9	24.1	18.8	11.5	11.3
Cash flow per share	19	140	114	112	103	71
Book value per share	85	638	569	518	463	440
Share capital (million)	29	220	220	220	220	220
Price per A share	192	1,430	1,594	1,192	944	689
Price per B share	227	1,697	1,752	1,247	963	696
Market cap (million)	4,576	34,168	36,367	26,449	20,580	14,969
Number of own shares	75,865	75,865	206,840	275,855	391,835	359,522
Number of A shares	11,231,627	11,231,627	11,231,627	11,231,627	11,231,627	11,231,627
Number of B shares	10,743,296	10,743,296	10,743,296	10,743,296	10,743,296	10,743,296

The official share price at 31 December 2018 was DKK 1,697 (B share) and 1,430 (A share). The combined market capitalisation at the end of the year was DKK 34,168 million.

### Dividend

It is ROCKWOOL International A/S's policy to pay out a stable dividend that is at least 1/3 of the net profit after tax. Concerning the company's long-term financing requirements, the aim is that net debt should be a maximum of one times EBITDA, with due regard to the company's long-term financing requirements.

At the Annual General Meeting on 3 April 2019, the Board of Directors will propose a dividend of DKK 29.90 per share for the financial year 2018 (2017: DKK 24.10). The dividend is paid out in

DKK. The dividend payment occurs three banking days after the Annual General Meeting.

### Ownership

The company had 18,222 registered shareholders on 31 December 2018. By the end of 2018, 23 percent of the shares were owned by shareholder deposits located outside Denmark.

In terms of voting capital, 10 percent was located outside Denmark. See pg. 54 for an overview of ownership.

The Group can hold own shares. At the Annual General Meeting a framework for the company to purchase its own shares is decided. Based on this decision, the Board of Directors can decide to purchase shares.

### Share data at a glance

Share class	A	B
Sector	Building materials	Building materials
ISIN code	DK0010219070	DK0010219153
Short code	ROCK A	ROCK B
Nominal size	DKK10	DKK10
Number of shares	11,231,627	10,743,296
Voting rights per share	10	1
Share price year-end	DKK 1,430	DKK 1,697
Proposed dividend per share	DKK 29.90	DKK 29.90
Payout ratio	33%	33%



**Financial  
Calendar 2019**

**8 February**  
Annual report  
for 2018

**3 April**  
Annual General  
Meeting

**16 May**  
Report on the first  
quarter of 2019

**23 August**  
Report on the first  
half-year of 2019

**22 November**  
Report on the first  
nine months of 2019





### Investor Relations' activities

As a listed company, ROCKWOOL International A/S has a defined policy for its activities related to ROCKWOOL shares. The aim is to:

- Ensure that the capital market has an accurate picture of the earnings potential of ROCKWOOL shares by communicating relevant, correct, balanced, and timely information;
- Ensure that the company complies with all relevant rules and regulations as laid out in the NASDAQ Copenhagen Rules for issuers of shares, as well as applicable Danish legislation for publicly-listed companies;
- Ensure fair and transparent rules for the trading of ROCKWOOL shares by the company itself and by persons considered to be 'insiders';
- Communicate ROCKWOOL Group values so the capital market perception is of an honest, accessible, reliable, and responsible company;
- Maintain broad coverage by both domestic and foreign equity analysts;
- Remain committed to being knowledgeable, responsive and proactive in our investor communication to maintain a fair balance between expectations and performance.

Shareholders can communicate with and receive information from ROCKWOOL International A/S through various channels:

- The shareholder portal where you can view your shareholdings; register or change whether you wish to receive the invitation to the Annual General Meeting electronically or by letter; order admission cards to the Annual General Meeting;
- The Annual General Meeting;
- Financial communication, such as investor audio casts, presentations and stock exchange releases.

Our website provides general information on ROCKWOOL Group, the performance of ROCKWOOL Group shares, news from the company, financial calendar and much more. A free service allows subscribers to receive instant e-mail alerts when the company publishes new information.

Announcements to NASDAQ Copenhagen in 2018 can be found on: [www.rockwoolgroup.com/investors/stock-exchange-announcements](http://www.rockwoolgroup.com/investors/stock-exchange-announcements)

The Investor Relations team can be contacted at: [investor@rockwool.com](mailto:investor@rockwool.com)

For a list of shareholders holding more than five percent of the share capital or the votes, please refer to note 5.6.

### Banks following the ROCKWOOL shares:

ABG Sundal Collier  
Carnegie  
Danske Equities  
Exane BNP Paribas  
Handelsbanken  
HSBC  
Jyske Markets  
Nordea  
Sydbank

Analysts' recommendations, consensus and contact details can be found on the investor website: [www.rockwoolgroup.com/investors](http://www.rockwoolgroup.com/investors)

### Annual General Meeting

The upcoming Annual General Meeting will take place on 3 April 2019 and is hosted in Roskilde, Denmark. The meeting can be followed live on our website or viewed after the meeting has taken place.

The agenda will be distributed 3-5 weeks prior to the meeting to shareholders who have registered their choice of either electronic or printed communication at our shareholder portal. The agenda will be published on our website.

The agenda will include:

1. The Board of Directors' report on the company's activities during the past financial year;
2. Presentation of the Annual report 2018 with the auditors' report;
3. Adoption of the Annual report and discharge of liability for Group Management and the Board of Directors;
4. Approval of Board of Directors' remuneration;
5. Allocation of profits or cover of losses according to the adopted accounts;
6. Election of members to the Board of Directors;
7. Appointment of auditors;
8. Proposals, if any, by the Board of Directors or the shareholders.

Shares must be registered by name in order to vote. Shareholders can submit proposals to the Board of Directors for the agenda 6 weeks prior to the general meeting.

# Financial performance

Strong performance with sales growth of 14.7 percent and an EBIT margin of 12.8 percent driven by growth and productivity improvements.

## Group performance

ROCKWOOL Group delivered positive sales development above the general growth within the construction industry in both the large European markets as well as in North America in 2018 as demand for our non-combustible insulation products remained strong.

Net sales reached EUR 2,671 million, a growth of 14.7 percent in local currencies, including an organic growth of 12.0 percent and 2.7 percentage points growth from Flumroc. There was no material impact from the acquisition of KEWO. With a growth in local currencies of 11.1 percent in Q4, sales are in line with the latest announced expectations.

The annual growth in reported currencies reached 12.5 percent, with a negative currency impact of 2.2 percentage points primarily due to last year's development of the Russian rouble and the U.S. and Canadian dollars.

## Net sales 2018 compared to 2017

	Growth	EURm
Net sales 2017		2,374
Organic growth	12.0%	285
Acquisitions	2.7%	64
Growth in local currencies	14.7%	349
Currency translation adjustment	-2.2%	-52
<b>Net sales 2018</b>	<b>12.5%</b>	<b>2,671</b>

The positive development in net sales was due to good growth in volume in most main markets and the fact that we utilised available capacity in our network of factories in Europe to meet customer demands, with reliable stable delivery service as well as a higher increase in sales prices compared to last year. The year started with strong sales

growth of 16 percent in local currencies during the first three quarters, of which three percent was attributed to acquisition. We maintained a double-digit growth rate for Q4 at 11.1 percent in local currencies, with only 1.1 percent coming from acquisitions, a satisfying performance taking into account the high comparison from Q4 2017.

Compared to the outlook announced in February 2018, sales growth increased more than expected, mainly driven by improved market conditions and an increased demand for non-combustible insulation products.

## Regional sales development

Sales in Western Europe reached EUR 1,586 million, an increase of 15.4 percent in local currencies (10.8 percent excluding Flumroc) and 14.9 percent in reported figures. We achieved growth in all key markets, where especially Germany, France and the United Kingdom performed well.

Sales in Eastern Europe reached EUR 514 million, up 22.2 percent in local currencies and 17.0 percent in reported figures, where all significant markets delivered double-digit growth, with Poland and Russia as significant drivers.

In the rest of the world, sales reached EUR 571 million, a growth of 6.9 percent in local currencies, while reported growth was 3.2 percent, with North America and China contributing significantly to the result.

## Group profitability

The increase in sales prices and the good factory performance and productivity counterbalanced the negative impact from an increase in input costs, mainly from the increased price of oil, gas and energy related materials as well as a significantly higher logistics costs caused by longer transportation distances and inflation. In total, the contribution margin remained level with last year although with a higher input and logistics cost pressure during the second half of the year.

Operational efficiency improved as we leveraged costs from our growth and a continued prioritisa-



## Higher input costs offset by strong factory performance and high productivity

tion of activities during the year. This entailed a focus on driving efficiency, while still investing in new competencies and growth initiatives, which helped to deliver improved profitability for the Group. The cost of serving customers from factories outside the home markets had a negative impact on margins as we refrained from passing these costs on to customers. As we introduce more capacity, we will regain this leverage.

EBITDA increased 21 percent to EUR 507 million with an EBITDA margin of 19.0 percent, an improvement compared to last year of 1.4 percentage points.

### EBIT development

	Growth	EURm
EBIT 2017		258
Increased earnings from operations	33.5%	85
Currency translation adjustment	-3.1%	-7
Acquisitions	2.1%	5
<b>EBIT 2018</b>	<b>32.5%</b>	<b>341</b>

Depreciation for the year amounted to EUR 166 million, an increase of EUR 7 million compared to last year due to new investments in both factories and digital tools.

EBIT improved significantly and totalled EUR 341 million, resulting in an EBIT margin of 12.8 percent. This is in line with the latest guidance, however with higher pressure on margin in the second half of the year from higher input costs as well as additional restructuring and legal costs.

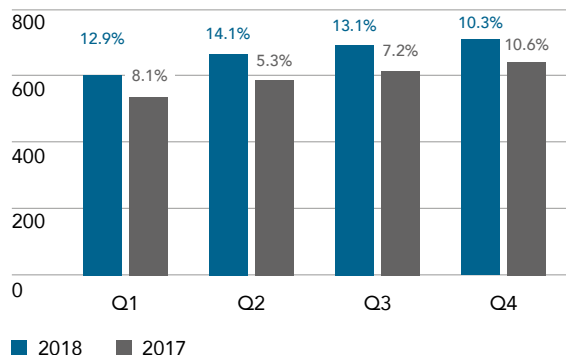
Compared to the outlook announced in February 2018, EBIT margin ended better due to increased sales and productivity and pricing improvements.

Net financial costs amounted to EUR 7 million, a decrease of EUR 4 million compared to last year. The decrease is mainly related to the exchange rate impact, which was less negative this year.

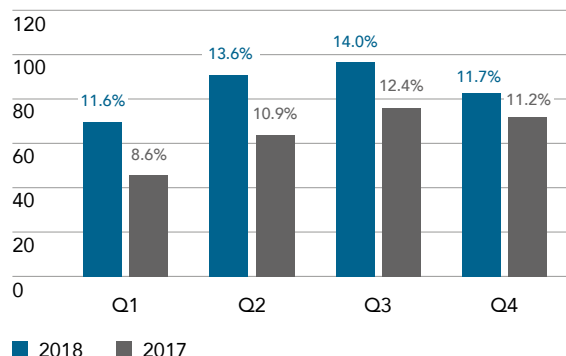
During the year, the level of borrowing and interest costs stayed low as the Group stayed cash positive.

Tax for the year amounted to EUR 70 million compared to EUR 61 million in 2017. The effective tax rate decreased to 21 percent mainly due to the trend of lower corporate tax rates in general as well as one-off adjustments to the valuation of tax assets owing to increased profitability and outlook.

### Quarterly sales & sales growth (reported) (EURm)



### EBIT & EBIT margin (EURm)



Profit after tax for the Group totalled EUR 265 million, an improvement of EUR 51 million and is considered a satisfactory result for the year.

Profit after tax in the parent company totalled EUR 481 million, an increase of EUR 356 million primarily from higher dividend received (up EUR 180 million) and adjustments to the value of shares and loans in subsidiaries of EUR 145 million. The improvement is a result of better performance in most of the entities in the Group.

### Cash flow and investments

At the end of 2018, the Group was net cash positive, amounting to EUR 375 million, even after the acquisition of KEWO and the increased investment activity. The Group had unused committed credit facilities of EUR 428 million by year-end.

Cash flow from operating activities was EUR 408 million against EUR 332 million last year, an increase of EUR 76 million. The cash flow was positively impacted by high operating profit while the change in net working capital remained stable compared to last year.

Net working capital was EUR 198 million compared to EUR 190 million in 2017. The increase mainly stems from a planned higher inventory to secure future deliveries, offset by increased creditors. The working capital ratio to net sales was 7.4 percent in 2018, a decrease of 0.6 percentage points compared to 2017.

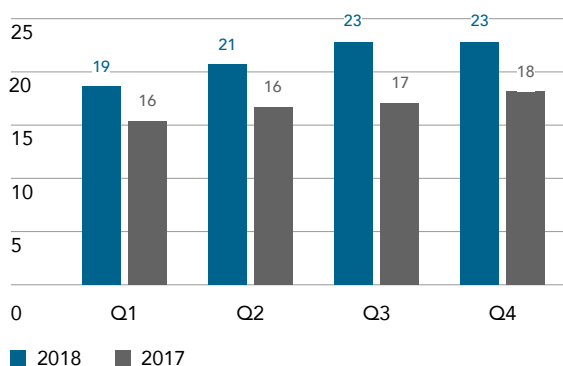
On 31 October 2018, the acquisition of Yangzhou KEWO Energy Conservation New Materials Co. Ltd was completed. The company has a manufacturing facility located 200 km northwest of Shanghai and employs 140 people. KEWO has capacity to contribute with net sales on an annual basis of around EUR 30 million. The additional capacity and location of the factory will allow for ROCKWOOL in China to continue the positive development we have achieved over the past few years. The impact on net sales and EBIT for 2018 is immaterial. For the acquisition of KEWO a net consideration of EUR 8 million was paid.

Capital expenditure reached EUR 222 million excluding acquisitions and proceeds from sale of listed equities, which is an increase of EUR 92 million compared to last year. The capital expenditure was partly offset by sales of listed securities in Flumroc amounting to EUR 18 million in the first half of 2018. Overall, investments and acquisitions totalled EUR 212 million. The largest individual investments in 2018 relate to the upgrade of one of the factories in Poland and the ongoing factory project in the United States (West Virginia) and in Romania.

Free cash flow amounted to EUR 196 million, up EUR 29 million compared to last year, primarily due to higher earnings.

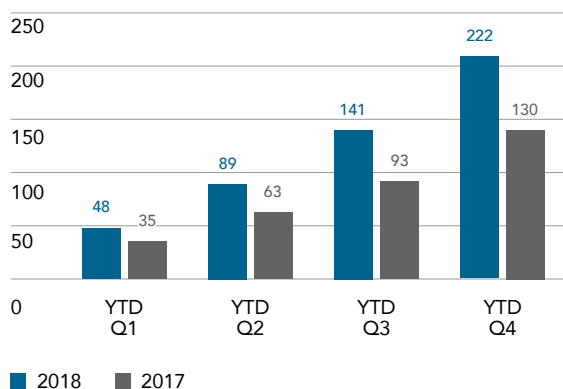
### Return on invested capital (ROIC)

(%)



### Investments excl. acquisitions

(EURm)



### Invested capital

Return on invested capital improved significantly in 2018, mainly due to improved profitability, reaching 22.8 percent compared to 17.9 percent in 2017. Invested capital amounted to EUR 1,542 million compared to EUR 1,452 million last year.

At the end of 2018, total assets were EUR 2,431 million, an increase of EUR 267 million compared to 2017, of which increase in cash amounted to EUR 141 million.

### Equity

Equity of the Group totalled EUR 1,877 million as of 31 December 2018 compared to EUR 1,684 million last year, corresponding to an equity ratio of 77 percent. Equity was mainly affected by the profit for the year, dividend and exchange rate adjustments.

### Business segments

Sales in the Insulation segment reached EUR 2,065 million, which is an increase of 18.1 percent in local currencies and 15.8 percent in reported currencies. Acquisitions contributed 3.5 percentage points of the growth. The sales increase was mainly carried by the building insulation segment across Europe and North America.

The Insulation segment's EBIT reached EUR 266 million with an EBIT margin of 11.5 percent, an increase of 2.4 percentage points compared to last year. Most markets showed a higher earnings level benefitting from growth in the underlying market, improved pricing management and factory productivity improvements.

The Systems segment's sales amounted to EUR 606 million, which is an increase of 4.5 percent in local currencies and 2.7 percent in reported figures. Satisfactory growth in largest parts of the segment has been negatively impacted by lower than last year sales in Grodan's North American business as well as from the discontinued Rockfon metal ceiling business in Asia.

The Systems segment's EBIT reached EUR 75 million with an EBIT margin of 12.4 percent, at level with last year.

#### Key figures Insulation segment

EURm			YTD	YTD
	Q4 2018	Q4 2017	Q4 2018	Q4 2017
External net sales	529	473	2,065	1,782
EBIT	63	55	266	184
EBIT margin	10.4%	10.0%	11.5%	9.1%

#### Key figures Systems segment

EURm			YTD	YTD
	Q4 2018	Q4 2017	Q4 2018	Q4 2017
External net sales	180	171	606	592
EBIT	20	18	75	74
EBIT margin	11.1%	10.0%	12.4%	12.4%



# Quarterly follow-up

EURm	2018				2017			
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.
<b>Income statement</b>								
Net sales	603	667	692	709	534	584	612	644
Operating income	605	667	693	717	537	585	614	647
Raw material and production material costs	198	223	237	251	184	205	209	218
Delivery costs and indirect costs	82	95	98	110	77	80	85	88
Other external costs	57	56	59	60	50	58	61	66
Personnel costs	156	161	161	171	140	139	140	166
Operating costs	493	535	555	592	451	482	495	538
EBITDA	112	132	138	125	86	103	119	109
Depreciation, amortisation and write-downs	42	41	41	42	40	40	43	36
EBIT	70	91	97	83	46	63	76	73
Income from investments in associated companies	0	0	0	1	0	0	1	27
Financial items	-1	-5	-2	1	-2	-1	-1	-7
Profit before tax	69	86	95	85	44	62	76	93
Tax on profit for the period	15	17	19	19	12	15	20	14
<b>Profit for the period</b>	<b>54</b>	<b>69</b>	<b>76</b>	<b>66</b>	<b>32</b>	<b>47</b>	<b>56</b>	<b>79</b>
EBITDA margin	18.6%	19.9%	19.8%	17.6%	16.2%	17.7%	19.4%	16.9%
EBIT margin	11.6%	13.6%	14.0%	11.7%	8.6%	10.9%	12.4%	11.2%
<b>Statement of comprehensive income</b>								
Profit for the period	54	69	76	66	32	47	56	79
Exchange rate adjustments of foreign subsidiaries	-16	3	2	-11	14	-45	-18	17
Change in pension obligation	-	-	-	1	-	-	-	12
Hedging instruments, value adjustments	1	1	0	-2	-1	0	0	0
Tax on comprehensive income	0	0	0	1	0	0	0	1
<b>Total comprehensive income</b>	<b>39</b>	<b>73</b>	<b>78</b>	<b>55</b>	<b>45</b>	<b>2</b>	<b>38</b>	<b>109</b>

## Global sales development

In the fourth quarter of 2018, the ROCKWOOL Group generated sales of EUR 709 million, a growth of 11.1 percent in local currencies including 1.1 percentage point from the Flumroc acquisition. Foreign exchange rates had a negative impact of 0.8 percentage points on the increase, mainly derived from a weakened Russian rouble. This brings the sales growth to 10.3 percent in reported figures.

Increase in sales prices continues across the businesses and had a positive impact on growth during the quarter. The general positive market development allowed for strong growth in all our key markets, however with a small slowdown in some markets compared to third quarter.

## Regional sales development

Western Europe delivered growth of 9.3 percent in local currencies including Flumroc, as sales in the quarter ended at EUR 420 million, with no significant impact from exchange rates. Positive market conditions in the construction industry in our main markets, allowed the business to maintain strong growth during the quarter.

Eastern Europe including Russia increased sales to EUR 139 million, a growth of 21.6 percent in local currencies and 17.0 percent in reported figures. Russia and Poland delivered a strong growth in the quarter.

Sales in North America, Asia and other countries reached EUR 150 million equal to a growth of 7.1 percent in local currencies. In reported figures, sales in fourth quarter grew 6.8 percent. Sales in the United States was moderate during the quarter.

# Quarterly follow-up

EURm	2018				2017			
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.
<b>Cash flow statement</b>								
EBIT	70	91	97	83	46	63	76	73
Adjustments for depreciation, amortisation and write-downs	42	41	41	42	40	40	43	36
Other adjustments	2	5	2	-16	-3	-1	7	-6
Change in net working capital	-79	-25	39	43	-77	-6	38	25
Cash flow from operations before financial items and tax	35	112	179	152	6	96	164	128
Cash flow from operating activities	-2	101	162	147	-15	91	158	98
Cash flow from investing activities and acquisitions	-33	-38	-52	-89	-35	-28	-30	-72
Cash flow from operating and investing activities (free cash flow)	-35	63	110	58	-50	63	128	26
Cash flow from financing activities	2	-67	4	7	-1	-50	1	1
Change in cash available	-33	-4	114	65	-51	13	129	27
<b>Segment reporting</b>								
<b>Insulation segment:</b>								
External net sales	468	520	548	529	399	440	470	473
Internal net sales	55	62	61	84	54	60	58	77
EBIT	55	70	78	63	28	42	59	55
EBIT margin	10.5%	12.0%	12.8%	10.4%	6.1%	8.6%	11.1%	10.0%
<b>Systems segment:</b>								
External net sales	135	147	144	180	135	144	142	171
EBIT	15	21	19	20	18	21	17	18
EBIT margin	11.4%	13.9%	13.1%	11.1%	13.6%	14.5%	12.1%	10.0%
<b>Geographical split of external net sales:</b>								
Western Europe	366	397	403	420	311	331	355	384
Eastern Europe including Russia	101	126	148	139	86	113	121	119
North America, Asia and others	136	144	141	150	137	140	136	141
<b>Total external net sales</b>	<b>603</b>	<b>667</b>	<b>692</b>	<b>709</b>	<b>534</b>	<b>584</b>	<b>612</b>	<b>644</b>

## Group profitability

EBITDA was EUR 125 million, a growth of 14 percent over last year with an EBITDA margin of 17.6 percent compared to 16.9 percent last year. The improvement was driven by higher volume and improved productivity, while maintaining the control of fixed costs.

EBIT for the quarter was EUR 83 million, a growth of 15 percent compared to last year. EBIT margin ended at 11.7 percent, which was 0.5 percentage points above last year. This is in line with expectation.

## Business segments

External net sales in Insulation segment amounted to EUR 529 million a growth of 12 percent in local currencies excluding Flumroc, and 13 percent including Flumroc. The main drivers for the strong growth during the quarter came from most key markets Western Europe, Eastern Europe, North American as well as Asia.

EBIT in the Insulation segment reached EUR 63 million equal to an EBIT margin of 10.4 percent, a strong performance and 0.4 percentage points above fourth quarter in 2017.

The Systems segment delivered stronger growth during Q4 of 6 percent in local currencies and reached EUR 180 million in reported net sales.

EBIT in Systems segment reached EUR 20 million and an EBIT margin of 11.1 percent compared to 10.0 percent last year.







# Financial statements

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# Income statement

1 January – 31 December

EURm	Note	Group		Parent company	
		2018	2017	2018	2017
Net sales	1.1, 5.7	2,671	2,374	85	44
Other operating income	1.2	11	9	184	154
<b>Operating income</b>		<b>2,682</b>	<b>2,383</b>	<b>269</b>	<b>198</b>
Raw material costs and production material costs		909	816	61	31
Delivery costs and indirect costs		385	330	13	9
Other external costs		232	235	86	72
Personnel costs	1.3	649	585	47	39
<b>Operating costs</b>		<b>2,175</b>	<b>1,966</b>	<b>207</b>	<b>151</b>
<b>EBITDA</b>		<b>507</b>	<b>417</b>	<b>62</b>	<b>47</b>
Depreciation, amortisation and write-downs	2.4, 2.5	166	159	13	12
<b>EBIT</b>		<b>341</b>	<b>258</b>	<b>49</b>	<b>35</b>
Income from investments in subsidiaries	2.3	-	-	445	99
Income from investments in associated companies	2.3, 5.6	1	28	-	3
Financial income	4.1	5	4	5	7
Financial expenses	4.1	12	15	11	19
<b>Profit before tax</b>		<b>335</b>	<b>275</b>	<b>488</b>	<b>125</b>
Tax on profit for the year	5.1	70	61	7	-0
<b>Profit for the year</b>		<b>265</b>	<b>214</b>	<b>481</b>	<b>125</b>
Attributable to:					
Non-controlling interests		0	0		
Shareholders of ROCKWOOL International A/S		265	214		
		<b>265</b>	<b>214</b>		
Proposed dividend per share of DKK 10				DKK 29.9	DKK 24.1
Earnings per share of DKK 10 (EUR 1.3)	4.7	12.14	9.81		
Earnings per share of DKK 10 (EUR 1.3), diluted	4.7	12.09	9.76		

# Statement of comprehensive income

1 January – 31 December

EURm	Note	Group		Parent company	
		2018	2017	2018	2017
<b>Profit for the year</b>		<b>265</b>	<b>214</b>	<b>481</b>	<b>125</b>
<b>Items that will not be reclassified to the income statement:</b>					
Actuarial gains and losses of pension obligations	2.6	1	12	-	-
Tax on other comprehensive income		1	-0	-	-
<b>Items that may be subsequently reclassified to the income statement:</b>					
Exchange rate adjustments of foreign subsidiaries		-22	-32	-4	-2
Hedging instruments, value adjustments		0	-1	-	-
Tax on other comprehensive income		-0	1	0	2
<b>Total other comprehensive income</b>		<b>-20</b>	<b>-20</b>	<b>-4</b>	<b>-0</b>
<b>Comprehensive income for the year</b>		<b>245</b>	<b>194</b>	<b>477</b>	<b>125</b>
Attributable to:					
Non-controlling interests		0	0		
Shareholders of ROCKWOOL International A/S		245	194		
		<b>245</b>	<b>194</b>		



# Balance sheet – Assets

As at 31 December

EURm	Note	Group		Parent company	
		2018	2017	2018	2017
Goodwill	2.1	95	88	-	-
Software	2.1	13	4	13	4
Customer relationships	2.1	49	50	-	-
Other intangible assets	2.1	19	24	20	19
Intangible assets under construction	2.1	13	17	12	17
<b>Total intangible assets</b>		<b>189</b>	<b>183</b>	<b>45</b>	<b>40</b>
Buildings and sites	2.2	608	605	14	15
Plant and machinery	2.2	444	471	-	-
Other operating equipment	2.2	15	23	4	5
Prepayments and tangible assets under construction	2.2	160	55	3	-
<b>Total tangible assets</b>		<b>1,227</b>	<b>1,154</b>	<b>21</b>	<b>20</b>
Shares in subsidiaries	2.3, 5.5	-	-	1,481	1,095
Shares in associated companies	2.3, 5.5	5	5	-	-
Loans to subsidiaries	2.3, 5.5, 5.6	-	-	37	20
Long term deposits and debtors		1	2	-	-
Deferred tax assets	5.3	46	39	-	-
<b>Total financial assets</b>		<b>52</b>	<b>46</b>	<b>1,518</b>	<b>1,115</b>
<b>Non-current assets</b>		<b>1,468</b>	<b>1,383</b>	<b>1,584</b>	<b>1,175</b>
Inventories	3.1	238	198	8	3
Contract assets		-	-	28	5
Trade receivables	3.2	274	257	-	-
Receivables from subsidiaries and associated companies	5.6	-	-	240	297
Other receivables		42	36	19	12
Prepayments		18	18	6	7
Income tax receivable	5.2	5	10	4	5
Listed equity securities	4.2	0	17	-	-
Cash	4.3	386	245	257	137
<b>Current assets</b>		<b>963</b>	<b>781</b>	<b>562</b>	<b>466</b>
<b>Total assets</b>		<b>2,431</b>	<b>2,164</b>	<b>2,146</b>	<b>1,641</b>

# Balance sheet – Equity and liabilities

As at 31 December

EURm	Note	Group		Parent company	
		2018	2017	2018	2017
Share capital	4.5, 4.6	29	29	29	29
Foreign currency translation		-157	-135	-2	2
Proposed dividend		88	71	88	71
Reserve for development costs		-	-	25	18
Retained earnings		1,912	1,711	1,522	1,114
Hedging		1	1	-	-
<b>Equity attributable to shareholders in the parent company</b>		<b>1,873</b>	<b>1,677</b>	<b>1,662</b>	<b>1,234</b>
Non-controlling interests		4	7	-	-
<b>Total equity</b>		<b>1,877</b>	<b>1,684</b>	<b>1,662</b>	<b>1,234</b>
Deferred tax liabilities	5.3	51	51	6	4
Pension obligations	2.6	53	53	-	-
Provisions for other liabilities and charges	2.7	15	17	2	4
Bank loans and other loans	4.2, 4.4	2	1	-	-
<b>Non-current liabilities</b>		<b>121</b>	<b>122</b>	<b>8</b>	<b>8</b>
Short-term portion of bank loans and other loans	4.2, 4.4	3	1	-	-
Bank debt	4.2, 4.3, 4.4	6	2	-	-
Trade payables	4.2, 4.4	209	171	19	10
Payables to subsidiaries and associated companies	4.2, 4.4, 5.6	-	-	430	372
Provisions for other liabilities and charges	2.7	7	9	-	-
Income tax payable	5.2	34	24	-	-
Other payables	4.2, 4.4	174	151	27	17
<b>Current liabilities</b>		<b>433</b>	<b>358</b>	<b>476</b>	<b>399</b>
<b>Total liabilities</b>		<b>554</b>	<b>480</b>	<b>484</b>	<b>407</b>
<b>Total equity and liabilities</b>		<b>2,431</b>	<b>2,164</b>	<b>2,146</b>	<b>1,641</b>

# Cash flow statement



## Accounting policies

The cash flow statement is presented using the indirect method on the basis of EBIT. The cash flow statement shows cash flows for the year, as well as cash and cash equivalents at the beginning and at the end of the financial year.

Cash flows from operating activities are calculated as operating profit before financial items adjusted for non-cash operating items and working capital changes.

Cash flows from investing activities comprise payments in connection with acquisition and divestment of enterprises and other asset investments. Cash flows from financing activities comprise the raising of loans, instalments on loans, payment of dividends and increases of the share capital.

Cash available includes cash less short-term bank debt.

EURm	Note	Group		Parent company	
		2018	2017	2018	2017
EBIT		341	258	49	35
Adjustments for depreciation, amortisation and write-downs	2.4	166	159	13	12
Other adjustments	3.3	-7	-3	299	124
Change in net working capital	3.3	-22	-20	84	-66
<b>Cash flow from operations before financial items and tax</b>		<b>478</b>	<b>394</b>	<b>445</b>	<b>105</b>
Finance income etc. received		5	2	5	7
Finance costs etc. paid		-12	-8	-11	-16
Taxes paid		-63	-56	-4	-10
<b>Cash flow from operating activities</b>		<b>408</b>	<b>332</b>	<b>435</b>	<b>86</b>
Payments for tangible assets		-204	-120	-4	-5
Proceeds from sale of tangible assets		1	0	-	-
Proceeds from investment grants		-	2	-	-
Payments for intangible assets		-19	-12	-16	-12
Proceeds from sale of listed equities		18	-	-	-
Acquisition and additions of subsidiaries and associated companies	2.3	-8	-83	-254	-241
Cash acquired in acquisition of subsidiary		-	48	-	-
<b>Cash flow from investing activities</b>		<b>-212</b>	<b>-165</b>	<b>-274</b>	<b>-258</b>
<b>Cash flow from operating and investing activities (free cash flow)</b>		<b>196</b>	<b>167</b>	<b>161</b>	<b>-172</b>
Dividend paid		-70	-55	-70	-55
Dividend paid to non-controlling interests		-0	-0	-	-
Payments for own shares		-3	-2	-3	-2
Proceeds from sale of own shares		23	8	23	8
Transactions with non-controlling interests		-3	-	-	-
Proceeds from non-current debtors		0	1	17	303
Payments of non-current debt		-1	-1	-7	-
<b>Cash flow from financing activities</b>		<b>-54</b>	<b>-49</b>	<b>-40</b>	<b>254</b>
Changes in cash available		<b>142</b>	<b>118</b>	<b>121</b>	<b>82</b>
Cash available 1/1		243	119	137	55
Exchange rate adjustments		-5	6	-1	0
<b>Cash available 31/12</b>	4.3	<b>380</b>	<b>243</b>	<b>257</b>	<b>137</b>
<b>Unutilised, committed credit facilities 31/12</b>		<b>428</b>	<b>430</b>	<b>428</b>	<b>430</b>

Individual items in the cash flow statement cannot be directly deduced from the consolidated balance sheet.



# Statement of changes in equity



## Accounting policies

Dividend is included as a liability at the time of adoption by the Annual General Meeting. Dividend that is expected to be paid for the year is shown separately in the equity.

Sale and purchase of, as well as dividends on own shares are recognised under retained earnings in the equity. The reserve for foreign currency translation consists of exchange rate differences that occur when translating the foreign subsidiaries' financial statements from their functional currency into EUR.

Hedging adjustments comprise changes in the fair value of hedging transactions that qualify for recognition as cash flow hedges and where the hedged transaction has not yet been realised.

## Non-controlling interests

Non-controlling interests are recognised at the minority's share of the net assets. The difference between the costs and the non-controlling interests' share of the total carrying amount including goodwill is transferred from the minority interests' share of the equity to the equity belonging to the shareholders of ROCKWOOL International A/S.

## Reserve for development costs

In compliance with the Danish Financial Statements Act from 1 January 2016 an amount equal to the years capitalised development projects is reserved in equity of the parent company. The reserved amount must be dissolved in line with the depreciation of the corresponding development project. The dissolved amount is moved to retained earnings.

## Group

EURm	Share capital	Foreign currency translation	Proposed dividend	Retained earnings	Hedging	Equity before minority interests	Non-controlling interests	Total equity
<b>Attributable to shareholders of ROCKWOOL International A/S</b>								
<b>Equity 1/1 2018</b>	<b>29</b>	<b>-135</b>	<b>71</b>	<b>1,711</b>	<b>1</b>	<b>1,677</b>	<b>7</b>	<b>1,684</b>
Profit for the year	-	-	88	177	-	265	0	265
Other comprehensive income	-	-22	-	2	-0	-20	0	-20
Comprehensive income for the year	-	-22	88	179	-0	245	0	245
Sale and purchase of own shares	-	-	-	20	-	20	-	20
Expensed value of options/RSUs issued	-	-	-	1	-	1	-	1
Transactions non-controlling interests	-	-	-	-	-	-	-3	-3
Dividend paid to the shareholders	-	-	-71	1	-	-70	-0	-70
<b>Equity 31/12 2018</b>	<b>29</b>	<b>-157</b>	<b>88</b>	<b>1,912</b>	<b>1</b>	<b>1,873</b>	<b>4</b>	<b>1,877</b>
<b>Equity 1/1 2017</b>	<b>29</b>	<b>-103</b>	<b>56</b>	<b>1,550</b>	<b>0</b>	<b>1,532</b>	<b>4</b>	<b>1,536</b>
Profit for the year	-	-	71	143	-	214	0	214
Other comprehensive income	-	-32	-	11	1	-20	-	-20
Comprehensive income for the year	-	-32	71	154	1	194	0	194
Sale and purchase of own shares	-	-	-	6	-	6	-	6
Expensed value of options/RSUs issued	-	-	-	0	-	0	-	0
Transactions non-controlling interests	-	-	-	-	-	-	3	3
Dividend paid to the shareholders	-	-	-56	1	-	-55	-0	-55
<b>Equity 31/12 2017</b>	<b>29</b>	<b>-135</b>	<b>71</b>	<b>1,711</b>	<b>1</b>	<b>1,677</b>	<b>7</b>	<b>1,684</b>

# Statement of changes in equity



## Comments

It is ROCKWOOL International A/S' policy to pay out a stable dividend that is at least 1/3 of the net profit after tax. In 2018 a dividend of DKK 24.10 (EUR 3.24) per share was decided.

At the Annual General Meeting on 3 April 2019, the Board of Directors will propose a dividend of DKK 29.90 (EUR 4.00) per

share for the financial year 2018. Management assesses the Group's capital requirements on an ongoing basis. At the end of 2018 the equity ratio was 77.2% (2017: 77.5%).

## Parent company

EURm	Share capital	Foreign currency translation	Proposed dividend	Reserve for development costs	Retained earnings	Total equity
<b>Equity 1/1 2018</b>	<b>29</b>	<b>2</b>	<b>71</b>	<b>18</b>	<b>1,114</b>	<b>1,234</b>
Profit for the year	-	-	88	7	386	481
Other comprehensive income	-	-4	-	-	0	-4
Comprehensive income for the year	-	-4	88	7	386	477
Sale and purchase of own shares	-	-	-	-	20	20
Expensed value of options/RSUs issued	-	-	-	-	1	1
Dividend paid to the shareholders	-	-	-71	-	1	-70
<b>Equity 31/12 2018</b>	<b>29</b>	<b>-2</b>	<b>88</b>	<b>25</b>	<b>1,522</b>	<b>1,662</b>
<b>Equity 1/1 2017</b>	<b>29</b>	<b>4</b>	<b>55</b>	<b>4</b>	<b>1,066</b>	<b>1,158</b>
Profit for the year	-	-	71	14	40	125
Other comprehensive income	-	-2	-	-	2	-0
Comprehensive income for the year	-	-2	71	14	42	125
Sale and purchase of own shares	-	-	-	-	6	6
Expensed value of options/RSUs issued	-	-	-	-	0	0
Dividend paid to the shareholders	-	-	-55	-	0	-55
<b>Equity 31/12 2017</b>	<b>29</b>	<b>2</b>	<b>71</b>	<b>18</b>	<b>1,114</b>	<b>1,234</b>

# Notes content

## Note 1

### Operating profit

1.1	Net sales and segmented accounts	75
1.2	Other operating income	76
1.3	Personnel costs	77

## Note 2

### Invested capital

2.1	Intangible assets	80
2.2	Tangible assets	82
2.3	Financial assets including associated companies	84
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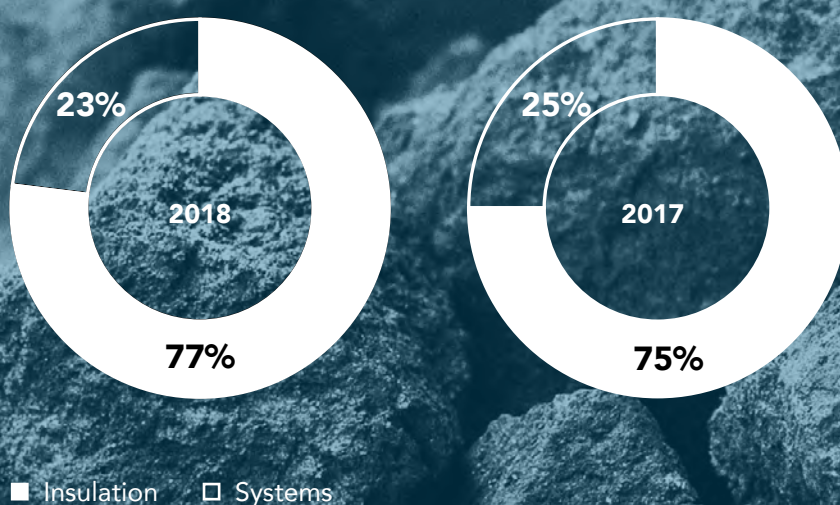


# Note 1

## Operating profit

1.1	Net sales & segmented accounts	75
1.2	Other operating income	76
1.3	Personnel costs	77

### Sales per business segment



Reported sales growth

**+12.5%**

Average number of FTEs

**11,416**

# Notes

## 1.1 Net sales and segmented accounts



### Accounting policies

#### Net sales

The Group produces and sells a range of fire resilient stone wool insulation products, including solutions for ceiling systems, ventilated facades, friction and water management and stone wool substrate solutions for the professional horticultural.

Sales are recognised when control of the products has transferred to the customer, being when the products are delivered to the customer and the risk has been transferred.

The products are often sold with retrospective volume discounts based on aggregate sales over a 12-month period. Revenue from these sales is recognised based on the price specified in the contract, net of the estimated volume discounts. Accumulated experience is used to estimate and provide for the discounts, using the expected value method.

The sales include no element of financing as the sales are made with credit terms of normally 30-60 days consistent with market practice.

A receivable is recognised when the products are delivered as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due.

#### Parent company

The parent company produces and sells machinery and consultancy service under fixed price contracts. The projects typically include one deliverable. Revenue from the projects is recognised over time based on the progress and is based on the price of the projects. As the work is done at the customers site, control is transferred along with the progress of the project. Recognition is based on the actual costs spent relative to the total estimated costs for the project, as this method is estimated to reflect the transfer of control. The credit terms are normally end of month plus 20 days.

#### Segmented accounts

Group Management has determined the business segments for the purpose of assessing business performance and allocating resources. Primarily segments are based on products and thermal performance, as Systems segment is primarily defined as non-thermal insulation products. Nearly all external sales consist of sales of products.

Segmental data is stated for business areas and geographical areas. The split by business areas is in accordance with the Group's internal reporting.

The segmental data is presented according to the same principle as the consolidated financial statements. The segmental EBIT includes net sales and expenditure including non-recurring expenditure operationally related to the segment.

### Business segments and sales reporting

Group	Insulation segment		Systems segment		Eliminations		ROCKWOOL Group	
	2018	2017	2018	2017	2018	2017	2018	2017
External net sales	2,065	1,782	606	592	-	-	2,671	2,374
Internal net sales	262	249	-	-	-262	-249	-	-
<b>EBIT</b>	<b>266</b>	<b>184</b>	<b>75</b>	<b>74</b>	-	-	<b>341</b>	<b>258</b>
EBIT margin	11.5%	9.1%	12.4%	12.4%	-	-	12.8%	10.8%
Financial items and income from associated companies	-	-	-	-	-	-	-6	17
Tax on profit for the year	-	-	-	-	-	-	70	61
<b>Profit for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>265</b>	<b>214</b>
Goods transferred at a point in time	2,065	1,782	606	592	-	-	2,671	2,374
Non-current asset investments	233	203	25	38	-	-	258	241



### Comments

ROCKWOOL Group operates in two business segments based on products: Insulation segment and Systems segment. The information is based on the management structure and internal management reporting to Group Management and constitutes the reportable segments.

Headquarters costs are allocated to the business segments based on allocation keys used in the internal management reporting. These allocation keys are reassessed annually based on planned

activity in the segments. Intangible and tangible assets and related amortisation/depreciation are not fully allocated to business segments as all stone wool production is done in the Insulation segment. Financial income and expenses, and income taxes are managed at Group level and are not allocated to business segments.

Internal net sales from the Insulation segment to the Systems segment are at arms' length prices. The Insulation segment includes among others interior building insulation, façade insu-



# Notes

## 1.1 Net sales and segmented accounts (continued)



### Comments (continued)

lation, roof insulation and industrial and technical insulation. The Systems segment includes acoustic ceilings, cladding boards, engineered fibres, noise and vibration control, and horticultural substrates.

In 2018 a write-down of software under construction was recognised affecting both segments. In 2017 a write-down of assets in HECK Wall Systems and a reversal of the write-down in Asia from previous years was recognised in the Insulation Segment. For additional information please refer to note 2.5.

Geographical segments Group	Net sales		Intangible and tangible assets	
	2018	2017	2018	2017
<b>EURm</b>				
Western Europe	1,586	1,381	594	563
Eastern Europe and Russia	514	439	367	352
North America, Asia and others	571	554	455	422
<b>Total</b>	<b>2,671</b>	<b>2,374</b>	<b>1,416</b>	<b>1,337</b>



### Comments

The net sales information above is based on the location of the customers while the information regarding the assets distribution is based on the physical placement of the assets. The domestic sale in Denmark is in the range of 2-3% (2017: 3-4%) of the Group's net sales. The domestic intangible and tangible assets in Denmark amount to EUR 145 million (2017: EUR 140 million).

No customers exceed 10% of the Group's net sales neither this year nor last year. In Germany and France net sales amounts to between 10-20% of the Group's total net sales. In no other country do the net sales exceed 10% of the Group's total net sales. Intangible and tangible assets in the United States and Poland exceed 10% of the Group's total intangible and tangible assets.

## 1.2 Other operating income



### Accounting policies

Royalty is received for the use of the ROCKWOOL brand and technology. Royalty is based on the level of sales in the entities and recognised when earned according to the terms in the agreement.

EURm	Group		Parent company	
	2018	2017	2018	2017
Royalties and other income	10	9	184	154
Net profit on sale of assets	1	0	-	-
<b>Total</b>	<b>11</b>	<b>9</b>	<b>184</b>	<b>154</b>



# Notes

## 1.3 Personnel costs



### Accounting policies

A long-term incentive scheme (stock options or restricted share units) has been established, which is offered to management and senior managers. The incentive scheme is not part of the ordinary remuneration, as the Board of Directors of ROCKWOOL International A/S will, from time to time, decide whether stock options or RSUs are to be offered.

On issuing of stock options, the value of the options is estimated in compliance with the formula of Black & Scholes at the time of grant and is expensed under personnel costs over the vesting period. The amount charged is set off against equity. The effect of expired options is adjusted continuously over the income statement and set off against equity, respectively.

Apart from stock options ROCKWOOL issues Restricted Share Units (RSUs) where the value of the RSUs at grant date is recognised as a personnel cost in the income statement over the vesting period. Both programmes are designated as equity-settled share-based payment transactions.

A part of the stock options and RSUs are given as phantom shares and are adjusted to fair value through the income statement (financial expenses) against a related provision.

EURm	Group		Parent company	
	2018	2017	2018	2017
Wages and salaries	544	485	42	34
Expensed value of options/RSUs issued	2	2	1	1
Pension costs	28	27	4	4
Other social security costs	75	71	0	0
<b>Total</b>	<b>649</b>	<b>585</b>	<b>47</b>	<b>39</b>
Average number of employees	11,416	10,597	369	322
<b>The above items include to Board of Directors and Group Management:</b>				
Remuneration to Group Management	6	6	6	6
Value of RSUs issued or fair value adjusted to Group Management	3	3	3	3
Pension costs to Group Management	1	1	1	1
Board of Directors' remuneration	1	1	1	1
<b>Total to Board of Directors and Group Management</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>
Hereof remuneration to Registered Directors	3	2	3	2
Hereof value of options/RSUs issued or fair value adjusted to Registered Directors	3	3	3	3
Hereof pension costs to Registered Directors	0	0	0	0
<b>Total to Registered Directors</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>5</b>



### Comments

Remuneration of Group Management (key management personnel) complies with the principles of the Group's Remuneration policy. The variable part of the total remuneration (bonus and stock options/RSUs) is dependent on achievement of individual targets and targets for the Group's financial performance, as approved

by the Remuneration committee. The variable annual bonus can give up to 40% of the base remuneration. The long-term incentive program (stock options/RSUs) is set to 20% of the base remuneration. No redundancy agreement is included in the remuneration in 2018 nor 2017.

### 2018

Year	Number of stock		Exercise price (DKK)	Exercise period
	Agreements	options/RSUs		
2012	9	8,250	515	01.09.2015 - 31.08.2020
2013	5	8,800	900	23.09.2016 - 22.09.2021
2015	17	20,175	769	20.03.2018 - 19.03.2023
2016 Restricted Share Units (RSUs)	58	13,353	-	08.04.2019
2017 Restricted Share Units (RSUs)	62	12,197	-	07.04.2020
2018 Restricted Share Units (RSUs)	65	8,591	-	12.04.2021
	<b>216</b>	<b>71,366</b>		

Of the number of shares 9,623 belong to Registered Directors and 61,743 to senior managers. The stock options from 2012-2015 include 3,000 phantom shares. The RSUs from 2016-2018 include 8,259 phantom shares.

# Notes

## 1.3 Personnel costs (continued)

### 2017

Year	Agreements	Number of stock options/RSUs	Exercise price (DKK)	Exercise period
2012	22	30,500	515	01.09.2015 - 31.08.2020
2013	21	43,200	900	23.09.2016 - 22.09.2021
2015	58	103,750	769	20.03.2018 - 19.03.2023
2016 Restricted Share Units (RSUs)	60	13,594	-	08.04.2019
2017 Restricted Share Units (RSUs)	65	12,608	-	07.04.2020
	<b>226</b>	<b>203,652</b>		

Of the number of shares 27,745 belong to Registered Directors and 175,907 to senior managers.

Stock options	2018		2017	
	Number of shares	Average price (EUR)	Number of shares	Average price (EUR)
Options outstanding 1/1	177,450	102	261,155	103
Issued during the year	-	-	-	-
Exercised during the year	140,225	164	80,515	100
Cancelled during the year	-	-	3,190	99
<b>Options outstanding 31/12</b>	<b>37,225</b>	<b>100</b>	<b>177,450</b>	<b>102</b>

No stock options have expired in 2018 nor 2017. The average share price of the exercised stock options in 2018 was EUR 303 (2017: EUR 188).



### Comments

Restricted Share Units (RSUs) will be subject to a vesting period of three years. After the vesting period the shares are transferred to the participants without payment, subject to continued employment with ROCKWOOL Group in the vesting period.

The RSUs represent the employees right to shares but do not carry voting rights nor have any tangible value before the RSUs are exercised and become actual B shares of ROCKWOOL International A/S. The terms of the share incentive may provide that shares may be settled in cash in which case, the related provision equals the share price at the time of vesting.

8,876 RSUs were granted in 2018, while 12,718 RSUs were granted in 2017. After the grant date, a few participants have left the Group why 937 (2017: 300) RSUs were cancelled during the year. The first RSUs will vest in 2019.

The fair value of the RSUs granted during the year, is equal to the share price of the ROCKWOOL B share at the date of grant adjusted for expected dividend.

Based on a value per RSU of EUR 241 (2017: EUR 164), the total fair value of RSUs granted amount to EUR 2 million (2017: EUR 2 million) on the grant date.



# Note 2

## Invested capital

2.1	Intangible assets	80
2.2	Tangible assets	82
2.3	Financial assets including associated companies	84
2.4	Depreciation, amortisation and write-downs	86
2.5	Impairment tests	86
2.6	Pension obligations	88
2.7	Provisions for other liabilities and charges	91

### Capital expenditure

**222** EURm

Up EUR 92 million compared to last year



# Notes

## 2.1 Intangible assets



### Accounting policies

The costs of research activities are carried as expenditure in the year in which they are incurred. The costs of development projects which are clearly defined and identifiable, and of which the potential technical and commercial exploitation is demonstrated, are capitalised to the extent that they are expected to generate future revenue. Other development costs are recognised on an ongoing basis in the income statement under operating costs.

Intangible assets, apart from goodwill, are stated at cost less accumulated amortisation and write-downs.

Amortisation of the following intangible assets is made on a straight-line basis over the expected future lifetime of the assets, which is:

Development projects: 2-10 years  
 Patents: up to 20 years  
 Software: 2-4 years  
 Trademarks: up to 20 years  
 Customer relationships: 10-15 years

Goodwill arisen from acquisition of enterprises and activities is stated at cost. The carrying amount of goodwill is allocated to the Group's cash-generating units at the acquisition date. Identification of independent cash-generating units is based on business structure and level of internal control of cash flow. Acquired CO<sub>2</sub> rights are capitalised under intangible assets. Granted CO<sub>2</sub> rights are not capitalised.

Goodwill is tested annually for impairment and the book value of other assets is reviewed on indications of impairment. When testing for impairment, the value is written down to the estimated net sales price or the value in use, if greater.

Intangible assets under construction are also tested for impairment annually.

### Parent company

From 1 January 2016, an amount equal to the year's capitalised development costs is to be reserved in equity of the parent company. Please refer to the Statement of changes in equity on pg. 72.

EURm	Group						Parent company				
	Goodwill	Software	Cus- tomer relation- ships	Other intan- gible assets	Intangible assets under construc- tion	Total	Software	Other intan- gible assets	Intangible assets under construc- tion	Total	
<b>2018</b>											
<b>Cost:</b>											
Accumulated 1/1	119	63	65	54	17	318	57	43	17	117	
Exchange rate adjustments	4	-0	2	-0	-0	6	0	1	-1	0	
Additions for the year	-	3	-	0	16	19	3	4	9	16	
Transfer of assets under construction	-	12	-	-	-12	-	12	-	-12	-	
Disposals for the year	0	-6	-	-	-	-6	-6	-	-1	-7	
Acquisition of subsidiary	3	-	2	-0	-	5	-	-	-	-	
<b>Accumulated 31/12</b>	<b>126</b>	<b>72</b>	<b>69</b>	<b>54</b>	<b>21</b>	<b>342</b>	<b>66</b>	<b>48</b>	<b>12</b>	<b>126</b>	
<b>Amortisation and write-downs:</b>											
Accumulated 1/1	31	59	15	30	-	135	53	24	-	77	
Exchange rate adjustments	0	-0	0	0	-	-0	-0	-0	-	-	
Amortisation for the year	-	6	6	5	-	17	6	4	-	10	
Write-down for the year	-	-	-	-	8	8	-	-	-	-	
Disposals for the year	-	-6	-1	-	-	-7	-6	-	-	-6	
<b>Accumulated 31/12</b>	<b>31</b>	<b>59</b>	<b>20</b>	<b>35</b>	<b>8</b>	<b>153</b>	<b>53</b>	<b>28</b>	<b>-</b>	<b>81</b>	
<b>Net book value 31/12</b>	<b>95</b>	<b>13</b>	<b>49</b>	<b>19</b>	<b>13</b>	<b>189</b>	<b>13</b>	<b>20</b>	<b>12</b>	<b>45</b>	

During the year R&D costs amounting to EUR 38 million (2017: EUR 32 million) have been expensed.

# Notes

## 2.1 Intangible assets (continued)

EURm	Group					Parent company				
	Goodwill	Software	Customer relationships	Other intangible assets	Intangible assets under construction	Total	Software	Other intangible assets	Intangible assets under construction	Total
<b>2017</b>										
<b>Cost:</b>										
Accumulated 1/1	113	65	30	57	5	270	59	43	5	107
Exchange rate adjustments	-8	0	-2	0	0	-10	0	0	-	0
Additions for the year	-	0	2	-3	12	11	0	-	12	12
Transfer of assets under construction	-	0	-	-	0	0	0	-	0	0
Disposals for the year	-	-2	-	-0	-	-2	-2	-	-	-2
Acquisition of subsidiary	14	0	35	-	-	49	-	-	-	-
<b>Accumulated 31/12</b>	<b>119</b>	<b>63</b>	<b>65</b>	<b>54</b>	<b>17</b>	<b>318</b>	<b>57</b>	<b>43</b>	<b>17</b>	<b>117</b>
<b>Amortisation and write-downs:</b>										
Accumulated 1/1	25	56	10	29	-	120	50	20	-	70
Exchange rate adjustments	-0	0	-0	-	-	-0	-0	0	-	-
Amortisation for the year	-	5	6	1	-	12	5	4	-	9
Write-down for the year	6	-	-	-	-	6	-	-	-	-
Reversal of write-downs previous years	-	-	-1	-	-	-1	-	-	-	-
Disposals for the year	-	-2	-	-	-	-2	-2	-	-	-2
<b>Accumulated 31/12</b>	<b>31</b>	<b>59</b>	<b>15</b>	<b>30</b>	<b>-</b>	<b>135</b>	<b>53</b>	<b>24</b>	<b>-</b>	<b>77</b>
<b>Net book value 31/12</b>	<b>88</b>	<b>4</b>	<b>50</b>	<b>24</b>	<b>17</b>	<b>183</b>	<b>4</b>	<b>19</b>	<b>17</b>	<b>40</b>



### Comments

Goodwill is allocated to the Insulation segment at an amount of EUR 39 million (2017: EUR 34 million) and to the Systems segment at an amount of EUR 56 million (2017: EUR 54 million).

Goodwill has been impairment tested in 2018 and 2017 for the identified cash-generating units (CGUs), which for 2018 has not lead to any value adjustments. In 2017 a write-down of EUR 6 million related to HECK Wall Systems was recognised in the Insulation segment.

The impairment test of goodwill is based on current and future results for the CGUs to where the results are allocated. Most of the goodwill in the Group is related to the acquisition of Flumroc in 2017, Chicago Metallic in 2013 and CSR in 2010 and they are performing according to plan.

Please refer to note 2.5 for further details.

In 2018, a write-down of intangible assets under construction was recognised, amounting to EUR 8 million, due to a lower revenue stream compared to the original expectation. The value of the asset was written down to the net present value of future cash flows.

The net book value of other intangible assets includes development projects amounting to EUR 3 million (2017: EUR 4 million) and brands amounting to EUR 7 million (2017: EUR 8 million).

# Notes

## 2.2 Tangible assets



### Accounting policies

Tangible assets are stated at cost less accumulated depreciation and impairment losses. The cost of technical plant and machinery manufactured by the Group comprises the acquisition cost, expenditure directly related to the acquisition, engineering hours, including indirect production costs and borrowing costs.

Financial leased assets are recognised in the balance sheet at market value at the date of acquisition, and are written off at depreciation rates equivalent to those for the same category of owned assets.

Depreciation is carried out on a straight-line basis, based on current assessment of their useful lives and scrap value.

The expected lifetimes are:

Buildings: 20-40 years

Operating equipment and fixture and fittings: 3-10 years

Technical plant and machinery: 5-15 years

On sale or scrapping of assets, any losses or gains are included under other operating income for the year.

Investment grants are deducted in the cost of the equivalent tangible assets. The investment grants are recognised as income on a straight-line basis over the expected lives of the related assets as reduced depreciation expense.



### Critical estimates and judgements

The expected lifetime for tangible assets is determined based on past experience and expectations for future use of the assets. Especially the estimated lifetime of plant and machinery is linked to uncertainty due to varying utilisation and the significant amount of maintenance costs. Reassessments of the expected future lifetime are made in connection with changes in production structures.

When there is an indication of a reduction in the profitability of an asset an impairment test is performed for the assets in question and write-downs are made if necessary.

The recoverable amounts of the assets and cash-generating units are determined based on value-in-use calculations. These calculations require the use of estimates as they are based on budgets, business plans and projections for 5 years and take into account previous experience and represent Management's best estimate of future developments. Key parameters are growth in sales margin, discount rate and future growth expectations. Please refer to note 2.5.

EURm

Group

	Buildings and sites	Plant and machinery	Other operating equipment	Prepayments and tangible assets under construction	Total
<b>2018</b>					
<b>Cost:</b>					
Accumulated 1/1	1,002	1,966	92	55	3,115
Exchange rate adjustments	-15	-28	-4	-1	-48
Additions for the year	7	13	1	199	220
Transfer of assets under construction	22	59	13	-94	-
Acquisition of subsidiary	8	4	-	2	14
Disposals for the year	-3	-42	-7	-1	-53
<b>Accumulated 31/12</b>	<b>1,021</b>	<b>1,972</b>	<b>95</b>	<b>160</b>	<b>3,248</b>
<b>Depreciation and write-downs:</b>					
Accumulated 1/1	397	1,495	69	-	1,961
Exchange rate adjustments	-9	-26	-1	-	-36
Depreciation for the year	28	96	17	-	141
Disposals for the year	-3	-37	-5	-	-45
<b>Accumulated 31/12</b>	<b>413</b>	<b>1,528</b>	<b>80</b>	<b>-</b>	<b>2,021</b>
<b>Net book value 31/12</b>	<b>608</b>	<b>444</b>	<b>15</b>	<b>160</b>	<b>1,227</b>
<b>Hereof investment grants</b>	<b>-10</b>	<b>-3</b>	<b>-0</b>	<b>-</b>	<b>-13</b>



# Notes

## 2.2 Tangible assets (continued)

EURm	Group				
2017	Buildings and sites	Plant and machinery	Other operating equipment	Prepayments and tangible assets under construction	Total
<b>Cost:</b>					
Accumulated 1/1	953	1,941	85	33	3,012
Exchange rate adjustments	-22	-32	-0	-2	-56
Additions for the year	0	2	1	120	123
Transfer of assets under construction	29	56	10	-95	-
Acquisition of subsidiary	44	13	0	0	57
Disposals for the year	-2	-14	-4	-1	-21
<b>Accumulated 31/12</b>	<b>1,002</b>	<b>1,966</b>	<b>92</b>	<b>55</b>	<b>3,115</b>
<b>Depreciation and write-downs:</b>					
Accumulated 1/1	371	1,419	65	-	1,855
Exchange rate adjustments	-1	-19	-1	-	-21
Depreciation for the year	28	109	9	-	146
Reversal of write-downs previous years	-	-4	-	-	-4
Disposals for the year	-1	-10	-4	-	-15
<b>Accumulated 31/12</b>	<b>397</b>	<b>1,495</b>	<b>69</b>	<b>-</b>	<b>1,961</b>
<b>Net book value 31/12</b>	<b>605</b>	<b>471</b>	<b>23</b>	<b>55</b>	<b>1,154</b>
<b>Hereof investment grants</b>	<b>-12</b>	<b>-3</b>	<b>-</b>	<b>-</b>	<b>-15</b>



### Comments

Of the total net book value of buildings and sites, EUR 111 million (2017: EUR 114 million) represent sites not subject to depreciation. Costs for buildings and machinery acquired as finance lease at EUR 4 million (2017: EUR 4 million) represent a net book value of EUR 0 million (2017: EUR 0 million).

Accumulated capitalised interests amounting to EUR 4 million (2017: EUR 5 million) are included in the cost of tangible assets. There is no additional capitalised interest this year.

For the recognised investment grants the conditions are fulfilled or are expected to be fulfilled. Some of the received investment grants are subject to repayment obligations provided that the attached conditions are not fulfilled within a number of years.

The Group's investment grants are for the main part received in Poland, Spain, France, the United Kingdom, Germany and the United States. The investment grants are in most cases linked to expansion of the Group including the amount of investment in tangible assets and the creation of jobs - and is given as cash or loans. Only limited contingent liabilities exist. For a description of impairment tests on tangible assets see note 2.5.

Contractual obligations for the purchase of tangible assets amount to EUR 80 million (2017: EUR 42 million).

The parent company has investment obligations of EUR 9 million (2017: EUR 13 million).

# Notes

## 2.2 Tangible assets (continued)

Parent company							
EURm				2018			2017
	Buildings and sites	Other operating equipment	Prepayments and tangible assets under construction	Total	Buildings and sites	Other operating equipment	Total
<b>Cost:</b>							
Accumulated 1/1	30	13	-	43	30	9	39
Exchange rate adjustments	-	-0	-	-0	-	-0	-0
Additions for the year	-	1	3	4	-	5	5
Disposals for the year	-	-1	-	-1	-	-1	-1
<b>Accumulated 31/12</b>	<b>30</b>	<b>13</b>	<b>3</b>	<b>46</b>	<b>30</b>	<b>13</b>	<b>43</b>
<b>Depreciation and write-downs:</b>							
Accumulated 1/1	15	8	-	23	14	7	21
Exchange rate adjustments	-	-0	-	-0	-	-0	-0
Depreciation for the year	1	2	-	3	1	2	3
Disposals for the year	-	-1	-	-1	-	-1	-1
<b>Accumulated 31/12</b>	<b>16</b>	<b>9</b>	<b>-</b>	<b>25</b>	<b>15</b>	<b>8</b>	<b>23</b>
<b>Net book value 31/12</b>	<b>14</b>	<b>4</b>	<b>3</b>	<b>21</b>	<b>15</b>	<b>5</b>	<b>20</b>

## 2.3 Financial assets including associated companies



### Accounting policies

Investments in associated companies are measured in the balance sheet of the Group at equity value in accordance with the Group's accounting principles applied after proportional elimination of intra group profit and losses.

The relative share of the associated enterprises' profit after tax is recognised in the Group income statement.

#### Parent company

Investments in subsidiaries and associated companies are meas-

ured at cost. If there is any indication of impairment, investments are tested for impairment as described in the accounting policies applied by the Group. If the cost exceeds the recoverable amount, the investment is written down to the lower value.

#### Management judgements

Management annually assesses whether there is an indication of impairment of investments in subsidiaries. If so, the investments will be tested for impairment in the same way as Group goodwill.



### Comments

Shares in associated companies consist of 20% ownership in RESO SA in France.

In 2018, the Chinese stone wool production company KEWO Energy Conservation New Materials Co. Ltd was acquired, why the company is fully consolidated in the Group accounts as from 1 November 2018.

In 2017, the majority shareholding in Flumroc AG was purchased, why Flumroc AG is fully consolidated in the Group accounts as from 17 November 2017. The value of the original shares was remeasured at fair value based on the total consideration of Flumroc. This resulted in a fair value gain of EUR 25 million in the Group which was recognised in the income statement in the line Income from investments in associated companies.

# Notes

## 2.3 Financial assets including associated companies (continued)

EURm	Group		Parent company		Total
	Shares in associated companies	Shares in subsidiaries	Loans to subsidiaries	Shares in associated companies	
<b>2018</b>					
<b>Cost:</b>					
Accumulated 1/1	4	1,438	56	-	1,494
Exchange rate adjustments	-	-4	-0	-	-4
Additions for the year	-	254	7	-	261
Reductions/disposals for the year	-	-23	-17	-	-40
<b>Accumulated 31/12</b>	<b>4</b>	<b>1,665</b>	<b>46</b>	<b>-</b>	<b>1,711</b>
<b>Adjustments:</b>					
Accumulated 1/1	1	-343	-36	-	-379
Exchange rate adjustments	-	1	0	-	1
Profit for the year after tax	1	-	-	-	-
Write-down for the year	-	-2	-	-	-2
Reversal of write-downs previous years	-	137	22	-	159
Disposals for the year	-	23	5	-	28
Dividend	-1	-	-	-	-
<b>Accumulated 31/12</b>	<b>1</b>	<b>-184</b>	<b>-9</b>	<b>-</b>	<b>-193</b>
<b>Net book value 31/12</b>	<b>5</b>	<b>1,481</b>	<b>37</b>	<b>-</b>	<b>1,518</b>
<b>2017</b>					
<b>Cost:</b>					
Accumulated 1/1	9	1,193	360	5	1,558
Exchange rate adjustments	-	-1	-1	-0	-2
Additions for the year	-	267	-	-	267
Reductions/disposals for the year	-5	-21	-303	-5	-329
<b>Accumulated 31/12</b>	<b>4</b>	<b>1,438</b>	<b>56</b>	<b>-</b>	<b>1,494</b>
<b>Adjustments:</b>					
Accumulated 1/1	41	-339	-19	-	-358
Exchange rate adjustments	-3	0	-	-	0
Profit for the year after tax	3	-	-	-	-
Write-down for the year	-	-6	-19	-	-25
Reversal of write-downs previous years	-	2	2	-	4
Disposals for the year	-38	-	-	-	-
Dividend	-2	-	-	-	-
<b>Accumulated 31/12</b>	<b>1</b>	<b>-343</b>	<b>-36</b>	<b>-</b>	<b>-379</b>
<b>Net book value 31/12</b>	<b>5</b>	<b>1,095</b>	<b>20</b>	<b>-</b>	<b>1,115</b>



### Comments

In 'Loans to subsidiaries' an amount of EUR 9 million (2017: EUR 9 million) is recognised as an addition to the share investment. Reference is made to the list of Group companies in note 5.8.

In the parent company, impairment tests have been made of the value of the shares in subsidiaries, while loans to subsidiaries are measured at amortised cost less write-downs based on expect-

ed credit losses. The parent company holds loans repayable on demand, short-term and long-term loans.

In connection with the raising of loans and credit facilities, the parent company has accepted restrictions of its rights of disposal of the shares in subsidiaries representing a book value of EUR 526 million (2017: EUR 242 million).



# Notes

## 2.3.1 Income from investments in subsidiaries



### Accounting policies

Dividends on capital investments in subsidiaries and associated companies are recognised as income in the parent company's

income statement in the financial year in which the dividends are declared.

EURm	Parent company	
	2018	2017
Dividends received from subsidiaries	300	120
Write-down of receivables from subsidiaries and associated companies	-12	-
Write-down of shares and loans in subsidiaries	-2	-25
Reversal of write-downs of shares and loans in subsidiaries previous years	159	4
<b>Total</b>	<b>445</b>	<b>99</b>



### Comments

In the parent company impairment tests of shares in subsidiaries have been made, which has led to a write-down of EUR 2 million (2017: EUR 6 million) and a reversal of write-downs amounting to EUR 137 million (2017: EUR 2 million). The main reason for the reversals made in Western Europe and in Asia is a significant improvement in the structural earnings due to improved market conditions.

In addition, a reversal of write-downs related to loans in subsidiaries amounting to EUR 22 million (2017: EUR 2 million) has been recognised, while a receivable from subsidiaries amounting to EUR 12 million has been written down. In 2017 loans in subsidiaries was written down by EUR 19 million.

## 2.4 Depreciation, amortisation and write-downs

EURm	Group		Parent company	
	2018	2017	2018	2017
Amortisation of intangible assets	17	12	10	9
Write-down of intangible assets	8	6	-	-
Reversal of write-downs of intangible assets previous years	-	-1	-	-
Depreciation of tangible assets	141	146	3	3
Reversal of write-downs of tangible assets previous years	-	-4	-	-
<b>Total</b>	<b>166</b>	<b>159</b>	<b>13</b>	<b>12</b>



### Comments

In 2018 a write-down of intangible assets under construction was recognised amounting to EUR 8 million due to a lower revenue stream compared to the original expectation.

The write-down in 2017 primarily related to goodwill belonging to HECK Wall Systems, please refer to note 2.5.

## 2.5 Impairment tests



### Accounting policies

When there is an indication of a reduction in the profitability of an asset, an impairment test is performed for the assets in question and write-downs are made if necessary. For goodwill, annual impairment tests are made. The recoverable amounts of the assets and cash-generating units (CGUs) have been determined based on

value-in-use calculations. When testing for impairment, the value is written down to the estimated recoverable amount, if lower.

Other assets are tested for impairment when there are indications of change in the structural profitability.

# Notes

## 2.5 Impairment tests (continued)



### Critical estimates and judgements

When preparing impairment tests, estimates are used to calculate the future value. Significant estimates are made when assessing long-term growth rates and profitability. In addition, an assessment is made of the reasonable discount rate.

Changes in the growth rate in the budget period or discount rate may result in significantly different values. The assessments

are made based on budgets, business plans and projections for 5 years and take into account previous experience and represent Management's best estimate of future developments.

Key parameters are growth in sales, margin, discount rate and future growth expectations.

### Impairment test of goodwill

EURm		2018			
CGUs	Net book value, Goodwill	Discount rate	Growth rate (budget period)	Headroom	
Chicago Metallic Corporation (Rockfon)	56	8.6%	2-12%	Large	
HECK Wall Systems	6	7.4%	3-5%	Minor	
CSR	8	10.6%	1-5%	Large	
Flumroc	14	7.0%	2-3%	Large	
KEWO	3	KEWO is recently acquired			
Other	8	7.4-9.7%	0-4%	Large	
<b>Total</b>	<b>95</b>				
EURm		2017			
CGUs	Net book value, Goodwill	Discount rate	Growth rate (budget period)	Headroom	
Chicago Metallic Corporation (Rockfon)	53	9.7%	5-9%	Large	
HECK Wall Systems	6	8.4%	4-5%	Minor	
CSR	8	11.3%	4-6%	Large	
Flumroc	14	Flumroc AG is recently acquired			
Other	7	8.7-15.7%	0-4%	Large	
<b>Total</b>	<b>88</b>				



### Comments

Management has performed the yearly impairment test of the carrying amount of goodwill. In addition, impairment test of other assets has also been made, where indication of reduction of value was found. In the impairment test, the carrying amount of the assets is compared to the discounted value of the future cash flows. The assessment of future cash flows is typically based on 5-year management reviewed budgets and business plans, where the last year is used as a normalised terminal year. Net sales, raw material prices, discount rate and future growth assumptions constitute the most material parameters in the calculation.

The average growth rate in the terminal period has been set to 0.5% similar to last year. Growth rate is estimated to be between 0-12% depending on the businesses.

The high growth rates are used in countries where we historically have seen steep increases after a slow period. Gross margins are based on average values the last 3 years and adjusted over the budget period for efficiency improvements and expected raw material inflation based on past actual price movements and future market conditions. Future investment is derived from the historic investment level to secure a smooth operation of the factories and the capacity utilisation is based on the current situation including

investment plans. The discount rate calculation is based on the specific circumstances of the Group and the operating segments and is derived from the weighted average cost of capital (WACC).

#### 2018

The impairment tests for 2018 has not shown a need for write-downs nor reversals of the write-downs recognised previous years. During 2018 HECK Wall Systems has been monitored closely. HECK Wall Systems follows the expectations and market outlook outlined in the impairment test last year. The main driver is conversion to stone wool products and this has shown good progress.

#### 2017

HECK Wall Systems is a German producer of wall systems for façade renovation acquired 1 January 2014. Due to difficult market conditions, HECK Wall Systems has not performed as expected which has resulted in a low result for the year. The impairment test based on updated market outlook has resulted in a write-down of EUR 6 million related to goodwill. The net present value of HECK Wall Systems amounts to EUR 32 million. The key assumptions used is volume growth depending on the market conditions and the conversion to stone wool products.

# Notes

## 2.5 Impairment tests (continued)

On the other hand, the Chinese business has successfully turned around in 2017 overcoming the problems with a slowing economy and overcapacity in the market. The remaining write-down from 2015 excluding goodwill of EUR 5 million has been reversed. The WACC applied for this calculation in China was 11.7% were the WACC applied in 2015 was 11.3%.

### Sensitivity analysis

As part of the preparation of impairment tests, sensitivity analyses are prepared on the basis of relevant risk factors and scenarios that management can determine within reasonable reliability. Sensitivity analyses are prepared by altering the estimates with a range of probable outcomes.

### 2018

The sensitivities have been assessed as follows, all other things being equal; an increase in the discount rate of 1%, a decrease in the growth rate of 1% p.a. and an increase of input costs of 1% p.a. The write-down in HECK Wall Systems would have been EUR 3-4 million if the discount rate was to increase 1% or the growth was 1% lower.

We consider the chosen scenarios as the most realistic why none of the impairment tests have given rise to adjustment of the value.

### 2017

The sensitivities have been assessed as follows, all other things being equal; an increase in the discount rate of 1%, a decrease in the growth rate of 1% p.a. and an increase of input costs of 1% p.a. The write-down in HECK Wall Systems would have been EUR 3-5 million higher if the discount rate was to increase 1% or the growth was 1% lower.

Furthermore, if the growth rate in the budget period was to decrease by 1% p.a. in the Indian business an additional write-down of EUR 2-3 million of the assets would be needed. The business is monitored closely to see if the performance is in line with the plan. Otherwise corrective actions will be made to secure improved profitability.

We consider the chosen scenarios as the most realistic why none of the impairment tests have given rise to adjustment of the value.

## 2.6 Pension obligations



### Accounting policies

Pension payments concerning defined contribution plans are recognised on an ongoing basis in the income statement. Defined benefit plans are stated at the net present value at the balance sheet date and included in the consolidated financial statements. Adjustments of the plans are carried out on a regular basis in accordance with underlying actuarial assessments. Actuarial gains or losses for defined benefit plans are recognised in full in the period in which they occur in other comprehensive income. The actuarial assessment is carried out every year.

Funded benefit plans have assets placed in trustee-administered pension funds, which are governed by local regulations and practice in each country. The payments to the pension funds are based on the usual actuarial assessments and are recognised in the income statement after maturity. Provided that the actuarial assessments of pension obligations show noticeable excess solvency or insolvency in relation to the pension fund's assets, the difference is entered to the balance sheet and the future payments are adjusted accordingly. With regard to these schemes, the actuarial assessment is also carried out every year.



### Critical estimates and judgements

The present value of defined benefit pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. Any changes to

these assumptions will impact the carrying amount of pension obligations. The discount rate and other key assumptions are based in part on the current market conditions.

EURm	Group	
	2018	2017
Defined contribution plans		
Pension costs for the year, total	22	22
Defined benefit plans		
Pension costs	5	4
Interest costs	4	3
Interest income	-3	-2
Curtailments/settlements	-0	-0
<b>Pension costs for the year, total</b>	<b>6</b>	<b>5</b>



# Notes

## 2.6 Pension obligations (continued)

### Net value of pension plans

EURm	Group				
	2018	2017	2016	2015	2014
Present value of pension liabilities	217	227	160	150	134
Fair value of plan assets	-164	-174	-92	-96	-94
<b>Net value of pension plans 31/12</b>	<b>53</b>	<b>53</b>	<b>68</b>	<b>54</b>	<b>40</b>



### Comments

An additional defined benefit plan was added to the Group with the acquisition of Flumroc AG in Switzerland in 2017.

A number of the Group's employees and former employees participate in pension schemes. The pension schemes are primarily defined contribution plans. In Belgium, Switzerland, the United Kingdom and for a small number of employees in Norway and Germany defined benefit plans are used. The plans in the United Kingdom, Norway and Germany are closed for new entries.

Under a defined benefit plan the Group carries the risk associated with the future development in e.g. interest rates, inflation, salaries, mortality and disability.

Defined benefit plans typically guarantee the employees a retirement benefit based on the final salary at retirement.

The pension benefit plans in the United Kingdom, Switzerland and Belgium have assets placed in independent pension funds. A number of plans in Germany, Poland, Italy, France and Norway are unfunded. For these plans the retirement benefit obligations amount to approximately 22% (2017: 21%) of the total gross liability.

Except for the Swiss and UK plans, the mentioned defined benefit plans are not subject to regulatory requirements regarding minimum funding.

The granted pension payments of the mentioned defined benefit plans are based upon the salary of the participating employees during the period of employment. The Group's contributions are derived from the split of the pension premium between the employee and employer.

The actuarial assessment of the pension obligation is based on assumptions specific to each country. The latest actuarial calculation is prepared by authorised experts. The valuation of the assets is based on the composition and the expectations to the economic development. The assumptions used are weighted averages:

	Group	
	2018	2017
Increase in salaries and wages	1.4%	1.4%
Discount rate	1.8%	1.6%
Remaining life expectancy at the time of retirement (years)	25.7	25.4

### Development in the present value of the defined benefit obligation

EURm	Group	
	2018	2017
Balance 1/1	227	160
Exchange rate adjustments	2	-8
Pension costs	6	4
Interest costs	4	3
Settlements	-0	-0
Actuarial gains/losses from changes in demographic assumptions	-0	-
Actuarial gains/losses from changes in financial assumptions	-9	1
Actuarial gains/losses from changes in experience	-1	-6
Benefits paid	-12	-13
Acquisition of subsidiary	-	86
Other adjustments	0	0
<b>Total 31/12</b>	<b>217</b>	<b>227</b>

# Notes

## 2.6 Pension obligations (continued)

Assumptions	Group					
	Discount rate		Salary increase		Life expectancy	
	-0.5%	+0.5%	-1.0%	+1.0%	-1 year	+1 year
<b>EURm</b>						
2018 - Impact on obligation	18	-17	-3	2	-5	6
2017 - Impact on obligation	19	-18	-3	3	-5	6

The sensitivity analysis above has been determined based on a method that extrapolates the impact on the defined benefit obligation as a result of reasonable changes in key assumptions.

The following payments are expected contributions to the defined benefit plan obligation:

EURm	Group	
	2018	2017
0-1 year	5	4
1-5 years	25	20
Falling due after 5 years	44	37
<b>Total</b>	<b>74</b>	<b>61</b>

The expected duration of the defined benefit plan obligation is 26 years (2017: 25 years) at year end.

### Development in the fair value of the plan assets

EURm	Group	
	2018	2017
Balance 1/1	174	92
Exchange rate adjustments	2	-8
Interest income	3	2
Return on plan assets	-9	7
Employer's contribution	3	1
Plan participants	1	-
Benefits paid	-10	-11
Acquisition of subsidiary	-	91
Other adjustments	0	-
<b>Total 31/12</b>	<b>164</b>	<b>174</b>

### Plan assets in major categories held as a percentage of total plan assets

	Group	
	2018	2017
<b>Assets quoted in active markets:</b>		
Equities in European markets	34%	44%
Bonds in European markets	38%	31%
<b>Assets unquoted:</b>		
Cash	10%	9%
Other	18%	16%

# Notes

## 2.7 Provisions for other liabilities and charges



### Accounting policies

Liabilities are recognised if they are certain or probable at the balance sheet date, and if the size of the liability can be measured on a reliable basis. The liability is calculated as the amount expected to be paid.

EURm	Group		Parent company	
	2018	2017	2018	2017
Provision for employees 1/1	15	8	4	0
Exchange rate adjustments	0	-0	-	-
Additions for the year	6	7	4	4
Used during the year	-10	-0	-6	-
Reversed during the year	-0	-	-	-
<b>Total 31/12</b>	<b>11</b>	<b>15</b>	<b>2</b>	<b>4</b>
Provisions for claims and legal proceedings 1/1	5	4	-	-
Exchange rate adjustments	-0	-	-	-
Additions for the year	3	4	-	-
Used during the year	-2	-2	-	-
Reversed during the year	-2	-1	-	-
<b>Total 31/12</b>	<b>4</b>	<b>5</b>	<b>-</b>	<b>-</b>
Other provisions 1/1	6	16	-	-
Exchange rate adjustments	-0	-0	-	-
Additions for the year	4	2	-	-
Used during the year	-2	-10	-	-
Reversed during the year	-1	-2	-	-
<b>Total 31/12</b>	<b>7</b>	<b>6</b>	<b>-</b>	<b>-</b>
<b>Total provisions</b>	<b>22</b>	<b>26</b>	<b>2</b>	<b>4</b>
Specification of provisions:				
Non-current liabilities	15	17	2	4
Current liabilities	7	9	-	-
<b>Total provisions</b>	<b>22</b>	<b>26</b>	<b>2</b>	<b>4</b>



### Comments

Provisions relate primarily to jubilee obligations and retirement benefits, fair value provision for phantom shares, restructuring, warranties and ongoing disputes, lawsuits, etc.

As at 31 December 2018 other provisions include a provision of EUR 2 million (2017: EUR 3 million) for restructuring measures. This provision is expected to be utilised within 1 year.



# Note 3

## Net working capital

3.1	Inventories	93
3.2	Trade receivables	93
3.3	Other cash flow notes	94

Net working capital in  
% of net sales

# 7.4%

Improved compared to 8.0% in 2017



# Notes

## 3.1 Inventories



### Accounting policies

Inventories are valued at the lowest value of historical cost calculated as a weighted average or the net realisation value.

The cost of finished goods and work in progress include the direct costs of production materials and wages, as well as indirect production costs.

EURm	Group		Parent company	
	2018	2017	2018	2017
Inventory before write-downs	250	208	8	3
Write-downs 1/1	-10	-9	-	-
Change in the year	-2	-1	-	-
Write-downs 31/12	-12	-10	-	-
<b>Inventories 31/12</b>	<b>238</b>	<b>198</b>	<b>8</b>	<b>3</b>

### Specification of inventories

EURm	Group		Parent company	
	2018	2017	2018	2017
Raw materials and consumables	104	93	8	3
Work in progress	9	8	-	-
Finished goods	125	97	-	-
<b>Inventories 31/12</b>	<b>238</b>	<b>198</b>	<b>8</b>	<b>3</b>



### Comments

Raw materials and consumables include the net amount of the spare part inventory of EUR 28 million (2017: EUR 25 million).

The net amount consists of a cost price of EUR 80 million (2017: EUR 70 million) and a write-down of EUR 52 million (2017: EUR 45 million).

## 3.2 Trade receivables



### Accounting policies

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due.

The expected loss rates are based on the payment profiles of sales over a period of 60 months before 1 January 2018 and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

EURm	Group	
	2018	2017
Trade receivables before provision for bad debts (maximum credit risk)	289	272
Provision for bad debts 1/1 - as calculated under IAS 39	-15	-14
Impact from new expected credit loss model	-0	-
Exchange rate adjustments	0	0
Movements during the year	-1	-2
Realised losses during the year	1	1
Provision for bad debts 31/12	-15	-15
<b>Trade receivables 31/12</b>	<b>274</b>	<b>257</b>

# Notes

## 3.2 Trade receivables (continued)

### Provision for bad debts based on the expected credit loss model

EURm	Expected loss rate	Gross carrying amount	Provision for bad debt	Group
				Total
Current	0.1%	266	-0	266
More than 30 days past due	2%	7	-0	7
More than 60 days past due	40%	2	-1	1
More than 90 days past due	100%	14	-14	0
<b>Total 31/12 2018</b>		<b>289</b>	<b>-15</b>	<b>274</b>

## 3.3 Other cash flow notes

### 3.3.1 Adjustments of non-cash operating items – for cash flow calculation

EURm	Group		Parent company	
	2018	2017	2018	2017
Provisions	-7	-4	-2	1
Expensed value of options issued	1	1	1	0
Gain/loss on sale of intangible and tangible assets	-1	-0	-	-
Dividend from subsidiaries and associated companies	-	-	300	123
<b>Total adjustments</b>	<b>-7</b>	<b>-3</b>	<b>299</b>	<b>124</b>

### 3.3.2 Adjustments of changes in net working capital – for cash flow calculation

EURm	Group		Parent company	
	2018	2017	2018	2017
Change in inventories	-42	-23	-27	-2
Change in trade receivables	-18	-16	-	-
Change in other receivables	-3	-0	34	-166
Change in trade payables	31	11	9	0
Change in other debt	10	8	68	102
<b>Change in net working capital</b>	<b>-22</b>	<b>-20</b>	<b>84</b>	<b>-66</b>



# Note 4

## Capital structure and financing

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4.4	Bank loans and other financial liabilities	99
4.5	Own shares	100
4.6	Share capital	100
4.7	Earnings per share	100

Equity ratio

**77.2%**

At level with last year

Net cash position

**375** EURm

Up from EUR 241 million last year

Earnings per share

**12.1** EUR

Up 2.3 EUR from last year

# Notes

## 4.1 Financial income and expenses



### Accounting policies

Financial income includes interest, financial expenditure on finance lease, fair value adjustments and realised and unrealised foreign exchange net gains.

Financial expenses include interest, financial expenditure on finance lease, fair value adjustments and realised and unrealised foreign exchange net losses.

EURm	Group		Parent company	
	2018	2017	2018	2017
Interest income	2	3	1	1
Interest income from subsidiaries	-	-	1	4
Foreign exchange gains	3	1	3	2
<b>Total</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>7</b>
Hereof:				
Financial income on financial assets at amortised cost	0	2	1	2

EURm	Group		Parent company	
	2018	2017	2018	2017
Interest expenses etc.	5	6	4	6
Interest expenses to subsidiaries	-	-	3	3
Fair value adjustment phantom shares	4	3	4	3
Foreign exchange losses	3	6	0	7
<b>Total</b>	<b>12</b>	<b>15</b>	<b>11</b>	<b>19</b>
Hereof:				
Financial expenses on financial liabilities at amortised cost	3	4	6	4

## 4.2 Financial risks and instruments



### Accounting policies

Listed equity securities are measured at fair value and comprises securities in large Swiss listed companies. The fair value is determined by reference to published price quotations in an active market (classified as level 1 in the fair value hierarchy). Fair value adjustments are included in the income statement under financial items.

Derivative financial instruments are initially recognised in the balance sheet at cost price and are subsequently measured at fair value. Derivative financial instruments are recognised in other receivables and other debt.

Changes to the fair value of derivative financial instruments, which meet the conditions for hedging the fair value of a recognised asset or liability, are recognised in the income statement together with any changes in the fair value of the hedged asset or liability.

Changes to the fair value of derivative financial instruments, which meet the conditions for hedging future cash flow, are recognised in other comprehensive income provided the hedge has been effective. Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument. The accumulated value adjustment related to these hedge transactions is transferred from other comprehensive income when the position is realised, and is included in the value of the hedged position e.g. the adjustment follows the cash flow.

For derivative financial instruments, which do not qualify as hedging instruments, changes to the fair value are recognised on an ongoing basis in the income statement as financial income or financial expenses.



# Notes

## 4.2 Financial risks and instruments (continued)

Categories of financial assets and liabilities	Group		Parent company	
	2018	2017	2018	2017
<b>EURm</b>				
<b>Financial assets:</b>				
Listed equity securities	0	17	-	-
<b>Financial assets at fair value through income statement</b>	<b>0</b>	<b>17</b>	<b>-</b>	<b>-</b>
Financial instruments for hedging of future cash flows	1	0	-	-
<b>Financial assets at fair value through other comprehensive income</b>	<b>1</b>	<b>0</b>	<b>-</b>	<b>-</b>
Trade receivables	274	257	-	-
Other receivables and receivables from subsidiaries and associated companies	42	36	296	329
Cash	386	245	257	137
<b>Financial assets at amortised costs</b>	<b>702</b>	<b>538</b>	<b>553</b>	<b>466</b>
<b>Financial liabilities:</b>				
Fair value hedges	4	0	3	0
<b>Financial liabilities at fair value through income statement</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>0</b>
Financial instruments for hedging of future cash flows	5	1	-	-
<b>Financial liabilities at fair value through other comprehensive income</b>	<b>5</b>	<b>1</b>	<b>-</b>	<b>-</b>
Bank loans incl. short term	5	2	-	-
Bank debt	6	2	-	-
Trade payables	209	171	19	10
Other payables and payables to subsidiaries	165	150	457	389
<b>Financial liabilities at amortised costs</b>	<b>385</b>	<b>325</b>	<b>476</b>	<b>399</b>

The carrying value of the Group's and the parent company's financial assets and liabilities measured at amortised cost are assessed to be a reasonable approximation of fair value.

Other receivables and receivables from subsidiaries and associated companies fall due as follows:

EURm	Group		Parent company	
	2018	2017	2018	2017
< 1 year	42	36	259	309
1-3 years	-	-	37	20
4-5 years	-	-	-	-
> 5 years	-	-	-	-
<b>Total</b>	<b>42</b>	<b>36</b>	<b>296</b>	<b>329</b>



### Comments

The Group's listed equity securities, taken over as part of the acquisition of Flumroc AG, were sold during 2018.

As a consequence of ROCKWOOL Group's extensive international activities, the Group's income statement and equity are subject to a number of financial risks. The Group manages these risks in the following categories:

- Exchange-rate risk
- Interest-rate risk
- Liquidity risk
- Credit risk

The Group's policy is to identify and hedge significant financial risks on an ongoing basis. This is the responsibility of the individual companies in which financial risks might arise and overall supported by the Group's treasury department. The parent company continuously monitors the Group's financial risks in accordance with a framework determined by Group Management and/or the Board of Directors.

### Exchange-rate risk

As a consequence of the Group's structure, net sales and expenditure in foreign currency are to a significant degree set off against each other, so that the Group is not exposed to major exchange-rate risks.

Commercial exchange-rate risks in the companies which cannot be set off are hedged on a continuous basis, to the extent that they may significantly affect the results of the individual company in a negative direction, using currency loans, currency deposits and/or financial derivatives. Exchange-rate risks are hedged in the individual companies. The Group's hedging reserve is disclosed under "Statement of changes in equity" with an insignificant amount.

The Group's net sales and expenditures will be subject to exchange-rate fluctuations on translation into Euro.



# Notes

## 4.2 Financial risks and instruments (continued)

A sensitivity analysis is made for the Group's result and equity based on the underlying currency transactions. The financial instruments included in the sensitivity analysis are cash, debtors, creditors, current liabilities and financial investments without taking hedging into consideration. The result of the sensitivity analysis cannot be directly transferred to the fluctuations on translating the financial result and equity of subsidiaries into EUR.

Sensitivity analysis:

Effect in EURm	EBITDA	
	2018	2017
<b>5% change in exchange rate</b>		
USD (+/-)	7-10	9-13
RUB (+/-)	2-3	1-1
CAD (+/-)	1-2	2-3
PLN (+/-)	2-3	0-0
	Equity	
USD (+/-)	7-10	11-17
RUB (+/-)	10-15	6-10
CAD (+/-)	5-8	5-7
PLN (+/-)	9-14	8-12

The impact on the net sales of the difference between average rate and year-end rate amounts to EUR -8 million (2017: EUR -25 million) for the 4 largest currencies (USD, RUB, CAD and PLN), which is a change of -0.3% (2017: -1.1%).

### Parent company

The Group's policy is not to hedge exchange rate risks in long-term investments in subsidiaries.

When relevant, external investment loans and Group loans are, as a general rule, established in the local currency of the company involved, while cash at bank and in hand are placed in the local currency.

In the few countries with ineffective financial markets loans can be raised and surplus liquidity placed in DKK, EUR or USD, subject to the approval of the parent company's finance function.

Most Group loans that are not established in DKK or EUR are hedged in the parent company via forward agreements, currency loans and cash pools or via the SWAP market.

### Interest-rate risk

Currently the Group does not have any significant interest-bearing debt or assets. The Group's policy is that necessary financing of investments should primarily be affected by raising 5 to 7 year loans at fixed or variable interest rates.

Drawings on credit facilities at variable interest rates generally match the funds, and all Group loans are symmetrical in terms of interest rates. Consequently, changes in interest rates will not have a significant effect on the result of the Group.

### Liquidity risk

The current surplus and deficit liquidity in the Group's companies is set off, to the extent that this is profitable, via the parent company acting as intra-Group bank and via cash pool systems. When considered appropriate, underlying cash pool systems are established in foreign companies.

To the extent that the financial reserves are of an appropriate size, the parent company also acts as lender to the companies in the Group.

### Parent company

To ensure financial reserves of an acceptable size, investment loans can be raised on a continuous basis to partly cover new investments and to refinance existing loans. The parent company has made guarantees for some credit facilities and loans. Please refer to note 2.3 for further specification of the loans.

The parent company has issued ownership clauses and/or deed of postponements in connection with intercompany loans. Please refer to note 5.5.

The parent company ensures on an ongoing basis that flexible, unutilised committed credit facilities of an adequate size are established with major solid banks. The Group's financial reserves also consist of cash at bank and in hand, and unused overdraft facilities.

### Credit risk

Due to the considerable customer spread in terms of geographical location and numbers the credit risk is fundamentally limited. To a minor degree, when considered necessary, insurance or bank guarantees are used to hedge outstanding debtors.

As a consequence of the international diversification of the Group's activities there are business relations with a number of different banks in Europe, North America and Asia. To minimise the credit risk on placement of funds and on entering into agreements on derived financial instruments, only major, financially sound institutions are used.

Customer credit risks are assessed considering the financial position, past experience and other factors. Individual risk limits are set based on internal and external ratings. For impairment of trade receivable please refer to note 3.2.

No customer exceeds 10% of the Group's net sales neither this year nor last year.

### Parent company

Loans to Group companies are measured at amortised costs less write-downs based on expected credit losses. The parent company holds both loans repayable on demand via the cash pool and short- and long-term loans.

For the loans repayable on demand the expected credit loss is calculated based on the assumption that repayment of the loan is demanded on the reporting date. If the Group company has

# Notes

## 4.2 Financial risks and instruments (continued)

sufficient cash to repay, no credit loss is recognised. If no cash is available a "repay over time" or a "fire-sale" strategy is used. The expected credit loss is therefore limited to the effect of discounting the amount due on the loan over the period, until the cash is realised.

For short-term and long-term loans a 12-month credit loss is calculated based on the probability of default and the loss given default.

### Categories of financial instruments

Financial assets and liabilities at fair value are related to foreign exchange rate forward contracts, foreign exchange rate swaps or

interest rate swaps all of which have been valued using a valuation technique with market observable inputs (level 2).

The Group is using no other valuation technique. The Group enters into derivative financial instruments with financial institutions.

Derivatives valued using valuation techniques with market observable inputs are mainly foreign exchange forward contracts. The most frequently applied valuation techniques include forward pricing models using present value calculations. The models incorporate various inputs including the credit quality of counterparties and foreign exchange spot rates.

## 4.3 Cash available

EURm	Group		Parent company	
	2018	2017	2018	2017
Cash	386	245	257	137
Bank debts	6	2	-	-
<b>Cash available 31/12</b>	<b>380</b>	<b>243</b>	<b>257</b>	<b>137</b>

## 4.4 Bank loans and other financial liabilities



### Accounting policies

Interest-bearing debt is valued at amortised cost measured on the basis of the effective interest rate at the time of borrowing. The proceeds from the loans are compiled less transaction costs.

EURm	Group		Parent company	
	2018	2017	2018	2017
Redemption				
<b>Redemption within 1 year</b>	<b>392</b>	<b>325</b>	<b>476</b>	<b>399</b>
Redemption between 1 and 3 years	2	0	-	-
Redemption between 3 and 5 years	-	1	-	-
Falling due after 5 years	-	0	-	-
<b>Total non-current</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>-</b>
Interest reassessment time				
Reassessed less than 12 months	1	-	-	-
Reassessed after more than 12 months or fixed interests	1	1	-	-
<b>Total</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>-</b>
Yield				
Non-interest bearing	1	1	-	-
Below 4%	0	-	-	-
Between 4% and 6%	1	-	-	-
<b>Total</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>-</b>

None of the debt in 2018 nor 2017 comprises capitalised finance lease commitments.

# Notes

## 4.5 Own shares



### Accounting policies

ROCKWOOL International A/S has a reserve of own shares recognised in retained earnings. The shares are bought back to meet obligations under the company's equity-based stock option and restricted share unit programmes.

EUR	Group					
	2018			2017		
	Number of shares	Average purchase/sales price	% of share capital	Number of shares	Average purchase/sales price	% of share capital
Own shares 1/1	206,840		1.0	275,855		1.3
Purchase	9,250	241	0.0	11,500	160	0.1
Adjustment	-	-	-	-	-	-
Sale	140,225	164	0.6	80,515	100	0.4
<b>Own shares 31/12</b>	<b>75,865</b>		<b>0.4</b>	<b>206,840</b>		<b>1.0</b>

Own shares are acquired and sold in connection with hedging of the Group's stock option and restricted share unit programmes etc. Own shares are purchased based on authorisation from the General Assembly.

## 4.6 Share capital



### Comments

Each A share of a nominal value of DKK 10 (EUR 1.3) carries 10 votes, and each B share of a nominal value of DKK 10 (EUR 1.3) carries 1 vote. The total share capital has been unchanged for the last 18 years.

The share capital has been fully paid up. No shareholder is under an obligation to allow his shares to be redeemed whether in whole or in part. The shares are negotiable instruments, and all shares shall be freely transferable.

EURm	Parent company	
	2018	2017
A shares - 11,231,627 shares of DKK 10 each (EUR 1.3)	15	15
B shares - 10,743,296 shares of DKK 10 each (EUR 1.3)	14	14
<b>Total</b>	<b>29</b>	<b>29</b>

## 4.7 Earnings per share

EURm	Group	
	2018	2017
Profit for the year excluding minority interests	265	214
Average number of shares ('000)	21,975	21,975
Average number of own shares ('000)	141	241
<b>Average number of shares outstanding ('000)</b>	<b>21,834</b>	<b>21,734</b>
Dilution effect of share options ('000)	86	102
<b>Diluted average number of outstanding shares ('000)</b>	<b>21,920</b>	<b>21,836</b>
Earnings per share	12.14	9.81
Earnings per share, diluted	12.09	9.76



# Note 5 Other

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Group tax  
percentage  
in 2018

**21%**

# Notes

## 5.1 Tax on profit for the year



### Accounting policies

The parent company is taxed jointly with all Danish subsidiaries. Income subject to joint taxation is fully distributed. Tax on profit for the year, which includes current tax on profit for the year as well as changes to deferred tax, is recognised in the income statement.

In the course of conducting business globally, transfer pricing disputes, etc. with tax authorities may occur, and Management judgement is applied to assess the possible outcome of such dis-

putes. The most probable outcome is used as the measurement method, and Management believes that the provision made for uncertain tax positions not yet settled with local tax authorities is adequate. However, the actual obligation may deviate and is dependent on the result of litigations and settlements with the relevant tax authorities.

Tax on changes in other comprehensive income is recognised directly under other comprehensive income.

EURm	Group		Parent company	
	2018	2017	2018	2017
Current tax for the year	85	57	8	8
Change in deferred tax	-7	1	-3	-8
Adjustment to valuation of tax assets	-8	3	-	-
Withholding taxes	1	0	1	1
Adjustment in current and deferred tax in previous years	-1	-0	1	-1
<b>Total</b>	<b>70</b>	<b>61</b>	<b>7</b>	<b>-0</b>

### Reconciliation of effective tax rate

	Group	
	2018	2017
Danish tax rate	22.0%	22.0%
Deviation in non-Danish subsidiaries' tax compared to Danish tax percentage	2.4%	2.9%
Fair value gain on own holding of Flumroc shares	-	-2.0%
Withholding tax adjustment	0.4%	0.2%
Permanent differences	0.1%	-0.2%
Effect on change in income tax rates	-0.3%	-0.9%
Adjustment to valuation of tax assets	-3.0%	1.2%
Initial recognition of tax grant	-0.8%	-
Other deviations	0.2%	-0.8%
<b>Effective tax rate</b>	<b>21.0%</b>	<b>22.4%</b>

# Notes

## 5.2 Income tax receivable and payable

EURm	Group		Parent company	
	2018	2017	2018	2017
Balance 1/1	14	19	-5	-2
Exchange rate adjustments	0	-0	-	0
Acquisition of subsidiary	0	2	-	-
Current tax for the year	85	57	8	8
Payments during the year	-62	-57	-4	-10
Adjustment in respect of prior years	-2	-0	1	-1
Current tax for the year recognised in other comprehensive income	-6	-7	-4	-0
<b>Total 31/12</b>	<b>29</b>	<b>14</b>	<b>-4</b>	<b>-5</b>
Income tax is recognised as follows:				
Income tax receivable	5	10	4	5
Income tax payable	34	24	-	-
<b>Total 31/12</b>	<b>29</b>	<b>14</b>	<b>-4</b>	<b>-5</b>



# Notes

## 5.3 Deferred taxes



### Accounting policies

Provisions for deferred tax are calculated on all temporary differences between accounting and taxable values, calculated using the balance-sheet liability method.

Deferred tax provisions are also made to cover the re-taxation of losses in jointly taxed foreign companies previously included in the Danish joint taxation.



### Critical estimates and judgements

The Group is subject to income taxes in numerous jurisdictions. Significant judgement is required in determining provision for uncertain tax positions or the recognition of a deferred tax asset.

A tax asset is recognised if it is assessed that the asset can be utilised in a foreseeable future based on strong indications that

Deferred tax assets are recognised when it is probable that the assets will reduce tax payments in coming years and they are assessed at the expected net realisable value.

Deferred tax is stated according to current tax regulations. Changes in deferred tax as a consequence of changes in tax rates are recognised in the income statement.

sufficient future profits are available to absorb the temporary differences including the Group's future tax planning.

The valuation of tax assets related to losses carried forward is done on a yearly basis and is based on expected positive taxable income within the next 3-5 years.

EURm	Group		Parent company	
	2018	2017	2018	2017
Deferred taxes, net 1/1	12	-4	4	13
Exchange rate adjustments	1	-2	-0	-0
Acquisition of subsidiary	1	16	-	-
Change in deferred tax recognised in profit and loss	-6	1	-1	-8
Adjustment to valuation of tax assets	-8	3	-	-
Deferred tax for the year recognised in other comprehensive income for the year	5	-2	3	-1
<b>Deferred tax, net 31/12</b>	<b>5</b>	<b>12</b>	<b>6</b>	<b>4</b>
Deferred tax is recognised in the balance sheet as follows:				
Deferred tax assets	46	39	-	-
Deferred tax liabilities	51	51	6	4
<b>Deferred tax, net 31/12</b>	<b>5</b>	<b>12</b>	<b>6</b>	<b>4</b>
Deferred tax relates to:				
Non-current assets	37	40	3	3
Current assets	-5	-6	-	-
Non-current liabilities	-24	-20	-1	-3
Current liabilities	-4	-3	-	-
Tax loss carried forward	-3	-3	-	-
Re-taxable amounts	4	4	4	4
<b>Deferred tax, net 31/12</b>	<b>5</b>	<b>12</b>	<b>6</b>	<b>4</b>

### The tax assets expire as follows:

EURm	Group			
	2018		2017	
	Recognised assets	Unrecognised assets	Recognised assets	Unrecognised assets
Within 1 year of balance sheet date	-	1	-	2
Within 1-5 years of balance sheet date	0	6	2	8
After 5 years of balance sheet date	3	13	0	5
Do not expire	43	5	37	16
<b>Total</b>	<b>46</b>	<b>25</b>	<b>39</b>	<b>31</b>

# Notes

## 5.3 Deferred taxes (continued)



### Comments

Tax assets not recognised amount to EUR 25 million (2017: EUR 31 million). The tax assets have not been recognised as they have arisen in subsidiaries that have been loss-making for some time and there is no evidence of recoverability in the near future.

Deferred tax assets and liabilities are offset in the consolidated balance sheet if the Group has a legally enforceable right to set

off and the deferred tax assets and liabilities relate to the same legal tax entity/consolidation. Of the total deferred tax assets recognised, EUR 3 million (2017: EUR 3 million) relate to tax loss carry forwards.

## 5.4 Auditor's fee

Fees to auditors elected at the Annual General Meeting consist of:

EURm	Group		Parent company	
	2018	2017	2018	2017
Statutory audit	1	1	0	0
Other opinions	0	0	0	0
Tax consultancy	0	0	0	0
Other services	1	1	1	1
<b>Total</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>



### Comments

Fees for services in addition to the statutory audit of the financial statements which were provided by the statutory auditor PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab to the Group amounted to EUR 1 million. Services in addition

to the statutory audit of the financial statements comprise tax services relating to transfer pricing, advisory services related to IT consultancy, as well as other general accounting consultancy services.

# Notes

## 5.5 Commitments and contingent liabilities



### Accounting policies

Lease commitments concerning finance lease are assessed at the current value of the remaining lease instalments, including any possible guaranteed residual value based on the internal interest rate of each lease agreement.

Provisions for legal proceedings are recognised if they are certain or probable at the balance sheet date, and if the size of the liability can be measured on a reliable basis. Legal proceedings for which no reliable estimate can be made are disclosed as contingent liabilities.

Operational lease commitments expire within the following periods as from the balance sheet date:

EURm	Group		Parent company	
	2018	2017	2018	2017
Within 1 year	19	16	1	1
Between 1 and 5 years	26	20	0	0
After 5 years	5	4	-	-
<b>Total</b>	<b>50</b>	<b>40</b>	<b>1</b>	<b>1</b>



### Comments

For the Group, commitments comprise EUR 5 million (2017: EUR 0 million). Contingent liabilities amount to EUR 5 million (2017: EUR 6 million). Contractual obligations for purchase of tangible assets are mentioned in note 2.2.

The Group is engaged in a few legal proceedings. It is expected that the outcome of these legal proceedings will not impact the Group's financial position in excess of what has been provided for in the balance sheet as at 31 December 2018 (as well as at 31 December 2017). The parent company has no contingent liabilities this year nor last year.

Lease costs for the Group amounting to EUR 24 million (2017: EUR 20 million) are included in the income statement.

For certain loans and receivables provided by the parent company amounting to EUR 146 million (2017: EUR 142 million) deeds of postponement have been given. In connection with the raising of loans and credit facilities, the parent company has accepted restrictions of its rights of disposal of the shares in subsidiaries representing a book value of EUR 526 million (2017: EUR 242 million).



# Notes

## 5.6 Related parties

### Shareholders holding more than 5% of the share capital or the votes

ROCKWOOL International A/S has registered the following shareholders holding more than 5% of the share capital or the votes:

	2018		2017	
	Share capital	Votes	Share capital	Votes
ROCKWOOL Foundation, DK-1360 Copenhagen K	23%	28%	23%	28%
15. Juni Fonden, DK-2970 Hoersholm	6%	10%	6%	10%
Birte Kähler, DK-2930 Klampenborg	6%	9%	-	-
Gustav Kähler, DK-2930 Klampenborg	-	-	6%	9%
Dorrit Eegholm Kähler, DK-2830 Virum	4%	6%	4%	6%
Tom Kähler, DK-3540 Lyngø	4%	5%	3%	5%

The income statement and balance sheet include the following transactions with other companies in the Group:

EURm	Group		Parent company	
	2018	2017	2018	2017
<b>Transactions with subsidiaries:</b>				
Income from the engineering business			20	13
Royalty and services			124	102
Dividend from subsidiaries			300	120
Interest from subsidiaries			1	4
Interest to subsidiaries			3	3
Taxes received (+) / paid (-)			-	-1
Loans to subsidiaries			37	20
Receivables from subsidiaries			240	297
Payables to subsidiaries			430	372
<b>Transactions with associated companies:</b>				
Dividend from associated companies	1	3	-	3
Receivable from associated companies	-	-	-	-



### Comments

The Group's related parties comprise the Company's shareholder the ROCKWOOL Foundation, the Company's Board of Directors and Management and associated companies. Apart from dividends no transactions were carried out with the shareholders during the year. For transactions with the Board of Directors and Group Management please refer to note 1.3.

### Parent company

The parent company's related parties also include the subsidiaries and associated companies listed as Group companies in note 5.8.

Transactions with these companies include consultancy work – including support on establishing and expanding production capacity, use of know-how and brands, use of central IT and procurement resources, etc. – and financing.

As a management company, the parent company is jointly taxed with other Danish Group entities and is jointly and severally liable for payment of corporate income taxes as well as for payments of withholding taxes on dividend, interests, royalties, etc.

# Notes

## 5.7 New standards and general accounting policies

The Annual report for ROCKWOOL International A/S has been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and further requirements in the Danish Financial Statements Act.

The fiscal year for the Group is 1 January – 31 December 2018.

### 5.7.1 New and changed standards and interpretations

The following EU adopted standards and interpretations with relevance for the Group were implemented with effect from 1 January 2018:

- IFRS 9: Financial instruments (effective date 1 January 2018)
- IFRS 15: Revenue from contracts with customers (effective date 1 January 2018) – including amendments
- IFRIC 23: Uncertainty over Income Tax Treatment

Implementation of IFRIC 23 has had no impact effect on equity in 2018.

In the following the impact from IFRS 9 and IFRS 15 is presented.

Several other amendments and interpretations apply for the first time in 2018, but do not have an impact on the consolidated financial statements of the Group. The Group has not early adopted any standards, interpretations or amendments that have been issued but are not yet effective, except IFRIC 23.

#### *Impact from IFRS 9 "Financial instruments"*

The standard introduces several changes to IAS 39 – including a new impairment framework, new rules for hedge accounting and new requirements and guidance on classification and measurement of financial assets and liabilities. The Group has adopted IFRS 9 using the modified retrospective method with no restatements of comparison figures.

As the impact of the new standard is immaterial, no cumulative effect is recognised as an adjustment to the opening balance of retained earnings.

#### *Classification and measurement of financial assets and liabilities*

The implementation of IFRS 9 has not had any significant impact on the classification and measurement of the Group's financial assets and liabilities.

#### *Impairment of financial assets*

Based on the Group's business model and type of financial assets and liabilities, the implementation of IFRS 9 has only had an impact on the impairment of the Group's financial assets measured at amortised costs. The impairment of trade receivables is now subject to the new expected credit loss model. The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. The new approach has resulted in an immaterial adjustment on bad debt provision for trade receivables.

In the parent company the measurement of loans to subsidiaries is now based on the expected credit loss model. The implementation has not had any material impact.

#### *Derivatives and hedging activities*

The Group's risk management strategies and hedge documentation are aligned with the requirements of IFRS 9 with no impact on the recognition and measurement. Please refer to note 4.2 for further description of the Group's financial risks and instruments.

#### *IFRS 15 "Revenue from contracts with customers"*

The standard introduces a new framework for revenue recognition and measurement. The Group adopted IFRS 15 using the modified retrospective method of adoption with no restatements of comparison figures. No practical expedients have been applied.

As the impact of the new standards is immaterial, no cumulative effect is recognised as an adjustment to the opening balance of retained earnings.

Based on the current types of contracts and products the standard has no significant impact on the recognition of net sales. The Group does not engage in multi elements agreements or contingent fees. The current use of extended warranties to customers is limited and only a minor warranty provision is recognised as the historic risk on warranties has proven to be limited.

#### **New and changed standards and interpretation not yet entered into force**

EU adopted standards and amendments issued by IASB with effective date after 31 December 2018 and therefore not implemented, comprise:

#### **IFRS 16 Leases**

IASB has issued IFRS 16 "leasing", with effective date 1 January 2019. Per the new standard, all lease contracts are to be recognised in the balance sheet as an asset with the corresponding lease liability. Exempted are only short-term leases less than 12 months and low value assets.

The Group plans to adopt IFRS 16 using the modified retrospective method under which the effect of the implementation is included in the opening equity as of 1 January 2019 without adjustment of comparative figures.

During 2018, the Group has performed a detailed impact assessment of IFRS 16. ROCKWOOL Group expects additional leasing assets and similar leasing liabilities corresponding to approximately 2 percent of the balance. The income statement will be impacted as the lease cost will be recognised as depreciation and finance expenses and not as part of operating costs as today. The impact on the EBIT margin is estimated to be below 0.1 percentage point. In addition, the cash flow will be impacted as part of the current lease payments will be moved from operating activities to cash flow from financing activities (installments).

As part of calculating the impact assessment of the new IFRS 16 ROCKWOOL has made a walk-through of all operational leasing and rental contracts to assess the impact.

# Notes

## 5.7 New standards and general accounting policies (continued)

### 5.7.2 General accounting policies

#### Group Accounts

The consolidated financial statements comprise ROCKWOOL International A/S and the entities in which the company and its subsidiaries hold the majority of the voting rights.

The consolidated financial statements have been prepared as a consolidation of the parent company's and the individual subsidiaries' financial statements, determined according to the Group's accounting policies, and with elimination of dividends, internal revenue and expenditure items, internal profits as well as intercompany balances and intercompany shareholdings.

Besides shares, capital investments in subsidiaries include long-term loans to subsidiaries if such loans constitute an addition to the shareholding.

#### Translation of foreign currency

The Annual report has been presented in Euro (EUR) which is the Group's presentation currency. The functional currency for the parent company is DKK. Each company in the Group determines its own functional currency.

Transactions in foreign currency are translated using the exchange rate at the transaction date or a hedged rate. Monetary items in foreign currency are translated using the exchange rates at the balance sheet date. Accounts of foreign subsidiaries are translated using the exchange rates at the balance sheet date for balance sheet items, and the periodic average exchange rates for items of the income statement.

All exchange rate adjustments are recognised in the income statement under financial items, apart from the exchange rate differences arising on:

- Conversion of equity in subsidiaries at the beginning of the financial year using the exchange rates at the balance sheet date
- Conversion of the profit for the year from average exchange rates to exchange rates at the balance sheet date
- Conversion of long-term intercompany balances that constitute an addition to the holding of shares in subsidiaries
- Conversion of the forward hedging of capital investments in subsidiaries
- Conversion of capital investments in associated and other companies
- Profit and loss on effective derivative financial instruments used to hedge expected future transactions

These value adjustments are recognised directly under other comprehensive income.

#### Significant accounting estimates and judgements

IFRS requires the use of certain key accounting estimates when preparing the consolidated financial statements. When determining the carrying amount of some assets and liabilities it requires Management to make judgments, estimates and assumptions about future events.

Assumptions and estimates are based on historical experience and other factors, and are considered by Management as reasonable in the circumstances, but are inherently uncertain and unpredictable and therefore the actual outcome may differ from these estimates.

Management considers critical estimates and judgements under the following items as significant to the consolidated financial statements:

- Impairment testing (note 2.5)
- Expected lifetime for tangible assets (note 2.2)
- Deferred tax assets (note 5.3)
- Pension obligations (note 2.6)



# Notes

## 5.8 Group companies

	Country	% Shares owned
<b>Parent company</b>		
ROCKWOOL International A/S		
<b>Subsidiaries</b>		
<b>Insulation</b>		
ROCKWOOL Handelsgesellschaft m.b.H.	Austria	100
ROCKWOOL B.V.B.A.	Belgium	100
Etablissements Charles Wille et cie SA	Belgium	100
ROCKWOOL Bulgaria Ltd.	Bulgaria	100
ROXUL Inc.	Canada	100
Yangzhou KEWO Energy Conservation New Materials Co., Ltd.	China	100
ROCKWOOL Building Materials (Tianjin) Co. Ltd.	China	100
ROCKWOOL Firesafe Insulation (Guangzhou) Co. Ltd.	China	94.84
ROCKWOOL Firesafe Insulation (Shanghai) Co. Ltd.	China	100
ROCKWOOL Adriatic d.o.o.	Croatia	100
ROCKWOOL a.s.	Czech Republic	100
ROCKWOOL A/S	Denmark	100
ROXUL ROCKWOOL Technical Insulation Middle East FZE	UAE	100
ROCKWOOL EE OÜ	Estonia	100
ROCKWOOL Finland OY	Finland	100
Flumisol Sàrl	France	100
ROCKWOOL France S.A.S	France	100
Deutsche ROCKWOOL GmbH & Co. KG	Germany	100
HECK Wall Systems GmbH	Germany	100
ROCKWOOL Mineralwolle GmbH Flechtingen	Germany	100
ROCKWOOL Operations GmbH & Co.KG	Germany	100
ROCKWOOL Limited	Great Britain	100
ROCKWOOL Building Materials Ltd.	Hong Kong	100
ROCKWOOL Hungary Kft.	Hungary	100
ROXUL ROCKWOOL Insulation India Ltd.	India	100
ROXUL ROCKWOOL Technical Insulation India Pvt. Ltd.	India	100
ROCKWOOL Italia S.p.A.	Italy	100
ROCKWOOL Korea Co. Ltd.	Korea	100
SIA ROCKWOOL	Latvia	100
ROCKWOOL UAB	Lithuania	100
ROCKWOOL Malaysia Sdn. Bhd.	Malaysia	94.84
Breda Confectie B.V.	the Netherlands	100
ROCKWOOL B.V.	the Netherlands	100
A/S ROCKWOOL	Norway	100
ROCKWOOL Polska Sp. z o.o.	Poland	100

# Notes

## 5.8 Group companies (continued)

	Country	% Shares owned
<b>Subsidiaries</b>		
Insulation (continued)		
FAST Sp. z o.o.	Poland	100
ROCKWOOL Romania s.r.l.	Romania	100
LCC ROCKWOOL	Russia	100
LLC ROCKWOOL North	Russia	100
LLC ROCKWOOL Ural	Russia	100
LLC ROCKWOOL Volga	Russia	100
ROCKWOOL Building Materials (Singapore) Pte Ltd.	Singapore	100
ROCKWOOL Slovensko s.r.o.	Slovakia	100
ROCKWOOL Peninsular S.A.	Spain	100
ROCKWOOL AB	Sweden	100
Flumroc AG	Switzerland	100
PAMAG Engineering AG	Switzerland	100
ROCKWOOL GmbH	Switzerland	100
ROCKWOOL Limited	Thailand	94.84
ROCKWOOL Insaat ve Yelitim Sistemleri San. Ve Tic. Ltd. Sti.	Turkey	100
LLC ROCKWOOL Ukraine	Ukraine	100
ROXUL USA Inc.	U.S.	100
<b>Systems</b>		
Chicago Metallic (Shenzhen) Co., Ltd.	China	100
Chicago Metallic Continental GmbH	Germany	100
ROCKWOOL Rockfon GmbH	Germany	100
Chicago Metallic (Asia Pacific) Ltd.	Hong Kong	100
Chicago Metallic (Malaysia) Sdn. Bhd.	Malaysia	100
Consmat Metallic Pte. Ltd.	Singapore	100
<b>Other subsidiaries</b>		
ROCKWOOL Beteiligungs GmbH	Germany	100
ROCKWOOL Verwaltungs GmbH	Germany	100
CMC Productos Perlitas s de rl de cv	Mexico	100
Servicios Pearl de Mexico s de rl de cv	Mexico	100
ROCKWOOL Global Business Service Center Sp. Z.o.o.	Poland	100
BuildDesk Polska Sp. z o.o.	Poland	100
Meilco Holding AG	Switzerland	100
<b>Associated companies</b>		
Betterhome ApS	Denmark	25
RESO SA	France	20

The German subsidiaries DEUTSCHE ROCKWOOL GmbH & Co. KG and ROCKWOOL Operations GmbH & Co. KG, which have legal form of partnership, make use of the exemptions provided by section 264b of the German Commercial Code (HGB).

# Definition of key figures and ratios

## EBITDA

Earnings before depreciation, write-downs, amortisations, financial items and tax

## EBIT

Earnings before financial items and tax

## Net working capital (NWC)

Receivables and other current operating assets less trade and other payables and other current operational liabilities adjusted for investment creditors

## Invested capital

NWC + non-current assets less tax - non-interest-bearing liabilities

## Net interest bearing debt

Cash - bank loans and other loans - bank debt

## EBITDA margin (%)

$\frac{\text{EBITDA}}{\text{Net sales}} \times 100\%$

## EBIT margin (%)

$\frac{\text{EBIT}}{\text{Net sales}} \times 100\%$

## Earnings per share of DKK 10 (EUR 1.3)

$\frac{\text{Profit for the year after non-controlling interests}}{\text{Average number of outstanding shares}}$

## Diluted earnings per share of DKK 10 (EUR 1.3)

$\frac{\text{Profit for the year after non-controlling interests}}{\text{Diluted average number of outstanding shares}}$

## Cash flow per share of DKK 10 (EUR 1.3)

$\frac{\text{Cash flows from operating activities}}{\text{Average number of outstanding shares}}$

## Dividend per share of DKK 10 (EUR 1.3)

$\frac{\text{Proposed dividend for the year}}{\text{Number of shares at the end of the year}}$

## Book value per share of DKK 10 (EUR 1.3)

$\frac{\text{Equity end of the year after non-controlling interests}}{\text{Number of shares at the end of the year}}$

## Return on invested capital (ROIC)

$\frac{\text{EBIT}}{\text{Average invested capital including goodwill}} \times 100\%$

## Return on equity (%)

$\frac{\text{Profit for the year after non-controlling interests}}{\text{Average equity excluding non-controlling interests}} \times 100\%$

## Equity ratio (%)

$\frac{\text{Equity end of the year excl. non-controlling interests}}{\text{Total equity and liabilities at the end of the year}} \times 100\%$

## Pay-out ratio (%)

$\frac{\text{Proposed dividend for the year}}{\text{Profit for the year after non-controlling interests}} \times 100\%$

## Leverage ratio

$\frac{\text{Net interest-bearing debt}}{\text{EBITDA}}$

## Financial gearing

$\frac{\text{Net interest-bearing debt}}{\text{Equity end of the year}}$

## Market cap

Number of outstanding shares x share price

## RATIOS

The ratios have been calculated in accordance with [www.keyratios.org](http://www.keyratios.org) issued by CFA Society Denmark. The ratios mentioned in the five-year summary are calculated as described in the definitions above.

## EXCHANGE RATE

Average DKK/EUR	
2018	7.45
2017	7.44
2016	7.45
2015	7.46
2014	7.46

Accounts of foreign subsidiaries are translated using the exchange rates at the balance sheet date for balance sheet items, and the periodic average exchange rates for items of the income statement.



# Management's statement

The Board of Directors and the Registered Directors have today considered and adopted the Annual report of ROCKWOOL International A/S for the financial year that ended 31 December 2018.

The Annual report has been prepared in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

In our opinion the consolidated financial statements and the parent company financial statements give a true and fair view of the Group's and the parent company's financial position at 31 December 2018 and of the results of the Group's and the parent company's operations and cash flows for the financial year 2018.

In our opinion the Management's review includes a true and fair presentation about the development in the parent company's and the Group's operations and financial matters, the results for the year and the Group's and the parent company's financial position and the position as a whole for the entities included in the consolidated financial statements, as well as a description of the more significant risks and uncertainties faced by the Group and the parent company.

We recommend that the Annual report be approved at the Annual General Meeting.

## Hedehusene, 8 February 2019 Registered Directors

Jens Birgersson  
CEO

Kim Junge Andersen  
CFO

## Board of Directors

Henrik Brandt  
Chairman

Carsten Bjerg  
First Deputy Chairman

Søren Kähler  
Second Deputy Chairman

Thomas Kähler

Andreas Ronken

Jørgen Tang-Jensen

René Binder Rasmussen

Connie Enghus Theisen

Christian Westerberg

# Independent auditor's report

## To the Shareholders of ROCKWOOL International A/S

### **Our opinion**

In our opinion, the Consolidated Financial Statements and the Parent Company Financial Statements give a true and fair view of the Group's and the Parent Company's financial position at 31 December 2018 and of the results of the Group's and the Parent Company's operations and cash flows for the financial year 1 January to 31 December 2018 in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

Our opinion is consistent with our Auditor's Long-form Report to the Audit Committee and the Board of Directors.

### *What we have audited*

The Consolidated Financial Statements and Parent Company Financial Statements of ROCKWOOL International A/S for the financial year 1 January to 31 December 2018 (pages 65-111) comprise income statement and statement of comprehensive income, balance sheet, cash flow statement, statement of changes in equity and notes, including summary of significant accounting policies for the Group as well as for the Parent Company. Collectively referred to as the "Financial Statements".

### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (ISAs) and the additional requirements applicable in Denmark. Our responsibilities under those standards and requirements are further described in the Auditor's responsibilities for the audit of the Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### *Independence*

We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark. We have also fulfilled our other ethical responsibilities in accordance with the IESBA Code.

To the best of our knowledge and belief, prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014 were not provided.

### *Appointment*

We were first appointed auditors of ROCKWOOL International A/S on 9 April 2014 for the financial year 2014. We have been reappointed annually by shareholder resolution for a total period of uninterrupted engagement of 5 years including the financial year 2018.

### **Key audit matters**

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Statements for 2018. These matters were addressed in the context of our audit of the Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

# Independent auditor's report

(continued)

## Key audit matter

### **Impairment of intangible and tangible assets**

Intangible and tangible assets might be impaired due to for example increased competition in local markets, changes in the global economy and changes in the strategy of the Group.

We focused on this area as the determination of whether or not an impairment charge for intangible and tangible assets was necessary involves significant estimates and judgements made by Management, including especially:

- estimation of future cash flows and the key assumptions underlying Management's expectations;
- discount rates applied in discounting future cash flows; and
- long-term growth rates

Reference is made to notes 2.1, 2.2, 2.4 and 2.5 to the Consolidated Financial Statements.

## How our audit addressed the key audit matter

We tested the impairment tests prepared by Management and evaluated the reasonableness of estimates and judgements made by Management in preparing these.

Our audit procedures included assessing the Group's impairment model.

Special focus was given to the key drivers of the future cash flows, including growth in net revenues, cost inflation and efficiency improvements, as well as the discount rates and long-term growth rates applied.

We tested the reliability of Management's estimates by comparing budgeted figures to actual figures for the past years and evaluated the discount rates and long-term growth rates applied.

Furthermore, where possible, we compared to independently determined acceptable ranges and externally derived data.

Moreover, we examined sensitivity analyses performed over changes in discount rates, revenue growth and efficiency improvements.

## Key audit matter

### **Uncertain tax positions and valuation of deferred tax assets**

The Group operates in many territories and is, consequently, subject to local tax laws, cross-border transfer pricing legislation and investment promotional tax benefits which complicates the tax matters of the Group as a whole.

Where utilisation of tax losses and tax amortisation balances are uncertain a write-down is recorded based on Management's judgment. Where the amount of tax payable or receivable is uncertain, a provision for uncertain tax positions is recorded based on Management's judgement.

We focused on valuation of deferred tax assets as it involves significant estimates and judgements made by Management in terms of utilisation of tax losses and tax amortisation balances.

Moreover, we focused on the tax accounting area as the completeness and valuation of tax balances are made difficult by a complex multinational tax structure as well as tax arising from acquisition accounting.

Reference is made to notes 5.1, 5.2 and 5.3 to the Consolidated Financial Statements.

## How our audit addressed the key audit matter

In understanding and evaluating Management's judgement, we considered estimates and judgemental positions taken relating to valuation of uncertain tax positions and deferred tax assets.

In addition, we used our own local and international tax specialists, evaluated the adequacy of Management's key assumptions and read relevant correspondence with tax authorities to assess the valuation of tax assets and liabilities.



# Independent auditor's report

(continued)

## Statement on Management's Review

Management is responsible for Management's Review (pages 3-64 and page 112).

Our opinion on the Financial Statements does not cover Management's Review, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Financial Statements, our responsibility is to read Management's Review and, in doing so, consider whether Management's Review is materially inconsistent with the Financial Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

Moreover, we considered whether Management's Review includes the disclosures required by the Danish Financial Statements Act.

Based on the work we have performed, in our view, Management's Review is in accordance with the Consolidated Financial Statements and the Parent Company Financial Statements and has been prepared in accordance with the requirements of the Danish Financial Statements Act. We did not identify any material misstatement in Management's Review.

## Management's responsibilities for the Financial Statements

Management is responsible for the preparation of consolidated financial statements and Parent Company financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, Management is responsible for assessing the Group's and the Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Management either intends to liquidate the Group or the Parent Company or to cease operations, or has no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Financial Statements.

As part of an audit in accordance with ISAs and the additional requirements applicable in Denmark, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Parent Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of Management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Parent Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Financial Statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group or the Parent Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the Financial Statements, including the disclosures, and whether the Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the Consolidated Financial Statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

# Independent auditor's report

(continued)

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Hellerup, 8 February 2019

PricewaterhouseCoopers  
Statsautoriseret Revisionspartnerselskab  
CVR no 3377 1231

**Lars Baungaard**  
State Authorised Public Accountant  
mne23331

**Torben Jensen**  
State Authorised Public Accountant  
mne18651

**The ROCKWOOL® trademark**

The ROCKWOOL trademark was initially registered in Denmark as a logo mark back in 1936. In 1937, it was accompanied with a word mark registration; a registration which is now extended to more than 60 countries around the world.

The ROCKWOOL trademark is one of the largest assets in ROCKWOOL Group, and thus well protected and defended by us throughout the world.

**ROCKWOOL Group's primary trademarks:**

ROCKWOOL®

Rockfon®

Rockpanel®

Grodan®

Lapinus®

Additionally, ROCKWOOL Group owns a large number of other trademarks.

**Disclaimer**

The statements on the future in this report, including expected sales and earnings, are associated with risks and uncertainties and may be affected by factors influencing the activities of the Group, e.g. the global economic environment, including interest and exchange rate developments, the raw material situation, production and distribution-related issues, breach of contract or unexpected termination of contract, price reductions due to market-driven price reductions, market acceptance of new products, launches of competitive products and other unforeseen factors. In no event shall ROCKWOOL International A/S be liable for any direct, indirect or consequential damages or any other damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other action, arising out of or in connection with the use of information in this report.

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Required reporting referring to the Danish Financial Statement Act §99a and §99b can be found on pages 14-15 and 32-45.

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