

# GRÄNGES ANNUAL REPORT

# 2018

Gränges is a global leader in aluminium engineering, manufacturing and innovation.

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# 2018 IN BRIEF

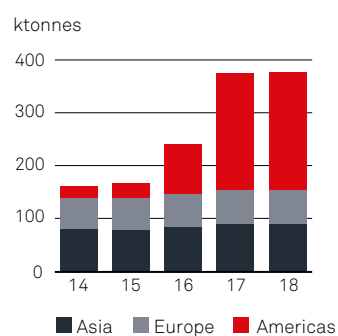
## SOLID PERFORMANCE

- Sales volume increased by 0.5 per cent to 375 ktonnes (373).
- Net sales increased by 12.5 per cent to SEK 12,910 million (11,435).
- Adjusted operating profit increased by 7.7 per cent to SEK 1,005 million (933), and adjusted operating profit per tonne increased to 2.7 kSEK (2.5).
- Profit for the period increased to SEK 688 million (652).
- Earnings per share, basic and diluted, increased to SEK 9.11 (8.65) and to 9.11 (8.64) respectively.
- Cash flow before financing activities amounted to SEK 531 million (572).
- Return on capital employed was 16.5 per cent (16.7).
- Net debt amounted to SEK 2,494 million (2,292) on 31 December, 2018, which corresponds to 1.8 times adjusted EBITDA (1.8).

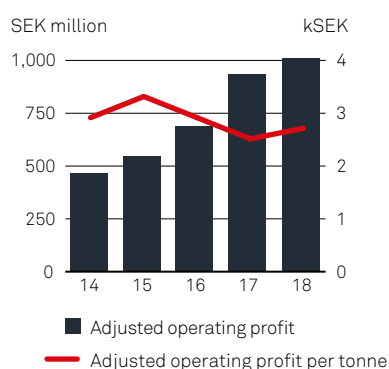
### Financial summary

SEK million	2018	2017	Change
Sales volume, ktonnes	375.0	373.0	0.5%
Net sales	12,910	11,435	12.9%
Adjusted operating profit <sup>1) 2)</sup>	1,005	933	7.7%
Adjusted operating margin, %	7.8	8.2	-0.4 ppt
Adjusted operating profit per tonne, kSEK	2.7	2.5	0.2
Operating profit	940	917	2.5%
Operating margin, %	7.3	8.0	-0.7 ppt
Profit for the year	688	652	5.5%
Earnings per share basic, SEK	9.11	8.65	0.46
Earnings per share diluted, SEK	9.11	8.64	0.47
Cash flow before financing activities	531	572	-7.0%
Equity/assets, %	44.2	41.5	2.6 ppt
Net debt	2,494	2,292	201
Return on capital employed, %	16.5	16.7	-0.2 ppt

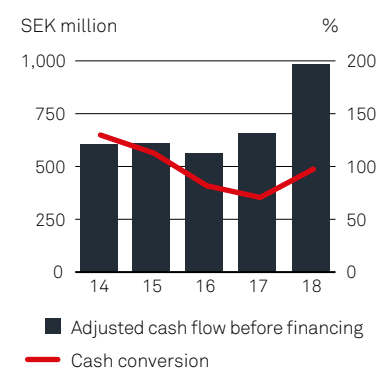
### Sales volume



### Adjusted operating profit<sup>1) 2)</sup>



### Adjusted cash flow before financing<sup>2)</sup>



1) Adjusted for items affecting comparability (see Note 12).  
2) For alternative performance measures, see page 94.

# A LEADING POSITION ON THE GLOBAL MARKET

Gränges is a leading global supplier of rolled aluminium products for heat exchanger applications and other niche markets. The company develops, produces and markets advanced materials that enhance efficiency in the customer manufacturing process and the performance of the final products.

## >> INDUSTRIES

Gränges' customers are in the automotive industry, the HVAC<sup>1)</sup> industry, and niche markets such as transformers and food packaging. In the industry for rolled products for brazed heat exchangers, Gränges has a clear market leading position, with a market share estimated at around 20 per cent globally.

**The automotive industry:** Every second car produced in the world today contains heat exchangers with Gränges' material and expertise. The increase of electric vehicles<sup>2)</sup> (EVs) will drive demand for Gränges' products.

**The HVAC industry:** Aluminium is increasingly used as a stationary heat exchanger material, and Gränges holds a strong position in this industry in Americas.

**Other end-customer markets:** In Americas, Gränges is a major supplier of winding material for transformers, and aluminium foil suitable for food packaging.

Sales volume per end-customer market, 2018



■ Automotive, 50%  
■ HVAC, 24%  
■ Other, 26%

Reported sales volume 2018.

### AUTOMOTIVE HEAT EXCHANGERS PERFORMANCE IS KEY

High requirements for product performance, especially in terms of energy efficiency, have resulted in brazed aluminium heat exchangers becoming the prevailing technology in this industry. In recent years, environmental and performance requirements, as well as passenger comfort demands have increased the number of heat exchangers in cars. The shift towards electric vehicles will drive demand for compact liquid-filled heat exchangers, where Gränges holds a strong position through the patented TRILLIUM® technology.

### HVAC SHIFT TO ALUMINIUM

Stationary heat exchangers are widely used in commercial and residential property, data centres, and manufacturing. Together, these areas account for a considerable share of energy consumption in many countries. Demand for reduced energy consumption and restrictions on the use of, and choice of, refrigerants is driving demand for more compact heat exchangers with less refrigerants, thereby speeding up the shift to aluminium as a stationary heat exchanger material.

### PRODUCTION CAPACITY 420 KTONNES

Gränges has a total production capacity of about 420 ktonnes, split across five rolling plants on three continents. When all ongoing investments to increase the capacity have been completed, total production capacity will reach 500 ktonnes. The facilities are highly optimized according to lean-principles with demand-driven production, and meet customer requirements in terms of quality, flexibility, and delivery.

1) Abbreviation for Heating, Ventilation and Air Conditioning system including heat exchangers. Sometimes used to define the stationary heat exchanger market.

2) Light vehicles that are powered entirely or partly by electricity. They are often divided into Battery Electric Vehicles (BEV) and Hybrid Electric Vehicles (HEV), and in some cases Plug-in Hybrid Vehicles (PHEV).

**Our vision.** To transform the world through innovative aluminium engineering.

## >> REGIONS

Gränges is one of the few truly global players in the industry with product development, production, sales, and technical support on three continents. This enables the company to assist global and regional customers with leading products and unmatched capabilities.

**Asia:** Leading position in rolled products for brazed aluminium heat exchangers. China is the region's largest and most important market, and accounts for more than 50 per cent of Gränges' sales in Asia.

**Europe:** Leading position in rolled products for brazed aluminium heat exchangers, ever since production started at the company's production plant in Finspång in 1972.

**Americas:** Leading position in rolled aluminium products for stationary heat exchangers. Second largest supplier of rolled aluminium brazed heat exchangers to the automotive industry. Strong positions in niche markets such as transformers and food packaging.

Sales volume per region, 2018



■ Asia, 23%  
■ Europe, 17%  
■ Americas, 60%

Reported sales volume 2018.



# IMPORTANT EVENTS 2018

## EXPANSION PLANS

Gränges works actively to establish new capacity and capabilities to meet increasing demand, address new end-customer markets and improve operational efficiency. In the US, 60 ktonnes of new capacity will be added in 2019 by expanding the production plant in Huntingdon and restarting production at the Newport plant. In Finspång, investments were initiated to improve efficiency and increase capacity by 20 ktonnes in 2021.

**80** ktonnes increase in capacity by 2021.

## NEW AMBITIOUS SUSTAINABILITY TARGETS

With a strong commitment to sustainability, Gränges raised its ambitions and launched a set of clear sustainability targets for 2025. These targets demonstrate the company's holistic approach to sustainability through five pillars: ethical business practices; responsible and sustainable sourcing; sustainable operations; diverse and high-performing teams; and sustainable product offerings.

Gränges launched a set of ambitious sustainability targets for 2025.

## STRONG INTEREST IN TRILLIUM®

Gränges TRILLIUM® products help customers reduce costs, create new designs, increase profitability and reduce their environmental impact. Since the launch of TRILLIUM® Lean in April 2017, there has been a sharp increase in interest from both current and new customers. In 2018, sales of TRILLIUM® increased by 30 per cent.





## INVESTMENT CASE

# REASONS TO INVEST IN GRÄNGES

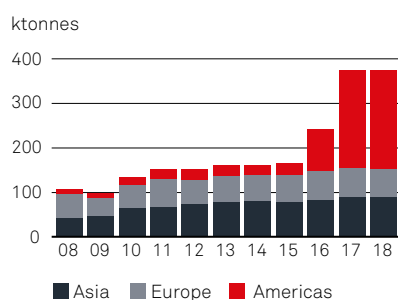
Since the listing of the share in 2014, Gränges has more than doubled its sales volume from 160 to 375 ktonnes, with an increase in adjusted operating profit from SEK 463 million to SEK 1,005 million. The aim is to maintain a higher growth rate than the market while generating strong and sustainable profit.

### THE MAIN REASONS TO INVEST IN GRÄNGES:

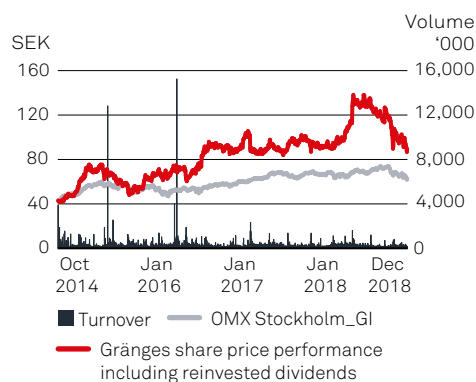
- **Growth above industry average,** driven by innovative and technologically advanced products and solutions.
- **Leader in attractive niche markets,** with a global offering and strong, long-term customer relations.
- **Clear industrial focus,** with a competitive advantage based on research and innovation, best-in-class technologies, and operational excellence.
- **Strong earnings and cash flow generation,** based on commercial and operational strength, together with firm balance sheet management.
- **Committed to sustainability,** as an integrated part of the business model.
- **Long-term value creation,** with a dividend policy which ensures that 30–50 per cent of net profit will be returned to shareholders.

**20%** global market share in rolled products for brazed aluminium heat exchangers.

#### Sales volume 2008–2018



#### Total return since IPO vs index



# CONTINUED STRONG VALUE CREATION – A SOLID BASE FOR THE FUTURE

We continue to focus on growth while retaining profitability, fuelled by our dedicated and long-term investment in innovation and sustainability.

I look back on yet another financially strong year for Gränges. Above all, we have continued to take important steps to drive Gränges' long-term growth – with investments in new production capacity and tailor-made product offerings for new niche markets. We have a special focus on the electrification of the automotive industry. Major technology shifts often present challenges, but for Gränges' products we predict a strong position in this evolving market.

## Stable markets

In 2018, we saw a stable market development on a global level. In the automotive industry we saw a slowdown in car production in primarily Asia and Europe, although Gränges' sales volume to automotive customers continued to increase also in 2018. In Americas, we continued to experience a growing demand across all product categories, a growth that we currently cannot fully capture due to limitations in production capacity.

## Changes in trade legislation

The growing demand in Americas was further fuelled by the US Department of Commerce introducing countervailing and anti-dumping duties on some rolled aluminium products from China, as well as increasing general tariffs for aluminium imports from other countries. These tariffs led to higher demand and prices for domestically produced aluminium products in the US which was positive for Gränges. At the same time this also led to us having to move the production of all products imported to the US from China to Sweden which necessitated a reoptimized supply chain.

## New capacity

The changes in trade legislation also created new market opportunities for Gränges during the year. We decided to re-open the idled production plant in Newport to serve the US light gauge foil market, an attractive

niche market that was previously largely supplied by imports. Moreover, we decided to invest to improve the efficiency and expand the capacity of the plant in Finspång which has been running at a high capacity utilization. The expansion of the plant in Huntingdon to meet the growing demand for automotive and HVAC heat exchanger material also progressed according to plan.

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“We have continued to take important steps to drive Gränges' long-term growth.”

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## Results of innovation

We have in recent years increased our focus in research and innovation, and in 2018 we started to see the results from our efforts. Our patent portfolio, which is very important for the longer term, expanded and the sales of TRILLIUM®, our most innovative and advanced product, took off during the year. I am also very pleased that we through continued product innovation were able to successfully enter into new market segments such as heat exchanger material for wind power applications.

## Electric vehicles

As I mentioned above, we view the global trend of increased electrification in the automotive industry as positive for Gränges. A higher share of electric and hybrid vehicles and increased usage of advanced on-board electronics, such as autonomous driving, will have a positive impact on demand for heat exchanger materials. During the year it became more evident that liquid cooling will be the primary technology for battery cooling

in the automotive industry, which is very positive for Gränges as our TRILLIUM® technology has a competitive advantage in this field. All in all, we see the electrification in the automotive industry as a potential for a larger addressable market.

## Sustainable business

In all things we do, we have a strong focus on sustainability as an integrated part of our business. We strive to minimize the environmental impacts of our operations, uphold ethical business practices, and provide a safe and good work environment. We participate in the UN Global Compact and are committed to continuously integrating the ten principles into our strategy and our operations. In 2018 we continued to develop our sustainability platform and we raised our ambitions further by launching a set of ambitious and clear sustainability targets for 2025. I am also very pleased that Gränges is now a member of Aluminium Stewardship Initiative (ASI) and we fully support ASI's commitment to promote greater sustainability and transparency in the aluminium value chain.

## Strategy for growth

Our strategy remains intact. We are set to drive growth through innovation and acquisitions, increase efficiency through continuous improvements, and add value through our sustainability initiatives. This includes increased focus on product development for electric vehicles, with its promising long-term growth potential. I'm confident that our solid 2018 achievements help promote continued value creation for all our stakeholders and reach our financial targets of achieving sustained and sustainable profitability.



Johan Menckel, CEO





## FOCUS 2018

- Continued to explore growth opportunities in all regions.
- Initiated capacity expansion projects in the US.
- Increased efforts in R&I related to solutions for electric vehicles and new material technologies.
- Implemented a new global sustainability framework and set long-term sustainability targets.
- Launched a new concept for lean manufacturing to support operational excellence and continuous improvements.

## FOCUS 2019

- Continue to explore growth opportunities in all regions.
- Finalize capacity expansion projects in the US and start efficiency improvement projects in Sweden.
- Continue efforts in R&I related to solutions for electric vehicles and new material technologies.
- Continue to embed the global sustainability framework across Gränges' regions and align the regional strategies with global long-term targets.
- Continue to implement the lean concept for operational excellence and continuous improvement.

# DISRUPTIVE CHANGES

The world is facing a period of intense change. Economies and industries are dramatically evolving, driven by development in emerging markets, the accelerated rise of new technologies, sustainability and climate change issues, and changing consumer preferences.

## URBANIZATION – A GROWING SUSTAINABILITY CHALLENGE

The world's urban population is expected to grow by another 2.5 billion by 2050<sup>1)</sup>, and more than 90 per cent of this growth will be in Asia and Africa. India alone is projected to add over 400 million new urban inhabitants by 2050. This rapid urbanization will produce challenges in infrastructure, services, job creation, climate, and environment. Reports show that cities today consume 75 per cent of the world's natural resources and account for 80 per cent of global greenhouse gas emissions. Therefore, it is in the cities where global sustainability and climate change issues must be resolved.



## DIGITALIZATION – NEW BUSINESS OPPORTUNITIES

Digitalization, increasing automation, and new business models are starting to revolutionize industries and societies. In the automotive industry, trends such as electrification, autonomous driving, connectivity, and shared economy are reshaping businesses. To succeed in meeting the changes, automakers, suppliers and service providers form alliances or participate in for example the development of infrastructure for autonomous and electrified vehicles. The rise of the sharing economy will lead to higher fleet utilization, resulting in new requirements for vehicle materials and design, and therefore new business opportunities for suppliers.

## LIMITED RESOURCES – INCREASED IMPORTANCE OF A CIRCULAR ECONOMY

Megatrends such as urbanization, population growth, and an expanding global middle class, will have a huge impact on the economics of materials. There will be strong demand for new housing and infrastructure, electric vehicles will account for a rapidly growing share of all vehicles, and sales of smartphones and other electronics will continue to rise sharply. This will put major pressure on the world's natural resources and create temporary or long-term shortages of critical materials such as cobalt, copper, lithium and nickel. Business models involving recycling and a circular economy will become increasingly important to meet such challenges.



1) UN, 2018 (The 2018 Revision of the World Urbanization Prospects)  
<https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>  
 The 2018 Revision of the World Urbanization Prospects is published by the Population Division of the United Nations Department of Economic and Social Affairs (UN DESA).

# ELECTRIC VEHICLES AND THE IMPORTANCE OF BATTERY COOLING

The electrification of the automotive industry continues with unabated power. Most automakers are rolling out models, joined by new entrants without internal combustion engine legacies. Worldwide sales of electric vehicles<sup>1)</sup> (EVs) grew by around 56<sup>2)</sup> per cent in 2018, and the industry is getting close to mass market adoption. This will have positive effects on Gränges' business. EVs will support demand for aluminium heat exchanger materials and create new opportunities in brazed material development.

There are some factors that could limit the development of electric vehicles: driving range, cost, charging time, battery life-time and safety. Most electric vehicles today use lithium-ion battery packs, the same technology that powers smartphones, tablets and laptops. Lithium-ion batteries require cooling to improve performance and to keep from over-heating. When temperature ranges from 25°C to 40°C, battery power reaches its maximum. Efficient thermal management is therefore crucial for the performance and longevity of the battery. The cooling system plays an important role during the charging process, where heat must be dissipated to prevent battery cells from being damaged by overheating. Fast charging is only possible if the battery is cooled to the lowest temperature allowed before charging. There are two main cooling system solutions for batteries – air cooling and liquid cooling. However, the trend clearly goes towards liquid cooling. The main advantage with liquid cooling is that it is possible to manage the increase of battery density more efficiently. Liquid cooling is also a better solution for fast charging as well as for improving the temperature uniformity between and within the cells. There are two types of liquid cooling, either direct or indirect cooling of the battery cells. The direct cooling has higher performance, but

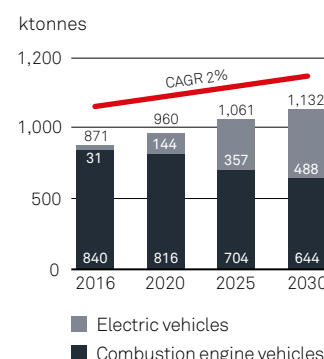
is more complex and thereby costlier. For indirect cooling, there is also a clear trend that battery cooling plates will be used. For this application, the brazed type of battery cooling plate is also becoming the most popular joining technology.

Thermal management will become a core technology to ensure future vehicle performance, as automakers integrate the thermal management systems to minimize vehicle energy use and energy waste.

New requirements on thermal management drive new requirements on heat exchanger materials. Further weight reduction, and stronger and more corrosion resistant materials will be required, along with new designs. For liquid battery cooling plates, brazing is the most cost-efficient joining technology. Brazing is also a technology that the automotive industry is familiar with, after several decades of investments in competence and equipment.

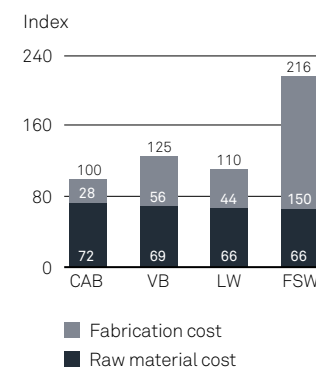
To meet customers' new needs of battery cooling plates, chillers and charge air coolers, Gränges has a pipeline of new materials, including TRILLIUM® Lean, further downgauging and new stamping and tube designs. Gränges works with leading automotive OEMs on design and prototyping for battery cooling, focusing on reaching efficiency and lightweighting targets.

**Automotive brazed heat exchanger material forecast**



Source: Gränges analysis based on data from IHS Automotive 2017.

**Cost comparison for joining technologies**



CAB = Controlled Atmosphere Brazing  
 VB = Vacuum Brazing  
 LW = Laser Welding  
 FSW = Friction Stir Welding

Source: Gränges' analysis.

1) Light vehicles that are powered entirely or partly by electricity. They are often divided into Battery Electric Vehicles (BEV) and Hybrid Electric Vehicles (HEV), and in some cases Plug-in Hybrid Vehicles (PHEV).  
 2) Source: IHS EV Market Outlook, September 2018.

# EXECUTING ON STRATEGY

By offering customized products with a high technical content, Gränges aims to grow above the market rate in the coming years, with sustained and sustainable profitability. Gränges' ambition is to be the market leader within rolled aluminium heat exchanger materials in all regions in year 2020.

## STRATEGY 2020

The strategy has four main pillars:

### DRIVE GROWTH THROUGH INNOVATION

Gränges wants to lead the development of heat exchanger materials and advanced aluminium solutions and be customers' preferred choice.

#### Achievements 2018

- Increased patent portfolio by 20 per cent through increased focus on innovation.
- Grew TRILLIUM® product sales volume by 30 per cent.
- Launched a new product range for windmill heat exchangers.
- Strengthened competence for electric vehicles and new material technologies.

### CREATE VALUE FROM SUSTAINABILITY

Gränges strives to minimize the environmental impacts of its operations, uphold ethical business practices, and provide a safe and good work environment.

#### Achievements 2018

- Reduced the number of recordable accidents per million hours worked (Total Recordable Rate) by 22 per cent.
- Reduced direct and energy indirect carbon intensity by 6 per cent.
- Conducted Code of Conduct training with 99 per cent training participation across the Group.
- Increased the share of sourced recycled aluminium by 46 per cent.

### INCREASE EFFICIENCY THROUGH CONTINUOUS IMPROVEMENTS

Gränges aims to increase productivity, process stability and energy efficiency, while reducing waste in its operations.

#### Achievements 2018

- Improved product quality, and reduced the number of quality claims and ppm by 30 per cent.
- Increased production yield by 2 per cent.
- Reduced energy intensity by 1 per cent while producing a more energy intensive product mix.
- Improved internal recycling rate by 1 per cent.

### GROW PRESENCE THROUGH STRUCTURAL EXPANSION

Gränges plans to invest in production capacity and capabilities, and to expand into adjacent markets.

#### Achievements 2018

- Made a decision to improve efficiency and expand capacity by 20 ktonnes in the Finspång plant – a total investment of SEK 400 million.
- Made a decision to reopen the Newport plant with a capacity of 20 ktonnes to address the US light gauge foil market – total investment USD 26 million.
- Carried out the expansion of the Huntingdon plant, with 40 ktonnes capacity, according to plan.

# A CUSTOMER-FOCUSED BUSINESS MODEL

Gränges supports its customers with research and innovation, product development, and technical support throughout the product’s life-cycle. The performance of the final product in terms of efficiency and environmental impact depends largely on material properties and design, which are Gränges’ core competences.

### Strong customer relationships

Gränges’ customers are dependent on reliable and high-quality products. Gränges is committed to serving its customers and the company’s number one priority is to deliver products and services that meet or exceed customers’ quality requirements. Business relationships are typically long-term and 85 per cent of Gränges’ customers have been with the company for more than ten years.

### Technology leadership and product knowledge

Gränges has world-leading knowledge about metallurgy and understanding of the production process, particularly in the development of alloys, hot rolling of clad materials, thermo-mechanical processing, and slitting.

Product developers and engineers work closely with the customer to optimize the interaction between the materials and the customer’s machinery and processes.

### Specialized and lean manufacturing

Gränges’ production sites in Shanghai and Finspång are optimized to produce heat exchanger materials for brazed heat exchangers. In the US, the production sites are optimized to produce materials for stationary heat exchangers, food packaging, transformers, and other niche markets. To meet increasing demand, more production capacity will be added in the US in 2019.

### Strong expertise and experience

Gränges’ many years of specialization in developing and manufacturing rolled prod-

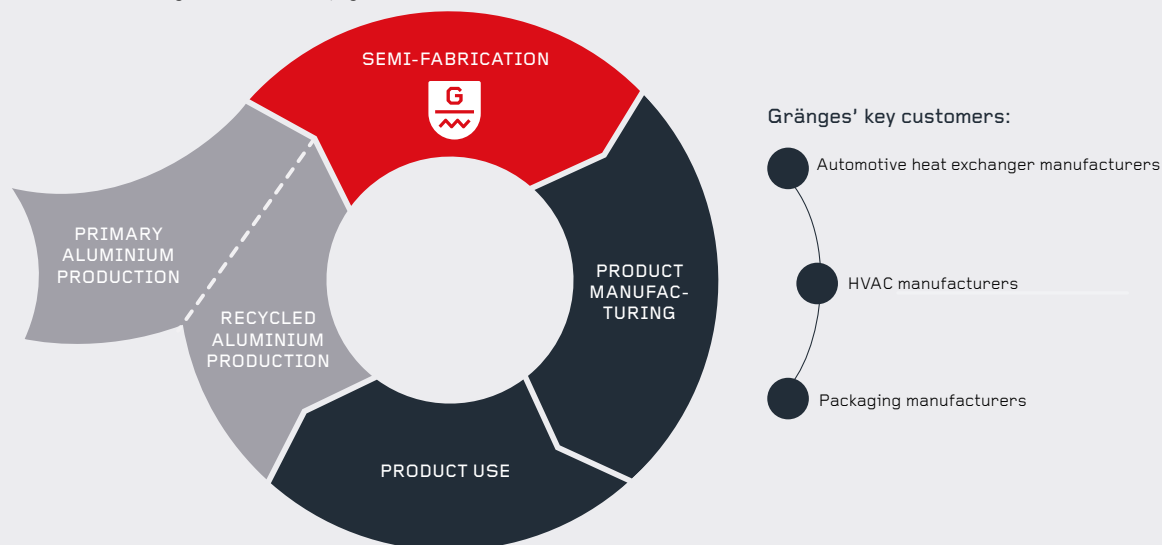
ucts for brazed heat exchangers have built experience and expertise in material characteristics and manufacturing processes at all levels of the organization. Global collaboration to share best practice, valuable knowledge and experience takes place continuously.

### Proven revenue model

Gränges generates its revenue by selling advanced materials manufactured for specific customers and applications in long-term contracts. Pricing is based on the added value that Gränges provides in terms of material properties and product complexity. The cost of aluminium, which is the primary input material, is passed on to customers.

## GRÄNGES’ POSITION IN THE VALUE CHAIN

For more details about Gränges’ value chain, see page 30.

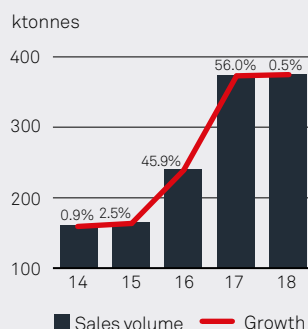


## LONG-TERM FINANCIAL TARGETS

Gränges should grow at least in line with the market, generate a return on capital employed of 15–20 per cent, have a net debt of 1–2 times adjusted EBITDA, and pay a dividend of 30–50 per cent of the profit for the year. In 2018, all these targets were met.

### GROWTH

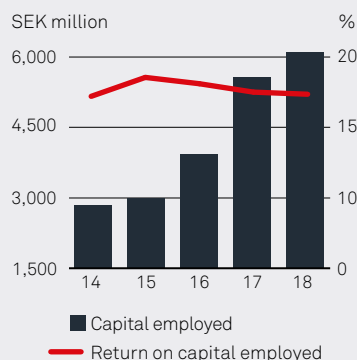
Increase sales volume at least in line with the company's end markets.



**Comment:** In 2018, sales volume increased by 0.5 per cent, which was higher than the growth in end markets.

### RETURN ON CAPITAL EMPLOYED

Generate a return on capital employed of 15–20 per cent over time.



**Comment:** In 2018, return on capital employed decreased by 0.2 percentage points to 16.5 per cent. The increased adjusted operating profit was offset by higher capital employed driven by expansion investments in the US.

### CAPITAL STRUCTURE

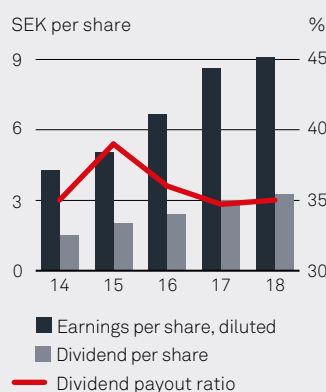
Have a net debt which should normally be 1–2 times adjusted EBITDA over the last 12 months period.



**Comment:** In 2018, net debt increased by SEK 201 million to SEK 2,494 million, after a reduction in 2017. The increase is a result of capacity investments in the US. On 31 December, 2018, net debt amounted to 1.8 times adjusted EBITDA and was within the target range.

### DIVIDEND POLICY

Pay a dividend of 30–50 per cent of the profit for the year. Decisions on dividends will reflect the company's financial position, cashflow, and outlook.



**Comment:** The Board of Directors proposes a dividend of SEK 3.20 per share for the 2018 fiscal year. This is an increase of 7 per cent compared to the previous year, and corresponds to 35 per cent of the profit for 2018.

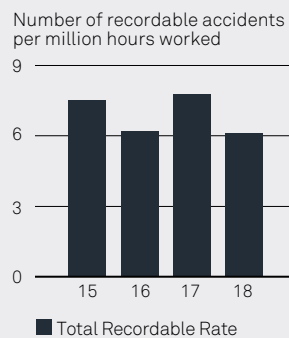


## LONG-TERM SUSTAINABILITY TARGETS 2025

In 2018, Gränges implemented a new group-wide sustainability framework with twelve material topics grouped into five sustainability pillars. For each pillar, Gränges articulated a clear long-term commitment and accompanying targets for 2025. The targets presented below represent a subset of the full 2025 sustainability target overview which can be found on page 31.

### WORKPLACE SAFETY

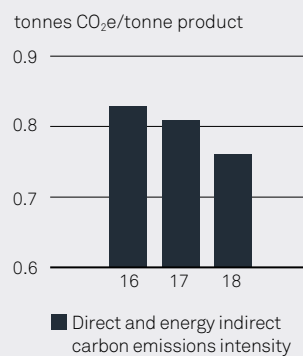
Reduce number of recordable accidents per million hours worked (Total Recordable Rate) to 3.0.



**Comment:** In 2018, Total Recordable Rate was reduced by 22 per cent compared to 2017 and reached 6.1 recordable accidents per million hours worked (7.8).

### EMISSIONS AND CLIMATE IMPACT

Reduce direct and energy indirect carbon emissions intensity by 25 per cent.<sup>1)</sup>



**Comment:** In 2018, direct and energy indirect carbon emissions decreased by 6 per cent compared to 2017, driven by improved energy intensity and a lower share of fossil fuel-based electricity.

### ETHICAL BUSINESS PRACTICES

Reach 100 per cent annual training participation in Gränges' Code of Conduct.

99%

**Comment:** In 2018, Gränges for the first time rolled out a group-wide Code of Conduct online training which 99 per cent of all employees conducted during the year.

### RESPONSIBLE SOURCING

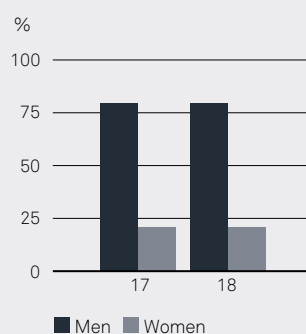
Ensure that 100 per cent of the purchase value from significant suppliers<sup>2)</sup> is committed to Gränges' Supplier Code of Conduct or equivalent standard.

98%

**Comment:** In 2018, Gränges rolled out an updated Supplier Code of Conduct. In total, 137 significant suppliers – corresponding to 98 per cent of the total purchase value from significant suppliers – signed or were approved to have equivalent sustainability standards in place.

### DIVERSITY AND EQUALITY

Increase the share of women among senior management<sup>3)</sup> to at least 30 per cent.



**Comment:** In 2018, the share of women among senior management was unchanged versus 2017 at 20 per cent.

1) Versus baseline 2017.

2) Suppliers with a purchase value above 5 MSEK, 5 MCNY or 0.5 MUSD.

3) Employees eligible to participate in Gränges' long-term incentive (LTI) programme.

# A TRULY GLOBAL PLAYER

Gränges has a leading global position in rolled aluminium materials and is one of the few players in the industry with production, sales, and customer-driven product development in all major regions.

Gränges is active in the global market for advanced aluminium materials, with a clear leading position in rolled products for brazed heat exchangers. The automotive industry accounts for about half of Gränges' sales, the HVAC industry accounts for around 24 per cent, and other end-customer markets (transformers and food packaging) account for the remaining 26 per cent. Gränges' position is strong in all the regions in which it operates.

### Market characteristics

#### High barriers to entry

The market for advanced aluminium materials is relatively difficult to enter. This is not primarily due to the capital-intensive nature of the industry, but rather because of the high level of competence and experience required to develop the new, advanced materials that customers demand. These skills are also critical to operating flexible production processes efficiently, and to be able to guarantee a high degree of delivery

reliability in terms of volume, time and quality. All this requires well-tuned manufacturing capabilities and processes refined over long periods of time, as well as effective customer service and a global logistics capacity.

#### Continuous improvements

Manufacturers of heat exchangers are faced with constant demands for improvements from their customers in the automotive and the HVAC industries. Therefore, they need to continuously improve heat exchanger performance, reduce weight to meet demand for lower environmental impact, reduce total costs and increase the value of their cooling and climate control solutions. A core challenge is to meet the requirements of next-generation automotive platforms, new applications and demand of end-customer products. This means that as a supplier, Gränges needs to be at the forefront of developing adaptable and customized aluminium materials.

#### Long-term customer relationships

The long development cycles of new product platforms in end-customer industries such as automotive and HVAC require long-term cooperation between producers and their suppliers. Gränges has long-term relationships with its customers, a result of its strong focus on continually developing new products, materials, and processes in close cooperation with customers. These long-term customer relationships also reflect the strength of Gränges' brand for heat exchanger materials, recognized for its capacity as a global supplier with excellent delivery performance. Of Gränges' customers, 85 per cent have worked with the company for more than ten years.

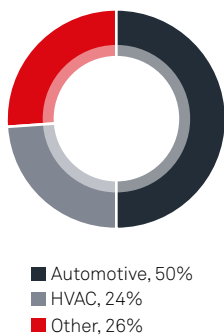
### Competitors

Gränges' competitors vary in size and strategic focus. Factors affecting the degree of competition differ between regions and end-user markets, but generally Gränges competes on quality and technical content of the products, the ability to meet customer requirements, product range, lead times, technical support, price, and customer service. Competitors are primarily major global aluminium companies such as Arconic, Novelis and UACJ. In Asia, there are several local players that are direct competitors to Gränges in the Asian market. In Europe, there are signs of growing competition from manufacturers in Eastern- and Southern Europe.

### Changes in trade legislation

The North American market has seen increased competition from Asian manufacturers. However, the US Department of Commerce has in 2017 and 2018 imposed anti-dumping and countervailing duties (AD/CVD duties) on imports of rolled aluminium products from China. Consequently, Gränges has moved production of the material that has been produced in the production facility in Shanghai and imported to the US, to the Finspång plant. In April 2018, the US Department of Commerce also imposed general tariffs (based on Section 232 in Trade Expansion Act, 1962) of an additional 10 per cent on all imports of aluminium products, including imports from manufacturers in the EU. These tariffs are in most cases regulated by Gränges' agreements with customers, reducing the net impact for Gränges. Filings for exemptions from the 232 tariffs have been made and the majority of these have been approved.

Sales volume per end-customer market, 2018



Reported sales volume, 2018.

## END-CUSTOMER MARKETS

### THE AUTOMOTIVE INDUSTRY

The automotive industry includes all types of vehicles, from light to heavy duty, as well as hybrid and electric vehicles. Demand for heat exchanger material is strongly linked to global vehicle production and the number of heat exchangers per vehicle, which tends to increase in line with requirements for improved performance and enhanced functionality. A higher share of hybrid vehicles, electric vehicles and vehicles with different types of advanced features, is also positive for the demand of heat exchanger materials. Brazed aluminium heat exchangers represent nearly 100 per cent of the market today. According to the international research firm IHS, global light vehicle production decreased by 1.0 per cent in 2018, while an average annual growth of 1.8 per cent is expected between 2019 and 2021. The production of electric vehicles is expected to grow, from low volume levels, by 40–60 per cent annually in the coming years, and reach a market share of more than 30 per cent globally in 2025.

GRÄNGES' MARKET SHARE,  
GLOBALLY:

20%

### THE HVAC INDUSTRY

HVAC<sup>1)</sup> include systems for heating, ventilation and air-conditioning, for instance in private homes, and commercial and industrial buildings. Underlying market drivers for heat exchangers in HVAC, regardless of type, are housing starts, consumer confidence, and environmental legislation. Brazed aluminium heat exchangers account for only a small share of the total market. Gränges is a supplier of material to both brazed and mechanically-assembled aluminium heat exchangers, with the strongest position in the Americas, and a global market share of close to 10 per cent.

GRÄNGES' MARKET SHARE,  
GLOBALLY:

10%

### OTHER END-CUSTOMER MARKETS

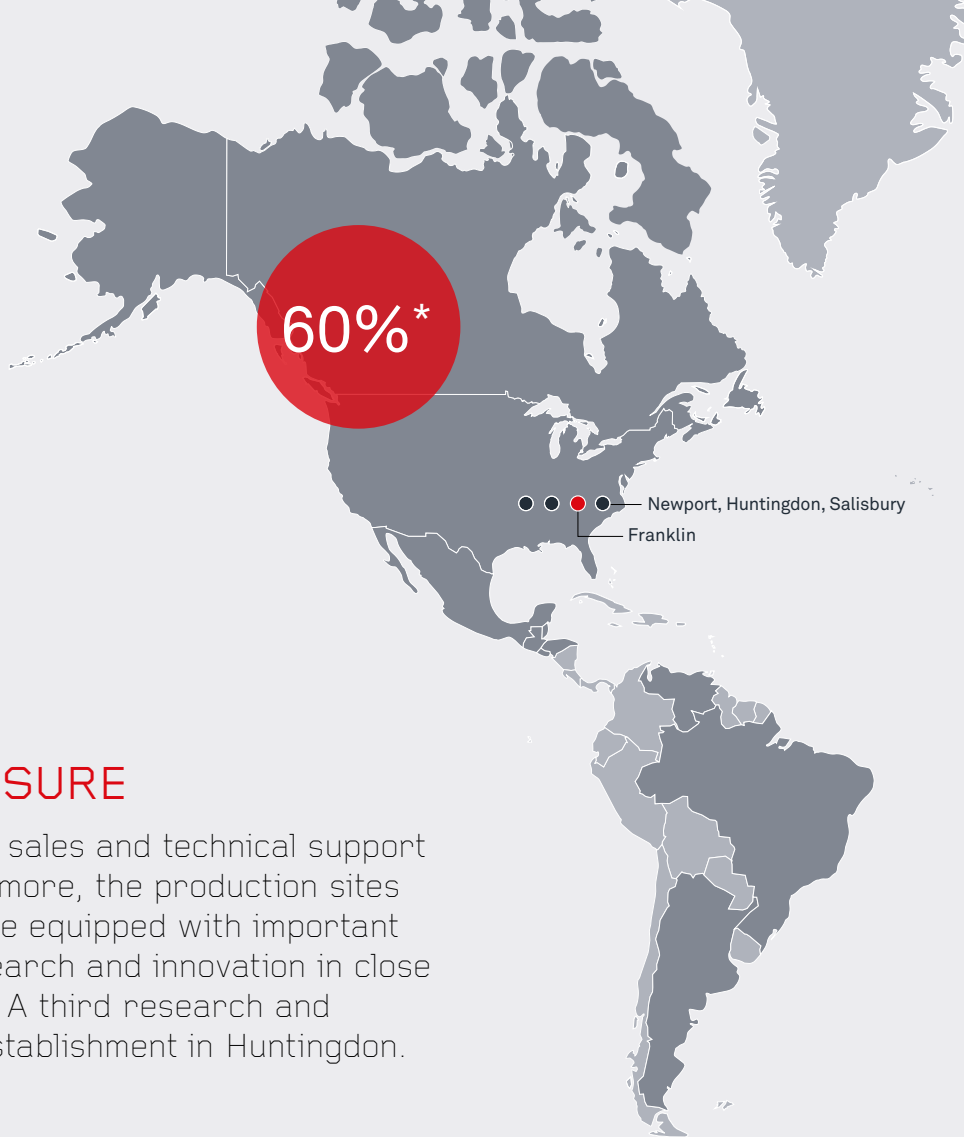
In North America, Gränges is one of the major suppliers of aluminium foil for food containers and winding material for transformers. Aluminium foil provides a complete barrier to light, oxygen, moisture, and bacteria. These properties make it ideal for food cartons and pouches. Semi-rigid containers are among the most versatile of all types of packaging and are widely used for pre-packaged foods, easily withstanding great differences in temperature from freezing to heating.

A transformer is an electrical device used to increase or decrease the alternating voltages in electric power applications. It consists of two or more coils called windings, which are wrapped around a core. In North America, aluminium plays an important role in the design of electrical distribution and large power transformers thanks to its significant cost and weight advantages versus copper.

The markets for semi-rigid containers and transformer windings made in aluminium are expected to show stable annual growth.

“Gränges holds a number 1 or number 2 position in most of the markets in which the company operates.”

1) Heating, Ventilation and Air Conditioning (also referred to as stationary heat exchangers).



## GEOGRAPHIC EXPOSURE

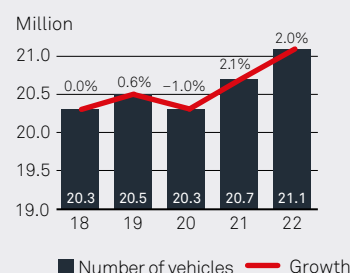
Gränges has manufacturing, sales and technical support on three continents. Furthermore, the production sites in Finspång and Shanghai are equipped with important competence centres for research and innovation in close cooperation with customers. A third research and innovation centre is under establishment in Huntingdon.

### AMERICAS

Gränges has been present in the American market since 1994 and is the second largest supplier of rolled aluminium brazed heat exchangers to the automotive industry. Since 2016, Gränges has been a leader in the HVAC industry and is a major supplier of winding material for transformers and aluminium foil for food containers. Americas accounted for around 60 per cent (59) of the Group's sales volume in 2018, of which 22 per cent were sales to the automotive business and 78 per cent sales to the HVAC industry and other end-customer markets. Gränges' main markets in the Americas are the US,

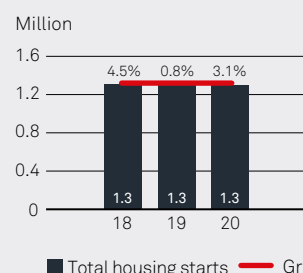
Mexico and Brazil. Gränges' global customers accounted for around 15 per cent (15) of total sales volume in the Americas in 2018. Gränges' production sites in the south-eastern US supply most of the customers in the region. However, material for brazed aluminium heat exchangers is supplied from Gränges' production facilities in Finspång, Sweden, and Shanghai, China. Due to US anti-dumping and countervailing duties on imports of rolled aluminium products from China, material for brazed aluminium heat exchangers to customers in the US is now exclusively supplied from the plant in Finspång.

**Light vehicles production forecast, Americas**

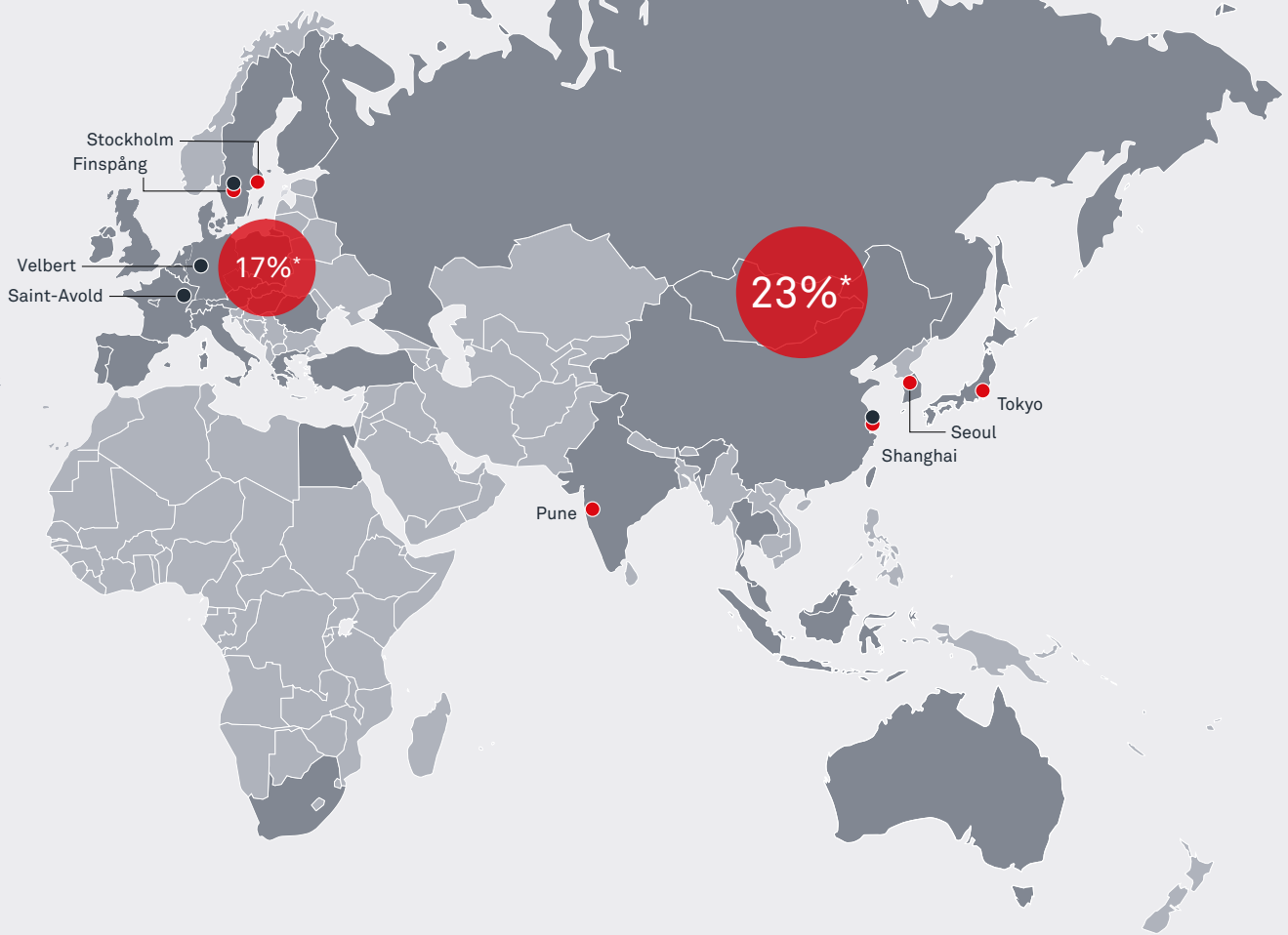


Source: IHS, 17 January, 2019.

**Housing starts forecast, USA**



Source: NAHB Housing Forecast, 7 January, 2019.



## EUROPE

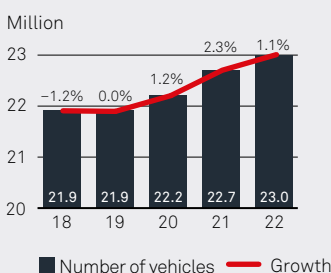
Gränges has a strong position in the European market and, through its advanced technical product content, it has strengthened its leading position in the automotive heat exchanger industry over the last ten years. The automotive industry accounts for over 90 per cent of Gränges' sales in Europe. In total, the European market represented around 17 per cent (18) of Group sales volume in 2018, with the UK, Italy, the Czech Republic and Poland as the largest markets. Europe is a consolidated market with global customers accounting for around 80 per cent (81) of the sales volume in 2018. Most of the volume supplied to the European market is produced at the plant in Finspång.

## ASIA

Since establishing the plant in Shanghai in 1996, Gränges has gained a leading position in the Asian market. In 2018 Asia accounted for 23 per cent (23) of Group sales in terms of volume, with China as its main market. Other key markets include India, Thailand and South Korea. The automotive industry accounts for over 90 per cent of Gränges' sales in Asia. Most of the production volume at Gränges' plant in Shanghai is sold in Asia, of which around half goes to China. Global customers accounted for 47 per cent (44) of total sales volume in Asia in 2018.

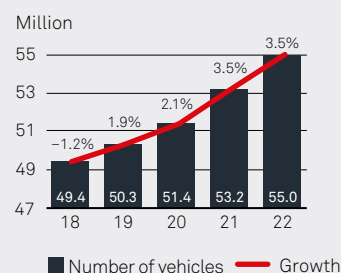
- Sales markets
- Sales offices and technical support
- Production sites
- \* Share of sales volume, full year 2018.

### Light vehicles production forecast, Europe



Source: IHS, 17 January, 2019.

### Light vehicles production forecast, Asia



Source: IHS, 17 January, 2019.





**AMERICAS**

**ADDRESSING  
A NEW  
ATTRACTIVE  
NICHE  
MARKET**

The recent increases in tariffs on imports of aluminium products have risen demand for domestically produced heat exchanger material and foil products in the US. In 2018, Gränges announced the restart of production in the Newport facility to manufacture light gauge aluminium foil for various types of consumer applications. This is an excellent opportunity to utilize existing assets while addressing an attractive niche market.

**EUROPE**

**CRITICAL  
PRODUCTION  
SECURED  
FOR A  
STRATEGIC  
PRODUCT**

The latest addition to Gränges is Getek. In German Velbert and French Saint-Avoid, two facilities supply long billets to their two owners: Gränges and the German aluminium company Erbslöh. The facilities use their unique spray-forming technology for aluminium. Getek provides Gränges with spray-formed TRILLIUM® billets, which gives Gränges control over a critical process step for TRILLIUM®. This strategic product simplifies the complex brazing process and is well suited for most automotive heat exchanger applications, such as chillers, radiators, charge air coolers, oil coolers and battery cooling plates.

**ASIA**

**BETTER  
MATERIALS  
FOR  
WIND  
POWER**

A few years ago, Gränges realized that the wind power sector was neglected in terms of heat exchanger materials and a decision was made to target it. Gränges held talks with wind power OEMs to learn about their challenges, tested a range of new materials in cooperation with them, and invited representatives to seminars. Now, the innovation and marketing expertise of Gränges has helped provide wind power operators with better materials – and in 2018, Gränges doubled its sales of material for brazed aluminium heat exchangers for use in this sector.





# THE INSIDE STORY

Modern light vehicles typically contain up to ten different heat exchangers, sometimes more. In recent years, the number of heat exchangers per vehicle has increased, as engines have become more advanced, and environmental requirements and passenger comfort demands have grown. In electric vehicles there is a strong need for highly efficient heat exchangers for the thermal management of batteries. Plug-in hybrid electric vehicles have the largest need for heat exchangers – for cooling of both batteries and combustion engine, as well as heat exchangers for transmission oil and engine oil, air conditioning systems, and heaters. Today, Gränges is a world leader in heat exchanger materials, and around 50 per cent of sales are to customers in the automotive industry.

○ Active battery chiller

- Engine radiator
- Charge air cooler
- AC condenser
- Battery & electric drive cooler

○ Transmission oil cooler



- AC evaporator
- Compartment heater

○ Engine oil cooler



○ Battery cooling plate

# DRIVE GROWTH THROUGH INNOVATION

Gränges conducts world-class strategic research and innovation as well as customer-driven product development based on extensive knowledge of material properties and characteristics. Development of new, innovative products and material technologies are drivers of Gränges' future growth.

## GRÄNGES R&I CENTRES

**Finspång:** Global R&I centre and regional R&I centre for Europe. Global development of materials and solutions for brazed heat exchangers and new technologies.

**Shanghai:** Regional R&I centre for Asia. Development of solutions for electric vehicles and related new applications.

**Huntingdon:** Regional R&I centre for Americas will be established in the first half of 2019. Development of materials and solutions for stationary heat exchangers.

Gränges Research & Innovation (R&I) is the company's world-leading competence unit with advanced knowledge about metallurgy and understanding of the production process. The strategic research is managed globally, while the customer-driven development is carried out locally in close cooperation with the production facilities. Gränges R&I has over 60 highly educated employees worldwide working with product development, including metallurgists, chemists, metallographers, physicists, mechanical engineers and technicians – all specialists in rolled aluminium products for heat exchangers and other advanced applications.

### Adapting the R&I process for best outcome

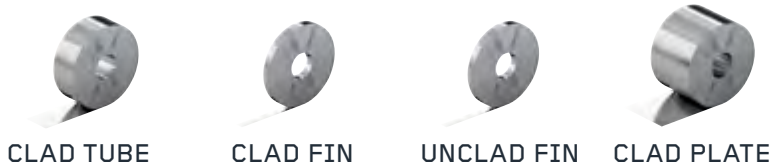
Fundamental research in key areas is usually carried out in-house, but in selected areas Gränges collaborates with leading universities and research institutes. The objective is to strengthen Gränges' leading position in the development of brazed heat exchanger materials, to develop new innovative aluminium products, new material technologies and to enter new customer segments. New alloys and alloy combinations are initially tested through pilot casting, rolling and computer simulations at Gränges R&I, before full-scale production takes place. This process facilitates planning of effective high-precision production processes. The development of new products often takes place in teams with Gränges' business development units. If critical skills are lacking to run an efficient development process, the possibility of external cooperation and, in some cases, the acquisition of skills, such as from smaller start-up companies, will be considered. As part of Gränges' new R&I organization, established in 2017, there is a team focusing solely on new material technologies.

### Innovative products and technologies

Gränges has a strong focus on developing new multi-layer products, which gives more layers for improved brazeability and corrosion resistance to support further downgauging and light weighting. Development of the TRILLIUM® technology is important in this regard. TRILLIUM® Lean was introduced in 2017 and is a new multi-layer material with enhanced potential for especially challenging applications. Gränges also places greater emphasis on the development of processes, such as heat treatment of material from ingot to final product. Strong sagging resistant fins is a patented material that gives improved properties based on advanced processes, resulting in better strength after brazing. Through the acquisition of Noranda in 2016, Gränges gained access to continuous casting process and therefore the ability to develop new material properties for unclad products for brazed heat exchangers. Through Getek, a joint operation with Erbslöh Aluminium, Gränges has secured expertise in advanced spray-forming technology, which is well suited for the next generation of materials for heat exchangers, such as TRILLIUM®. Spray-forming technology also offers great potential in other advanced aluminium applications.

### Solutions for electric vehicles

The electric vehicles market is expected to grow sharply over the next decade, especially in Asia and Europe. For Gränges, this means new business opportunities in materials for brazed heat exchangers. The company's strong position in the market for heat exchangers makes Gränges an excellent partner both for current customers and for new players entering this growth market. Electric vehicles have a significant need for thermal management, especially for cooling of the battery to increase performance and to extend life-time.



CLAD TUBE

CLAD FIN

UNCLAD FIN

CLAD PLATE

**MAIN PRODUCT GROUPS**

Gränges offers a full range of rolled aluminium products for heat exchanger manufacturers, and up to 3,000 product specifications, including 200 active alloy combinations. Leading-edge technology and true industrial craftsmanship ensure material with consistent quality. The products can be divided into four main groups:

**CLAD TUBE**

Tube products for both welded and folded tube designs supporting the continuing trend for downgauging and increasing demands on corrosion resistance, brazeability and strength.

**CLAD FIN**

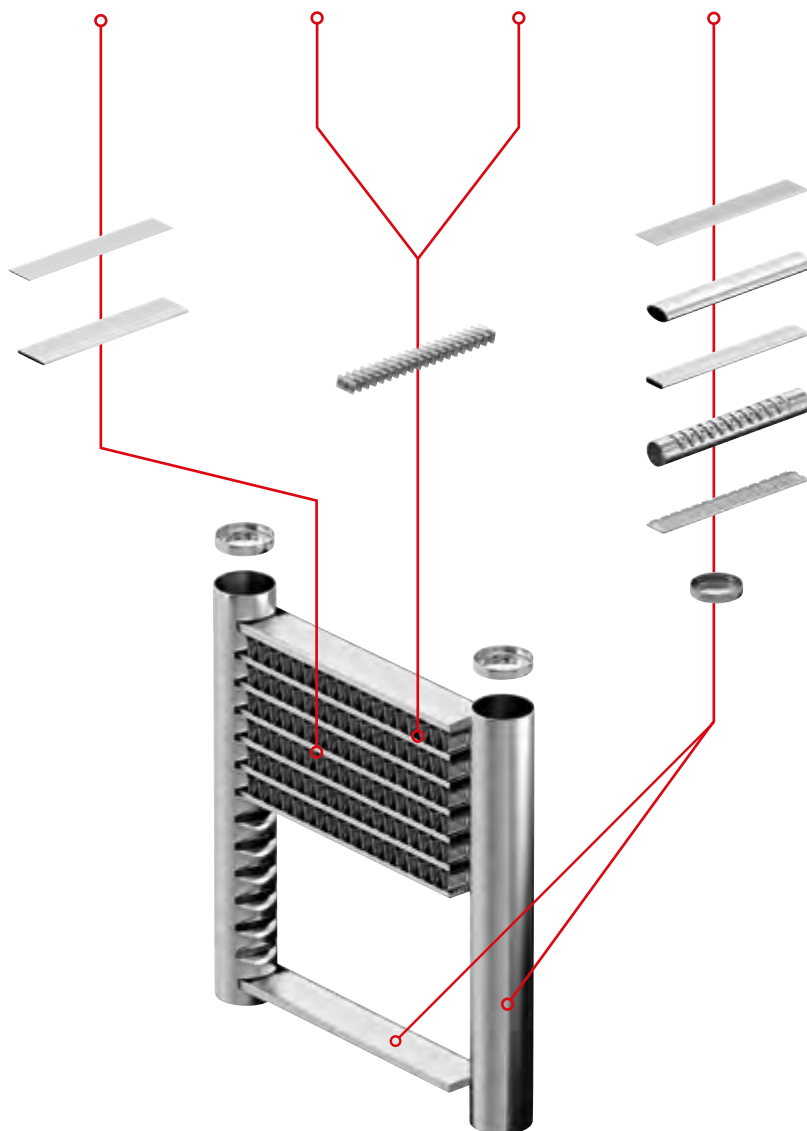
Clad fin developed for excellent brazeability to withstand core dissolution and high-temperature sagging, and to enable downgauging for lighter heat exchangers.

**UNCLAD FIN**

The most basic heat exchanger material. Unclad fin comprises only one alloy without clad layers and is used for applications such as radiators, heaters, charge air coolers and evaporators.

**CLAD PLATE**

Consists of a core alloy clad with braze clad on one or two sides. The rolled product is stamped or shaped by the customer depending on the application and used in most kinds of heat exchanger applications, either for coolant plates or manifolds.



RAPID PACE OF INNOVATION

20%

patent portfolio growth in 2018. On 31 December 2018, Gränges had 58 patent families (52) and 198 granted patents (165), with an additional 106 patent applications pending (73).

In cold climates, heating of batteries can also be needed to reach the battery’s optimal temperature range. New requirements in thermal management systems drive new needs in heat exchanger materials. The typical solution today is battery air cooling, but the trend is towards liquid cooling which is more efficient. Gränges develops several new solutions in this area, notably with its TRILLIUM® technology, as well as discussing battery cooling plate solutions with large automotive OEMs.

**Worldwide technical support**

Gränges’ product developers and technicians are represented throughout Asia, Europe and Americas, offering advanced technical support to customers and performing a wide range of services. This includes prototype brazing, aluminium braze simulations, brazeability tests, sagging tests, filler flow tests, advanced metallurgical examinations, as well as accelerated corrosion tests such as Neutral Salt Spray Test (NSS), Cyclic Corrosion Test (CCT) and Sea Water Acetic Acid Test (SWAAT), enabling Gränges to offer tailored and optimized aluminium products. To support this work, Gränges has an application centre that can replicate the customers’ forming and brazing processes. The centre, located in Shanghai, is also ideal for testing small units of custom-designed heat exchangers. To explore the applications of brazed heat exchangers within non-automotive air-conditioning and other industries, Gränges builds competence within heat exchanger prototype design, optimization, and performance testing.

**Less work and more capacity with TRILLIUM®**

Gränges’ patented technology TRILLIUM® simplifies the complex brazing process by making the degreasing, fluxing, cleaning, and drying stages redundant. Instead, Gränges makes it all happen within the material in a process called Active brazing. TRILLIUM® Solid, launched in 2010, and TRILLIUM® Lean, launched in 2017, help Gränges’ customers reduce costs, create new designs, and reach a higher level of profitability – while reducing their environ-

mental impact. TRILLIUM® is well suited for most components in customer applications, such as chillers, radiators, charge air coolers, oil coolers and battery cooling plates. Since the launch of TRILLIUM® Lean in April 2017, there has been a sharp increase in interest, with many customers involved in tests and validations. Sales of TRILLIUM® increased by 30 per cent in 2018, and Gränges expects the technology to represent a significant share of Gränges’ sales in three to five years.

**Focus on new technologies at Asian seminar**

Gränges hosts annual technical seminars for its customers and other partners in Asia, alternating between China and India. In 2018, the seminar took place in Xiamen, China. About 350 representatives from customers and other leading industry players attended the seminar in Xiamen, making it the largest seminar of its kind in the world. The seminar focused on innovations and new technologies for heat exchangers. Since innovation and new technologies for electric vehicles will be a driving force for Gränges in the coming years, the seminar in China was an important event for meeting and discussing these topics with different players in the industry.

**Strong product offering**

Over the years, Gränges has developed a large number of products with improved end-characteristics, increased stability and enhanced sustainability (primarily related to increased share of recycled aluminium). Many of these products are based on new concepts such as strong sagging resistant (SSR) fins, TRILLIUM® and multi-layer products. Gränges’ focus on technology, manufacturing processes, and material properties contribute to creating smaller, lighter and better designed heat exchangers that are more energy efficient and reduce environmental impact. Through the acquisition of Noranda in 2016, Gränges offers rolled aluminium products to manufacturers of automotive heat shields, transformer windings and semi-rigid containers.





# DEMAND-DRIVEN PRODUCTION

With manufacturing capacity on three continents, Gränges has created a platform that meets complex customer demands and enables continued global expansion. The strong demand for Gränges' products has resulted in investments to add further production capacity.

# 500

KTONNES

When all ongoing investments have been completed, Gränges' capacity will reach 500 ktonnes.

Thanks to nearly fifty years of experience and specialized competence in production of materials for brazed heat exchangers, Gränges has become a world leader in rolled aluminium for the heat exchanger industry. Continual efforts are made to improve efficiency and productivity at all Gränges' production sites, contributing to lower environmental impact and improved profitability for both Gränges and its customers.

### Gränges' steps towards a global footprint

Gränges has a total production capacity of about 420 ktonnes, split across five production sites on three continents. The production site in Finspång has a capacity of 100 ktonnes. It was established in 1913 and has produced aluminium products for brazed heat exchangers since 1972. The production site in Shanghai was established in 1996, and since then Gränges has focused on expanding capacity to keep pace with market growth. The capacity has increased from 12 ktonnes to 120 ktonnes. In the US, Gränges has three production sites with a combined capacity of 200 ktonnes. This will reach 260 ktonnes by the end of 2019 when ongoing expansion investments have been completed. Through the joint operation company Getek, Gränges has secured skills and material supply for the next generation of materials for heat exchangers.

### Knowledge sharing for even better practice

Close cooperation between the production plants in China, Sweden and the US drives growth and improvement work – at all sites. Initiatives to learn from each other include regular environment, health and safety meetings where representatives from all plants set up action plans and common activities. Internal environmental and safety cross inspections are carried

out twice a year, with teams from production facilities cross-inspecting each other. More details can be found on page 39. The purpose is to improve safety and promote best practice across the organization.

### Demand-driven capacity expansion

In the US, Gränges works actively to establish new capacity to meet growing domestic demand for foil, automotive heat exchanger materials and HVAC applications. The facility in Newport produced aluminium foil for consumer applications until 2015 and has subsequently been idled with limited business in surface treatment. However, a domestically underserved light gauge foil market in the US together with trade legislation has made this an attractive market once again. The investment to upgrade existing rolling mills and equipment will add 20 ktonnes in new capacity by 2019. The expansion of the Huntingdon plant's aluminium rolling operation is proceeding according to plan. The project was initiated in 2017 and will add 40 ktonnes in new capacity by 2019. Gränges also reviews its capacity needs in Asia and Europe and is evaluating options to grow the business with good and sustainable profitability. In 2018, Gränges decided to invest SEK 400 million to expand capacity and improve efficiency in the Finspång facility. The project is expected to be completed in 2021.

### Continuous improvements with lean

Improvements in Gränges' internal efficiency have made important contributions to the increase in the Group's profit over recent years. To improve efficiency and reduce costs, Gränges focuses on operational improvements. Gränges applies its own concept for lean manufacturing – The Gränges Production System (GPS). The system is implemented in all production sites and includes internal

benchmarking, collaboration, shared best practices and dialogue through steering groups. Positive effects from GPS include simple production flows, direct connection between production steps, and well-defined and waste-free processes. Production lead times are kept as short as possible and are balanced against the need for processes to be cost efficient, which also enables Gränges to offer a more flexible customer service. Efficient metal management contributes to lower costs through continuous improvement of the sorting operations, slab outsourcing optimization and use of new categories of recycled aluminium.

#### **Digitalization – next step towards operational excellence**

At the Shanghai production site, Gränges works on a project to maximize productivity and quality by using machine intelligence and increasing the level of digitalization. This includes an integrated system with in-plant logistic automation, quality customization and standardization. Sensors allow for even higher precision and will be applied to maintenance and process control systems, and data integration will support process optimization across the full line. In addition, more accurate process control can lead to improved energy utilization, thereby reducing the negative environmental impact from operations. Knowledge sharing is in place with the other production sites.

#### **Technical leadership**

Over the years, Gränges has developed four specific competences that have contributed to the company's technical leadership within heat exchanger materials:

#### **Alloy development**

Gränges has excellent expertise in developing alloys and combinations with properties specifically adapted to each step of

customers' manufacturing processes – from forming to assembly and brazing.

#### **Cladding**

Cladding is a key capability that provides high added value and differentiates Gränges from manufacturers of rolled products for general use. The company produces single- and double-sided clad products, and symmetrical and asymmetrical products, with many different alloy combinations.

#### **Rolling and thermo-mechanical processing**

These are used to alter alloys' microstructure to achieve desired properties of the end product. Gränges has extensive experience of thermo-mechanical processes, and their effect on the performance of materials in the brazing process.

#### **Slitting**

Gränges has market-leading competence and experience in slitting technologies that play an integral role in manufacturing heat exchanger materials.



## **>> AWARD FOR REDUCED BOTTLENECKS**

The Gränges Finspång team has managed to reduce bottlenecks in the Tandem Cold Mill by systematically applying GPS principles and tools. The average mill speed has increased, and the coil change time has been reduced. These efficiency improvements have enabled the Finspång plant to reach new production records and increase sales. At the 2018 Gränges Company Awards, the Finspång team won the Continuous Improvement Award. The annual event is part of Gränges' efforts to recognize good performance and continually improve the business.







# CREATING SUSTAINABLE BUSINESS VALUE

Sustainability is a natural part of Gränges' core business and strategy. It helps to increase the company's long-term competitiveness and aims to create lasting value for Gränges as well as for its customers, employees, investors and other stakeholders. In 2018, Gränges raised the company's ambitions for sustainability and implemented a new sustainability framework with clear long-term targets.

By managing its business in a sustainable and responsible way, Gränges will enhance its possibilities to deliver strong financial and operational results.

Sustainable business value is created both by reducing undesired impacts of the company's operations and by further increasing the positive contributions that emerge from integrating sustainability aspects into the business.

## New sustainability framework and long-term targets

In 2018, Gränges implemented a new group-wide sustainability framework with twelve material topics grouped into five sustainability pillars. For each pillar, Gränges articulated a clear long-term commitment and accompanying targets for 2025. More details on the process to identify material topics can be found on pages 113–114.

Each sustainability pillar is governed by one member of Group Management. This individual proposes global sustainability priorities and coordinates with Gränges' regional teams to implement local sustainability activities within a specific sustainability pillar.

## Sustainability as a business opportunity

With the global push for sustainable development and the transformation into a more circular and resource-efficient economy, Gränges' customers are increasingly becoming aware of the importance of using sustainable materials.

Aluminium is often called the green metal thanks to its unique combination of properties. It is light-weight and strong, has high corrosion resistance, is durable and impermeable, and is versatile and used in many applications. Aluminium is also a highly recyclable material with very

good potential to be recycled without losing its inherent material characteristics.

Through its light-weighting properties and its recyclability, Gränges' aluminium products enable customers to achieve significant savings in energy consumption and greenhouse gas emissions – both in customers' production process and for the end users. A study<sup>1)</sup> from 2016 concluded that light-weighting of transport vehicles leads to substantial fuel and carbon emissions savings. According to the study, the potential life-time saving for a passenger car is 500 kg to 2 000 kg carbon dioxide per 100 kg weight reduction.

Gränges technical expertise and competence in material properties and performance helps customers and the whole value chain to improve its climate performance.

## Supporting sustainable development

Gränges has participated in the UN Global Compact since October 2016. In doing so, the company undertakes to fulfil the principles relating to human rights, labour law, the environment, and anti-corruption. The principles also form the foundation of the company's Code of Conduct and Supplier Code of Conduct.

Gränges is also committed to helping fulfil the 2030 Agenda and UN Sustainable Development Goals (SDGs). In its work to establish the new sustainability framework, Gränges identified ten SDGs that are most relevant for the company's business and where Gränges has its largest contributions. More details on Gränges' contributions to the SDGs and how these goals relate to the company's sustainability framework can be found on page 115.

## GRÄNGES' LARGEST CONTRIBUTIONS TO THE UN SUSTAINABLE DEVELOPMENT GOALS



1) IFEU 2016: Energy savings by light-weighting – 2016 Update.



# GRÄNGES' VALUE CHAIN

## COLLABORATION IN THE VALUE CHAIN

Gränges is committed to improving conditions and the overall footprint of the aluminium value chain. By collaborating across the industry, Gränges can promote and drive change where it has the highest value chain impact.

To ensure that aluminium is mined, produced and used sustainably, Gränges participates in various industry initiatives. More information can be found on page 115. Through active participation in industry committees and working groups,

Gränges encourages and contributes to improvements in the industry and promotes robust networks across the company's markets.

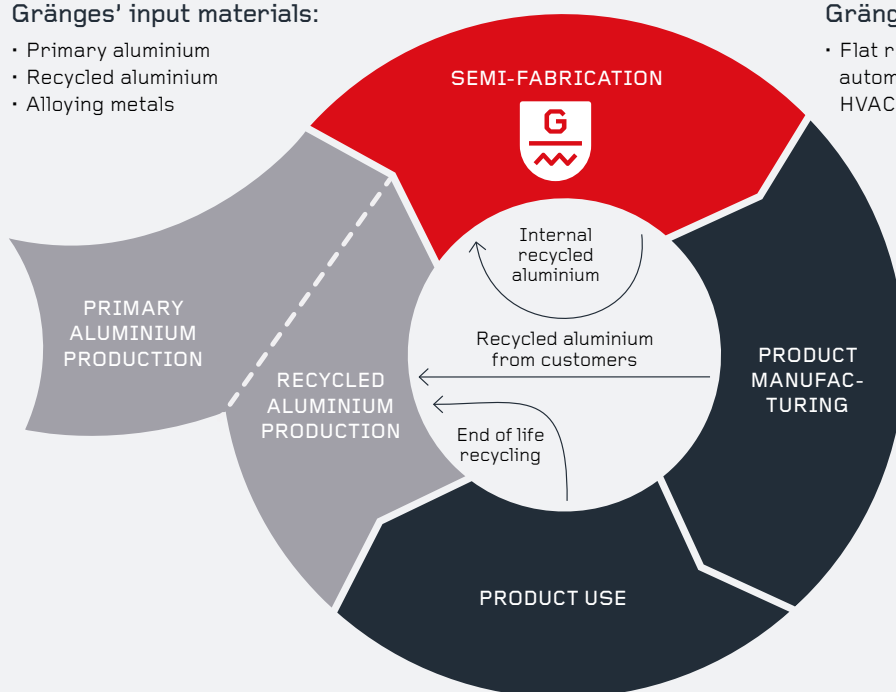
During 2018, Gränges applied for participation in Aluminium Stewardship Initiative with the aim to work towards greater sustainability and transparency in the aluminium industry. More information can be found on page 33.

### Gränges' input materials:

- Primary aluminium
- Recycled aluminium
- Alloying metals

### Gränges' output materials:

- Flat rolled aluminium coils for automotive heat exchangers, HVAC, packaging etc.



● SUPPLY CHAIN

● GRÄNGES' OPERATIONS

● CUSTOMERS AND END USERS

Key process	Primary aluminium production: extraction, refining, smelting	Recycled aluminium production: collecting, sorting and recycling	Semi-fabrication: re-melting and casting, rolling and slitting	Product manufacturing and product use
Description	<p>The value chain of aluminium starts with the extraction of natural resources, primarily in the form of bauxite, which is extracted from bauxite mines.</p> <p>After mining, bauxite is refined into pure aluminium oxide, called alumina.</p> <p>Molten aluminium is extracted from the alumina through an electrolytic process called smelting.</p>	<p>Efficient collection and sorting systems are critical for effective recycling of aluminium and for helping to retain the value of the alloy elements in the loop.</p> <p>Gränges uses internal recycled aluminium from its own operations and sources external recycled aluminium from customers and recycling companies.</p>	<p>In the re-melting process, other metals are added to the molten aluminium to create customized alloys. The molten alloy is then solidified in the form of slabs during the casting process.</p> <p>In the rolling and slitting process, the alloyed slabs are transformed into coils and sheets with specific shapes and properties for different applications.</p>	<p>Gränges' rolled aluminium products can be found in many applications such as engine cooling products, climate control solutions, power transmissions, and packaging.</p> <p>Gränges' customers include automotive heat exchanger manufacturers as well as HVAC and packaging manufacturers.</p>

# GRÄNGES' SUSTAINABILITY FRAMEWORK AND 2025 TARGETS

PILLARS	MATERIAL TOPICS	2025 TARGETS AND 2018 DEVELOPMENT	PAGE
<b>SECURE ETHICAL BUSINESS PRACTICES</b> 	<ul style="list-style-type: none"> <li>Ethics and anti-corruption</li> </ul>	<ul style="list-style-type: none"> <li>100 per cent of employees annually trained in Gränges' Code of Conduct.</li> <li>100 per cent of applicable employees<sup>1)</sup> annually trained in anti-corruption.</li> </ul>	32, 117
<b>ENSURE RESPONSIBLE AND SUSTAINABLE SOURCING</b> 	<ul style="list-style-type: none"> <li>Responsible sourcing</li> <li>Sourced recycled aluminium</li> <li>Emissions and climate impact</li> </ul>	<ul style="list-style-type: none"> <li>100 per cent of the purchase value from significant suppliers<sup>2)</sup> committed to Gränges' Supplier Code of Conduct or equivalent standard.</li> <li>20 per cent sourced recycled aluminium of total sourced metal inputs.</li> <li>Increase the share of sourced renewable energy (electricity, heat, fuels).<sup>3)</sup></li> <li>Reduce indirect carbon emissions intensity from purchased materials and services.<sup>3)</sup></li> </ul>	33–36, 117–119
<b>RUN SUSTAINABLE OPERATIONS</b> 	<ul style="list-style-type: none"> <li>Workplace safety</li> <li>Energy</li> <li>Emissions and climate impact</li> <li>Water management</li> </ul>	<ul style="list-style-type: none"> <li>3.0 recordable accidents per million hours worked (Total Recordable Rate).</li> <li>50 lost workdays per million hours worked (Severity Rate).</li> <li>17 per cent reduction in energy intensity.<sup>3)</sup></li> <li>25 per cent reduction in direct and energy indirect carbon emissions intensity.<sup>3)</sup></li> <li>All Gränges sites to have implemented a local water management plan.</li> </ul>	36–39, 118–120
<b>BUILD DIVERSE AND HIGH-PERFORMING TEAMS</b> 	<ul style="list-style-type: none"> <li>Career and leadership development</li> <li>Diversity and equality</li> <li>Employee wellbeing</li> </ul>	<ul style="list-style-type: none"> <li>100 per cent of employees receiving annual performance and development discussion.</li> <li>At least 30 per cent women among senior management<sup>4)</sup>.</li> <li>Employee engagement index: 85.</li> </ul>	40–42, 121–122
<b>DEVELOP SUSTAINABLE PRODUCT OFFERINGS</b> 	<ul style="list-style-type: none"> <li>Eco-responsible innovation</li> <li>Product life-cycle sustainability performance</li> </ul>	<ul style="list-style-type: none"> <li>80 per cent of Gränges' products have verified sustainability information available.</li> </ul>	43, 122

1) Employees working in sales, purchasing and senior executives who have external contacts.

2) Suppliers with a purchase value above 5 MSEK, 5 MCNY or 0.5 MUSD.

3) Versus baseline 2017.

4) Employees eligible to participate in Gränges' long-term incentive (LTI) programme.

● Positive or unchanged development 2018 versus 2017

○ Negative development 2018 versus 2017

— Development 2018 versus 2017 not applicable as result for 2017 and/or 2018 are unavailable

# SECURE ETHICAL BUSINESS PRACTICES



Gränges is committed to ethically sound business practices and running its business in compliance with all applicable laws and regulations. Gränges expects all employees to support the company’s values and act responsibly towards each other and business partners.

## OUR COMMITMENT

We will run our business in an ethical and responsible way and be an ethically sound partner in all our relations and in the societies in which we conduct business. We never accept corruption and we will always act rapidly, stringently and vigorously if discovering corruption or unethical behaviour.

## PERFORMANCE AND FOCUS 2018

- Launched a new Code of Conduct; 99 per cent of employees trained across the Group.
- Updated the whistleblower function to be accessed by employees as well as by external business partners.
- Initiated efforts to develop a global anti-corruption training programme with the aim to train applicable employees<sup>1)</sup> in 2019. No bribery or other type of corruption incidents were detected during the year.

1) Employees working in sales, purchasing and senior executives who have external contacts.  
 2) UN Global Compact, UN Universal Declaration of Human Rights, UN Sustainable Development Goals, and the OECD Guidelines for Multinational Corporations.

## ETHICS AND ANTI-CORRUPTION

### New Code of Conduct

Gränges’ Code of Conduct outlines what Gränges considers to be responsible behaviour and is an important cornerstone in Gränges’ policy framework. The Code of Conduct is based on international standards<sup>2)</sup> on human rights, labour conditions, the environment and anti-corruption. This includes UN Global Compact and its set of ten principles.

During 2018, Gränges updated its Code of Conduct with the focus to make it more modern and user-friendly. The updated document is available in English, Swedish and simplified Chinese. Gränges also rolled out global Code of Conduct online training, which 99 per cent of all employees completed.

### Zero tolerance for corruption

Gränges has zero tolerance for corruption and does not accept any form of bribery or other type of corruption. This is founded on the Code of Conduct and the Anti-corruption Policy. To ensure that suppliers maintain the same standards as Gränges, they are required to sign Gränges’ Supplier Code of Conduct in which anti-corruption is one criterion. More information can be found on page 33. In 2018, no corruption incidents were detected and no business contracts were breached or not renewed due to corruption.

During the year a new training programme for anti-corruption was initiated, to improve awareness of corruption risks. In line with Gränges’ long-term target, all employees working in sales, purchasing and senior executives who have external contacts, will from 2019 complete annual anti-corruption training.

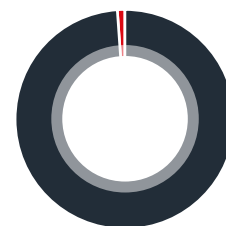
Gränges also engaged an external party to conduct a corruption risk assessment of

its operations in China. The assessment did not find any incidents but led to a better understanding of the risks as well as the measures which should be taken to further enhance payment routines. An assessment of anti-bribery and anti-corruption procedures is also integrated into Gränges’ internal audit. More information can be found on page 59.

### Expanded whistleblower function

In 2018, Gränges implemented an updated whistleblower function to detect irregularities that may seriously harm the business or its employees. The function is managed by an external company and can be accessed online (intranet or external website) or by telephone. Through the function, employees and external business partners can provide information and be guaranteed full anonymity without fear of retaliation. By quickly uncovering and remediating irregularities, Gränges is in a better position to manage the underlying causes before they become unmanageable.

Share of employees trained in Code of Conduct, 2018



■ Completed training, 99%  
 ■ Not completed training, 1%

# ENSURE RESPONSIBLE AND SUSTAINABLE SOURCING



An efficient and sustainable supply chain is essential for Gränges' long-term success. To manage social and environmental impacts from its supply chain, Gränges has routines and guidelines for sourcing metals and other materials and services.

## RESPONSIBLE SOURCING

### Supplier commitment

To ensure that Gränges' suppliers share the company's sustainability principles, significant suppliers<sup>1)</sup> are required to sign Gränges' Supplier Code of Conduct, including the ten principles of the UN Global Compact. Gränges' Supplier Code of Conduct states that suppliers shall comply with all applicable laws and regulations, that suppliers shall avoid conflicts of interest; have zero-tolerance for corruption and bribery; compete in a fair manner; have an open, non-discriminatory and safe workplace; respect human rights; provide fair working conditions; and run its operations with respect for the environment.

By signing, the suppliers also declare to promote implementation of these principles in their own supply chain. If a first-tier supplier does not commit to the Supplier Code of Conduct, Gränges first discusses with the supplier and then creates an action plan.

During the year, Gränges updated and rolled out a new version of its Supplier Code of Conduct. In total, 137 suppliers, corresponding to 98 per cent of the total purchase value from significant suppliers, signed the Supplier Code of Conduct or were – via an internal escalation process – assessed to have equivalent standards in place which are in line with Gränges' sustainability requirements.

### Supplier assessments and audits

Before selecting new suppliers, Gränges conducts supplier pre-qualification assessments using criteria such as quality, service, price, delivery precision, reliability, ethics and material traceability, as well as social and environmental standards. During 2018, 17 new significant suppliers were added to Gränges' supplier base.

Once a supplier is added to the supplier base, Gränges performs periodic supplier assessments.

Gränges Asia and Gränges Europe regularly assess suppliers' performance using tools such as supplier scorecards. Supplier audits are conducted periodically depending on suppliers' strategic importance and results from assessments. Audits focus on evaluating suppliers' quality and delivery precision, but sustainability related criteria such as environment, labour laws, health and safety, and human rights are also included. If improvements are needed, a corrective action plan is compiled in collaboration with the supplier. Gränges thereafter checks to ensure that the supplier has implemented actions as promised. During the year, ten supplier audits were conducted, none with significant deviations.

Gränges Americas conducts pre-qualification assessments, including assessing suppliers' sustainability practices, on all critical suppliers<sup>2)</sup>. Suppliers' quality performance is then assessed on a semi-annual basis and if a supplier is assessed to underperform and does not have sufficient quality management system procedures in place, supplier audits are to be conducted. During the year no such audits were carried out.

### Industry collaboration

To enforce responsible sourcing practices across the industry, Gränges during the year applied for joining the industry association Aluminium Stewardship Initiative (ASI).<sup>3)</sup> ASI is a global, multi-stakeholder, non-profit standards setting and certification organization which works to maximise the contribution of aluminium to a sustainable society. Through its membership, Gränges aims to promote greater sustainability and transparency in the aluminium value chain.

## OUR COMMITMENT

We will ensure that our suppliers maintain high sustainability standards by enforcing strict criteria in our supplier sourcing agreements and partnerships. We also commit to improve the environmental footprint in our supply chain by working with our suppliers and promoting sustainable practices.

## PERFORMANCE AND FOCUS 2018

- Initiated efforts to establish a group-wide process aimed at promoting responsible practices in the supply chain.
- Increased the scope of Supplier Code of Conduct commitment; 98 per cent of the purchase value from significant suppliers committed. Ten supplier audits conducted.
- Applied for participation in Aluminium Stewardship Initiative to promote sustainability and transparency in the aluminium value chain.
- Increased the share of sourced recycled aluminium of total sourced metal inputs by 46 per cent to 16.7 per cent (11.5).
- Reduced indirect carbon emissions intensity from purchased materials and services by 6 per cent to 11.2 tonnes CO<sub>2</sub>e/tonne product (11.9).

1) Suppliers with a purchase value above 5 MSEK, 5 MCNY or 0.5 MUSD.

2) Suppliers who supply items that are by their nature critical to the quality of products produced.

3) The membership in Aluminium Stewardship Initiative was formalized on 7 January, 2019.



## GRÄNGES' SUPPLY CHAIN AND MATERIALS SOURCED

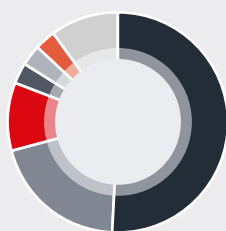
In 2018 Gränges had approximately 2,200 suppliers globally. Of the total purchase value, Gränges Americas accounted for 46 per cent, Gränges Europe (including Gränges AB) 28 per cent and Gränges Asia 26 per cent. In total, 143 suppliers – corresponding to 89 per cent of the total purchase value – were defined as significant suppliers<sup>1)</sup>. Sourcing activities are mainly managed by the local procurement organizations and the supplier base is generally geographically close to the respective markets.

Approximately 85 per cent of the 2018 purchase value from significant suppliers was related to sourcing of direct materials: primary ingots, rolling slabs, alloying elements and recycled aluminium.

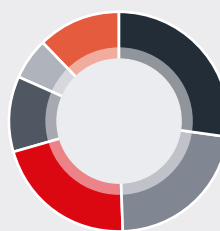
- **Primary aluminium (ingots and slabs):** In 2018, Gränges sourced ingots and slabs from 17 suppliers globally, the largest purchase value from China, Switzerland, Sweden, the US and Norway. Ingots are sourced from commodity traders, where origin-labelled aluminium enables traceability to the smelter of origin.
- **Recycled aluminium:** Gränges works actively to increase the volumes of sourced recycled aluminium. In 2018, Gränges used approximately 70.4 ktonnes externally sourced recycled aluminium in its global operations.

Sourced indirect materials accounted for around 15 per cent of the total purchasing value among significant suppliers. Important indirect purchasing categories were transport, utilities and services.

### Share of purchase value from significant suppliers – by category and country



- Primary aluminium (ingots), 51%
- Primary aluminium (slabs), 20%
- Recycled aluminium, 10%
- Transportation, 3%
- Utility, 3%
- Services, 3%
- Other, 10%



- China, 27%
- Switzerland, 22%
- The United States, 21%
- Sweden, 11%
- Norway, 6%
- Other, 12%

1) Suppliers with a purchase value above 5 MSEK, 5 MCNY or 0.5 MUSD.



## SOURCED RECYCLED ALUMINIUM

### Promoting sourced recycled aluminium

Gränges strives to increase the volumes of sourced recycled aluminium as the extraction of bauxite and production of primary aluminium are energy intensive processes with undesired effects on both costs and the environment. Recycled aluminium requires about 5 per cent of the energy needed to produce primary aluminium. Thus, the higher the share of recycled input materials, the lower the carbon footprint from purchased materials and services.

The company's procurement teams actively coordinate with the production units to optimize sourcing so that the operations can make efficient use of process scrap, and to maximize recycling.

Gränges sources recycled aluminium from recycling companies or directly from customers. During the year, Gränges sourced approximately 70.4 ktonnes of recycled

aluminium in its global operations, equivalent to 16.7 per cent of total sourced metal inputs. This was an increase by 46 per cent compared with the previous year, driven by increased volumes in Gränges Americas. Gränges has set a 2025 target to reach 20 per cent sourced recycled aluminium of total sourced metal inputs and to reduce the indirect carbon intensity from sourced materials and services.

### Finding sufficient quality

Due to the high number of alloys used to produce Gränges' clad aluminium products, it can be challenging to find recycled aluminium which fits well in the re-melting process. When using recycled clad aluminium from its customers, Gränges requires strict sorting of the process scrap.

Gränges Asia currently only sources small volumes of recycled aluminium as it is difficult to obtain a stable supply of recycled aluminium of sufficient quality, and as there is little price difference between primary and recycled aluminium in China. During the year, a pre-study was conducted to initiate sourcing of recycled aluminium. Results from the study confirmed difficulties of supply and quality, but that sourcing of recycled aluminium would be feasible in theory. Gränges Asia intends to establish source channels gradually.

### Collaborating with customers

Gränges Americas produces alloy applications that are more standardized and allow for wider composition limits, compared with alloys for brazed heat exchanger applications which are produced in Gränges Asia and Gränges Europe. It is therefore possible to reach higher volumes of sourced recycled aluminium in the

re-melting process. In 2018, Gränges Americas increased its volumes of recycled aluminium significantly, driven by higher volumes sourced from commodity traders as well as from its customers. During the year, Gränges Americas had ongoing recycled aluminium programs with ten customers with plans to expand the programs in the coming years.

### Innovating for increased recyclability

Material for brazed heat exchangers are clad with high silicon level alloys to allow for brazing and suitable material properties, which makes recycling more complex. To increase the use of recycled aluminium as input materials for its clad aluminium products, research and innovation activities are focused on identifying integrated solutions that achieve the required technical specification, and improve recycling rates.

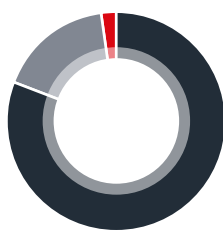
## EMISSIONS AND CLIMATE IMPACT

### Tracking supply chain carbon footprint

More than 90 per cent of Gränges' total greenhouse gas emissions are emitted outside Gränges' own operations – in the company's supply chain when producing primary aluminium. Indirect carbon emissions from the supply chain decreased by 6 per cent to 4,200 ktonnes CO<sub>2</sub>e (4,500) in 2018.

During the year, Gränges initiated efforts to better understand the carbon performance and use of renewable energy in its supply chain. The company aims to develop a plan for integrating carbon performance into its sourcing process and to more actively choose supplier and raw material source based on such criteria. For more information about how Gränges works with renewable energy, see page 36.

Share of recycled aluminium of total sourced metal inputs, 2018



- Primary aluminium (ingots + slabs), 81%
- Recycled aluminium, 17%
- Alloying elements, 2%

## >> INCREASED RECYCLED ALUMINIUM UTILIZATION

At the Gränges global 2018 Company Awards event, Gränges Americas was rewarded for its efforts to greatly increase the use of sourced external recycled materials in casting at the Huntingdon and Salisbury production facilities in the US. At the time of the event, sourced recycled materials replaced more than 20 per cent per month of otherwise required primary aluminium purchases, corresponding to an estimated reduction of carbon emissions by around 340 ktonnes CO<sub>2</sub>e per year. The result is a good contribution to Gränges' work to reduce its environmental footprint and it was achieved by a multi-functional team with representatives from procurement and operations.

# RUN SUSTAINABLE OPERATIONS



Efficient management of energy and materials offer opportunities to improve profitability, competitiveness, and environmental performance and is critical to Gränges and its stakeholders. Also, providing a safe work environment is a top priority as the company strives towards operating an injury-free workplace.

## OUR COMMITMENT

We will strengthen operational efficiency and continuous improvements in our operations to improve material & energy efficiency and reduce emissions to air and water, while at the same time provide a safe and secure workplace for our employees. Thereby, we minimize the negative impacts of our operations.

## PERFORMANCE AND FOCUS 2018

- Reduced Total Recordable Rate by 22 per cent to 6.1 recordable accidents per million hours worked (7.8). Severity Rate increased to 165 lost workdays per million hours worked (112) due to a couple of accidents that resulted in long recovery of the injured individuals.
- Reduced energy intensity by 1 per cent to 3.3 MWh/tonne product (3.3) driven by different energy efficiency measures at the plants. The total share of sourced renewable energy was unchanged at 9 per cent (9).
- Reduced direct and energy indirect carbon emissions intensity by 6 per cent to 0.76 tonne CO<sub>2</sub>e/tonne product (0.81) driven by improved energy intensity and a higher share of low carbon nuclear electricity replacing fossil fuel-based electricity in Gränges Americas.

## ENERGY

### Reducing energy consumption

The melting and casting of aluminium are energy intensive processes and Gränges strives to reduce the company's energy consumption for both sustainability and profitability reasons. Energy costs are the most significant expense after metal and personnel costs. Gränges primarily uses energy in the form of natural gas, electricity, and liquefied petroleum gas. The energy is mainly used in furnaces where aluminium is re-melted either via direct combustion or induction.

### Improving energy and material efficiency

Gränges has set a 2025 target to reduce energy intensity by 17 per cent versus the 2017 baseline. To improve energy efficiency, Gränges carries out energy audits, implements related improvements, and selects the best available technology for new investments.

Energy efficiency measures are primarily linked to increased metal yield, improved thermal processes and recovery of waste heat from various processes. Furthermore, by re-melting unavoidable production scrap in-house rather than selling it to third parties, Gränges can avoid quality degradation and energy losses involved in transporting and handling recycled aluminium.

During the year, several process efficiency measures were implemented which led to a 1 per cent improvement in energy intensity, reaching 3.3 MWh/tonne (3.3) for the full year.

Gränges Europe collaborated with its main slab supplier and implemented a new slab shape, which reduced scalping yield and energy consumption. In addition, Gränges Europe reduced the idling consumption of propane through newly installed burners and a control system which only operates when recycled aluminium is loaded.

Gränges Americas reduced its natural gas consumption by rebuilding one melter in the Salisbury plant and two melters in the Huntingdon plant.

Gränges Asia installed a recuperation system to reuse the heat from melting and holding furnaces to pre-heat ingots. In addition, Gränges Asia reduced annealing cycles and natural gas consumption through improved nozzle design for the coil annealing furnaces.

### Promoting renewable energy

Gränges has articulated a long-term target to increase its share of renewable energy as a means to reduce carbon emissions. On a group level, 9 per cent of the total energy used during 2018 was from renewable sources<sup>1)</sup>, where the renewable share originates from sourced electricity and district heating.

Higher levels for Gränges Europe were partly offset by lower levels for Gränges Americas and Gränges Asia. The latter primarily use natural gas in production, raising the share of non-renewable energy and therefore the carbon emissions. Gränges Europe uses mainly induction melters combined with electricity from low carbon sources (hydro and nuclear), reducing carbon emissions.

The production facilities of Gränges Asia and Gränges Americas are located in areas where the energy markets are regulated. This means that Gränges is bound to the utility in that area and that Gränges cannot affect the share of renewable energy in the energy mix unless developing its own renewable energy solutions. Gränges Europe sources electricity from the deregulated energy market in Sweden.

Going forward, Gränges aims to more actively evaluate alternative energy sources and to increase the use of renewable energy, in line with the company's long-term target.

1) Wind, solar, hydro, geothermal, tidal and biomass.

## EMISSIONS AND CLIMATE IMPACT

### Reducing emissions to air and water

Gränges believes it is essential to help combat climate change and works actively to reduce the climate impact from its own operations and along its value chain. The company emits various substances mainly to air, but also to water and soil. Emissions to air, in terms of carbon dioxide, nitrogen oxides and dust, come from burning fossil fuels and particularly natural gas and liquefied petroleum gas. Emissions of oil are linked to the cold rolling operations where oil is used to cool down the mill and lubricate the interface between the rolls and the material.

### Gränges' carbon footprint

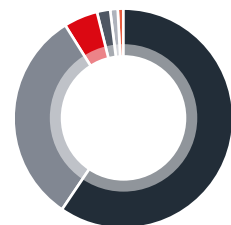
To better understand its climate impact, Gränges in 2017 conducted a carbon footprint study in accordance with the Greenhouse Gas Protocol. The study included all parts of the value chain from extraction of

bauxite to delivery of Gränges' products to customers. Product use and end-of-life were excluded due to lack of relevant data. Results clearly showed that the main part of Gränges' greenhouse gas emissions, more than 90 per cent, originates upstream in Gränges' supply chain, in the production of primary aluminium. Direct emissions from Gränges' own operations combined with indirect emissions from purchased energy, accounted for around 7 per cent. The results from the study were in 2018 used to formulate reduction targets; Gränges aims to reduce its greenhouse gas emissions from its own operations and purchased energy by 25 per cent by 2025 compared with 2017.

In 2018, direct and energy indirect carbon emissions intensity was reduced by 6 per cent to 0.76 tonne CO<sub>2</sub>e/ton product (0.81), which was driven by improvements in energy intensity and a higher share of low carbon nuclear electricity replacing fossil fuel-based electricity in Gränges Americas.

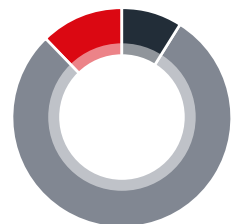


Energy use by type, 2018



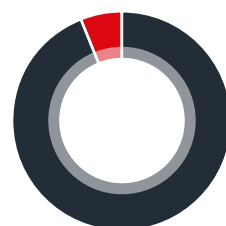
- Natural gas, 62%
- Electricity, 33%
- Liquefied petroleum gas, 4%
- Diesel, 1%
- District heating, 0.3%
- Petrol, 0.1%

Share of renewable energy sourced, 2018



- Renewable energy, 9%
- Non-renewable energy, 79%
- Nuclear energy, 12%

Carbon footprint, 2018



- Supply chain (scope 3), 94%
- Gränges (scope 1+2), 6%



## WATER MANAGEMENT

### Sustainable water use

Ensuring sustainable water use and access to clean fresh water is essential for economic growth and welfare. Gränges' operations are located in areas with various water risks and water consumption is managed based on local circumstances.

The production facilities of Gränges Americas and Gränges Europe are situated in areas with low to medium risk, while the Gränges Asia plant is situated in a medium to high risk area.<sup>1)</sup> No water sources are considered to be significantly affected by the water withdrawal or discharge from Gränges' operations.

As Gränges' water consumption is managed based on local circumstances, the company has set a target to develop and implement local water management plans in all its locations. The ambition is that such a plan should provide information about current water uses and proposals for water efficiency improvements, conservation activities and water reduction targets. This work will be initiated in 2019.

### Managing water based on local conditions

Much of Gränges' production equipment requires cooling water for efficient operation. Lack of cooling water could result in overheating and interruptions during production.

Gränges Americas' and Gränges Asia's plants have closed-loop cooling systems with a high degree of water recirculation. These systems reduce water consumption and the risk of water contamination.

Gränges Asia's plant uses municipal tap water for both production processes (mainly cooling) and for office buildings. Water from the cooling system is further re-used in other parts of the production process, for example in the cold rolling mill. Water of insufficient quality is later discharged to the local waste water treatment plant, in accordance with the local drainage permit which limits water volumes and types.

Gränges Americas' plants withdraw ground water from the company's own wells, which cool in a closed-loop system using non-contact cooling towers. As the

system is closed-loop, and therefore contains no contaminants, the used water can be discharged to nearby water bodies without further treatment.

Gränges Europe's plant withdraws surface water from a nearby lake which is in an area with low water stress and no restrictions on water withdrawal. The water is used to cool components and afterwards it is released into local waterways. Daily measurements are made to ensure that the released water does not contain hazardous substances. Hazardous condensates are treated before being returned to water bodies. Gränges Europe regularly sets reduction targets for water consumption.

## WORKPLACE SAFETY

### A safe work environment

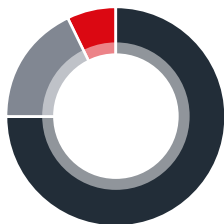
Gränges strives towards operating a safe and injury-free workplace that protects the health and fosters the well-being of employees and all persons directly or indirectly related to the company's operations, such as contracted workers and consultants. No employee or other individual should be at risk of injury in a Gränges workplace.

Gränges' operations entail specific safety hazards which Gränges continually monitors to eliminate or reduce the risks for these hazards to cause injuries. The following five main hazard categories are defined as the "critical five" for Gränges: fall protection; molten metal; mobile equipment; confined spaces; and machine guarding, lockout and tagout (ensuring that machinery is fully switched off and de-energized before maintenance work begins).

During the year, Gränges Europe invested in improved machine safety including noise reducing walls and a robotic eliminating the manual task of cutting steel straps close to hot materials. Gränges Asia implemented a new process for lockout and tagout equipment.

Safety targets are set for each plant as part of the business planning cycle, and actual results are reported monthly. During the year, there were 7 serious accidents, where 7 individuals were injured. Of the 23 recordable workplace accidents,

Water withdrawal by source, 2018



- Surface water, 75%
- Ground water, 18%
- Municipal water, 7%

<sup>1)</sup> Based on the Aqueduct Water Risk Atlas developed by the World Resources Institute.

14 resulted in lost workday cases. This resulted in a total of 620 lost workdays. Hand and finger injuries were the most frequent injury type; 11 of the 23 cases were related to such injuries in 2018. For details on methodology and definitions, refer to page 120.

#### A “safety first” culture

Gränges aims to create a work environment and culture characterized by “safety first”. This is an important aspect of leadership at Gränges, and safety in the five critical categories outlined above has top priority. During 2018, Gränges continued with safety management walks in which Group Management regularly visits the company’s production facilities to observe and monitor safety. The objective is to enforce the safety culture.

Safety work is integrated into Gränges’ operational excellence programme, which is part of the strategy of continuous improvements throughout the organization. During the year, Gränges Production System (GPS), based on lean manufacturing principles, was further deployed into operations. The 5S system, an important tool within GPS, helps to increase operator awareness and involvement, and to improve work morale by ensuring a clean and healthy work environment.

#### Safety training

Gränges believes that injuries, occupational illnesses, and safety incidents can be prevented, and therefore takes a proactive approach to continually improve health and safety awareness and skills. This includes regular health checks and training employees in machine safety, personal protective equipment, fire safety, first aid and emergency response. All employees are covered by accident and sickness insurance.

All employees take part in comprehensive safety training at least once a year and specific safety courses are regularly provided for production personnel, management and new employees. Production employees receive specific safety training covering aspects such as hand and finger injury prevention. All new employees attend safety training before starting their jobs.

#### Using a risk-based approach

Gränges’ safety strategy is focused on preventing workplace injuries. The company strives to better understand how work is performed in relation to hazards in the work environment, and the associated risks.

Job safety analysis is carried out for both repetitive and non-repetitive tasks. This involves identifying hazards associated with work tasks, assessing the risk of injuries and developing action plans to manage and mitigate these risks. Actions are coordinated and prioritized by management and safety representatives.

All incidents and accidents are registered and classified in incident reporting systems, and reviewed weekly and monthly. For all recordable accidents as well as for injury free and first-aid events with severe potential consequence, Gränges performs a root-cause analysis as a basis for corrective and preventive actions.

Gränges also performs chemical risk assessments. The company strives to minimize employee exposure to chemicals and takes steps to ensure that it uses alternatives that are as safe and environmentally sound as possible.

#### Sharing best practice

Regular safety inspections are conducted in all production facilities and offices. The results are reviewed by safety committees in the various locations. Supervisory safety committees, headed by the regional Presidents, monitor the efficiency of all safety committees. In Gränges Americas, each plant has an employee managed safety committee supported by local management.

Knowledge sharing and cooperation among facilities takes place through group-wide internal cross-assessments, and by communicating information on significant incidents to promote best practice and harmonize work processes. Such cross-assessments, which focus on the critical safety categories, fire safety and environmental matters, are conducted every six months at one of the production sites.

During the year the company conducted one internal assessment at the Finspång plant and one in the Huntingdon plant. Suggestions for improvements provided by participants were incorporated into the location improvement plans.

To promote better safety, knowledge is also shared with other companies through industry associations. Gränges’ representatives are active in the European Aluminium task force for safety. In this forum best practices are shared on specific subjects.



## >> IMPROVED SAFETY IN SHANGHAI

During 2018 Gränges Asia implemented a new process for lockout and tagout of equipment. The purpose of this process is to ensure that all sources of energy are isolated in order to perform safe maintenance work on an equipment. A visual overview of all energy sources and lock-out points is made for each specific equipment as well as a clear procedure for de-energizing.



# BUILD DIVERSE AND HIGH-PERFORMING TEAMS



Competent and committed employees form the foundation on which Gränges can be innovative and competitive and is therefore a crucial part of the company's business strategy and growth plans. During 2018, Gränges had an average total of 1,699 employees (1,568).

## OUR COMMITMENT

We will ensure that our people are motivated and engaged. By being an open and inclusive employer, with zero tolerance for discrimination, we will provide a diverse workplace where employees can realize their full potentials and contribute to developing a high-performing organization.

## PERFORMANCE AND FOCUS 2018

- 99 per cent of all employees received performance and development discussion.
- Share of women reached 14 per cent (14) of the total workforce and 20 per cent (20) of senior management<sup>1)</sup>.
- Increased focus on diversity and equality in the recruitment and onboarding processes, and into the process of putting together teams.
- Implemented a global employee survey in Gränges Asia and Gränges Europe in autumn 2018; Employee engagement index reached 78.

## CAREER AND LEADERSHIP DEVELOPMENT

### Attracting and retaining employees

Gränges strives to offer good working conditions and interesting career and personal development opportunities to attract and retain talented employees. The company offers remuneration levels in line with market rates and the conditions of employment needed to recruit, develop and retain employees.

Gränges has a professional recruitment process to ensure the company hires skilled employees. Employee and manager training takes place continually to guarantee employee engagement, craftsmanship, and good leadership. It is important that employees are proud to work for Gränges.

Having a strong employer brand is an important tool when attracting and securing talented employees. According to a Swedish survey conducted 2018 among university students and young professionals, civil engineers' awareness of Gränges as an employer reached 48 per cent.<sup>2)</sup> During the year, Gränges updated its employer value proposition to be used in future communication activities towards existing and potential employees. Gränges aims to be or become the employer of choice.

### Securing leadership development

To ensure that employees are engaged and motivated, Gränges conducts annual performance and development discussions as well as compensation reviews. The company's target is that all employees should receive an annual performance and development discussion, and in 2018, Gränges reached 99 per cent.

During the year, the annual appraisals process for key individuals and senior managers was updated to clarify the link between performance and compensation level. Gränges also continued to implement its talent management and succession planning processes aiming to secure leadership development for the individual and for the company.

### Recognizing good performance

Gränges works actively to strengthen its corporate culture and core values, which is important for employee engagement and performance. Gränges continued its global Company Awards event aiming at recognizing individuals, teams or departments that achieved significant improvements during the year. Local events were also arranged in Gränges Americas and Gränges Asia to reward employees who reflected the company's core values or made other contributions to the company's strategic roadmap.

1) Employees eligible to participate in Gränges' long-term incentive (LTI) programme.

2) Universum: Företagsbarometern 2018.

**DIVERSITY AND EQUALITY**  
**An inclusive workplace**

Gränges believes that diversity is a competitive advantage and that an inclusive work environment which leverages employees' different perspectives, experiences and ideas, will lead to a more innovative, competitive and productive organization. A multifaceted workforce also reflects the international market in which Gränges operates.

In line with Gränges' Diversity Policy, no employee should experience discrimination based on gender, age, world view, background, sexual orientation, ethnicity, physical ability or similar.

Gränges' target is to increase the proportion of women, both in its total workforce and in senior management. By 2025, Gränges aims to have at least 30 per cent women among senior management. In 2018, the share of women in the total workforce was unchanged at 14 per cent (14). Also the share of women among senior management was unchanged at 20 per cent (20).

**Increased focus on diversity and equality**

During the year, Gränges worked to incorporate the diversity and equality perspective into the recruitment and onboarding processes, and into the process of putting together teams. In the recruitment process, all else being equal, individuals from underrepresented groups are given recruitment priority.

Gränges also included the topic in the Code of Conduct and in the Code of Conduct training to increase employees' awareness and skills. In addition, Gränges incorporated the diversity and equality perspective more clearly into the 2018 employee survey to enable measurement and follow-up. Results showed that 86 per cent of employees perceive that all employees have the same opportunities and duties regardless of gender, gender identity or expression, ethnicity, religion or other belief, disability, sexual orientation, or age.

Gränges Europe also performed a gender-related disparity pay analysis, which did not find any non-objective gaps.

**Employees by region, 2018<sup>1)</sup>**



■ Asia, 31%  
 ■ Europe, 29%  
 ■ Americas, 40%

1) Based on full-time positions.

**>> FEMALE LEADERSHIP  
 IN THE NEWPORT SITE**

During spring 2018, Gränges decided to restart production at the Newport facility in Arkansas, US, with an aim to produce light foil in 2019. As part of its recruitment efforts to staff the new site, Gränges selected Susan VandeZande, one of its management team members from the Huntingdon site, to take on the role as plant manager. Susan VandeZande's extensive competence and experience from the foil market made her an excellent fit for the role. By promoting gender equality and diversity in senior positions, Gränges hopes that more women across the organization will be inspired to become leaders.





**EMPLOYEE WELLBEING**  
**Fostering productivity and engagement**

Having engaged and healthy employees is a prerequisite for productivity and building high-performing teams. Mismanaging health and wellbeing can also lead to significant cost implications both for the employee and the company. To promote employee health and wellbeing, Gränges offers initiatives such as flexible work options, occupational health care, wellness grants and support to employees who have recurrent illness.

Gränges regularly follows up on employees' wellbeing via the annual performance and development discussion. Gränges also conducts employee surveys to track employee wellbeing and engagement. Results from 2018 showed that a high share of Gränges' employees are engaged; Employee engagement index was 78 (excluding Gränges Americas) which is slightly above benchmark. Gränges has set a 2025 target to reach an Employee engagement index of 85.

In 2018, total sick-leave reached 1.6 per cent (2.0) and total employee turnover 9.1 per cent (7.4).

## GRÄNGES' CORE VALUES

Gränges' corporate culture and values are important in attracting and retaining employees. The core values signal that Gränges promotes being dedicated to serving its customers and other stakeholders, making things happen, constantly seeking new and better solutions, and collaborating actively. The core values guide employees in their daily actions and lay the foundation for conducting business responsibly and ethically.

**COMMITTED**

We are committed to serving our customers and acting responsibly towards each other and our communities.



**ACTION ORIENTED**

We are action oriented, make things happen and continuously learn from our experiences.



**INNOVATIVE**

We are innovative, promote creativity and constantly seek new and better solutions.



**ACCESSIBLE**

We are accessible to each other, our customers and our business partners.



# DEVELOP SUSTAINABLE PRODUCT OFFERINGS



Gränges' ambition is to create tangible business and sustainability benefits for its customers. Through aluminium's light-weighting properties and its recyclability, Gränges' aluminium products enable customers and end-users to achieve significant savings in energy consumption and greenhouse gas emissions.

## ECO-RESPONSIBLE INNOVATION

Gränges aims to develop eco-responsible product offerings that contribute to sustainable development and a circular industry approach. The company creates value for customers and end-users by making its aluminium products lighter, stronger and more corrosion resistant, while also improving brazeability and introducing new functions into the material.

Gränges believes that customers' requirements on sustainable product performance will increase, and the company has therefore integrated sustainability aspects into its product development process. During 2018, each product development project was assessed whether it leads to projected carbon emissions savings in the use phase. In total, 44 per cent of such projects were assessed to lead to carbon emissions savings in the use phase.

When developing new products, Gränges collaborates with customers to understand their business and sustainability drivers. Examples of activities during the year include discussions with customers about battery cooling, fluxing-free processes and continuous downgauging. Also, Gränges Asia launched very corrosion resistant materials for offshore wind power use, which was appreciated by customers and end-users.

## SUSTAINABLE LIFE-CYCLE PERFORMANCE

As part of the work to develop its new sustainability framework, Gränges identified product life-cycle sustainability performance as one of its material topics. It means taking product stewardship and responsibility to reduce environmental impacts and create value along the value chain. This topic is a result of the eco-responsible innovation efforts described above, as well as the work conducted to reduce the environmental impacts from Gränges' supply chain and own operations. More information can be found on pages 33–35 and 36–39.

To facilitate customers' analysis and assessment of the environmental performance of its products, Gränges during the year initiated a project aimed at establishing a foundation for how the company can assess and communicate the sustainability performance for its products from a life-cycle perspective. Gränges has set a target that 80 per cent of its products should have third-party verified sustainability information available in 2025. Going forward, Gränges will start to perform product life-cycle assessments to be used as a basis for this.

## OUR COMMITMENT

We will enhance the sustainability performance of our products through development of innovative and eco-responsible offerings and provide customers with verified sustainability performance data. By doing so, we aim to improve their environmental footprint and contribute positively to a more circular industry approach to aluminium.

## PERFORMANCE AND FOCUS 2018

- Incorporated clear sustainability criteria into the product development process to strengthen focus on developing eco-responsible product offerings.
- Initiated a project aimed at establishing a foundation for how Gränges can assess and communicate the sustainability performance for its product from a life-cycle perspective.

## LIGHT-WEIGHT PRODUCTS WITH IMPROVED CORROSION RESISTANCE

Tube materials in heat exchanger applications require very high corrosion resistance to avoid leakage of the cooling agent. Some decades ago, very thick gauges were used to provide enough corrosion resistance. Gränges has now developed a multi-layer concept that can allow improved corrosion resistance at lower gauges. This can reduce the weight of the tubes by up to 30 per cent, which in turn leads to improvements in heat exchanger performance in terms of both energy efficiency and maintenance.

# RISK MANAGEMENT

As a group with operations in different parts of the world, Gränges is exposed to various risks and uncertainties. Gränges' risk management aims to identify, assess, and reduce risks related to the Group's business and operations.



Local risk reporting systems for environment, quality, and health and safety are in place at the production sites. Risks are managed as a part of daily operations where key risks are raised to the regional management team and mitigation measures are implemented. Gränges always maintains adequate insurance coverage in relevant areas.

## MARKET RISKS

Market risks are managed and controlled by the corporate functions and operating units in accordance with established guidelines and procedures.

- Risks related to market development and competition
- Risks related to customer satisfaction
- Supply chain risks
- Energy price risks
- Political risks

## OPERATIONAL RISKS

Operational risks are managed and controlled by the corporate functions and operating units in accordance with established guidelines and procedures.

- Quality and efficiency risks
- Risks related to critical machine breakdowns or disasters
- Health and safety risks
- Environmental risks
- Risks related to employees and the workplace
- Business conduct risks
- Risks related to compliance and upcoming legislation

## FINANCIAL RISKS

Financial risks are managed in accordance with Gränges' Financial Management Policy. Gränges uses derivatives and other financial instruments to reduce financial risks.

- Currency risk
- Commodity price risk
- Interest rate risk
- Liquidity risk
- Credit risk



## MARKET RISKS

RISK	RISK DESCRIPTION AND CONSEQUENCE	RISK MANAGEMENT
RISKS RELATED TO MARKET DEVELOPMENT AND COMPETITION	<p><b>Changes in automotive market demand</b> About half of Gränges' sales volume goes to customers in the automotive industry. Vehicle production rates depend on a number of external factors such as the general economy, interest rates, taxes, legislation and consumer behaviour. During an economic downturn, the automotive industry normally sees a decline in production, which reduces demand for aluminium products used in vehicles.</p> <p><b>Electrification of the automotive industry</b> The electrification of the automotive industry is accelerating and is driving demand for new solutions and components for cooling and heating. Although Gränges as technical leader in the industry is well positioned to benefit from this development there is a risk that other technologies will emerge over time and that Gränges' current technology becomes outdated.</p>	<p><b>Diversification and adaptability</b> Gränges is a global company operating in all major regions. The worldwide presence reduces risks of an economic downturn in individual markets. Gränges has a diversified product portfolio and about half of the Group's sales volume goes to other niche markets in the industry, including stationary heat exchangers, transformers, and food packaging that are less cyclical. The aim is to continue to increase sales to other markets than the automotive industry.</p> <p><b>Extensive R&amp;I</b> Research and innovation are core elements of Gränges' strategy, and Gränges continues to increase the efforts in this area. To be able to meet future market demands, in-depth research work is combined with innovation. Gränges supports its customers in product development for future applications such as electrical vehicles, and invests to secure competence and advanced technology suited for the next generation of materials.</p>
RISKS RELATED TO CUSTOMER SATISFACTION	<p>Maintaining customer focus and providing the right products at the right time to customers are key success factors for Gränges. Dissatisfied customers can adversely affect the company's profitability and market share, and may also pose a reputational risk.</p>	<p>Gränges upholds good relationships with customers to proactively meet their demands. Additionally, the company regularly conducts global customer satisfaction surveys to track customers' perceptions of Gränges' products and services. Results from the studies are reviewed and lead to actions to develop Gränges' internal processes and specific customer relationships.</p>
SUPPLY CHAIN RISKS	<p><b>Ethical, environmental and social risks</b> Ethical risks in the supply chain are related to bribery and other types of corruption. Among the countries that Gränges sources metal from, there are a few that, according to Transparency International's Corruption Perceptions Index for 2018, are deemed to have a higher risk for corruption. Environmental risks in the supply chain are mainly connected to environmental permits and the potential lack of compliance. Labour law risks include unfair working conditions. In certain regions there is a risk of child labour.</p> <p><b>Supply of slabs and other materials</b> Gränges depends on the supply of commodities, mainly aluminium. Insufficient supply means that Gränges cannot produce certain end products. In the future, depending on chosen end designs, special material types may be more difficult to source due to their particular characteristics.</p>	<p><b>Supplier Code of Conduct, assessments, and audits</b> To ensure that suppliers have zero tolerance for corruption, provide reasonable working conditions, ensure good workplace health and safety standards, and respect human rights and the environment, significant suppliers must sign and follow Gränges' Supplier Code of Conduct. Suppliers thereby declare to observe all applicable laws and regulations, including the ten principles of the UN Global Compact. Furthermore, Gränges aims to periodically conduct supplier assessments and audits of its strategic suppliers to make sure they adhere to the company's sustainability requirements.</p> <p><b>Supply management</b> Gränges enters into agreements with suppliers in each market to ensure deliveries based on estimated volumes. Gränges has its own cast house in the production facilities, making it less sensitive to supply issues regarding for example slabs.</p>
ENERGY PRICE RISKS	<p>Energy price risks relate largely to changes in energy prices that can adversely affect Gränges' operating profit. Gränges is mainly exposed to price changes in electricity and natural gas, but the price of other energy commodities may also affect Gränges' operating profit directly and indirectly.</p>	<p>Gränges uses hedging and delivery agreements to secure future energy prices and supply. Financial hedges and physical fixed-price contracts may be used up to two years before delivery. Long term changes to market prices will eventually affect Gränges operating profit if changes are not transferred to the customers.</p>
POLITICAL RISKS	<p>Gränges has its primary operations in Sweden, China, and the US, and customers in around 40 countries. Markets and operations are affected by the political and economic environments within and between these countries. Political changes and changes in for instance trade legislation or sanctions against individual countries or organizations could interfere with the company's supply chain, production or market activities, and affect the ability to meet the demands of Gränges' customers.</p>	<p>Political risks are closely monitored, particularly regarding legislation for cross-border trade. As a global company with production facilities on three continents, Gränges has some flexibility to transfer production and re-route supply flows should political changes have a negative impact on the current setup.</p>

## OPERATIONAL RISKS

RISK	RISK DESCRIPTION AND CONSEQUENCE	RISK MANAGEMENT
QUALITY AND EFFICIENCY RISKS	Quality and efficiency risks are mainly connected to defective products and insufficient process stability, and often due to unplanned stoppages at production plants.	To ensure high-quality products and efficient production processes, Gränges has ongoing programmes for operational excellence and is continually upgrading and maintaining production equipment.
RISKS RELATED TO CRITICAL MACHINE BREAKDOWNS OR CALAMITIES	Critical machine breakdowns or calamities (such as fire) risk to damage equipment.	Gränges follows proven maintenance plans for critical machinery, and ensures access to spare parts and service staff to continually maintain critical machinery. Gränges has invested in state-of-the-art fire protection systems and has extensive insurance policies in place.
HEALTH AND SAFETY RISKS	<p><b>Health and safety risks</b></p> <p>Cast houses and rolling mills are work environments that impose significant health and safety risks. Examples of such risks are finger, hand, foot, and leg injuries. Also, production personnel risk being exposed to chemicals that are hazardous to health.</p> <p>Strict safety routines may never be bypassed or assigned a lower priority. If the implementation of safety procedures is unsuccessful or inefficient, employees and other individuals may be injured. Unsafe workplaces can also lead to increased employee turnover as well as higher operating costs. Injuries can lead to production interruptions, which could result in financial costs for Gränges.</p>	<p><b>Using a risk-based approach</b></p> <p>Gränges has strict safety routines and continually invests in various safety measures to prevent and mitigate workplace injuries. Employees work according to the global EHS Policy.</p> <p>Safety risks are reported as risk observations in local incident management systems at the production facilities.</p> <p>Regular job safety analysis and comprehensive safety training is arranged for all employees at least once a year, and targeted safety training is carried out for specific safety aspects. Safety aspects are also integrated into Gränges' operational excellence programme GPS, with the aim to improve the workplace environment through structural and systematic reduction and elimination of the many small hazards at origin.</p> <p>Internal cross assessments are carried out every six months at the production sites to share knowledge and best practice, harmonize work processes and cooperate to develop improvement plans. Knowledge is also shared with other companies through industry associations.</p>
ENVIRONMENTAL RISKS	<p><b>Emissions to water, soil, or air</b></p> <p>Environmental risks are related to emissions to water, soil and air or releases of environmentally hazardous substances resulting from incidents and accidents, such as fire, oil spill, or leak of hazardous substances.</p> <p>Emissions to air, in terms of carbon dioxide, nitrogen oxides and dust, come from burning fossil fuels and particularly natural gas and liquefied petroleum gas.</p> <p>Emissions of oil are linked to cold rolling operations in which oil is used to cool down the mill and lubricate the interface between the rolls and the material.</p> <p>Such events may have financial, non-financial, and regulatory repercussions.</p>	<p><b>Standardized routines and daily monitoring</b></p> <p>Environmental risks are reported as risk observations in local incident management systems at plants. Risks are managed in accordance with a standardized routine and integrated as a part of daily operations.</p> <p>Key risks are raised to the regional management team and mitigation measures are implemented accordingly. Measures to mitigate environmental risks are also integrated in investment and maintenance routines.</p> <p>Emissions are monitored and managed as part of daily operations. Compliance is a prerequisite for Gränges' continued licence to operate.</p> <p>Local authorities continually monitor compliance to ensure that emissions are within limits. Emissions of nitrogen oxides, sulphur dioxide, dust, volatile organic compounds (VOC) and in some regions, oil emissions, are regulated by legislation.</p> <p>Gränges includes the precautionary principle in environmental risk assessments.</p>
RISKS RELATED TO EMPLOYEES AND THE WORKPLACE	<p><b>Talent attraction and employee retention</b></p> <p>Gränges operates in a specialized niche where experience and knowledge of the company's markets, customers, and production are critical for the company's success. Competent, committed, and engaged employees form the foundation on which Gränges can be innovative and competitive.</p> <p>Losing key employees can negatively affect Gränges' possibilities of conducting and developing its operations, and its ability to develop new products. It can also lead to significant cost implications.</p> <p><b>Diversity and equality</b></p> <p>Gränges believes that diversity is a competitive advantage and that employees with different backgrounds and experiences make Gränges a more innovative, profitable and productive organization. Lack of diversity and equality may affect Gränges' ability to reach its long-term targets.</p>	<p><b>Attractive workplace and leadership development</b></p> <p>To attract and retain skilled employees, Gränges works actively to strengthen its employer brand. Gränges also offers remuneration levels in line with market rates and conditions of employment necessary to recruit, develop, and retain key employees.</p> <p>To ensure that employees are motivated and engaged, Gränges conducts regular performance and development discussions. To develop the leadership that is needed, the company works actively with training opportunities, talent management and succession planning as well as strengthening the corporate culture and core values.</p> <p>Gränges also works proactively to promote health and wellbeing through initiatives such as flexible work options and occupational health care.</p> <p><b>An inclusive approach</b></p> <p>In the recruitment process, all else being equal, individuals from underrepresented groups are given recruitment priority. Gränges also works to make sure that diversity is incorporated into the onboarding process as well as into the process of putting together teams. The company also regularly trains its employees in the Code of Conduct, which covers the inclusion and diversity perspective.</p>

RISK	RISK DESCRIPTION AND CONSEQUENCE	RISK MANAGEMENT
<b>BUSINESS CONDUCT RISKS</b>	Violations of the company's ethical business principles as described in its Code of Conduct and Anti-Corruption Policy, may adversely affect the company's reputation and brand, and therefore earnings.	Gränges is committed to operating in accordance with responsible, ethical and sound business principles, and in compliance with all applicable laws and regulations. All Gränges employees and board members, as well as temporary staff such as independent contractors and consultants, intermediaries or others acting on behalf of Gränges, must follow the Code of Conduct. Gränges employees and board members must also follow policies such as the Anti-Corruption Policy and take reasonable steps to ensure that Gränges' independent business partners, including suppliers, customers, and joint-venture partners, do not engage in corruption or other illegal or unethical activities related to their business with Gränges. Employees regularly undergo training in the Code of Conduct and anti-corruption. Gränges has set a long-term target that 100 per cent of all employees are annually trained in the Code of Conduct and that 100 per cent of all applicable employees are annually trained in anti-corruption. Gränges' whistleblower function enables employees and external business partners to report irregularities or concerns of misconduct anonymously. The function is open 24 hours a day and seven days a week.
<b>RISKS RELATED TO COMPLIANCE AND UPCOMING LEGISLATION</b>	Gränges operates in many different markets, with local laws and rules. Failure to keep abreast of legislative and regulatory requirements may cause financial liabilities or even loss of permits. If employees or individuals who work on Gränges' behalf violate laws and rules, it could have negative consequences for Gränges. The company may be affected by events that damage confidence in the company, its operations, or employees, for example if environmental, quality, or ethical requirements are not met in the manner prescribed by Gränges.	Gränges observes all applicable local and international laws and regulations. Gränges continually monitors legislative and regulatory developments through external partners, and through membership in various industrial organizations. The company's employees are regularly informed of relevant changes that the company must follow. Gränges conducts in-house training of relevant personnel to ensure good knowledge and understanding of legal risks and requirements.

## FINANCIAL RISKS

RISK	RISK DESCRIPTION AND CONSEQUENCE	RISK MANAGEMENT
<b>CURRENCY RISK</b>	Gränges Group sales are primarily generated outside of Sweden. Sales contracts are mainly denoted in USD, EUR and CNY, depending on where the customers are located. Changes in foreign exchange rates have an impact on Gränges' income statement, balance sheets, and cash flow. Over time, changes in foreign exchange rates may also affect the company's long-term competitiveness and earning capacity.	Gränges' Financial Management Policy regulates the company's management of foreign exchange risk. Gränges uses financial instruments, mostly forwards, to reduce the company's exposure to changes in foreign exchange rates regarding its commercial cash flows. Changes in exchange rates for firm commitments are managed in accordance with a model whereby the exposure with a duration of up to 18 months is hedged. Exposures relating to customer orders without firm commitments are partly hedged up to 24 months.
<b>COMMODITY PRICE RISK</b>	Gränges procures large volumes of aluminium for the company's production facilities in Sweden, China and the US. The price of aluminium is based on the trade price on the LME in London or SHFE in Shanghai. Gränges' revenue model means that the cost of aluminium is passed on to the customer, through the agreements with customers and suppliers. Typically there is a lag between the aluminium procurement date and the sale of the finished product, which means that Gränges is partially exposed to fluctuations in the price of aluminium.	Gränges' Metal Management Policy regulates the company's management of commodity price risk. The goal is to balance the short and long position so that the company is not affected by changes in the price of aluminium. Financial instruments are used to manage the commodity price risk, that can arise if there is a lag between the aluminium procurement date and the sale of the finished product. Gränges takes no positions for speculative purposes.
<b>INTEREST RATE RISK</b>	Gränges' interest rate risk mainly relates to the Group's interest-bearing liabilities. Changes in interest rates may affect the Group's results and cash flow and/or the fair value of financial assets and liabilities. The actual interest rate risk also depends on the total size of the interest-bearing debt.	Gränges' borrowings are mainly in SEK and USD at floating interest rates. The duration of the interest-bearing debt portfolio can be adjusted by longer interest periods or by interest rate swaps. The target for the duration of the interest-bearing debt portfolio is regulated in the Financial Management Policy. In 2018 no interest rate swaps were used to prolong the duration.
<b>LIQUIDITY RISK</b>	Liquidity risk is the risk that Gränges will not be able to meet its payment obligations. Cash flow from operations, which is affected by changes in working capital among other factors, is managed at group level. The liquidity risk is affected by for example Gränges' future commitments, available cash and available credit lines.	Gränges forecasts future payments and obligations for the next twelve months against incoming cash flows and available credit facilities, including a strategic reserve. The Financial Management Policy regulates a minimum level for available liquidity, including committed credit facilities from banks. Excess liquidity is managed by the Group's treasury function.
<b>CREDIT RISK</b>	Credit risk is the risk that a counterparty does not meet its financial obligations towards Gränges. A credit risk can be related to for example trade receivables or financial counterparties.	Gränges' trade receivable exposure is managed and followed up continually in local credit committees. The need for provisions is tested every quarter, or when necessary, according to predefined criteria. The credit risk on financial counterparties is managed by choosing counterparties with a good credit rating, by limiting the actual exposure, and by agreements such as ISDA agreements.

# THE GRÄNGES SHARE

The Gränges share was listed on Nasdaq Stockholm in the Mid Cap segment in October 2014. The share is included in the Automobile & Parts category and traded under the ticker GRNG.

# 147%

is the total return that the shareholders have received since the IPO in 2014 and until the end of February 2019.

Since the listing on Nasdaq Stockholm in October 2014 and until the end of February 2019, the Gränges share has risen by about 122 per cent. During the same period, shareholders have received a total return of 147 per cent, including the reinvestment of the annual dividends. The share price was SEK 80.50 at the end of 2018, which represents a market capitalization of almost SEK 6.08 billion. The share's highest price in 2018 was recorded on 2 May at SEK 127.20, and the lowest price was SEK 78.20 on 27 December. The share price decreased by 4.66 per cent during the year.

#### Turnover

In 2018, the average daily turnover in the Gränges share was 249,431 shares (276,306) and the total turnover of shares was around 62 million (69).

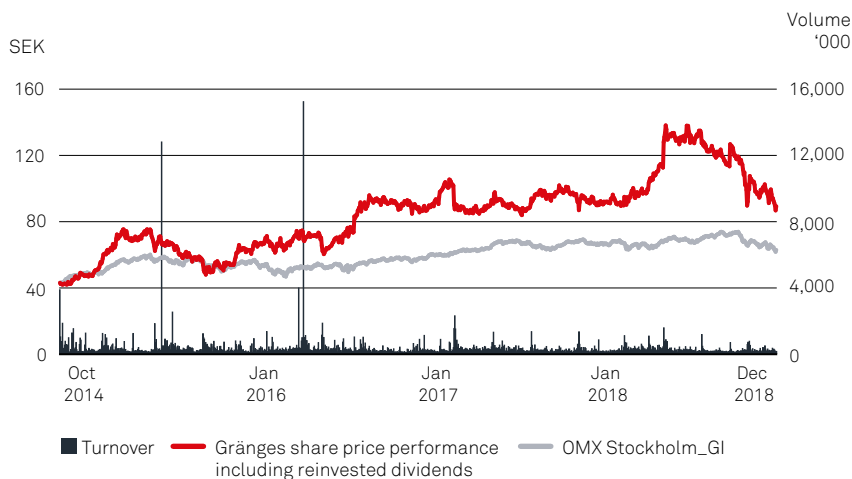
#### Share capital

The share capital in Gränges amounts to SEK 101 million, distributed among 75,512,386 shares, each with a quota value of SEK 1.339775. Gränges has only one class of shares.

#### Ownership

On 31 December 2018, the number of Gränges shareholders totalled 8,368 (9,279). The largest shareholder The Fourth Swedish National Pension Fund (AP4) held 9.5 per cent of the total number of shares, followed by AFA Insurance with 7.5 per cent, and Swedbank Robur investment funds with 5.7 per cent. Overall, the 15 largest shareholders' holdings amounted to 51.9 per cent of the total number of shares. There are no pre-emption clauses, refusal clauses or other restrictions to the transfer of shares in the company by law, the company's articles of association or any other document to which the company is a party.

#### Total shareholder return, 2014–2018



### Dividend

The Gränges Board of Directors proposes a dividend of SEK 242 million (227), equivalent to SEK 3.20 (3.00) per share for the 2018 fiscal year. The proposed dividend is equivalent to 35 per cent (35) of the profit for 2018. Gränges' Dividend Policy is to pay a dividend of between 30 and 50 per cent of the profit for the year. In its decisions about dividends, the Board of Directors takes into account the company's financial position, cash flow, and outlook.

### Capital Markets Day

In March 2018, Gränges held a Capital Markets Day in Stockholm for analysts and investors. During the day, Gränges presented an overview of its strategy and goals for 2020, what has been achieved so far, and growth ambitions for the coming years, focusing on innovation, expansion and sustainability. Gränges also gave an updated view on the electric vehicles market, as well as the expansion projects in the US.

### Gränges gets top score in investor relations ranking

At IR Nordic Market 2018, Gränges was ranked third Best Company of the listed companies in Sweden, and CFO Oskar Hellström was ranked second best CFO.



Colin Xu, President Asia, speaks at the Capital Markets Day in Stockholm in March 2018.

## PUBLIC ANNOUNCEMENTS IN 2018

**6 February** Letter of Intent between Scandium International and Gränges for a heat exchanger application testing project.

**21 March** Capital Markets Day in Stockholm.

**26 April** Q1 report: Improved performance, strong start of the year. Net sales: SEK 3,071 million (2,892). Adjusted operating profit: SEK 282 million (237).

**3 May** Announcement to restart production in Newport, Arkansas – an investment of USD 26 million.

**3 May** The Annual General Meeting 2018 decides on the proposed divi-

dent to the shareholders of SEK 3.00 per share for the fiscal year 2017.

**19 July** Q2 report: Focus on growth and US expansion. Net sales: SEK 3,443 million (3,081). Adjusted operating profit: SEK 301 million (290).

**17 August** Halted plans for a joint venture with Mitsubishi Aluminum Co. Ltd in North America.

**30 August** MTN program (Medium Term Note) established with a framework amount of SEK 3 billion.

**14 September** Bonds of SEK 600 million issued under the MTN program that was established on 30 August, 2018.

**20 September** Gränges' 10<sup>th</sup> Asian Technical Seminar in Xiamen, China. Innovation and new technologies in focus.

**25 October** Decision to improve efficiency and expand capacity in Finspång – an investment of SEK 400 million.

**25 October** Q3 report: Stable sales volume, investment in Finspång. Net sales: SEK 3,322 million (2,728). Adjusted operating profit: SEK 230 million (227).



**Share capital development**

Date	Event	Change in number of shares	Total number of shares	Change in share capital, SEK	Total share capital, SEK
1 Jan 2014		–	37,319,693	–	932,992,325
14 Aug 2014	Decrease in share capital	–	37,319,693	–832,992,325	100,000,000
15 Sep 2014	Share split	37,319,693	74,639,386	–	100,000,000
18 Nov 2016	Rights issue	516,000	75,155,386	691,324	100,691,324
4 Apr 2017	Rights issue	20,000	75,175,386	26,796	100,718,120
31 May 2017	Rights issue	337,000	75,512,386	451,504	101,169,624
6 Dec 2017	Rights issue	5,000	75,517,386	6,699	101,176,323

**Share information**

Market	Nasdaq Stockholm
Segment	Mid Cap Stockholm
Ticker symbol	GRNG
ISIN code	SE0006288015
Listed since	10 October 2014
Currency	SEK
Number of shares	75,517,386

**Share data**

	2018	2017
Earnings, SEK <sup>1)</sup>	9.11	8.64
Equity, SEK <sup>1)</sup>	51.29	44.04
Cash flow from operating activities, SEK <sup>1)</sup>	17.89	12.82
Share price at end of period, SEK	80.50	84.25
Dividend, SEK	3.20 <sup>2)</sup>	3.00
Dividend rate, %	35	35
Yield, %	3.89	3.56

1) Calculated on the weighted outstanding ordinary shares, diluted.  
2) The Board of Director's proposal to the AGM 2019.

**Ownership**

Largest shareholders	Shares	Share of capital and votes, %
The Fourth Swedish National Pension Fund, AP4	7,191,207	9.5
AFA Insurance	5,684,893	7.5
Swedbank Robur investment funds	4,275,682	5.7
Dimensional Fund Advisors	2,853,027	3.8
Allianz Global Investors	2,843,762	3.8
SEB Fonder	2,438,488	3.2
Paradice Investment Management	2,239,611	3.0
Handelsbanken Fonder	2,206,041	2.9
Fidelity Investments	2,090,164	2.8
Columbia Threadneedle	1,732,297	2.3
Unionen-Svenska	1,700,000	2.3
Franklin Templeton	1,436,298	1.9
Lazard Asset Management	943,779	1.2
BlackRock	872,906	1.2
Avanza Pension	679,269	0.9
<b>Total 15 largest shareholders</b>	<b>39,187,424</b>	<b>51.9</b>
Other shareholders	36,329,962	48.1
<b>Total</b>	<b>75,517,386</b>	<b>100.0</b>

Source: Modular Finance as of 2018-12-31.

Geographical distribution	Shareholders	Share of capital, %
Sweden	8,103	50.2
United States	54	23.3
Germany	9	3.9
Australia	6	3.2
The Netherlands	4	0.8
Total other	192	18.6
<b>Total</b>	<b>8,368</b>	<b>100</b>

Source: Modular Finance as of 2018-12-31.

**Share distribution**

Number of shares	Shareholders	Share of capital, %
1–500	5,948	1.4
501–1,000	1,103	1.2
1,001–5,000	972	3.0
5,001–10,000	146	1.5
10,001–50,000	109	3.3
50,001–100,000	25	2.3
100,001–	65	87.3
<b>Total</b>	<b>8,368</b>	<b>100.0</b>

Source: Modular Finance as of 2018-12-31.

For additional investor relations-related questions, please contact:  
Oskar Hellström, CFO: oskar.hellstrom@granges.com, +46 8 459 59 00, or  
Lily Sun, IR-coordinator: lily.sun@granges.com, or +46 8 459 59 00.



# BOARD OF DIRECTORS' REPORT

The Board of Directors and the Chief Executive Officer of Gränges AB (publ), corporate registration number 556001-6122, hereby submit the annual accounts and consolidated accounts for the financial year 1 January–31 December 2018.

## OPERATIONS

Gränges is a leading global supplier of rolled aluminium products for heat exchanger applications and other niche markets. The Group's geographical regions are Asia, Europe and Americas.

Gränges has five production facilities on three continents with a combined annual production capacity of 420 ktonnes. The facilities are located in Shanghai in China, Finspång in Sweden, as well as in Huntingdon (Tennessee), Salisbury (North Carolina), and Newport (Arkansas) in the US.

Gränges works actively to establish new capacity and capabilities to meet increasing demand, address new end-customer markets and improve operational efficiency. In the US, 60 ktonnes of new capacity will be added in 2019 by expanding the production plant in Huntingdon and restarting production at the Newport plant. In Finspång, investments will be made to improve efficiency and increase capacity by 20 ktonnes in 2021.

Gränges holds 51 per cent of the shares in the production company Getek GmbH, which produces aluminium billets using advanced spray-forming technology. Gränges also owns 50 per cent of a Shanghai-based company, engaged in metal stamping.

Gränges' end customers are in the automotive industry, the stationary heat exchanger industry, and niche markets such as transformers and food packaging. The company has long-term customer relationships with global suppliers and 2018, the company's ten largest customers accounted for 48 per cent of the net sales.

The Group's parent company, Gränges AB, is a Swedish publicly listed company with its head office on Linnégatan 18.

The Gränges' share is listed on Nasdaq Stockholm's Mid Cap list.

### Market development

Demand for aluminium products for automotive heat exchangers, which is Gränges' largest market and accounts for about half of the Group's sales volume, is correlated to the number of produced light vehicles. A higher share of hybrid vehicles, electric vehicles and advanced vehicles with different types of advanced features is also positive for the demand of heat exchanger materials. Due to lead times in the supply chain there is, however, a time lag between growth in demand for Gränges' products and the vehicle production. In Americas, materials to the HVAC industry is the dominant product category. The growth in this market is mainly driven by energy efficiency requirements and construction of new houses and buildings.

The global production of light vehicles decreased by 1.0 per cent in 2018 compared with 2017, according to the international research and analysis firm, IHS<sup>1</sup>. The production of light vehicles in Asia decreased by 1.2 per cent in 2018 and in China the decrease isolated was 3.8 per cent. In Europe the production of light vehicles decreased by 1.2 per cent in 2018. In Americas production of light vehicles during 2018 was flat compared to 2017.

### Outlook

The global automotive market is expected to slow down in the beginning of 2019. The research firm IHS<sup>1</sup> however estimates that the light vehicle production will turn to a 1 per cent growth for the full year. Gränges target is to increase the sales volume at least in line with the company's end markets.

During 2019, Gränges will continue to work actively with innovation and a more sustainable customer offering, which includes an increased focus on product development for electric vehicles. Demand for advanced heat exchanger materials for electric vehicles is expected to increase significantly in the coming years, as more car manufacturers choose liquid cooling solutions for batteries. In the US, the expansion of the facility in Huntingdon is expected to be finalized in mid-2019 and the capacity at the facility in Newport will gradually become available during the year. Altogether, Gränges is determined to continue to grow with sustainable profitability in the coming years.

### Sales

During 2018 sales volume reached 375.0 ktonnes (373.0), an increase of 0.5 per cent compared with 2017. Net sales amounted to SEK 12,910 million (11,435). The net effect of changes in exchange rates was positive and amounted to SEK 346 million during 2018.

### Asia

During 2018, sales volume in Asia remained stable compared to previous year at 86.2 ktonnes (86.3).

### Europe

During 2018, sales volume in Europe remained stable compared to previous year at 65.4 ktonnes (65.6).

### Americas

During 2018, sales volume in the Americas reached (223.3) ktonnes (221.1), an increase of 1.0 per cent compared to previous year.

### Operating profit

During 2018, adjusted operating profit increased to SEK 1,005 million (933), while adjusted operating profit per tonne increased to 2.7 kSEK (2.5). Adjusted operating margin was 7.8 per cent (8.2). Costs for US anti-dumping duties on imports from China and Section 232 tariffs are included with SEK 18 million. The net effect of changes in foreign exchange rates was positive and amounted to SEK 59 million during 2018, and the effect from changed depreciation periods had a positive impact of SEK 32 million. Operating profit during 2018 increased to SEK 940 million (917) and includes items affecting comparability of SEK –64 million (–16) related to a change in the distribution model in the US on the imports from Sweden and China. For further information see Note 12.

### Profit for the period and earnings per share

During 2018 profit before taxes increased to SEK 849 million (797) and includes a positive effect from joint ventures of SEK 22 million (–5) which is related to revaluation from book value to fair value of Norca. Finance income and costs was SEK –113 million (–115) and includes interest expenses and financing costs of SEK 117 million, foreign exchange effects of SEK –2 million and interest income of SEK 6 million. Income tax for the year was SEK –161 million (–145) which corresponds to an effective tax rate of 19 per cent (18). Excluding the positive effect from release of corporate income tax in China of SEK 55 million (53) and cost for withholding tax on dividend of SEK –26 million (–19), the effective tax rate was 22 per cent (22). During 2018, the profit for the period increased to SEK 688 million (652) and diluted earnings per share was SEK 9.11 (8.64).

### Cash flow

During 2018 cash flow from operating activities increased to SEK 1,351 million (968) and includes an increase in working capital of SEK 165

1) Source: IHS, 14 January, 2019.



million due to US sanctions against one of Gränges suppliers of aluminium slabs. Cash flow from investing activities was SEK –819 million (–396) and includes a positive net effect of SEK 24 million mainly related to the acquisition of the remaining 50 per cent of Norca Heat Transfer LLC. Capital expenditure during 2018 amounted to SEK –843 million (–358). Of this, SEK –373 million referred to maintenance investments and SEK –470 million related to expansion investments.

During 2018 cash flow before financing activities amounted to SEK 531 million (572). Cash flow from financing activities was SEK –825 million (–650) and includes a dividend payment of SEK –227 million as resolved by Gränges' 2018 Annual General Meeting, new loans of SEK 3,078 million and repayment of loans of SEK –3,579 million.

Cash and cash equivalents amounted to SEK 457 million at 31 December 2018 (SEK 742 million 31 December 2017).

### Financial position

Gränges' total assets amounted to SEK 8,773 million at 31 December 2018 (SEK 8,005 million at 31 December 2017). The equity to assets ratio was 44.2 per cent at 31 December 2018 (41.5 per cent at 31 December 2017). Consolidated net debt including pension liabilities was SEK 2,494 million at 31 December 2018 (SEK 2,292 million at 31 December 2017). At 31 December 2018, the Group's net debt corresponds to 1.8 times adjusted EBITDA.

### Seasonal variations

Gränges' end-customer markets consists primarily of the global automotive industry and the HVAC industry in North America. Gränges' sales of rolled aluminium products to the automotive industry is correlated with the production of light vehicles. Demand on the HVAC market is driven by factors such as construction investments, new regulations for energy efficiency and climate impact, and are usually higher during summer months as there is more demand for cooling systems. Major annual maintenance work in Gränges' production facilities mainly occurs in the fourth quarter. Overall, seasonal factors mean that the fourth quarter usually is the weakest and the second quarter the strongest.

### Acquisition

From 2018 Gränges coordinates the distribution of products from the facilities in Finspång and Shanghai to North America through Gränges Americas. The sales was previously done by the joint venture company Norca Heat Transfer LLC and as part of the distribution change Gränges acquired the remaining 50 per cent of the company from the joint venture partner. For more information about the acquisition refer to Note 30.

### Employees

The average number of employees was 1,699 (1,568) during 2018. The increase in number of employees is mainly related to expansion of the US production facilities.

### Research and development

Gränges Research & Innovation (R&I) is the company's world-leading competence unit with advanced knowledge about metallurgy and understanding of the production process. The strategic research is managed globally, while the customer-driven development is carried out locally in close cooperation with the production facilities.

Gränges has a strong focus on developing new multi-layer products, which gives more layers for improved brazeability and corrosion resistance to support further downgauging and light weighting. Development of the TRILLIUM® technology is important in this regard.

The total expenses for research and development amounted to SEK 93 million (82) during 2018.

### Sustainability

Sustainability is a natural part of Gränges' core business and strategy. It helps to increase the company's long-term competitiveness and aims to create lasting value for Gränges as well as for its customers, employees, investors and other stakeholders. In 2018, Gränges raised the company's ambitions for sustainability and implemented a new sustainability framework with clear long-term targets.

Gränges is committed to improving the overall footprint of the aluminium value chain. By collaborating across the industry, Gränges works to ensure that aluminium is mined, produced and used sustainably. Gränges' sustainability efforts are focused around topics which internal and external stakeholders have assessed to have the highest impact. The company strives to minimize the environmental impact of its operations and the prevailing risks, in relation to both products and processes. Important environmental topics are energy and material efficiency, emissions and climate impact, water management and use of recycled aluminium. Further, the company works to secure ethical business practices and run its business in compliance with all applicable laws and regulations. Gränges does not accept any form of bribery, extortion or corruption. In terms of practices related to its employees, the company strives have an open and inclusive workplace with zero tolerance for discrimination. The company works actively to improve employee wellbeing and to operate a safe and injury-free work workplace. Gränges also works to manage social and environmental impacts from its supply chain. The company works to ensure responsible and sustainable sourcing of metals and other materials as well as to improve the carbon footprint in the supply chain.

Gränges' 2018 sustainability report has been prepared in accordance with the Annual Reports Act on sustainability reporting as well as GRI Standards: Core option. It also constitutes Gränges' Communication on Progress in line with the UN Global Compact guidelines.

The sustainability report outlines the company's impacts, efforts, policies and performance related to sustainability – including how the company works with topics related to environment, social conditions, employees, respect for human rights as well as anti-corruption. For more details, please refer to the following sections in this annual report document:

- Business model: page 11
- 2018 sustainability report: pages 28–43 and pages 112–125
- Material risks and risk mitigating activities: pages 44–47

### Parent company

Gränges AB is the parent company of the Gränges Group. The operations includes Group Management and Group functions such as finance, treasury, legal and communications. For 2018, net sales in the parent company was SEK 203 million (219) and the profit for the period was SEK 560 million (385). The net profit includes dividend from the Chinese subsidiary of SEK 517 million (378). Income tax includes withholding tax of SEK –26 million (–19) relating to the dividend.

### The Gränges share and ownership

The share capital in Gränges amounts to SEK 101 million, divided into 75,517,386 shares, each with a quota value of SEK 1.339775. Gränges only has one class of shares.

There are no pre-emption clauses, refusal clauses or other restrictions on the transfer of shares in the company by law, the company's articles of association or any agreement or other document in which the company is a party.

At 31 December 2018 Gränges had no shareholder that owned more than 10 per cent of Gränges' capital and votes.

### Operating risks and uncertainty factors

As a global business with operations in different parts of the world, Gränges is exposed to various risks and uncertainties such as raw material prices, market risk, operational and legal risk, as well as financial risk related to foreign exchange, interest rates, liquidity and funding opportunities. In its risk management, Gränges seeks to identify, evaluate, and reduce risk related to the Group's business and operations. In the section risk management on pages 44–47 Gränges' risks and risk management is further described. For a more comprehensive description of the financial risks, see Note 27.

### Guidelines for remuneration to Group Management

Gränges will offer the remuneration levels and employment terms necessary in order to recruit, develop and retain senior executives. These individuals must have the expertise, motivation and capacity to be able to uphold, develop and implement comprehensive, value-creating strategic objectives for the Gränges Group. Senior executives refer to the Group's Chief Executive Officer, the Group's Deputy Executive Officer and other members of Group Management.

Remuneration to Group Management is to be determined by the Board of Directors, but follow the guidelines adopted by the General Meeting. The basic principle is that remuneration is to be competitive and consist of a fixed salary and a variable component such as various incentive programmes. Applicable laws and other relevant regulations, both Swedish and foreign, in the relevant sector should always be complied with.

#### Fixed salary

The fixed salary is to consist of normal basic pay. The salary is based on responsibility, performance, skills and the complexity and scope of the duties.

#### Variable pay

Variable pay is to consist of an annual short-term incentive programme (STI 2018) and a long-term incentive programme (LTI 2018). Both STI 2018 and LTI 2018 will provide cash pay outs. There will be no guaranteed variable remuneration.

#### Annual short-term incentive programme (STI 2018)

The outcome of the STI is determined by a number of parameters consisting of financial key ratios for the Group, such as adjusted operating profit and cash conversion, and individual pre-determined targets. Remuneration under STI 2018 may not exceed 60 per cent of the total basic pay paid to all members of Group Management, except for the person holding position as President Americas, whom may obtain 100 per cent of the total basic pay.

#### Long-term incentive programme (LTI 2018)

The long-term incentive program (LTI 2018) is offered to senior executives and certain key individuals. LTI 2018 runs for three years and is structured as follows: An amount equivalent to the payout from STI 2018 for each participant will be reserved in a special so-called LTI bank. Provided that the participants remain in the employ of the Gränges Group, the amount allocated to LTI 2018 will be paid by one third per year during the years 2020, 2021 and 2022, adjusted for total return of Gränges share. The total payout from STI and paying LTI programmes may not exceed 150 per cent of annual basic pay as of the date of the payout. This shall not apply to the person holding the position as President Americas, who instead will have 200 per cent as a limit.

### Other benefits

Benefits that are not directly related to fixed and variable pay, such as car allowance, should facilitate the execution of duties and be in line with standard practices in the market for this target group.

### Pension

Pension benefits are to comply with Swedish laws and relevant collective agreements and are, in relation to members of the Swedish Group Management, limited to the ITP plan (supplementary pension for salaried employees in industry and commerce). Gränges thus has both defined contribution and defined benefit commitments based on individual circumstances. The ITP plan exists, mainly, in two versions: The ITP 1 is applicable on those who are born on 1 January 1979 or later, and the ITP 2 is applicable on those who are born on 31 December 1978 or earlier. To equalise differences that may occur between participants of ITP 1 and ITP 2, that is between different senior executives, some adjustments are made in relation to the solution dictated by ITP 2, regarding how much of the remuneration (salary+bonus) that is pensionable. For the Chief Executive Officer, other than the conventional defined benefit pension according to the ITP, direct pension applies in the form of a company-owned endowment. In relation to members of a foreign management team corresponding structure applies based on the circumstances in the relevant country. Pension terms are to be in line with market norms.

### Period of notice of termination

The contract between the company and Chief Executive Officer stipulates a mutual twelve-month period of notice. Additionally, in the case of termination by the company, severance pay is payable without deduction for an additional twelve months. The contracts between the company and other senior executives stipulate a mutual six-month period of notice. Additionally, in the case of termination by the company, severance pay is payable of an additional twelve months, without deduction for the first six months.

### Information on previously agreed remuneration not yet due for payment

In addition to the long-term incentive program LTI 2018, two similar long-term incentive programs, LTI 2016 and LTI 2017, from previous years runs parallel. As with LTI 2018, the programmes run for three years and are designed so that an amount equivalent to the outcome from STI for each year and for each participant is set aside in a so-called LTI bank. Provided participants continue to be employed by Gränges, one third of the amount for LTI 2016 is paid per year during 2018, 2019 and 2020, and for LTI 2017 during the years 2019, 2020 and 2021. The payments are adjusted for total return of the Gränges share. The total payment of LTI together with STI in one year is limited to 1.5 times an annual salary, except for the President Americas whose payout is limited to 2 times an annual salary.

### Other

Insofar as elected board members conduct work on behalf of the company, in addition to board assignments, consultancy fees and other compensation for such work shall be paid. The board may deviate from these guidelines in individual cases if there are specific reasons for doing so. However, such reasons shall imply limited scope to deviate from these guidelines.

The Board of Directors is expected to make a decision during March 2019 regarding the guidelines for remuneration of senior executives, that the Board will propose to the Annual General Meeting.

### Events after the end of the year

No significant events have occurred after the year end.



# CORPORATE GOVERNANCE REPORT 2018



“Good corporate governance is essential for Gränges to be a trustworthy and responsible company. It creates good conditions for continued sustainable and profitable growth and thus value for our shareholders.”

## DEAR SHAREHOLDER,

Gränges is today a significantly larger company than it was at the time for the IPO in October 2014. Sales have increased from SEK 5 billion to SEK 13 billion in 2018 and the operating profit from SEK 541 million to SEK 1 005 million. Today Gränges has production facilities in three continents, a diversified product portfolio and is the leading actor in the markets in which it operates.

### A year of growth and expansion

During the year, the Board of Directors has continued to evaluate opportunities for continued growth. We closely followed the ongoing expansion of the Huntingdon facility in the US, whose capacity will increase with almost 25 per cent when fully expanded in the fall of 2019. The fact that the US imposed anti-dumping and countervailing duties on imports from China of aluminium foil products in the autumn of 2017 has made this project even more attractive. We also during the year took the decision to re-open the idled production facility in Newport in the US and use this asset to enter into the niche market for light gauge aluminium foil, as well as to invest to improve efficiency and increase capacity in the production facility in Finspång in Sweden. Going forward we will also continue to evaluate potential acquisition opportunities.

### Intensified research and innovation efforts

During the year the Board of Directors has also reviewed and supported Gränges' intensified efforts and encouraging development within research and innovation. Gränges has a market leading position in a global market, which has been achieved through key success factors such as good customer understanding, technical leadership, innovation, and extensive knowledge of the production of advanced aluminium products. Going forward we will continue to support a strengthened Gränges' organization within this field and in 2019 Gränges will open a new Research and Innovation centre in Huntingdon to improve the service for our customers in Americas.

### A trustworthy and responsible company

Good corporate governance is essential for Gränges to be a trustworthy and responsible company. It creates good conditions for continued sustainable and profitable growth and thus value for our shareholders. During the year, the Board of Directors took part in the development of a new group-wide sustainability framework including a set of ambitious and clear sustainability targets for 2025. From the Board of Directors' perspective, value creation from sustainability implies strengthening the company's long-term competitiveness and business opportunities while at the same time reducing sustainability-related risks.

In 2018, Gränges reported a higher growth rate than the market, while improving earnings and reducing debt. In view of the company's strong financial position and taking into account the company's outlook, the Board of Directors proposes to the Annual General Meeting 2019 that the dividend should be increased by 7 per cent to SEK 3.20 per share. This implies that 35 per cent of the profit for the year will be returned to our shareholders.

Finally, I would like to take the opportunity to express the Board of Directors' appreciation to CEO Johan Menckel, Group Management, and all the Gränges employees for their strong commitment and excellent performance in 2018.

Stockholm, February 2019

Anders G. Carlberg  
Chairman of the Board of Directors

Good and sound corporate governance ensures that the company is run as sustainably, responsibly, and efficiently as possible in the interests of the shareholders. Good corporate governance creates order and system for the Board of Directors and management, and contributes to increased trust and confidence among existing and potential owners, customers, legislators, the public and other stakeholders. In this way, industry's freedom to develop is ensured, as is the supply of risk capital and competence.

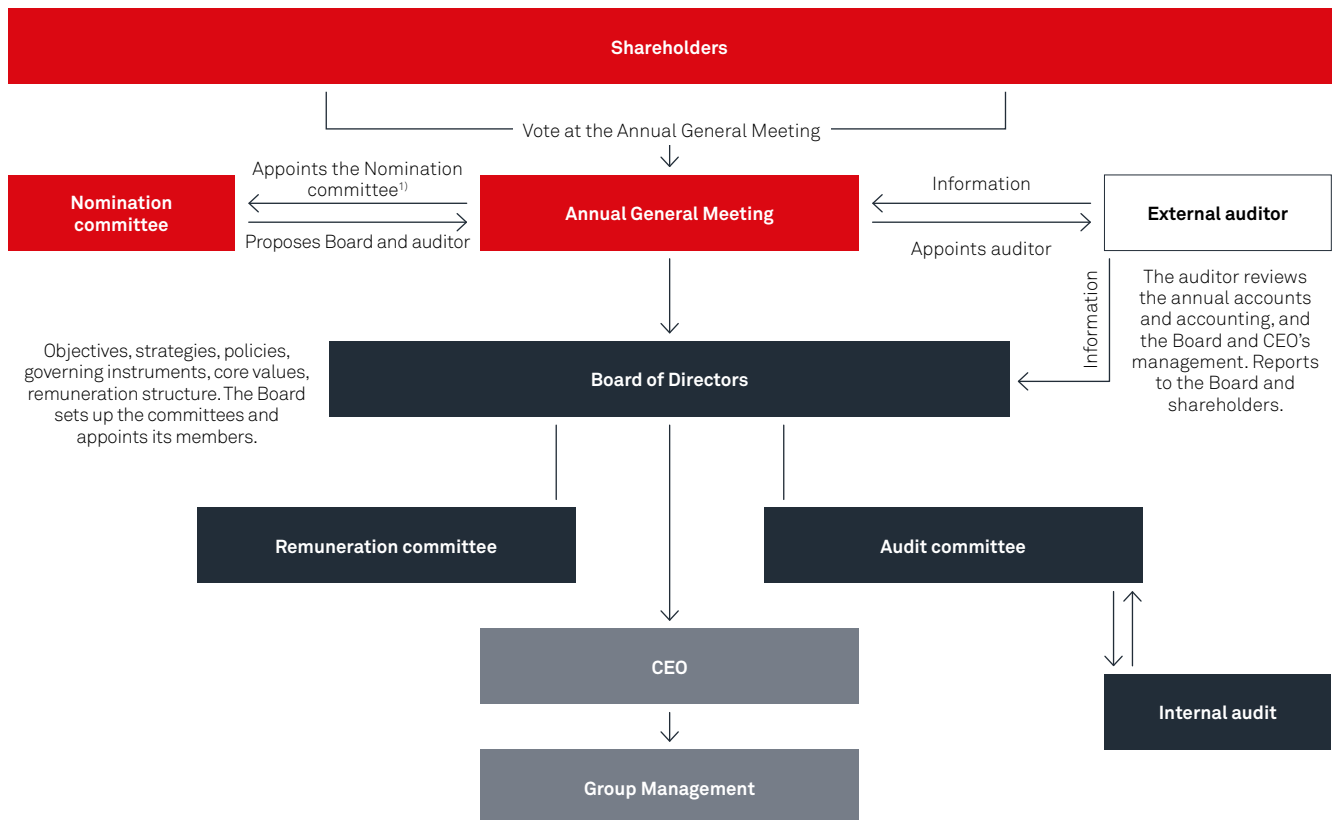
Gränges' corporate governance is based on Swedish regulations and Swedish legislation, primarily the Swedish Companies Act and the Swedish Annual Accounts Act, Nasdaq Stockholm's regulatory structure for issuers, the Swedish Corporate Governance Code ("the Code"), the Articles of Association, and other relevant internal and external regulations and policies.

Gränges complies with the Swedish Corporate Governance Code and this corporate governance report has been prepared as part of Gränges' application of the Code. Gränges has not reported any infringements of the Code in 2018. The company's auditors have made an examination, according to the regulations in chapter 9 of the Swedish companies Act, of this corporate governance report. The Code is available on [www.bolagsstyrning.se](http://www.bolagsstyrning.se).

Gränges has during the year followed Nasdaq Stockholm's regulatory framework for issuers and good practice in the stock market. No violations of applicable stock exchange rules or good practices in the stock market have been reported regarding Gränges by the Nasdaq Stockholm Disciplinary Board or the Stock Market Board in 2018. CEO has no external commitments that can be considered as contrary to the company's interests.

## CORPORATE GOVERNANCE IN GRÄNGES

The governance, management, and control of Gränges are distributed between the shareholders at the Annual General Meeting, the Board of Directors (the Board) and the CEO under Swedish Company Law, the Swedish Code of Corporate Governance and the Articles of Association.



### External steering documents

- Swedish Companies Act
- Swedish Annual Accounts Act
- Nasdaq Stockholm's regulatory structures for issuers
- EU Market Abuse Regulation, no 596/2014 (MAR)
- Swedish Corporate Governance Code ("The Code")
- Other applicable laws

### Internal steering documents

- Articles of Association
- Formal work plan for the Board of Directors and committees, instructions for CEO
- Code of Conduct
- Insider Policy
- Financial Management Policy
- Accounting Manual
- Information Policy
- Other policies, guidelines, and manuals

1) Appointed in accordance with an instruction for the Nomination committee decided by the Annual General Meeting (AGM).

## Organization

Gränges is a leading global supplier of rolled aluminium products for heat exchanger applications and other niche markets. The Group has about 1,800 employees and net sales of SEK 13 billion. Gränges has five production facilities on three continents with a combined annual production capacity of 420 ktonnes. The facilities are located in Finspång in Sweden, Shanghai in China, as well as in Huntingdon (Tennessee), Salisbury (North Carolina), and Newport (Arkansas) in the US.

Gränges holds 51 per cent of the shares in the production company Getek GmbH, which produces aluminium billets using advanced spray-forming technology. Gränges also owns 50 per cent of a Shanghai-based company, engaged in metal stamping.

The Group's parent company, Gränges AB, is a Swedish publicly listed company with reg.no. 556001-6122. Its registered office is in Stockholm with its head office on Linnégatan 18. Gränges' shares are listed on Nasdaq Stockholm's Mid Cap list.

## The share and shareholders

Gränges' shares have been traded on Nasdaq Stockholm's Mid Cap list since 10 October, 2014. The share capital in Gränges amounts to SEK 101 million, distributed among 75,517,386 shares that give the right to an equal number of votes and an equal share in the company's assets and profits. On 31 December, 2018, the number of shareholders totalled 8,368. The Fourth Swedish National Pension Fund (AP4) was the largest shareholder, followed by AFA Insurance and Swedbank Robur investment funds. 71.1 per cent of the shareholders held 500 shares or fewer and the 15 largest shareholders held 51.9 per cent of the total number of shares. Foreign-based share ownership amounted to 49.8 per cent. No shareholder has a shareholding of more than 10 per cent of the total number of shares. There are no limits on how many votes each shareholder may cast at a general meeting of shareholders.

The Annual General Meeting (AGM) held on 3 May, 2018, authorized the Board of Directors, on one or more occasions before the 2019 AGM, to have the option of deciding to issue new shares and/or convertible instruments. These are equivalent to 10 per cent of the total number of shares outstanding in the company at the time of the resolution adopted by the AGM, 7,517,539 shares.

Shareholdings of Board members and Group Management are shown on pages 62–65. More information about the Gränges share and shareholders, including a table showing share ownership on 31 December, 2018, can be found on pages 48–50.

## Annual General Meeting

The AGM, which is the company's highest decision-making body, allows all shareholders to exercise the influence that their respective shareholdings represent.

### Annual General Meeting 2018

The AGM was held on 3 May 2018. At the meeting, 40.8 per cent of shares in the company were represented.

At the AGM, Anders G. Carlberg, Carina Andersson, Peter Carlsson, Katarina Lindström, Hans Porat and Ragnhild Wiborg were re-elected as Board members. Mats Backman was elected as new Board member. Anders G. Carlberg was re-elected as Chairman of the Board.

Ernst & Young AB was again appointed as the company's auditors and authorized public accountant Erik Sandström was appointed by Ernst & Young AB as auditor in charge.

Other resolutions taken during the AGM included:

- To adopt the income statement and balance sheet as well as the consolidated income statement and consolidated balance sheet for the 2017 financial year,
- To pay a dividend of SEK 3.00 per share; SEK 226,552,158 in total,
- To authorize the Board, on one or more occasions before the 2019 AGM, to have the option of deciding to issue new shares and/or convertible instruments. These are equivalent to 10 per cent of the total number of shares outstanding in the company at the time of the resolution adopted by the AGM, 7,517,539 shares in total,
- To resolve that the Board, according to the Nomination Committee's proposal, should consist of seven elected members without deputies for the period up to the close of the 2019 AGM,

- To resolve, according to the Nomination Committee's proposition, that fees paid to the Board members for the period until the conclusion of the next AGM will be in accordance with the following. The Chairman of the Board will receive SEK 550,000 and each of the other Board members elected by the AGM will receive SEK 300,000. In addition, remuneration to the Board committees will be unchanged at SEK 80,000 to the Chairman of the Audit Committee and SEK 40,000 to each of the other members, and SEK 50,000 to the Chairman of the Remuneration Committee and SEK 25,000 to each of the other members. Fees to all the employee representatives on the Board will remain unchanged at SEK 40,000 each for the corresponding period.
- To resolve that remuneration to the auditor shall be paid in accordance with the approved account,
- To approve the guidelines proposed by the Board of Directors on remuneration to senior executives,
- To resolve, according to the Board's proposal, on a long-term (three years) incentive program, LTI 2018, offered to Group Management and selected key individuals as a supplement to the annual short-term incentive programme ("STI 2018"). STI 2018 measures EBIT (50 per cent), cash conversion (30 per cent) and individual performance (20 per cent). Remuneration under STI 2018 may not exceed 60 per cent of annual basic pay, except for the person holding the position President Americas, who may obtain 100 per cent of annual basic pay. A payout equivalent to the amount for STI 2018 is allocated, indexed to the Gränges Group's total return and paid out proportionately on an annual basis over a period of three years, provided that the individual remains a Gränges Group employee. The total payout from STI and paying LTI programmes in one year is limited to 1.5 times an annual salary, except for the person holding position as President Americas, for whom such total payout is limited to two times an annual salary.

The complete minutes of the AGM are available at [www.granges.com](http://www.granges.com).

## Nomination committee

The Nomination committee represents Gränges' shareholders. It proposes to the AGM nominations for Chairman of the Board, Board members, auditor and auditor's fee, chairman of the AGM, as well as fees for Board and committee work.

Gränges' Nomination committee for the 2019 AGM consists of representatives of the company's three largest shareholders as of 31 August, 2018, and the Chairman of the Board. The member representing the largest shareholder shall be Chairman of the Nomination committee, unless the Nomination committee agrees otherwise.

As of 31 August 2018, Gränges' three largest shareholders were The Fourth Swedish National Pension Fund, AFA Insurance, and Swedbank Robur investment funds, which have been invited to nominate candidates for the Nomination committee. On 13 September 2018, it was announced on the company's website and in a press release that the Nomination committee ahead of the 2019 AGM had the following composition: Jannis Kitsakis (AP4), Anders Algotsson (AFA Insurance), Lennart Francke (Swedbank Robur investment funds), and Anders G. Carlberg (Gränges' Chairman of the Board). The Chairman of the Nomination committee is Jannis Kitsakis.

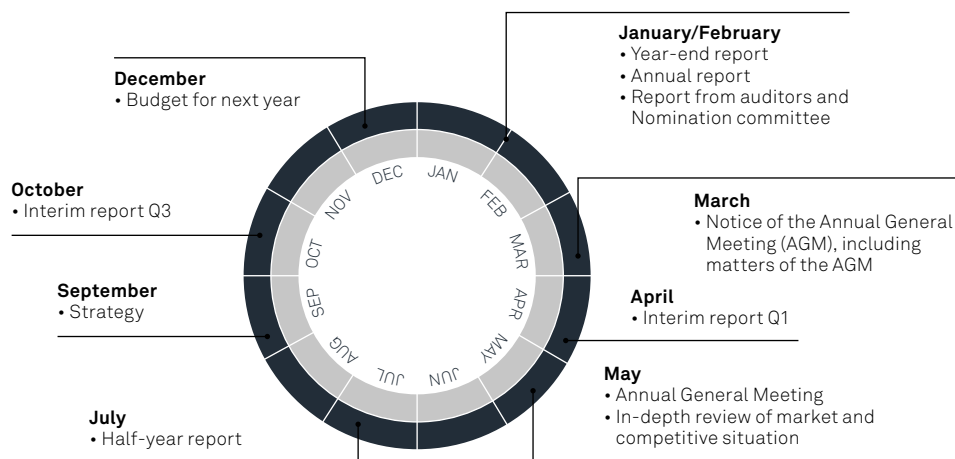
### Nomination committee for the 2019 AGM

Appointed by/Name	Percentage of shares/ votes on 31 December, 2018
AP4/Jannis Kitsakis*	9.5
AFA Insurance/Anders Algotsson*	7.5
Swedbank Robur investment funds/Lennart Francke*	5.7
Chairman of the Board of Gränges AB/Anders G. Carlberg	0.0

\*Independent in relation to the company and its management.

Shareholders have been able to submit proposals and comments to the Nomination committee until 1 February 2019. The Nomination committee's proposals are published through the notice convening the AGM. In connection with the notice, the Nomination committee has pub-

## The Board's work in 2018



lished a motivated statement on the company's website that supports its proposals to the Board and a report on how the Nomination committee's work has been conducted.

### Work of the Nomination committee before the 2019 AGM

Since the Nomination committee was formed in autumn 2018, it has had three meetings. No fee has been paid for the work in the committee.

At the second meeting of the Nomination committee on 4 December 2018, the Chairman of the Board presented an evaluation of the Board's work that was conducted in September 2018. The result of the evaluation was predominantly very positive. At the Board meeting of 7 December 2018, the Board of Directors was also informed of the result.

In the work before the 2019 AGM, the Nomination committee has assessed whether the composition of the current Board is sufficiently broad, competent, diverse and gender equal, and whether it meets the demands on the Board given the company's current and future situation.

Gränges, through the Nomination committee, applies Rule 4.1 of the Swedish Code of Corporate Governance as Diversity Policy in the preparation of proposals for election of Board members. The rule implies that the Board should have a, with regard to the company's business, development phase and general circumstances, appropriate composition, characterized by versatility and breadth regarding the competence, experience and background of the members of the Board. An even gender distribution should be pursued.

The Nomination committee has made the assessment that the Board has a good breadth, is versatile in terms of background and competencies, and has a good gender distribution. The annual evalua-

tion of the Board has been part of the basis for this assessment. The Nomination committee is continuously working to identify and evaluate potential new Board members.

### The Board of Directors

The Board's main responsibility is to manage Gränges' business in the best interests of the company and shareholders. The Board continually assesses Gränges' financial position and ensures that the company's financial position can be satisfactorily verified. The Board decides on issues related to the Group's strategic direction and organization, and decides on key acquisitions, investments, and disposals. The Board also evaluates Group Management. Before every AGM, and based on proposals made by the Remuneration committee, the Board prepares proposals for guidelines for remuneration to the CEO and Group Management.

Adopting a systematic and structured process, the Board annually evaluates the work of the Board to develop its procedures and efficiency. In 2018 this was conducted under the leadership of the Chairman of the Board who asked all Board members and Board deputy members to grade given aspects of its work, and gave them the opportunity to submit proposals for improvements. The results of the evaluation, which are presented in the Nomination committee section, were strongly positive throughout.

The constituent Board meeting following the 2018 AGM established the formal work plan for the Board including work plans for the Remuneration and Audit committees, as well as instructions for the CEO and Insider Policy. The work plan governs the work and responsibilities of the Board, the frequency of Board meetings, as well as the divi-

## Board of Directors composition, attendance and remuneration 2018

Name	Elected year	Independent in relation to the company /owners	Attendance Board meetings	Attendance Audit committee meetings	Attendance Remuneration committee meetings	Board of Directors fees, SEK	Audit committee fees, SEK	Remuneration committee fees, SEK	Total fees, SEK
Anders G. Carlberg	2014	Yes	11/11	2/2	3/3	541,667	13,333	50,000	605,000
Ragnhild Wiborg	2014	Yes	11/11	5/5	n/a	296,667	80,000	–	376,667
Hans Porat	2016	Yes	11/11	n/a	3/3	296,667	–	25,000	321,667
Carina Andersson	2014	Yes	11/11	n/a	3/3	296,667	–	25,000	321,667
Peter Carlsson	2016	Yes	9/11	n/a	3/3	296,667	–	25,000	321,667
Katarina Lindström	2016	Yes	10/11	5/5	n/a	296,667	40,000	–	336,667
Mats Backman (from 3 May, 2018)	2018	Yes	5/5	3/5	n/a	200,000	26,667	–	226,667
Øystein Larsen	2010	No	10/11	n/a	3/3	–	–	–	40,000
Konny Svensson	2013	No	10/11	4/5	n/a	–	–	–	40,000
Elin Lindfors	2016	No	11/11	n/a	n/a	–	–	–	40,000
Christer Lewin (from 1 May, 2018)	2018	No	6/6	n/a	–	–	–	–	27,000
<b>Total fees</b>									<b>2,657,002</b>

sion of duties between the board members, between the Board committees, and between the Board and the CEO. Before each Board meeting, the members receive an agenda and data on which to base decisions. Each Board meeting includes a review of current business conditions, the Group's earnings and financial position and outlook. Other issues that are considered include competitive and general market conditions. The Board regularly reviews the overall risk situation from a variety of aspects, and the Group's work on health and safety, including accident statistics. The Board also has a system for continual follow-up of decisions and open questions.

#### **Composition of the Board of Directors**

Under the Articles of Association, the Board of Directors must comprise at least four and no more than eight members elected by a general meeting of shareholders, with no more than four deputy members. The Board constitutes a quorum when more than half of all Board members (including members appointed by employees) are present. The Board should consist of a well-balanced mix of the competencies required to manage Gränges' work responsibly and successfully. The assessment is that Gränges' Board has, with regard to the company's operations, phase of development, and general circumstances, an appropriate composition characterized by versatility and breadth in terms of members' competence, experience, and background. Gränges' Board has a good gender distribution, since three of its seven members are women.

In accordance with the law on Board representation of private-sector employees, staff is entitled to appoint two Board members and two deputy Board members. The employee organizations have exercised this right also in 2018. More information about Board members can be found on pages 62–63 and [www.granges.com](http://www.granges.com)

#### **Chairman of the Board**

The Chairman organizes and leads the Board's work, represents the company in ownership matters, evaluates the Board's work, has day-to-day contact with the CEO, and ensures that the Board fulfils its duties and obligations effectively.

#### **The Board's work in 2018**

Eleven minuted Board meetings were held in 2018, of which five were telephone meetings and six were physical meetings. The meeting in February was held at Gränges' subsidiary in Jiading (Shanghai) and the meeting in September was held at Gränges' plant in Finspång. The rest of the meetings were held at the headquarter in Stockholm.

The Board formed a quorum at all meetings. At the February and September meetings, the Board held sessions in the absence of Group Management. The CEO participated in all meetings and the deputy CEO, also the CFO, participated in all meetings except for one. The Secretary of the Board is Gränges' General Counsel who is not a Board member.

Among the issues discussed by the Board and decided upon in 2018, are the establishment of a medium term note (MTN) programme as part of the Group's long-term financing, the restart of production of light-gauge aluminium foil at the Newport plant, the decision to invest in expansion and upgrading of the facility in Finspång, development of and decision on a new framework and strategy for the Group's sustainability work, extensive revision and updating of the Group's Code of Conduct, the establishment of a new global whistleblower function, and implementation of the new data protection regulation GDPR.

#### **Remuneration committee**

According to the Board's formal work plan, the Remuneration committee shall comprise the Chairman of the Board, and one or more Board members, who should be independent in relation to the company and Group Management. During the year, the committee consisted of four members and held three meetings.

The Remuneration committee submits proposals to the Board on the CEO's salary and other terms of employment, and sets out limits for other Group Management's salaries and terms of employment. The committee also adopts guidelines for remuneration principles and evaluates their application.

In the end of 2018 and early 2019, the Board, through the Remuneration committee, conducted a review of the guidelines for remuneration to senior executives. The Board's proposition regarding new guidelines will

be presented in the decision-making basis for the 2019 AGM. In 2018, in addition to the annual evaluation of the incentive programs (STI and LTI), the committee has made a more comprehensive review of senior executives' terms of employment and benefits in order to harmonize them as far as possible.

More information about members of the Remuneration committee can be found in the table on page 58. A statement of remuneration to Group Management can be found in Note 8.

#### **Audit committee**

The Audit committee should comprise at least three Board members elected at a general meeting of shareholders, and the majority of them should be independent of the company and Group Management. The committee elects a chairman from among its members, who may not be the Chairman of the Board. The Audit committee meets before each reporting date, and in addition if necessary.

The Audit committee's duty is to support the Board in fulfilling its responsibilities in internal control and accounting, and to ensure the quality of Gränges' financial reporting. The aim is to improve the quality of the company audit, the relationship between the Board and the company's auditor, as well as the supervision and control of the company's financial risk exposure and risk management.

The Audit committee analyses and highlights key accounting issues affecting the Group, and monitors the financial reporting process to ensure quality. The committee also takes note of the company's impairment test and its assumptions, assists the Nomination committee to prepare proposals for auditors and their fees, and assesses the independence of the external auditor.

The company's risk management process is based on production processes and flows. The Audit committee considers the identified risk areas. Based on the outcome of that, the committee determines the focus and scope of the internal auditing and establishes an internal audit plan.

Gränges' internal audit is reported to the Board and must ensure that the company has sufficient internal control systems for financial reporting. The General Counsel is responsible for internal audit. It is performed on a rolling schedule and is conducted by the company's group accounting function with support from the subsidiaries' accounting functions, except for the business that is the subject of the audit. The purpose of applying so called cross-functional audit between the units is to exchange experiences and achieve best practice within the Group. In autumn 2018, an internal audit of Gränges' operations in China was conducted. In addition, at the Audit Committee's request, the audit and consulting company PwC made an additional internal audit of the operations in China.

In conjunction with the quarterly reviews of the company's financial performance and position, the Audit committee takes part of management's assessment of the areas where estimates are important to the Group. An area that has been reviewed extra during the year as a result of the adoption of IFRS 9 Financial Instruments from January 1, 2018, is a new model for calculating credit losses. Another area that is reviewed in connection with each quarterly report is whether the Chinese business is expected to achieve qualification as a high-tech company and thus a tax rate of 15 per cent instead of the ordinary tax rate of 25 per cent. For further information, see Note 15 Taxes.

The Audit committee annually sets a number of focus areas within Financial and Internal Control, Business Control, Treasury, IT and Strategic Projects. Examples of focus areas in 2018 include implementation of a new consolidation system, ensuring implementation of new IFRS standards, and further improvements in metal handling in the US and China.

The Audit committee has had five meetings in 2018. Auditor Erik Sandström attended all meetings and reported on controls and audit planning throughout the year. More information about members of the Audit committee can be found in the table on page 58.

#### **Auditor**

The auditor, elected at the AGM, is responsible for reviewing the annual accounts and accounting, and examining the Board's and CEO's administration of the company. According to the Articles of Association, Gränges should have at least one and at most two auditors. Registered auditing firms may be appointed as auditors.



Ernst & Young AB was appointed auditor at the AGM, and has informed the company that authorized auditor Erik Sandström will be auditor in charge until the 2019 AGM.

The external audit of the parent company and group accounts, and of the administration of the Board and CEO, is conducted according to International Standards on Auditing (ISA), and with generally accepted auditing standards in Sweden. The auditor in charge participates in all Audit committee meetings. For information on auditor fees, see Note 10.

### CEO and Group Management

Group Management is responsible for developing and implementing the Group's overall strategies regarding for example product and customer strategies, and acquisitions and disposals. The matters are prepared by Group Management to be decided upon by the Board.

The CEO is appointed by the Board and is responsible for the day-to-day management of the company in accordance with the Board's instructions and guidelines.

On 1 January, 2019, Group Management comprised eight people: the CEO, CFO, President Asia, President Europe, President Americas, SVP Technology & Business Development, General Counsel, and SVP Communications & Investor Relations. The SVP Human Resources, SVP Process Engineering & Operational Development and SVP Research & Innovation are part of the extended Group Management.

Group Management holds monthly meetings to review the results and financial position of the Group and subsidiaries. Other questions dealt with at these meetings include strategy issues and follow-up of budgets and forecasts. Subsidiaries are also monitored more closely due to the CEO being chairman of the three subsidiaries. Other members of Group Management and employee representatives also serve on these boards. The subsidiaries' boards monitor day-to-day operations and approve each subsidiary's strategy and budget. More information about Group Management can be found on pages 64–65.

### Remuneration to Group Management

In the end of 2018 and early 2019, the Board, through the Remuneration committee, conducted a review of the guidelines for remunerating senior executives. The Board's proposition regarding new guidelines will be presented in the decision-making basis for the 2019 AGM. In addition to the annual evaluation of the incentive programs (STI and LTI), the Board, through the Remuneration committee, has in 2018 made a more comprehensive survey of senior executives' total terms of employment and benefits in order to harmonize them. For more information about remuneration to senior executives, see Note 8.

### Sustainability governance

Gränges sustainability efforts are led by Group Management and the VP Sustainability, who coordinates, facilitates and drives the global sustainability strategy, long-term targets and sustainability related policies. The VP Sustainability also communicates on sustainability performance and progress to different stakeholders and coordinates a continuous stakeholder dialogue.

Gränges' CEO regularly presents global sustainability performance to the Board of Directors, who in turn reviews and monitors performance against the company's targets. The Board of Directors is the body which approves the company's global sustainability strategy, long-term targets and policies, and adopts the annual sustainability report.

Group Management ensures that Gränges' global sustainability strategy, long-term targets and policies are aligned with the company's vision and strategy. The team also reviews and monitors sustainability performance against sustainability targets, as well as makes decisions related to global sustainability priorities.

Each sustainability pillar is governed by one member of Group Management. This individual proposes global sustainability priorities and coordinates with Gränges' regional teams to implement local sustainability activities within a specific sustainability pillar.

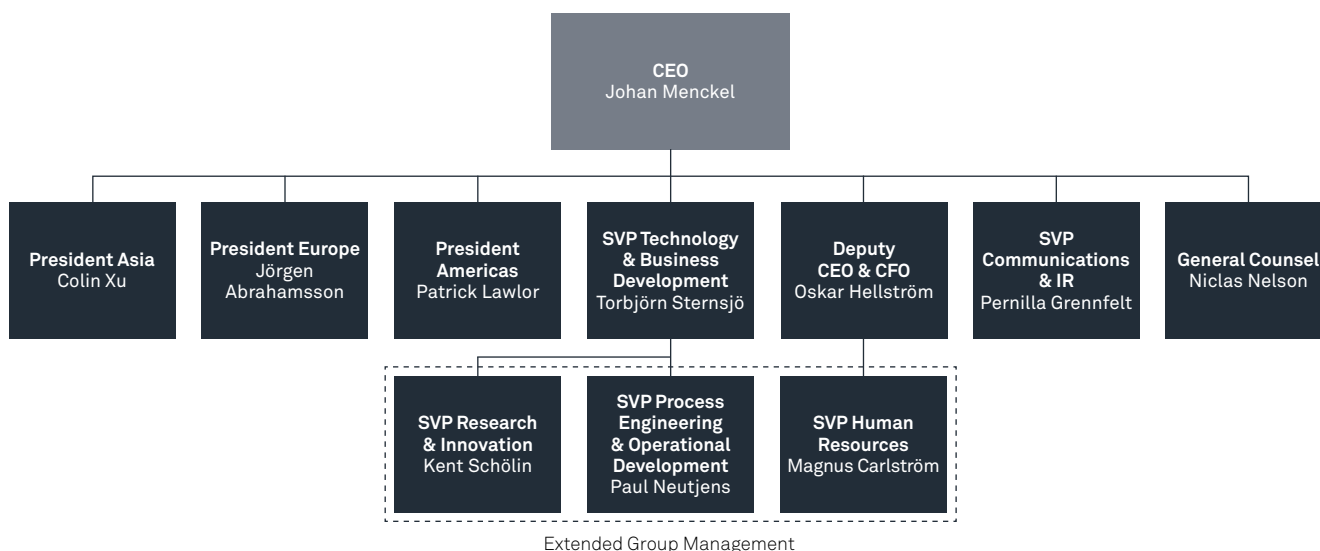
The regions in turn ensure that a local sustainability strategy, long-term targets and policies are in place and aligned with the global strategy and the needs of the local business. They also report on local sustainability performance and progress.

Gränges has published a sustainability report each year since 2015, and intends to continue to publish a report annually. The sustainability information in this report has been prepared in accordance with GRI Standards: Core option and constitutes Gränges' Communication on Progress in line with UN Global Compact guidelines. The report and its contents have not been externally assured. GRI's guidance on the reporting principles of materiality, stakeholder inclusiveness, sustainability context, and completeness, has been used to define the content of the report.

The statutory sustainability report in accordance with the Swedish Annual Accounts Act has been issued by Gränges' Board of Directors. See details on page 53.

The report relates to the financial year 2018 and covers all fully owned operations of the Group at the start of 2018. For more information, refer to page 112. Gränges' last sustainability report was published on 13 March 2018.

## GROUP MANAGEMENT



### Internal control and risk management regarding financial reporting

Under the Swedish Companies Act and the Code, the Board of Directors is responsible for ensuring that the company has good internal control and routines that ensure compliance with established principles for financial reporting and internal control. The Board must also ensure that financial reporting complies with the Companies Act, applicable accounting standards, and other requirements for listed companies.

#### Framework

Gränges' work with internal control complies with the established international framework, Internal Control Integrated Framework, published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). According to the COSO model, review and assessment are carried out in the areas of control environment, risk assessment, control activities, information and communication, and monitoring.

Gränges' internal control process is designed to ensure with reasonable certainty the quality and accuracy of financial reporting, and ensure that reporting is prepared in accordance with applicable laws and regulations, accounting standards, and other requirements for listed companies in Sweden. This requires a healthy control environment, reliable risk assessment, established control activities; and that information, communication, and monitoring works satisfactorily.

#### Control environment

The control environment is defined by the Group's organizational structure, Group Management's working methods and values, and other roles and responsibilities within the organization. The Audit committee assists the Board with essential accounting issues, and monitors the internal control of the financial reporting. To maintain an effective control environment and robust internal controls, the Board has delegated the day-to-day responsibility to the CEO, who in turn has allocated responsibilities to other Group Management members.

Quality in the financial reporting is ensured through different measures and routines. The company has policies and manuals for financial reporting, including the Financial Management Policy, Metal Management Policy, Group Accounting Manual and Instruction for Financial Reporting. In addition to the above, there are important group-wide steering documents such as the Code of Conduct, Insider Policy and Information Policy. There is continuous work to develop policies and manuals.

In 2018, Gränges implemented an updated whistleblower function to detect irregularities that may seriously harm the business or employees. The function is managed by an external company and can be accessed online (intranet or external website) or by telephone. Through the function, employees and external business partners can provide information and be guaranteed full anonymity without fear of retaliation. By quickly uncovering and remediating irregularities, Gränges is in a better position to manage the underlying causes before they become unmanageable.

#### Risk assessment

To handle the internal and external risks that Gränges' organization is exposed to, regular risk assessments are carried out. Risks that may affect financial reporting are identified, measured, and managed. This is an integral part of day-to-day reporting to Group Management and Board, and forms the basis for assessing risks of errors in financial reporting.

Gränges' operations are characterized by processes with established routines and systems. Risk assessment therefore largely occurs within the framework of these processes. At group level, only general risk assessments are conducted. Managers identify, monitor, and evaluate these risks. This creates the basis for taking well-rounded and correct business decisions at all levels. As a rule, financial risks such as currency, commodity, refinancing, and counterparty risk, as well as interest rate and credit risk, are mainly handled by the parent company's accounting and finance functions according to the Financial Management Policy, the Metal Management Policy, the Group Accounting Manual and the Instruction for Financial Reporting.

For a description of the Group's risks and risk management, see pages 44–47.

#### Control activities

The main purpose of control activities is to prevent and discover material errors in financial reporting at an early stage, thereby being able to manage and resolve them. Control activities are conducted at a general level and at more detailed levels throughout the Group, and are both manual and automated in nature. Routines and activities have been designed to manage and resolve material risks related to financial reporting, and that are identified in risk assessments. Depending on the character and type of control activity, corrective action, implementation, documentation, and quality assurance, occur at a group or subsidiary level. As is the case for other processes, each manager is responsible for the completeness and accuracy of the control activities.

The Group has a common consolidation system, where the legal entities report, which provides good internal control of financial reporting. Most controls and processes are automated and authorization to access IT systems is limited. Control activities are performed at all levels of the Group. One such example is the established controller function that analyses and monitors deviations and reports its findings to other parts of the Group.

Monitoring by Group Management occurs, for example, through regular meetings with subsidiary managing directors to discuss operations, financial position, and results, as well as key financial and operative key figures. The Board continually analyses reports on operations in which Group Management describes the previous period, and comments on the Group's financial position and results. Significant fluctuations and deviations are therefore monitored, which limits the risks of errors in the financial reporting.

The closing of the books and work on the annual accounts are processes where there is further risk that errors arise in financial reporting. Naturally, this work is less repetitive and often includes several instances where estimates are made. Important control activities include ensuring that there is a well-functioning reporting structure in which subsidiaries report using standardized models, and that important income and balance sheet items are specified and commented on.

#### Information and communication

Effective and accurate internal and external information is important to ensure full and accurate financial reporting on time. Gränges' financial reporting follows group guidelines and policies, and is updated and communicated regularly by Group Management to all relevant staff.

The accounting function has operational responsibility for day-to-day financial reporting, and works to ensure that the Group's guidelines, policies, and instructions are applied uniformly across the Group. The accounting function also identifies and communicates deficiencies in financial reporting.

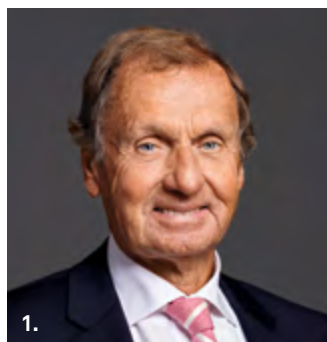
Policies, guidelines, and manuals are regularly updated and are available on the company's intranet.

All communication from Gränges must be timely, reliable, accurate, and up to date. External communication should be in accordance with the Group's Information Policy, Nasdaq's regulatory framework for issuers, and other applicable regulations. The financial information should provide the capital and equity markets with a comprehensive and clear picture of the company, its financial position, development, and strategy. All financial reports and press releases are published simultaneously to Nasdaq Stockholm and Finansinspektionen, and published on the company's external website.

#### Monitoring

The Board's monitoring of the internal control of financial reporting takes place primarily through the Audit committee, including the monitoring of the internal audit, and through contact with the external auditors. External auditors annually monitor selected areas of internal control within the framework of the group audit, and report the outcome of their audit to the Audit committee and Group Management. Material observations are also reported directly to the Board. Regarding the 2018 audit, the auditors have monitored the internal control in selected key processes, and have reported their findings to the Audit committee and Group Management.

# BOARD OF DIRECTORS



## 1. ANDERS G. CARLBERG

**Born:** 1943

**Education:** M.Sc. Business Administration.

**Position:** Chairman of the Board. Elected to the Board in 2014. Chairman of the Remuneration committee. Member of the Audit committee until 30 April 2018.

**Other assignments:** Chairman of Herenco. Board member of Investment AB Latour, AxFast, Recipharm, and Beijer Alma.

**Previous positions:** Board member of Sapa 2002–2013, CEO of J.S. Saba, CEO of Nobel Industrier, CEO of Axel Johnson International, Deputy CEO of SSAB and other management positions.

**Own and related parties' shareholding:** 35,294 shares.

## 2. CARINA ANDERSSON

**Born:** 1964

**Education:** M.Sc. Engineering, Material Science.

**Position:** Board member. Elected to the Board in 2014. Member of the Remuneration committee.

**Other assignments:** Board member of Systemair, Beijer Alma, and BE Group.

**Previous positions:** General Manager Powder Technology, Sandvik Materials Technology; CEO

of Ramnäs Bruk and Scana Ramnäs; Board member of Mälardalens Högskola, Sandvik Riser Technology, and Sintercast; Chairman of Sandvik Powdermet and Sandvik Osprey.

**Own and related parties' shareholding:** 2,402 shares.

## 3. MATS BACKMAN

**Born:** 1968

**Education:** B.Sc. Business Administration.

**Position:** Board member. Elected to the Board in 2018. Member of the Audit committee.

**Other assignments:** CFO and Executive Vice President of Financial Affairs at Veoneer, Inc. **Previous positions:** CFO at Autoliv, Inc. Various management positions at Sandvik, including as CFO. Various management positions at Outokumpu, Nordea, and Boliden.

**Own and related parties' shareholding:** 0 shares.

## 4. PETER CARLSSON

**Born:** 1970

**Education:** M.Sc. Business Administration.

**Position:** Board member. Elected to the Board in 2016. Member of the Remuneration committee.

**Other assignments:** CEO of Northvolt. Board member in Metso and Orbital.

**Previous positions:** Vice President Supply Chain and Chief Procurement Officer at Tesla Motors; Senior Vice President and Chief Procurement Officer at NXP Semiconductors; Head of Sourcing at Sony Ericsson.

**Own and related parties' shareholding:** 0 shares.

## 5. KATARINA LINDSTRÖM

**Born:** 1965

**Education:** M. Sc. Material Science.

**Position:** Board member. Elected to the Board in 2016. Member of the Audit committee.

**Other assignments:** President Global Operations at Munters. Elected member of the Swedish Royal Engineering Academy. Board member of Skövde Högskola.

**Previous positions:** Senior Vice President International Manufacturing and Senior Vice President, Operations and Supply Chain Management at Volvo Group Trucks Operation. Various management positions at Volvo since 1988.

**Own and related parties' shareholding:** 2,000 shares.

## 6. HANS PORAT

**Born:** 1955

**Education:** M.Sc. Engineering, Material Science.

**Position:** Board member. Elected to the Board in 2016. Member of the Remuneration committee.

**Other assignments:** Board member of Ecolan.

**Previous positions:** President and CEO of Nolato, various executive positions at ABB, Deputy CEO at Trelleborg, President of Gadelius Japan.

**Own and related parties' shareholding:** 0 shares.

## 7. RAGNHILD WIBORG

**Born:** 1961

**Education:** M.Sc. Business Administration.

**Position:** Board member. Elected to the Board in 2014. Chairman of the Audit committee.

**Other assignments:** Chair of EAMSolar. Board member and Chair of Audit committee in INSR, Intrum and REC-Silicon. Board member of Sbanken. **Previous positions:** Fund management operations at Odin Fonder and at Wiborg Kapitalförvaltning. Worked at several investment banks, including Pareto, ABG Sundal Collier, First Chicago and SEB.

**Own and related parties' shareholding:** 1,176 shares.

## EMPLOYEE REPRESENTATIVES

**ÖYSTEIN LARSEN**

Employee representative  
**Born:** 1957  
 IT architect, employed at Gränges since 1979.  
 Employee representative of the Board since 2010. Representing Unionen.  
**Own and related parties' shareholding:** 470 shares.

**KONNY SVENSSON**

Employee representative  
**Born:** 1954  
 Employed at Gränges since 2008. Employee representative of the Board since 2013. Chairman of blue collar union IF Metall. Representing IF Metall. Employee representative of Gränges Sweden AB.  
**Own and related parties' shareholding:** 235 shares.

**ELIN LINDFORS**

Deputy employee representative  
**Born:** 1988.  
 Technical manager re-melting, employed at Gränges since 2013. Employee representative of the Board since 2016. Representing the Swedish Association of Graduate Engineers and the Union for Professionals.  
**Own and related parties' shareholding:** 420 shares.

**CHRISTER LEWIN**

Deputy employee representative  
**Born:** 1962  
 Maintenance electrician, employed at Gränges since 1982. Employee representative of the Board since 2018. Representing IF Metall.  
**Own and related parties' shareholding:** 0 shares.

## AUDITOR

**ERIK SANDSTRÖM**

Auditor in charge  
 Ernst & Young AB  
**Born:** 1975  
 Authorized public accountant and member of FAR.  
**Other assignments:** Autoliv, Munters, Mycronic, Tradedoubler, Praktikertjänst, and Transcom.



# GROUP MANAGEMENT



Back row: Oskar Hellström, Torbjörn Sternsjö, Magnus Carlström, Niclas Nelson, Jörgen Abrahamsson, Paul Neutjens, Kent Schölin and Patrick Lawlor.  
Front row: Colin Xu, Johan Menckel and Pernilla Grennfelt.



**JOHAN MENCKEL**

CEO

**Born:** 1971

**Education:** M.Sc. Engineering.  
**Position:** CEO since 2013. Member of Group Management since 2013.  
**Previous positions:** CEO at Sapa Heat Transfer, 2012–2013.

Business Area President at Sapa Profiles Asia, 2011–2012. MD at Sapa Heat Transfer Shanghai, 2007–2010. Management positions at Sapa Heat Transfer, 2004–2006. Consultant at Accenture, 1996–2004.

**Other assignments:** Member of the Board of Directors at Svenska Postkodföreningen AB and Nederman Holding. Member of the Steering Committee of the World Materials Forum.

**Own and related parties' shareholding:** 38,000 shares.

**OSKAR HELLSTRÖM**

CFO &amp; Deputy CEO

**Born:** 1979

**Education:** M.Sc. Engineering and B.Sc. Economics.

**Position:** CFO since 2013 and Deputy CEO since 2017. Member of Group Management since 2013.

**Previous positions:** CFO at Sapa Heat Transfer, 2011–2013. Director Group Development & Control at Sapa Group, 2009–2011. Strategy Manager at Sapa Group, 2008–2009. Consultant at Booz Allen Hamilton, 2005–2008.

**Own and related parties' shareholding:** 15,000 shares.

**JÖRGEN ABRAHAMSSON**

President Europe

**Born:** 1967

**Education:** Upper secondary school.

**Position:** President Europe since 2017. Member of Group Management since 2017.

**Previous positions:** Production Manager at Sapa Heat Transfer. CEO at Rosengrens Produktions AB, Sapa Profilbearbetning AB, Sapa Profilbäckning AB and Sapa Komponenter AB. Head of Sapa Profiler Finspång. Production Director at Gränges Sweden AB.

**Own and related parties' shareholding:** 0 shares.

**MAGNUS CARLSTRÖM**

SVP Human Resources

**Born:** 1966

**Education:** LL.M., Executive MBA, studies in behavioral sciences.

**Position:** SVP Human Resources since 2017. Member of extended Group Management since 2017.

**Previous positions:** Director HR & Communications at Gränges AB and Gränges Europe, 2012–2016. VP HR at Strabag Scandinavia, 2009–2012. Head of Strategic Leadership & Training at Peab Group, 2006–2009. Head of HR at Peab Sverige, 2000–2006.

**Own and related parties' shareholding:** 0 shares.

**PERNILLA GRENNFELT**

SVP Communications &amp; Investor Relations

**Born:** 1970

**Education:** B.Sc. Economics.

**Position:** SVP Communications & Investor Relations since 2014. Member of Group Management since 2014.

**Previous positions:** IR Manager at ICA Gruppen, 2013–2014. Head of Investor Relations at Hakon Invest, 2005–2013. Journalist and Editor at News Agency Direkt, 1999–2005. Advisor at Matteus Fondkommission, 1996–1999.

**Own and related parties' shareholding:** 4,905 shares.

**PATRICK LAWLOR**

President Americas

**Born:** 1964

**Education:** B.Sc. Economics.

**Position:** President Americas since 2016. Member of Group Management since 2016.

**Previous positions:** President Americas at Sapa Extrusions, 2010–2015. CFO at Sapa Extrusion North America, 2009–2010. CFO at Indalex, Inc., 2007–2009. Several management positions at Norsk Hydro, 1997–2007.

**Other assignments:** Member of the Board of Directors at Can Art Extrusions LLP. Vice President at Global Aluminium Foil Roller Initiative (GLAFRI).

**Own and related parties' shareholding:** 0 shares.

**NICLAS NELSON**

General Counsel

**Born:** 1964

**Education:** LL.M.

**Position:** General Counsel since 2014. Member of Group Management since 2014.

**Previous positions:** Associate General Counsel at Autoliv, 2002–2014. Legal Counsel at ABB, 1998–2002. Attorney at Hökerberg & Söderqvist Advokatbyrå, 1993–1998. Associate at Vinge, 1992–1993. Law Clerk at City Court of Malmö, 1990–1992.

**Other assignments:** Chairman of the Board of Directors at SWERMA (Swedish Risk Management Association).

**Own and related parties' shareholding:** 5,000 shares.

**PAUL NEUTJENS**

SVP Process Engineering &amp; Operational Development

**Born:** 1959

**Education:** M.Sc. Engineering, Metallurgy and Applied Material Science.

**Position:** SVP Process Engineering & Operational Development since 2017. Member of extended Group Management since 2017.

**Previous positions:** CTO at Gränges and member of Group Management, 2013–2017. Strategic Project Director at Sapa Heat Transfer, 2011–2013. Director of Lean Production at Sapa Profiles Europe, 2007–2010. Several management positions at Alcoa, 1994–2007. Several management positions at Hoogovens Aluminium, 1986–1994.

**Own and related parties' shareholding:** 4,000 shares.

**KENT SCHÖLIN**

SVP Research &amp; Innovation

**Born:** 1964

**Education:** M.Sc. in Engineering, Material Science.

**Position:** SVP Research & Innovation since 2017. Member of extended Group Management since 2017.

**Previous positions:** President Europe at Gränges and member of Group Management, 2013–2017. MD at Sapa Heat Transfer Finspång, 2012–2013. MD at Gunnebo Gateway, 2005–2012. Several management positions at Sapa Heat Transfer, 1994–2004. Research engineer at Gränges Technology 1989–1994.

**Own and related parties' shareholding:** 4,705 shares.

**TORBJÖRN STERNSJÖ**

SVP Technology &amp; Business Development

**Born:** 1962

**Education:** M.Sc. Engineering.  
**Position:** SVP Technology & Business Development since 2017. Member of Group Management since 2017.

**Previous positions:** Director Business Development at Gränges, 2015–2017. President at the joint venture Sapa Chalco Aluminium Products Chongqing, 2011–2015. President at Sapa Profiles in Asia, 2007–2010. Managing Director at Gränges Shanghai, 1999–2007. Various senior positions at Gränges and Sapa since 1994.

**Own and related parties' shareholding:** 15,605 shares.

**COLIN XU**

President Asia

**Born:** 1976

**Education:** M.Sc. Economics and Business Administration, MBA.

**Position:** President Asia since 2013. Member of Group Management since 2013.

**Previous positions:** MD at Sapa Heat Transfer Shanghai, 2011–2013. At Sapa Heat Transfer Shanghai, 2001–2010, with several leading management positions since 2003.

**Own and related parties' shareholding:** 0 shares.

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# CONSOLIDATED INCOME STATEMENT

SEK million	Note	2018	2017
Sales revenues	32	12,884	11,427
Other operating revenues		26	8
<b>Net sales</b>	6, 7	<b>12,910</b>	<b>11,435</b>
Cost of materials <sup>1)</sup>		-8,601	-7,396
Payroll expenses	8, 9	-1,270	-1,113
Other operating expenses	11	-1,747	-1,622
Depreciation, amortization and impairment charges	17, 18	-353	-370
Items affecting comparability <sup>1)</sup>	12	-	-16
<b>Operating profit</b>		<b>940</b>	<b>917</b>
Profit from joint ventures	13	22	-5
Financial income	14	15	5
Financial costs	14	-128	-121
<b>Profit before taxes</b>		<b>849</b>	<b>797</b>
Income Tax	15	-161	-145
<b>Profit for the year</b>		<b>688</b>	<b>652</b>
<b>Profit for the year attributable to</b>			
- owners of the parent		688	652
- non-controlling interests		-	-
<b>Earnings per share</b>			
Earnings per share, basic, SEK	16	9.11	8.65
Earnings per share, diluted, SEK	16	9.11	8.64

1) Items affecting comparability are presented in note 12.

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

SEK million	Note	2018	2017
<b>Profit for the year</b>		<b>688</b>	<b>652</b>
<i>Items not to be reclassified to profit/loss for the year</i>			
Remeasurement of pensions before tax	9	-26	7
Tax on above		6	4
<i>Items to be reclassified to profit/loss for the year</i>			
Change in hedging reserve before tax	27	-42	53
Tax on above		10	-12
Translation differences		142	-160
<b>Comprehensive income for the year attributable to the owners of the parent company</b>		<b>778</b>	<b>545</b>

# CONSOLIDATED BALANCE SHEET

SEK million	Note	2018	2017
<b>ASSETS</b>			
<b>Non-current assets</b>			
Intangible assets	17	761	640
Property, plant and equipment	18	3,651	3,076
Deferred tax assets	15	54	44
Interests in joint ventures	13	10	17
Interest-bearing receivables	20, 25, 32	2	33
Other non-current receivables	20, 27	11	16
<b>Total non-current assets</b>		<b>4,489</b>	<b>3,827</b>
<b>Current assets</b>			
Inventories	19	1,968	1,611
Receivables	20, 21, 27, 32	1,859	1,826
Cash and cash equivalents	20, 22	457	742
<b>Total current assets</b>		<b>4,285</b>	<b>4,179</b>
<b>TOTAL ASSETS</b>		<b>8,773</b>	<b>8,005</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Share capital	23	101	101
Share premium	23	49	49
Reserves		494	405
Retained earnings		3,229	2,768
<b>Total equity</b>		<b>3,873</b>	<b>3,322</b>
<b>Non-current liabilities</b>			
Deferred tax liabilities	15	76	60
Pension liabilities	9	321	276
Interest-bearing liabilities	20, 25, 26	2,117	2,215
Other non-current liabilities	20, 27	9	3
<b>Total non-current liabilities</b>		<b>2,522</b>	<b>2,555</b>
<b>Current liabilities</b>			
Interest-bearing liabilities	20, 25, 26	515	576
Current tax liabilities	15	82	78
Other current liabilities	20, 24, 27	1,781	1,474
<b>Total current liabilities</b>		<b>2,378</b>	<b>2,128</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>8,773</b>	<b>8,005</b>



# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

SEK million	Note	Share capital	Share premium	Reserves			Retained earnings	Total equity
				Hedging reserve	Defined benefit pension plans	Translation reserve		
<b>Opening balance at 1 January 2018</b>		<b>101</b>	<b>49</b>	<b>12</b>	<b>-8</b>	<b>401</b>	<b>2,768</b>	<b>3,322</b>
Profit for the year		-	-	-	-	-	688	688
Items in comprehensive income		-	-	-32	-20	142	-	90
<b>Group comprehensive income</b>		<b>-</b>	<b>-</b>	<b>-32</b>	<b>-20</b>	<b>142</b>	<b>688</b>	<b>778</b>
Dividend <sup>1)</sup>		-	-	-	-	-	-227	-227
<b>Closing balance at 31 December 2018</b>		<b>-</b>	<b>-</b>	<b>-21</b>	<b>-28</b>	<b>543</b>	<b>3,229</b>	<b>3,873</b>
<b>Opening balance at 1 January 2017</b>		<b>101</b>	<b>33</b>	<b>-29</b>	<b>-20</b>	<b>561</b>	<b>2,296</b>	<b>2,942</b>
Profit for the year		-	-	-	-	-	652	652
Items in comprehensive income		-	-	41	12	-160	-	-107
<b>Group comprehensive income</b>		<b>-</b>	<b>-</b>	<b>41</b>	<b>12</b>	<b>-160</b>	<b>652</b>	<b>545</b>
Dividend <sup>1)</sup>		-	-	-	-	-	-180	-180
Rights issue	23	0	16	-	-	-	-	16
<b>Closing balance at 31 December 2017</b>		<b>101</b>	<b>49</b>	<b>12</b>	<b>-8</b>	<b>401</b>	<b>2,768</b>	<b>3,322</b>

1) Dividend per share amounted to SEK 3.00 (2.40) during 2018.

# CONSOLIDATED CASH FLOW STATEMENT

SEK million	Note	2018	2017
Operating profit		940	917
Depreciation and impairment charges		353	370
Other non-cash items		64	-
Change in net working capital etc.		98	-267
Income taxes paid		-105	-53
<b>Cash flow from operating activities</b>		<b>1,351</b>	<b>968</b>
Acquisition	30	24	-42
Investments in property, plant and equipment and intangible assets	17, 18	-843	-358
Divestments of property, plant and equipment		4	0
Other capital transactions		-3	4
<b>Cash flow from investing activities</b>		<b>-819</b>	<b>-396</b>
Dividend		-227	-180
Rights issue	23	-	16
Interest paid and received	14	-98	-124
New loans		3,078	888
Repayment of loans		-3,579	-1,250
<b>Cash flow from financing activities</b>		<b>-825</b>	<b>-650</b>
<b>Cash flow for the year</b>		<b>-294</b>	<b>-79</b>
<b>Cash and cash equivalents at 1 January</b>		<b>742</b>	<b>851</b>
Cash flow for the year		-294	-79
Translation difference on cash and cash equivalents		9	-30
<b>Cash and cash equivalents at 31 December</b>	22	<b>457</b>	<b>742</b>

## Reconciliation between opening and closing balance of liabilities whose cash flows are recognized in financing activities

SEK million	2018	2017
<b>Interest-bearing liabilities at 1 January</b>	<b>2,791</b>	<b>3,324</b>
Cash flow	-501	-362
<i>Non-cash items</i>		
Exchange rate differences	336	-174
Change in accrual borrowing costs	5	4
<b>Interest-bearing liabilities at 31 December</b>	<b>2,632</b>	<b>2,791</b>

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## 1 GENERAL INFORMATION

The Group's parent company, Gränges AB, is a Swedish public listed company. Company registration number is 556001-6122, and its registered office is in Stockholm with its head office on Linnégatan 18, SE-114 47 Stockholm. This document was approved for publication by the Board of Directors of Gränges AB on 7 March 2019.

## 2 BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS

### Basis of preparation

The Gränges Group includes, in addition to the parent company Gränges AB, directly and indirectly held subsidiaries of Gränges AB.

Significant accounting principles applied in preparing these consolidated financial statements are described below. Unless otherwise stated, these principles have been applied consistently for all the years presented. The consolidated financial statements have been prepared and presented in compliance with the International Financial Reporting Standards (IFRS), as adopted by the EU, the Swedish Annual Accounts Act and RFR 1 Supplementary Accounting Rules for Groups.

The financial statements have been prepared by applying the cost method, with the exception of financial assets and liabilities (including derivatives), which are measured at fair value. Preparing financial statements in accordance with IFRS requires the use of important accounting estimates.

Management is also required to make certain judgements in applying the Group's accounting principles. Areas which involve a high degree of judgement, are complex or where assumptions and estimates have a material impact on the consolidated accounts are described in Note 5.

An asset or liability is classified as current when it is a part of an entity's normal operations, is primarily held for trading, matures within 12 months and consists of cash and cash equivalents at the balance sheet date. Other items are classified as non-current. A dividend is classified as a liability only upon formal approval by a general meeting of shareholders.

Unless otherwise stated, all amounts are stated in SEK million. Negative amounts refer to expenses or outgoing payments (cash flow).

### Items affecting comparability

Items affecting comparability are presented in Note 12 and refer to non-recurring income and expenses.

The primary purpose of separating significant non-recurring items is to facilitate understanding of the underlying business development.

### Consolidation

#### Subsidiaries

All companies over which the Group exercises a controlling influence are classified as subsidiaries. The Group controls a company when it is exposed to or has the right to a variable return from its involvement with the company and has the ability to affect those returns through its power over the company. Subsidiaries are included in the consolidated accounts as of the date when the control is transferred to the Group and are consolidated up to the date when the controlling influence ceases.

Business combinations are accounted for in accordance with the acquisition method. The consideration transferred for the acquisition of a subsidiary comprises the fair values of the assets transferred,

liabilities incurred to the former owners of the acquired business and equity interests issued by the group. The consideration also includes fair value of all assets or liabilities resulting from a contingent consideration arrangement.

Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are, with limited exceptions, measured initially at their fair values at the acquisition date. The group recognizes any non-controlling interest in the acquired entity either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets.

Acquisition-related costs are expensed as incurred.

Intercompany transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are also eliminated. When necessary, amounts reported by subsidiaries have been adjusted to conform with the group's accounting policies.

### Joint arrangements

Shares in companies in which the Group exercises a controlling influence are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor. Joint arrangements are included in the consolidated accounts as of the date when significant influence is transferred to the Group and are consolidated up to the date when the significant influence ceases.

For joint operations, assets, liabilities, revenues and expenses are recognized in the consolidated accounts in relation to ownership.

Interests in joint ventures are accounted for using the equity method. Under the equity method, investments in joint ventures are initially carried at cost in the consolidated statement of financial position. The carrying amount is then increased or decreased to take account of the Group's share of the profit or loss and other comprehensive income from its joint ventures after the date of acquisition. The Group's share of the profit or loss is presented in the line "Profit from joint ventures" in the income statement and the line "Interests in joint ventures" in the balance sheet. For further information regarding joint arrangements, see Note 13.

### Foreign currency translation

#### Functional currency and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the operates ('the functional currency'). The consolidated financial statements are presented in Swedish krona (SEK), which is the Group's presentation currency.

#### Transactions and balance sheet items

Transactions in foreign currency are translated to the functional currency at the exchange rates applying on the transaction date or the date when the items were re-measured. Foreign exchange gains and losses arising from such transactions and upon translation of monetary assets and liabilities in foreign currency at closing day rates are recognized in the income statement. The exception is when the transactions constitute hedges and meet the criteria for hedge accounting of cash flows or net investments, in which case any gains and losses are recognized in other comprehensive income.

Financial receivables and liabilities in foreign currency are stated at the closing rate and any gain or loss is recognized in financial items in the income statement. Other monetary items in foreign currency are carried at the closing rate and any gain or loss is recognized in operating items in the income statement.

### 3 NEW ACCOUNTING STANDARDS

#### **New accounting standards adopted by the Group in 2018**

From the financial year beginning 1 January 2018, Gränges applies IFRS 9 Financial Instruments and IFRS 15 Revenues from contracts with customers. The new standards have not had a material impact on the Group's financial statements.

#### **IFRS 9 Financial Instruments**

IFRS 9 Financial Instruments has replaced IAS 39 Financial Instruments: Recognition and Measurement. The new model regarding calculation of credit loss impacts the impairment process, however it has not had a significant impact on the Group's financial statements. The new principles for hedge accounting have had no impact on the Group's financial statements. The transition has not had a material impact on the Group's financial statements and consequently previous periods have not been restated.

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

IFRS 15 Revenues from contracts with customers has replaced existing revenue standards and interpretations. Gränges has chosen to adopt IFRS 15 with full retrospective approach from 1 January 2018. The transition has not had a material impact on the Group's financial statements and consequently previous periods have not been restated. Neither the practical expedient referred to the existence of a significant financing component nor the practical expedient referred incremental costs of obtaining a contract has been used.

#### **New and amended standards and interpretations which have not yet become effective but will be applied in future periods**

#### **IFRS 16 Leases**

From the financial year beginning 1 January 2019, Gränges applies IFRS 16 Leases. The new standard is adopted based on the modified retrospective transition method and mainly impacts the reporting of machinery and equipment, vehicles, office premises, warehouses and land areas that are not owned by Gränges.

As a consequence, the implementation of IFRS 16 positively impacts the operating margin due to the elimination of operation leasing expenses which are partly compensated by depreciation of the right-of-use assets. In addition, the finance costs will increase due to the recognition of interest expenses on the finance lease liabilities. Carrying amounts for right-of-use assets and lease liabilities are based on cash flows at present value during expected contract periods. Discount rates are determined on the basis of assumptions regarding interest rates for loans during the corresponding period and with corresponding collateral. Right-of-use assets with contracts shorter than 12 months or which terminate within 12 months from the transition date are classified as short-term contracts and are therefore not included in the reported liabilities or rights of use. In addition, rights of use for office equipment or other low-value assets have also been classified as low-value contracts and are not included in the reported liabilities or right-of-use assets.

At initial application as of 1 January 2019, opening balances for right-of-use assets and lease liabilities will be recognized by SEK 270 million each.

### 4 ACCOUNTING STANDARDS

#### **Revenue from contracts with customers**

Revenue is recognized to depict the transfer of promised goods or services to its customers in an amount that reflects the consideration which expects to be entitled to in exchange for those goods or services.

Gränges mainly sells rolled products for heat exchangers and selected niche applications. Revenue is generated through sale of material that is produced for a certain customer and application. Revenue is recognized at the point in time when control is transferred to the customer.

The transaction price for Gränges' products is based on the added value Gränges offers in terms of material properties and production complexity (fabrication price), and the price of the raw material, aluminium. The cost of the aluminium is mainly passed on to the customer through metal price clauses. Commodity price risk is described in Note 27.

In determining the transaction price for Gränges' products the Group considers the effect of variable consideration. The variable consideration (early payment discounts and retrospective volume discounts) is estimated at contract inception and included in the transaction price only to the extent that it is highly probable that a significant reversal of accumulated revenue will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

At the end of each reporting period, Gränges updates the estimated transaction price (including updating its assessment of whether an estimate of variable consideration is constrained).

Other revenue is limited and primarily refer to rental revenue from properties owned by Gränges AB. The rental revenue is recognized on a straight-line basis over the lease term.

Gains or losses on the sale of property, plant and equipment are accounted for as "Other operating revenues" or "Other operating expenses" and are included in the income statement.

#### **Statement of comprehensive income**

The statement of comprehensive income includes items which are recognized in equity but which are not included in the regular profit or loss for the period. The items in the statement are actuarial gains and losses on pensions, changes in the hedging reserve in hedging transactions and currency translation effects.

#### **Assets**

##### **Property, plant and equipment**

Property, plant and equipment are tangible, long-lived assets which are intended for the production or delivery of goods or for administrative purposes. They are stated at cost in the balance sheet less accumulated depreciation and impairment. Maintenance of assets is recognized in operating expenses when the maintenance is carried out while more significant periodic maintenance and expenses for replacements and improvements are accounted for as an investment and added to the cost of the assets.

To distribute the cost down to the estimated residual value, items of property, plant and equipment are depreciated on a straight-line basis, divided into different components, over their useful lives using the following percentage rates:

- buildings and land improvements 10–40 years,
- machinery, inventory and installations 5–30 years,
- fixtures and vehicles 5–20 years,
- IT equipment 5 years.

## &gt;&gt; CONT. NOTE 4

Useful lives and residual values of assets are reviewed each year and adjusted where required.

If the residual value exceeds the carrying amount no further depreciation charges are recognized. This applies especially to buildings. If there are indications of impairment of an asset, the asset is written down to its recoverable amount if this is lower than the carrying amount. The recoverable amount is the higher of net realisable value and value in use.

Loan expenses in connection with the production of the Group's own property, plant and equipment are recognized as part of the cost of the asset.

**Intangible assets**

The Group has expenses for research and development. Expenditure for research is carried as a cost immediately while expenditure for development is recognized as an intangible asset if the underlying economic factors are identifiable and represent future economic benefits controlled by the Group.

The Group is running a large number of development projects but the criteria for recognizing the projects as intangible assets are currently not met as the future economic benefits for the company cannot be identified and because it is not possible to obtain any degree of certainty during the development phase of the intangible assets.

Capitalised expenditure for internally generated or specially adapted software is recognized as intangible assets. These are depreciated on a straight-line basis over 10 years.

The customer relationships acquired as part of business combinations are recognized at their fair value at the date of acquisition and are amortized on a straight-line basis over their estimated useful lives of 20 years.

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred over the fair value of the identifiable net assets acquired. Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. The carrying amount of the cash-generating unit to which the goodwill is attributed to is compared with the recoverable amount, which is the highest of the value in use and the fair value less cost of disposal. Any impairment is recognized immediately as an expense and is not subsequently reversed.

**Inventories**

Inventories are measured at the lower of cost and net realisable value. Purchased goods are measured at cost in accordance with the FIFO principle while own-produced finished goods and products in progress are measured at production cost. A deduction is made for obsolescence. The net realisable value is the estimated selling price less selling costs. For a description of inventories as hedged item in a fair value hedge see "Fair value hedging", under section "Financial Instruments".

**Cash and cash equivalents**

Cash and cash equivalents comprise cash and cash equivalents with maturities of up to three months.

**Provisions and liabilities****Pensions**

Gränges Group has a pension system in Sweden and US that primarily consists of defined contribution plans as well as some defined benefit plans.

For defined contribution pension plans the company has a responsibility to make contractual payments for its employees' future pensions. Future pensions are determined by the size of contributions and the return on the plan assets. After the contributions have been paid the company has no further payment obligations under the defined contribution plan. No provisions are therefore made in the balance sheet.

The company's pension costs for its defined contribution plans consist of payments to employees' pension plans during the reporting period and are accounted for as payroll expenses.

Defined benefit pension plans are based on a promise from the company to the employees that they will receive a certain pension upon retirement, normally defined as a percentage of their final

salary. The company is responsible for the size of the future pension benefit and the economic value of this obligation are recognized in the income statement and balance sheet.

The liability or asset recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation. For the Swedish plans, mortgage bonds are used to determine the discount rate.

The cost relating to service during the current period is accounted for as payroll expenses. The net interest cost is calculated by applying the discount rate to the net balance of the defined benefit obligation and the fair value of plan assets. This cost is included in financial costs in the income statement.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income.

**Provisions**

Provisions are recognized for potential loss-making contracts and for restructuring when the decision to restructure is made. Provisions do not cover any potential future operating losses. As regards restructuring reserves, there must exist a detailed plan identifying which operations will be restructured as well as a well-founded expectation among those affected by the restructuring. It must also be possible to reliably estimate the cost of the restructuring.

The provision is calculated based on the best estimate of expected costs. If the effect is significant, expected future cash flows will be discounted.

**Contingent liabilities and contingent assets**

A contingent liability or contingent asset is a potential obligation or potential asset whose existence is uncertain and which will be confirmed by the occurrence or non-occurrence of a specific future event, such as the outcome of legal proceedings or the final settlement of an insurance claim. If the probability that the liability has been incurred exceeds 50 per cent a provision is recognized in the balance sheet. If the probability is lower a contingent liability is shown as an additional disclosure in the financial statements, unless the probability of an outgoing payment is remote. An asset is only recognized in the balance sheet if it is highly probable that the Group will receive the asset. Disclosures regarding contingent assets are given where an inflow of resources is probable.

**Tax**

Income tax is the sum of current tax and changes in deferred tax. Tax is recognized in the income statement, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively. Current tax is recognized at the amount that is expected to be paid to the tax authorities based on the taxable income that is reported for the units included in the consolidated financial statements. The income tax is determined using tax rates that have been enacted on the balance sheet date.

Deferred tax in the balance sheet has been calculated at the nominal tax rate based on temporary differences for assets and liabilities at the balance sheet date.

A provision for deferred tax on retained earnings in foreign subsidiaries is recognized to the extent that it is likely that the dividend will be distributed in a near future.

Deferred tax assets are reviewed continually and recognized in the balance sheet only to the extent that it is likely that future taxable profits can be used.

Deferred tax liabilities and deferred tax assets are offset insofar as this is possible under local tax laws and regulations.



&gt;&gt; CONT. NOTE 4

**Financial instruments**

The Group's financial assets consists of loans and accounts receivable as well as derivatives. Purchases and sales of financial assets are recognized at the transaction date, which is the date when the Group undertakes to buy or sell the asset. Accounts receivable are recognized when the invoice has been sent. Financial assets are removed from the balance sheet when the right to receive cash flows from the instrument has expired or been transferred and the Group has transferred essentially all risks and benefits associated with ownership to another party.

The Group's financial liabilities comprise borrowings and accounts payable as well as derivatives. Financial liabilities are recognized in the balance sheet when the counterparty has performed and a contractual obligation to pay exists. Accounts payable are recognized when the invoice has been received. Financial liabilities are derecognized from the balance sheet when the contractual obligation has been fulfilled or in some other way is extinguished.

Financial instruments are initially recognized at fair value plus transaction costs, which applies to all financial assets and liabilities that are not measured at fair value through profit and loss. These are initially recognized at fair value excluding transaction costs.

Financial assets and liabilities are in general not netted even when there is a legal right of netting the carrying amounts and an intention to settle them by a net amount or to simultaneously realize the asset and settle the liability. The legal right must not depend on future events and must be legally binding for the company and the counterparty both in case of normal business activities and in the event of default, insolvency or bankruptcy.

Interest income and interest expense are recognized using the effective interest method and accounted for under "Financial income" and "Finance expense" respectively.

**Derivatives**

Derivatives are classified either as measured at fair value through profit and loss or as hedging instrument for which hedge accounting is applied. Derivatives are measured at fair value at the balance sheet date and accounted for as assets or liabilities. Gains and losses on changes in fair value are recognized in profit or loss when the derivative is not part of a hedge relationship which meets the criteria for hedge accounting. Purchases and sales of derivatives are recognized at the transaction date.

**Financial assets at amortized cost**

The business model for the financial assets in this category is to receive contractual cash flows, which have been assessed to only consist payments of principal and interest. Assets in this category comprise accounts receivable and other receivable as well as cash and cash equivalents. They are included in current assets, with the exception of items maturing later than twelve months from the end of the reporting period, which are classified as non-current assets.

Accounts receivable are always classified as current assets. The assets in this category are carried at amortized cost in the balance sheet applying the effective interest rate method. Accounts receivable are measured at the amount expected to be paid, that is after deducting expected credit losses.

The Group applies an impairment model based on forward-looking expected credit losses (ECL). The ECL allowance applies to all items (from initial recognition). An analysis of expected credit losses is performed using a provision matrix adjusted for the market location of the customer to measure expected credit losses, where historical, current and forward-looking factors are taken into consideration.

The ECL allowance is based on the life-time ECL for all accounts receivables.

Expected credit losses are calculated as the difference between the carrying amount of the asset and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate. For accounts receivables expected credit losses are calculated without discounting. The asset's carrying amount is written down and the impairment loss including future changes in expected credit losses are recognized in the consolidated income statement.

The Group define credit-impaired assets as assets which are past-due more than 90 days or assets with other observable information indicating a measurable decrease in estimated future cash flows.

**Accounts payable**

Accounts payables are obligations to pay for goods or services which have been acquired from suppliers or service providers in the course of the company's operating activities. Accounts payable are classified as current liabilities and are measured at amortized cost.

**Borrowings (loans)**

Borrowings are initially recognized at fair value, net of transaction costs. Subsequently loans are carried at amortized cost and any difference between the amount received (net of transaction costs) and the amount repayable is recognized in the income statement over the term of the loan by applying the effective interest method.

**Hedge accounting**

The Group uses the following criteria for classifying a derivative or other financial instrument as a hedging instrument: (1) the hedging instrument is expected to be very effective in offsetting changes in the fair value of or cash flows for an identifiable item (hedged item), (2) the hedge efficiency can be reliably measured, (3) satisfactory documentation is drawn up before the hedging instrument is acquired showing, in particular, that the hedge relationship is effective, (4) in case of the use of cash flow hedges, that the future transaction is deemed to be highly probable, and (5) the hedge relationship is reviewed on a regular basis.

Gains and losses on the hedging instrument are recognized in the income statement at the same time as gains and losses from the hedged item.

**Fair value hedging**

Changes in the fair values of derivatives designated as hedging instruments are recognized immediately in the income statement. Changes in the fair value of the hedged item (inventory) relating to the hedged risk are recognized in the income statement in the same way and are recognized as an adjustment on the hedged item's carrying amount. Hedge accounting is discontinued if: (a) the hedge instrument has expired, been terminated, exercised or sold or (b) the hedge no longer meets the aforementioned criteria for hedging. In the case of a discontinued hedge, changes in the fair value of the hedged item are recognized in the balance sheet until the hedged item (inventory) is recognized as cost of materials in the income statement.

**Cash flow hedges**

The effective portion of changes in the fair value of the hedging instrument is recognized in other comprehensive income and accumulated in the hedging reserve until the hedged transaction is executed. At that time the accumulated gains or losses on the hedging instrument will be reclassified to the income statement. The ineffective portion of the hedging instrument is recognized immediately in the income statement. When a hedging instrument has expired, been sold, exercised or terminated, the accumulated gains or losses will remain in the hedging reserve and will be recognized in the income statement upon execution of the hedged transaction. If the hedged transaction is no longer expected to occur, the accumulated gain or loss on the hedging instrument will be recognized immediately in the income statement.

**Segments**

The reporting of operating segments is consistent with the internal reporting submitted to the highest executive decision maker, which consist of the CEO. The business operation is characterized by strong integration between the different regions in order to maximize the Group's profitability. Operations are monitored on a global market, and the Group thus reports only one segment in line with IFRS 8.

For information on the geographic distribution of non-current assets, sales revenue and the average number of employees, see Note 6.

**Other principles****Cash flow**

The cash flow statement, which has been prepared using the indirect method, shows cash flows from operating activities, investing activities and financing activities, and explains changes in "Cash and cash equivalents" for the reporting period.

&gt;&gt; CONT. NOTE 4

**Acquisitions**

The acquisition method is used to account for the acquisitions of subsidiaries and operations. All payments to acquire a business are recorded at fair value at the acquisition date. The excess of the cost of acquisition over the fair value of the identifiable net assets acquired is recorded as goodwill.

**Leasing**

The leases that occur are those where the Group judged that it is not possible or economically advantageous to purchase the underlying asset, such as office facilities, vehicles or equipment, that will only be held for a shorter part of its service life.

Leases are classified based on the extent to which the economic risks and benefits associated with ownership of the leased asset are

held by the lessor or lessee. A lease is classified as a financial lease if it essentially transfers all risks and benefits associated with ownership of an asset.

The Group has no leases classified as a financial lease. Costs for operating leases accounted as operating expenses when they occur.

**Government grants**

Government grants are recognized in the financial statements when it is a reasonable assurance that the grant will be received. The grants are accounted for either as income or a reduction of expenses, and are in the latter case matched with the expenses which they are intended to compensate for. Government grants attributable to assets are accounted for as a reduction of the cost of the asset. The grant reduces the depreciation of the asset.

## 5 SIGNIFICANT ACCOUNTING ASSESSMENTS AND ASSUMPTIONS

In preparing Gränges' consolidated accounts, it is necessary to make a number of assessments and assumptions which can influence the carrying amounts of assets and liabilities. Future events and changes in operating parameters may make it necessary to make other assessments and assumptions. When preparing the financial state-

ments, management makes its best assessments in areas of significant importance. Accounting items where changes in assessments and assumptions would have a significant impact on the consolidated financial statements during next financial year are:

Accounting item	Note	Assessments and assumptions that are of significant importance for carrying amounts
<b>Right-of-use assets and lease liabilities</b>	3	As of 1 January 2019, IFRS 16 Leases is adopted. The value of identifiable right-of-use assets and lease liabilities are based on the present value of future payments during the expected contract periods. The discount rate is set based on assumptions in interest rates for loans during the corresponding period and with corresponding collateral.
<b>Pension liability</b>	9	The present value of the pension obligations depends on a number of factors which are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net pension expense (income) include the discount rate.
<b>Taxes</b>	15	The tax rate in China depends on whether Gränges qualifies as a high technology company. This qualification entails an income tax rate of 15 per cent instead of the ordinary rate of 25 per cent. However, in order to obtain the classification special requirements established need to be met and approved by local authorities.
<b>Intangible assets</b>	17	Impairment test for goodwill is carried out annually or throughout the year if an event occurs that may result in the need for impairment. Important assumptions on the basis of impairment testing are forecasts of future cash flows, which include assumptions for sales growth and operating margin. The discount rate is set based on assumptions about weighted average cost of capital. Other intangible assets are amortized on a straight-line basis over the estimated useful life, and therefore a changed assessment of the useful life entails a change in carrying amount.
<b>Tangible assets</b>	18	Depreciation of tangible assets is recorded over the estimated useful life of components or tested for impairment in an indication of impairment is identified. Changes in assumptions regarding the recoverable amount and estimated useful life may lead to significant changes in value. Ongoing expansion investments regarding the production facilities are essential in their nature. Depreciation begins when the new facilities are put into use and the balance sheet's valuation and accounting are dependent on compliance with timetables and investment calculations.
<b>Inventories</b>	19	Valuation of production costs is done using calculation models based on current prices and cost levels, where direct and indirect production-related costs are attributed to manufactured products. For estimation of incursions, assumptions and assessments are based on the turnover rate and other historical data.

## 6 GEOGRAPHIC BREAKDOWN OF NET SALES, NON-CURRENT ASSETS AND AVERAGE NUMBER OF EMPLOYEES

Net sales are distributed regionally based on where the customers are located. Non-current assets and the average number of employees are based on where Gränges is located.

2018 SEK million	Sweden	Rest of Europe	China	Rest of Asia	USA	Rest of Americas	Total
Net sales	367	2,057	1,991	1,013	6,128	1,354	12,910
Non-current assets <sup>1)</sup>	552	194	946	0	2,721	–	4,412
Average no. of employees	500	–	517	8	675	–	1,669

2017 SEK million	Sweden	Rest of Europe	China	Rest of Asia	USA	Rest of Americas	Total
Net sales	295	1,935	1,914	997	5,445	849	11,435
Non-current assets <sup>1)</sup>	659	5	934	0	2,118	–	3,716
Average no. of employees	457	–	524	8	578	–	1,568

1) Excluding deferred tax assets, interests in joint ventures, interest-bearing receivables and other non-current receivables.

The ten largest customers accounted for 48 per cent (48) of sales. No customers accounted for more than 10 per cent of total sales in 2018 or 2017.

## 7 REVENUE FROM CONTRACTS WITH CUSTOMERS

Gränges mainly sells rolled products for heat exchangers and selected niche applications in different regions. Gränges' customers are in the automotive industry, the HVAC industry and niche markets such as transformers and food packaging.

The transaction price for Gränges' products is based on the added value Gränges offers in terms of material properties and production complexity (fabrication price), and the price of the raw material, aluminium. The fabrication price is fixed while the aluminium price is variable and based on metal price clauses connected to the market price.

In determining the transaction price for Gränges' products the Group considers the effect of variable consideration. The variable consideration (early payment discounts and retrospective volume discounts) is estimated at contract inception and included in the transaction price only to the extent that it is highly probable that a significant reversal of accumulated revenue will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

The fabrication price allocated to the remaining (unsatisfied or partially unsatisfied) performance obligations in contracts with customers is shown in the table below.

### Sales by region

SEK million	2018	2017
Asia	3,004	2,911
Europe	2,403	2,209
Americas	7,482	6,294
<b>Total revenue from contracts with customers</b>	<b>12,889</b>	<b>11,414</b>
Other revenue	21	21
<b>Net sales</b>	<b>12,910</b>	<b>11,435</b>

### Remaining performance obligations at 31 December 2018

SEK million	
Within 1 year	4,358
Within 2 years	3,203
After 2 years	2,896
<b>Total<sup>1)</sup></b>	<b>10,457</b>

1) Corresponding to sales volume of 857.4 ktonnes.

Since the raw material price is variable, based on metal price clauses, Gränges only discloses the amount of fabrication price allocated to the remaining performance obligations in contracts with customers.

### Sales by market

SEK million	Fabrication revenue		Raw material and other revenue		Total	
	2018	2017	2018	2017	2018	2017
Automotive	3,117	3,051	3,754	3,288	6,870	6,339
HVAC & Other	1,907	1,701	4,111	3,374	6,019	5,075
<b>Total revenue from contracts with customers</b>	<b>5,024</b>	<b>4,752</b>	<b>7,865</b>	<b>6,662</b>	<b>12,889</b>	<b>11,414</b>
Other revenue	–	–	21	21	21	21
<b>Net sales</b>	<b>5,024</b>	<b>4,752</b>	<b>7,886</b>	<b>6,683</b>	<b>12,910</b>	<b>11,435</b>

Other revenue is limited and primarily refer to rental revenue from properties owned by Gränges AB. Rental revenue has not been classified as revenue from contracts with customers and is recognized in other revenue in the tables above.

## 8 PAYROLL EXPENSES

### Average number of employees

	2018		2017	
	Average no. of employees	Of which, women	Average no. of employees	Of which, women
<b>Gränges AB</b>				
Sweden	31	10	26	8
<b>Subsidiaries</b>				
Sweden	469	90	431	85
China	517	58	520	56
US	675	82	578	70
Other countries	8	1	13	2
<b>Group total</b>	<b>1,699</b>	<b>241</b>	<b>1,568</b>	<b>221</b>

### Board members and other senior executives

	2018		2017	
	No. at balance sheet date	Of which, women	No. at balance sheet date	Of which, women
Board members	7	3	6	3
CEO, deputy CEO and other senior executives	8	1	8	1

### Salaries, remuneration, social security contributions and pension costs

SEK million	2018			2017		
	Salaries and remuneration (of which, variable portion) <sup>1)</sup>	Social sec. contrib.	Pension	Salaries and remuneration (of which, variable portion) <sup>1)</sup>	Social sec. contrib.	Pension
<b>Gränges AB</b>						
Board, CEO, deputy CEO and other senior executives	-31 (-15)	-11	-5	-27 (-13)	-10	-5
Other employees	-33	-10	-6	-27	-8	-8
<b>Subsidiaries</b>						
Other senior executives	-20 (-11)	-2	-1	-16 (-7)	-1	-1
Other employees	-918	-175	-57	-820	-158	-33
<b>Group total</b>	<b>-1,002</b>	<b>-198</b>	<b>-70</b>	<b>-890</b>	<b>-176</b>	<b>-47</b>

1) During 2018 SEK 3 million (12) has been received in government grants for Americas. The grant has reduced the payroll expenses.

### Salaries and other remuneration to the Board members, CEO, deputy CEO and other senior executives

#### Board members

Until the Annual General Meeting on 3 May 2018 the Board of Directors consisted of six members, elected by the Annual General Meeting in 2017. Following the Annual General Meeting in 2018 the Board of Directors consisted of seven members, elected by said Annual General Meeting. Two employee representatives and two deputy employee representatives are also represented on the Board.

The Chairman and other members of the Board receive Directors' fees in accordance with the resolutions adopted by the annual general meeting.

#### CEO and other senior executives

The remuneration paid to the CEO and other senior executives consists of a basic salary, variable remuneration, other benefits and pension. Senior executives refer to the members of Group Management. During 2018 Group Management consisted of eight persons, including the CEO and Deputy CEO.

The basic salary for the CEO is deliberated in the Remuneration committee and adopted by the Board of Directors. For all other senior executives including Deputy CEO the salaries are decided by the CEO with the support of the Chairman of the Board. The variable remuneration

is based on results achieved in relation to defined targets and is made up of two components, a short-term incentive programme (STI) and a long-term incentive programme (LTI). Several long-term incentive programmes can run in parallel.

The contract between the company and CEO is subject to twelve months' notice by either party without deduction. In case of termination by the company the CEO is also entitled to severance pay of a further twelve monthly salaries, which is off-set against income from new employment. The contracts between the company and other senior executives, including the Deputy CEO, are subject to six months' notice by either party without deduction. In case of termination by the company the executive is entitled to severance pay of a further twelve monthly salaries, which is off-set against income from new employment.

#### Pension

The retirement age for the CEO is 65 years. The CEO has a direct pension in form of a company-owned endowment insurance. The premiums to the endowment insurance amounts to 35 per cent of the basic salary, reduced with what is being paid to ITP. For other senior executives, including the deputy CEO, the retirement age is 60–65 years depending on the country of employment and both premium-based and defined-benefit-based obligations exist.

&gt;&gt; CONT. NOTE 8

**Remuneration and other benefits in 2018**

	Basic salary/ Directors' fee	Short-term incentive pro- gramme (STI) <sup>1)</sup>	Long-term incentive programmes (LTI 2017, 2016 and 2015)	Total variable remuneration	Other benefits	Pension	Total
<b>Board of Directors</b>							
Anders G. Carlberg	-0.6	-	-	-	-	-	-0.6
Ragnhild Wiborg	-0.4	-	-	-	-	-	-0.4
Hans Porat	-0.3	-	-	-	-	-	-0.3
Carina Andersson	-0.3	-	-	-	-	-	-0.3
Peter Carlsson	-0.3	-	-	-	-	-	-0.3
Katarina Lindström	-0.3	-	-	-	-	-	-0.3
Mats Backman	-0.2	-	-	-	-	-	-0.2
<b>Group Management</b>							
CEO Johan Menckel	-5.5	-3.3	-2.9	-6.2	-0.1	-1.9	-13.6
Deputy CEO Oskar Hellström	-2.8	-1.7	-1.5	-3.2	-0.2	-1.4	-7.7
Other senior executives (6 individuals)	-14.5	-10.3	-6.3	-16.6	-0.8	-2.5	-34.4
<b>Total</b>	<b>-25.3</b>	<b>-15.4</b>	<b>-10.6</b>	<b>-26.0</b>	<b>-1.2</b>	<b>-5.7</b>	<b>-58.2</b>

**Remuneration and other benefits in 2017**

	Basic salary/ Directors' fee	Short-term incentive pro- gramme (STI) <sup>2)</sup>	Long-term incentive programmes (LTI 2016 and 2015)	Total variable remuneration	Other benefits	Pension	Total
<b>Board of Directors</b>							
Anders G. Carlberg	-0.6	-	-	-	-	-	-0.6
Terje Andersen	-0.1	-	-	-	-	-	-0.1
Ragnhild Wiborg	-0.4	-	-	-	-	-	-0.4
Hans Porat	-0.3	-	-	-	-	-	-0.3
Carina Andersson	-0.3	-	-	-	-	-	-0.3
Peter Carlsson	-0.3	-	-	-	-	-	-0.3
Katarina Lindström	-0.3	-	-	-	-	-	-0.3
<b>Group Management</b>							
CEO Johan Menckel	-5.2	-3.2	-2.4	-5.6	-0.1	-1.8	-12.8
Deputy CEO Oskar Hellström	-2.7	-1.6	-1.3	-2.9	-0.1	-1.3	-7.1
Other senior executives (6 individuals)	-13.4	-9.2	-3.0	-12.1	-0.6	-2.1	-28.2
<b>Total</b>	<b>-23.7</b>	<b>-14.0</b>	<b>-6.7</b>	<b>-20.7</b>	<b>-0.8</b>	<b>-5.2</b>	<b>-50.4</b>

1) The amounts are attributable to 2018 but will be disbursed in 2019.

2) The amounts are attributable to 2017 but were disbursed in 2018.

**Variable remuneration****Short-term incentive programme (STI)**

The remuneration from STI is determined by a number of parameters consisting of financial key ratios for the Group, such as adjusted operating profit and cash conversion, and individual pre-determined targets.

Remuneration under STI 2018 may not exceed 60 per cent of the total basic salary paid to the CEO, deputy CEO and to the other members of Group Management, except for the person holding position as President Americas, whom may obtain 100 per cent of the total basic salary.

**Long-term incentive programmes (LTI 2017, LTI 2016 and LTI 2015)**

Gränges' long-term incentive programmes are offered to the company's senior executives and certain selected key persons. The incentive programmes aim to promote and encourage loyalty to the company by aligning personal objectives and interests with the shareholders' interest of strong share price performance and a good dividend.

The programmes are designed so that an amount corresponding to the outcome from STI for each year and participant is set aside in a so-called LTI bank. The costs are provided for during the performance years and the provision for LTI for each year are shown in the tables Remuneration and other benefits. Provided that the participant is still employed by Gränges, one third of the amount for LTI 2015 is paid per year during 2017, 2018 and 2019, for LTI 2016 during the years 2018, 2019 and 2020 and for LTI 2017 during the years 2019, 2020 and 2021. The payments are adjusted for the total return of the Gränges share. The total payment of LTI and STI in any one year is limited to 1.5 times an annual salary, except for the person holding position as President Americas, for whom such total payout is limited 2.0 times the annual salary.

**Other benefits**

Other benefits mainly consist of company cars and medical benefits.



## 9 PENSIONS

Gränges has pension plans in Sweden and the US. Approximately 76 per cent (74) of the employees in Sweden are covered by defined contribution pension plans, with the remainder covered by defined benefit plans. All permanent full-time employees in the US are eligible for the defined contribution plan. Approximately 23 per cent (26) of permanent full time employees in the US are eligible for the defined benefit pension plan.

### Defined contribution plans

Employees of Gränges in the Swedish and American operations are mainly covered by pension plans classified as defined contribution plans. Defined contribution plans are arrangements in which the company pays annual contributions to its employees' pension plans and where future pensions are determined by the amount of contributions paid and the return on the pension assets. In Sweden employees covered by a collective bargaining agreement have defined contribution pension plans, as do salaried employees born after 1979 under the ITP1 supplementary pension plan.

### Defined benefit plans

The defined benefit pension plan in Sweden applies for salaried employees covered by the ITP2 supplementary pension plan, based on a collective agreement between the Confederation of Swedish Enterprise and the trade unions for salaried employees in the private sector. The pension plan is a net plan under which the pension obligation is not linked to changes in Swedish social insurance schemes. Under the applicable collective agreement, all salaried employees born in 1979 or after are covered by a defined contribution plan. This means that the scope of the defined benefit plan will be reduced over time. The group also operates defined benefit pension plans for hourly union employees in the US under broadly similar regulatory frameworks. All of the plans are final salary pension plans, which provide benefit to members in the form of a guaranteed level of pension payable for life. The level of benefits provided depends on members' length of service and their salary in the final years leading up to retirement. In the Swedish plans, pensions in payment are generally updated in line with the retail price index, whereas in the US plans, pensions generally do not receive inflationary increases once in payment. With the exception of this inflationary risk in Sweden, the plans face broadly similar risks, including the risk of increased life expectancy and sensitivity to changes in interest rates.

Both the Swedish and US defined benefit plans are accounted for as a provision in the balance sheet. Swedish plans are unfunded and

US plans are partially funded. To secure unfunded accrued pension rights of their employees in Sweden, companies need to take out a credit insurance policy with Försäkringsbolaget PRI Pensionsgaranti. PRI Pensionsgaranti also administers and calculates the Group's unfunded pension obligations. The Group's pensions in Sweden are regulated by the Act (1967:531) respecting retirement pensions.

The Gränges Benefits Committee in the US is responsible for the oversight and management of the plans' investments. It has a written investment policy. The aim of the investment decisions made by the Committee is to achieve optimal returns while taking into account a reasonable level of risk. Investments are diversified, such that the failure of any single investment would not have a material impact on the overall level of assets. An asset liability management assessment is conducted periodically.

Special payroll tax has been taken into account in calculating pension obligations.

### Assumptions for defined benefit plans

The assumptions are defined in consultation with professional actuaries. Assumptions on future salary adjustments and sales are specific to the Group. The discount rate is determined by reference to high-quality corporate bonds traded in a well functioning market, which reflect the duration of the pension obligation. In Sweden the discount rate is based on secured mortgage bonds.

### Assumptions for defined benefit plans

	Sweden		US	
	2018	2017	2018	2017
Discount rate, %	2.4	2.6	2.9–4.5	2.6–3.8
Future salary adjustments, %	3.2	3.0	4.0	4.0
Income base amount, %	3.0	2.9	N/A	N/A
Inflation, %	2.0	1.9	N/A	N/A
Employee turnover, %	5.0	5.0	2.0–15.0	2.0–15.0
Weighted average remaining duration, years	19.0	19.0	11.4	12.0

The assumptions for life expectancy in Sweden are based on DUS14 life expectancy tables.

The mortality assumption in the US is based on the RP-2006 mortality tables, Scale MP-2018 (MP-2017).

### Distribution of pension costs

SEK million	Sweden		US		Total	
	2018	2017	2018	2017	2018	2017
Defined contribution plans	-28	-33	-25	-	-53	-33
Current service costs	-9	-6	-5	-4	-13	-10
Administrative expenses	0	0	-4	-3	-4	-3
<b>Pension costs recognized as operating expenses</b>	<b>-37</b>	<b>-39</b>	<b>-33</b>	<b>-7</b>	<b>-70</b>	<b>-47</b>
Interest on net pension liabilities recognized as a financial expense	-4	-4	-4	-5	-9	-9
<b>Pensions costs recognized in the income statement</b>	<b>-41</b>	<b>-43</b>	<b>-37</b>	<b>-12</b>	<b>-79</b>	<b>-55</b>
Actuarial gains and losses recognized in the statement of comprehensive income	-15	-15	22	-11	8	-26
Return on plan assets greater than discount rate	-	-	-33	33	-33	33
<b>Total pension costs</b>	<b>-56</b>	<b>-58</b>	<b>-48</b>	<b>10</b>	<b>-104</b>	<b>-49</b>

### Distribution of pension liabilities at 31 December

SEK million	Sweden		US		Total	
	2018	2017	2018	2017	2018	2017
Present value of unfunded pension obligations	-200	-177	-118	-99	-318	-276
Present value of funded and partially funded pension obligations	-	0	-297	-306	-297	-306
Funded plan assets	-	0	297	306	297	306
Endowment insurance	-4	-	-	-	-4	-
<b>Total pension liabilities</b>	<b>-203</b>	<b>-177</b>	<b>-118</b>	<b>-99</b>	<b>-321</b>	<b>-276</b>

&gt;&gt; CONT. NOTE 9

**Changes in the present value of pension obligations**

SEK million	Sweden		US		Total	
	2018	2017	2018	2017	2018	2017
Pension obligations at 1 January	-177	-157	-405	-440	-582	-597
Current service costs	-9	-6	-5	-4	-13	-10
Interest on pension provision	-4	-4	-16	-16	-20	-20
Actuarial gains and losses recognized in the statement of comprehensive income:						
– due to changes in financial assumptions	-12	-13	27	-14	16	-27
– due to changes in demographic assumptions	-	1	1	3	1	5
– due to experienced-based adjustments	-3	-4	-7	1	-10	-4
Benefits paid during the year	5	5	25	22	30	28
Translation differences	-	-	-37	44	-37	44
Endowment insurance	-4	-	-	-	-4	-
<b>Pension obligations at 31 December</b>	<b>-203</b>	<b>-177</b>	<b>-415</b>	<b>-405</b>	<b>-618</b>	<b>-582</b>

**Changes in the present value of plan assets**

SEK million	Sweden		US		Total	
	2018	2017	2018	2017	2018	2017
Plan assets at 1 January	0	1	306	310	306	310
Administrative expenses	0	0	-4	-3	-4	-3
Interest on plan assets	-	0	12	11	12	11
Return on plan assets greater than discount rate	-	-	-33	33	-33	33
Employer contributions	-	0	13	9	13	9
Benefits paid during the year	0	-1	-25	-22	-25	-23
Translation differences	-	-	28	-31	28	-31
<b>Plan assets at 31 December</b>	<b>-</b>	<b>0</b>	<b>297</b>	<b>306</b>	<b>297</b>	<b>306</b>
<b>Net pension liabilities</b>	<b>-203</b>	<b>-177</b>	<b>-118</b>	<b>-99</b>	<b>-321</b>	<b>-276</b>

**Distribution of plan assets**

SEK million	Sweden		US		Total	
	2018	2017	2018	2017	2018	2017
Equity	-	-	107	132	107	132
Fixed income	-	-	141	121	141	121
High yield	-	-	27	31	27	31
Real estate	-	-	15	18	15	18
Cash	-	-	7	4	7	4
Pension trust	-	0	-	-	-	-
<b>Total plan assets</b>	<b>-</b>	<b>0</b>	<b>297</b>	<b>306</b>	<b>297</b>	<b>306</b>

**Sensitivity analysis of the effect on the pension liabilities (+increase/-decrease in pension liabilities)**

SEK million	Sweden	US	Total
Discount rate, %	+0.5	-16	-20
	-0.5	18	22
Increased/decreased life expectancy, years	+1	8	14
	-1	-8	-15
			-23

The sensitivity analysis is based on a change in an individual actuarial assumption while other assumptions remain unchanged. This method shows the obligation's sensitivity to a single assumption. This is a simplified method, as actuarial assumptions are normally correlated.

**Defined benefit pension liabilities terms**

SEK million	Sweden	US	Total
Benefits scheduled for disbursement within 12 months	5	27	32
Benefits scheduled for disbursement within 1–5 years	24	111	136
Benefits scheduled for disbursement after 5 years or more	268	139	407

Contributions to plans for post-employment remuneration are estimated at SEK 21 million for the financial year 2019.

## 10 REMUNERATION TO AUDITORS

SEK million	2018	2017
<b>EY</b>		
Audit engagement	-5.5	-6.4
Audit services in addition to audit engagement	-0.7	-0.4
Tax advisory services	-0.3	-1.6
Other services	-0.1	-0.7
<b>Total remuneration to auditors</b>	<b>-6.6</b>	<b>-9.2</b>

Audit engagement refers to the examination of the annual report and accounting records and of the Board of Directors and CEO's management of the company, other tasks incumbent on the company's auditor as well as advice and other assistance occasioned by observations made in the course of such examinations or the performance of such other tasks. Audit services in addition to audit engagement is mainly related to review of interim reports.

Tax advisory services include advice on tax, including transfer pricing issues, as well as value-added tax.

Other services refer to advice that is not attributable to any of the aforementioned categories of services.

## 11 OTHER OPERATING EXPENSES

SEK million	2018	2017
Energy and utility expenses	-393	-372
Freight expenses	-335	-279
Repair and maintenance expenses	-277	-281
Consumable material	-189	-123
Consultant fees	-167	-147
Rental/leasing	-50	-38
Travel expenses	-44	-36
Vehicle operating expenses	-32	-17
Insurance	-28	-33
Other	-232	-296
<b>Total other operating expenses</b>	<b>-1,747</b>	<b>-1,622</b>

## 12 ITEMS AFFECTING COMPARABILITY

SEK million	Financial statement line	2018	2017
Inventory effect due to changed distribution model	Cost of materials	-64	-
Closure costs for US sales company	Items affecting comparability	-	-16
<b>Total items affecting comparability</b>		<b>-64</b>	<b>-16</b>

On 2 January 2018, Gränges acquired the remaining 50 per cent of the joint venture company Norca Heat Transfer LLC ("Norca"), which previously has managed import and distribution of Gränges' heat exchanger materials to customers in North America. This import is related to products that are produced at the facilities in Finspång and Shanghai. As of January 2018, the import and sales to customers in North America is managed by Gränges Americas. The acquisition of the remaining 50 per cent of Norca included finished products from Gränges that Norca had in inventory at the time for the acquisition. As Gränges already had reported the profit for these products when sold to Norca in 2017, a negative effect on operating profit of SEK -64 million occurred in 2018. This had no impact on the cash flow and is included in other non-cash items in the consolidated statement of cash flows.

Items affecting comparability for 2017 related to closure costs for Norca.

## 13 JOINT ARRANGEMENTS

Gränges reports two joint arrangements, Shanghai Gränges Moriyasu Aluminium Co Ltd and Getek GmbH.

Shanghai Gränges Moriyasu Aluminium Co Ltd provides stamping capacity for Gränges' customers in China. Gränges owns 50 per cent. The holding is classified as a joint venture and is accounted for using the equity method.

In 2017, Gränges acquired 51 per cent of Getek GmbH. The company produces aluminium billets using advanced spray-forming technology and has two production sites, one in Germany and one in France.

Getek is jointly owned with Erbstöth Aluminium GmbH, which owns 49 per cent of the company. The terms of the shareholder agreement require consent of the parties in relevant activities. This activity is classified as a joint operation and the Group recognizes its direct right to jointly owned assets, liabilities, revenues and expenses. Gränges holds an option to acquire the remaining 49 per cent of Getek, but the option is currently not considered to be of any significant value.

No significant capital injections are deemed to be required in the joint arrangements during 2019.

### Investments accounted for in accordance with the equity method

SEK million	Shanghai Gränges Moriyasu Aluminium
<b>Carrying amount at 1 January 2018</b>	<b>7</b>
Acquisitions/sales	3
Share of profit/loss	0
Dividend	-
Tax	-
Translation differences	0
<b>Carrying amount at 31 December 2018</b>	<b>10</b>
<b>Carrying amount at 1 January 2017</b>	<b>7</b>
Acquisitions/sales	-
Share of profit/loss	0
Dividend	-
Tax	-
Translation differences	0
<b>Carrying amount at 31 December 2017</b>	<b>7</b>

The Group has made the assessment that the joint arrangements are not essential and has therefore not provided additional financial information in summary.

## 14 FINANCIAL INCOME AND COSTS

SEK million	2018	2017
Interest income	10	5
Net foreign exchange gain	6	-
<b>Total financial income</b>	<b>15</b>	<b>5</b>
Interest expense	-107	-91
Net interest expense, pensions	-9	-9
Net foreign exchange losses	-	-11
Other financial expenses	-12	-10
<b>Total financial costs</b>	<b>-128</b>	<b>-121</b>
<b>Total financial income and costs</b>	<b>-113</b>	<b>-115</b>

Financial income during 2018 mainly consists of interest income from bank deposits in China. Other financial expenses mainly can be referred to as costs for financing and bank costs.

## 15 TAXES

### Tax expense

SEK million	2018	2017
Profit before taxes	849	797
Current tax	-139	-103
Deferred tax	-22	-42
<b>Total tax</b>	<b>-161</b>	<b>-145</b>
Tax as % of profit before taxes	19	18

### Reconciliation of the Group's tax rate

The following table shows a reconciliation of reported tax and tax calculated on Swedish tax rate of 22 per cent. The main tax components are shown below.

SEK million	2018	2017
Earnings before tax multiplied by nominal tax rate in Sweden	-187	-175
Effect of foreign operations with tax rates other than 22 %	-6	-25
Non-deductible expenses	-5	-4
Non-taxable income	1	8
Tax subsidies abroad	23	12
Other income tax paid abroad	-36	-24
Adjustment of tax in respect of prior years	-8	12
Changes in tax legislation	1	-3
Release on tax provision in China	55	53
<b>Total tax</b>	<b>-161</b>	<b>-145</b>

Income tax paid abroad mainly consists of paid income tax of SEK -26 million (-19) in China on dividends from the subsidiary in Shanghai to Gränges AB.

Gränges' Chinese subsidiary has obtained a pre-qualification as a High and New-Technology Enterprise for the three years period 2016 to 2018. The pre-qualification means that the company preliminary pays 15 per cent in corporate income tax instead of the ordinary tax of 25 per cent for the period. However, in order to finally obtain the lower tax rate, the company must meet special requirements established by the authorities in China for each one of the three years.

The tax return for 2017 has during 2018 been approved and thereby also the special requirements to finally obtain the lower tax rate of 15 per cent for income year 2017. The provision related to the ordinary tax rate for 2017 has thereby been released and effects income tax positive with SEK 55 million for 2018. In 2017, a positive tax of SEK 53 million was reported related to release of 2016 years provision.

In view of the difficulties to currently estimate whether these special requirements will be met for the financial year 2018, corporate income tax in the Chinese operation has been based on the standard rate of 25 per cent for 2018. The provision for the higher tax rate applied on 2018 years profit for China amount to SEK 51 million per 31 December 2018.

During 2018, the Swedish Parliament approved the proposal of reduced corporate taxation in Sweden, which will be in two steps from 22.0 to 20.6 per cent from 2019 to 2021. In the first two years, the tax will be reduced to 21.4 per cent and then to 20.6 per cent. As a result of the reduced corporate tax rate, deferred tax was recalculated during the year and affected the income tax positive with SEK 1 million.

### Deferred tax

Deferred tax consists of the Group's tax items, which are settled in the future. The table below specifies deferred tax assets and tax liabilities relating to temporary differences between the carrying amounts and tax bases of assets and liabilities.

### Deferred tax on temporary differences

SEK million	2018			2017		
	Deferred tax asset (+)	Deferred tax liability (-)	Net deferred tax	Deferred tax asset (+)	Deferred tax liability (-)	Net deferred tax
Property, plant and equipment	6	-161	-155	-	-102	-102
Intangible assets	-	-40	-40	-	-35	-35
Hedging reserve in equity	6	-	6	-	-4	-4
Net pension provision	28	-12	16	17	-9	8
Other non-current items	22	0	22	9	-	9
<b>Total non-current items</b>	<b>61</b>	<b>-213</b>	<b>-152</b>	<b>26</b>	<b>-151</b>	<b>-125</b>
Current receivables	5	-	5	4	-	4
Inventories	39	-	39	6	-	6
Other current items	81	-6	76	52	-	52
<b>Total current items</b>	<b>125</b>	<b>-6</b>	<b>120</b>	<b>62</b>	<b>-</b>	<b>62</b>
Tax losses	11	-	11	47	-	47
Set-off	-144	144	0	-91	91	0
<b>Net deferred tax assets (+) / liabilities (-)</b>	<b>54</b>	<b>-76</b>	<b>-22</b>	<b>44</b>	<b>-60</b>	<b>-16</b>

Deferred tax asset in respect of tax losses have been taken into account in full since the company is of the opinion that sufficient income will be generated in the future to be utilized against the tax losses. The tax losses amount to SEK 50 million (215) per 31 December 2018 and are limited to be used within 10 years.

### Change in deferred tax in the income statement

SEK million	2018	2017
Change in deferred tax in balance sheet	-6	-56
Change in deferred tax, hedging reserve in other comprehensive income	-10	12
Change in deferred tax, actuarial gains and losses on pensions in other comprehensive income	-6	-4
Business combinations	-	-1
Translation effects in other comprehensive income	0	5
<b>Change in deferred tax in the income statement</b>	<b>-22</b>	<b>-42</b>

## 16 EARNINGS PER SHARE

Earnings per share are calculated by dividing the profit for the year by the weighted average number of outstanding shares. There are no potential shares and hence no dilution effect for 2018. For further information of Gränges' shares, see Note 23.

	2018	2017
Profit for the year (SEK million)	688	652
Weighted average number of outstanding shares, basic	75,517,386	75,370,577
Weighted average number of outstanding shares, diluted	75,517,386	75,440,749
<b>Earnings per share, basic, SEK</b>	<b>9.11</b>	<b>8.65</b>
<b>Earnings per share, diluted, SEK</b>	<b>9.11</b>	<b>8.64</b>

## 17 INTANGIBLE ASSETS

SEK million	IT	Goodwill	Customer relationships	Total
<b>Carrying amount at 1 January 2018</b>	<b>91</b>	<b>372</b>	<b>178</b>	<b>640</b>
Acquisitions	99	0	-	99
Business combinations	-	-	-	-
Amortization	-1	-	-10	-11
Translation differences	-	17	16	33
<b>Carrying amount at 31 December 2018</b>	<b>188</b>	<b>389</b>	<b>183</b>	<b>761</b>
<b>Cost at 31 December 2018</b>	<b>216</b>	<b>389</b>	<b>207</b>	<b>813</b>
Accumulated amortization and impairment	-28	-	-24	-52
<b>Carrying amount at 31 December 2018</b>	<b>188</b>	<b>389</b>	<b>183</b>	<b>761</b>

### Impairment test of goodwill

Impairment testing for goodwill is made annually or continuously during the year if an event that may result in impairment need arises. The forecast period is five years with an average growth rate of 3.5 (4.1) per cent. Estimated growth rate beyond the forecast period amounts to 1.5 (-) per cent. Cash flows have been discounted at a present value using a discount rate calculated at 7.9 (7.9) per cent after tax, corresponding to 8.2 (8.7) per cent before tax. Sensitivity analyses have been performed to evaluate whether reasonable changes in discount rate and the growth rate would indicate need for impairment. No reasonable changes in assumptions or events during the year or after its expiration indicate need for impairment.

SEK million	IT	Goodwill	Customer relationships	Total
<b>Carrying amount at 1 January 2017</b>	<b>17</b>	<b>359</b>	<b>207</b>	<b>584</b>
Acquisitions	74	0	0	74
Business combinations	-	31	-	31
Amortization	-1	-	-10	-11
Translation differences	-	-18	-20	-38
<b>Carrying amount at 31 December 2017</b>	<b>91</b>	<b>372</b>	<b>178</b>	<b>640</b>
<b>Cost at 31 December 2017</b>	<b>118</b>	<b>372</b>	<b>190</b>	<b>679</b>
Accumulated amortization and impairment	-27	-	-13	-39
<b>Carrying amount at 31 December 2017</b>	<b>91</b>	<b>372</b>	<b>178</b>	<b>640</b>

### Customer relationships

The customer relationships arose in conjunction with an acquisition in US during 2016. The acquired business has a number of large customers that they have had long relationships with. The customer relationships are recognized at their fair value at the date of acquisition and are subsequently amortized on a straight-line basis over their estimated useful lives of 20 years.

### Other

IT mainly refers to implementation of new production and ERP systems within the Group.

The Group is running a large number of development projects but he criteria for recognising the projects as intangible assets are currently not met. Total costs for research and development projects amount to SEK 93 million (82) for 2018.



## 18 PROPERTY, PLANT AND EQUIPMENT

SEK million	Land, land improvements and buildings	Machinery and equipment	Fixed assets under construction	Fixtures, vehicles, etc.	Total
<b>Carrying amount at 1 January 2018</b>	<b>661</b>	<b>2,153</b>	<b>218</b>	<b>44</b>	<b>3,076</b>
Acquisitions <sup>1)</sup>	0	2	734	8	744
Business combinations	–	–	–	–	–
Sales	0	–3	–	–4	–7
Transferred assets, fixed assets under construction	34	240	–302	28	0
Impairment	–	–	–	–	–
Depreciation	–43	–280	–	–19	–342
Translation differences	30	139	10	1	180
<b>Carrying amount at 31 December 2018</b>	<b>682</b>	<b>2,250</b>	<b>661</b>	<b>59</b>	<b>3,651</b>
<b>Cost at 31 December 2018</b>	<b>1,135</b>	<b>4,812</b>	<b>661</b>	<b>250</b>	<b>6,858</b>
Accumulated depreciation and impairment	–453	–2,563	–	–191	–3,207
<b>Carrying amount at 31 December 2018</b>	<b>682</b>	<b>2,250</b>	<b>661</b>	<b>59</b>	<b>3,651</b>
<b>Carrying amount at 1 January 2017</b>	<b>713</b>	<b>2,428</b>	<b>159</b>	<b>46</b>	<b>3,347</b>
Acquisitions	0	25	247	12	284
Business combinations	4	5	0	0	9
Sales	–	–1	–	0	–1
Transferred assets, fixed assets under construction	19	152	–183	12	0
Impairment	–	–4	–	–1	–4
Depreciation	–40	–291	–	–24	–355
Translation differences	–36	–162	–5	–1	–204
<b>Carrying amount at 31 December 2017</b>	<b>661</b>	<b>2,153</b>	<b>218</b>	<b>44</b>	<b>3,076</b>
<b>Cost, 31 December 2017</b>	<b>1,064</b>	<b>4,388</b>	<b>218</b>	<b>216</b>	<b>5,887</b>
Accumulated depreciation and impairment	–404	–2,236	–	–171	–2,811
<b>Carrying amount at 31 December 2017</b>	<b>661</b>	<b>2,153</b>	<b>218</b>	<b>44</b>	<b>3,076</b>

1) During 2018 SEK 45 million has been received in government grants for Americas. The grant has reduced the acquisitions.

For information on lease costs regarding leased property, plant and equipment, see Note 29.

For information on collateral and mortgages related to property, plant and equipment, see Note 31.

## 19 INVENTORIES

SEK million	2018	2017
Raw materials	596	499
Work in progress	615	547
Finished goods and merchandise	821	586
Provision for obsolescence	–34	–21
<b>Total inventories</b>	<b>1,968</b>	<b>1,611</b>

Inventories are measured at the lower of cost and fair value after deduction of selling costs.

The amount of inventories recognized as an expense is included in cost of materials and amounted in 2018 to SEK 8,536 million (7,396) including the change in the provision for obsolescence of SEK 8 million (1).

## 20 OVERVIEW OF FINANCIAL INSTRUMENTS

2018 SEK million	Note	Measurement level	Financial instruments at fair value through profit or loss	Derivatives included in hedge accounting	Financial liabilities measured at amortized cost	Loans and receivables	Total	Of which interest- bearing
<i>Non-current assets</i>								
Non-current financial receivables	26, 32	–	–	–	–	2	2	2
Non-current derivatives	28	2	–	2	–	–	2	–
<b>Total</b>			<b>–</b>	<b>2</b>	<b>–</b>	<b>2</b>	<b>4</b>	<b>2</b>
<i>Current assets</i>								
Accounts receivable	21	–	–	–	–	1,414	1,414	–
Other current receivables	21	–	–	–	–	278	278	–
Current derivatives	21, 26, 28	2	71	5	–	–	76	–
Cash and cash equivalents	22	–	–	–	–	457	457	457
<b>Total</b>			<b>71</b>	<b>5</b>	<b>–</b>	<b>2,149</b>	<b>2,225</b>	<b>457</b>
<i>Non-current liabilities</i>								
Non-current financial liabilities	26	–	–	–	2,112	–	2,112	2,112
Non-current derivatives	28	2	4	0	–	–	5	4
<b>Total</b>			<b>4</b>	<b>0</b>	<b>2,112</b>	<b>–</b>	<b>2,117</b>	<b>2,117</b>
<i>Current liabilities</i>								
Current financial liabilities	26	–	–	–	515	–	515	515
Accounts payable	24	–	–	–	1,250	–	1,250	–
Other current liabilities	24	–	–	–	2	–	2	–
Current derivatives	24, 26, 28	2	39	32	–	–	71	–
<b>Total</b>			<b>39</b>	<b>32</b>	<b>1,767</b>	<b>–</b>	<b>1,838</b>	<b>515</b>
<b>Total financial instruments (receivables + / liabilities –)</b>			<b>28</b>	<b>–26</b>	<b>–3,879</b>	<b>2,151</b>	<b>–1,726</b>	<b>–2,173</b>

2017 SEK million	Note	Measurement level	Financial instruments at fair value through profit or loss	Derivatives included in hedge accounting	Financial liabilities measured at amortized cost	Loans and receivables	Total	Of which interest- bearing
<i>Non-current assets</i>								
Non-current financial receivables	26, 32	–	–	–	–	33	33	33
Non-current derivatives	28	2	–	5	–	–	5	–
<b>Total</b>			<b>–</b>	<b>5</b>	<b>–</b>	<b>33</b>	<b>38</b>	<b>33</b>
<i>Current assets</i>								
Accounts receivable	21	–	–	–	–	1,599	1,599	–
Other current receivables	21	–	–	–	–	91	91	–
Current derivatives	21, 26, 28	2	44	24	–	–	68	0
Cash and cash equivalents	22	–	–	–	–	742	742	742
<b>Total</b>			<b>44</b>	<b>24</b>	<b>–</b>	<b>2,432</b>	<b>2,500</b>	<b>742</b>
<i>Non-current liabilities</i>								
Non-current financial liabilities	26	–	–	–	2,215	–	2,215	2,215
Non-current derivatives	28	2	–	3	–	–	3	–
<b>Total</b>			<b>–</b>	<b>3</b>	<b>2,215</b>	<b>–</b>	<b>2,218</b>	<b>2,215</b>
<i>Current liabilities</i>								
Current financial liabilities	26	–	–	–	576	–	576	576
Accounts payable	24	–	–	–	986	–	986	–
Other current liabilities	24	–	–	–	2	–	2	–
Current derivatives	24, 26, 28	2	57	10	–	–	67	–
<b>Total</b>			<b>57</b>	<b>10</b>	<b>1,564</b>	<b>–</b>	<b>1,631</b>	<b>576</b>
<b>Total financial instruments (receivables + / liabilities –)</b>			<b>–13</b>	<b>16</b>	<b>–3,779</b>	<b>2,465</b>	<b>–1,311</b>	<b>–2,016</b>

&gt;&gt; CONT. NOTE 20

**Measurement of financial instruments**

The Group uses the following hierarchy to determine the fair values of financial instruments:

Level 1: Quoted, unadjusted prices in active markets for identical instruments.

Level 2: Inputs other than quoted prices included in Level 1 that are directly or indirectly observable for the instrument.

Level 3: Non-observable inputs that have significant impact on the fair value of the instrument.

**Currency forwards**

Fair value of currency forward contracts is calculated by discounting the difference between the contracted forward rate and the forward rate that can be contracted on the balance sheet date for the remaining contract period.

**Aluminium futures**

Aluminium futures are measured at observable quoted prices on LME (London Metal Exchange) and SHFE (Shanghai Futures Exchange) for similar assets and liabilities.

**Interest-bearing receivables and liabilities**

The fair value of interest-bearing assets and liabilities is provided for disclosure purposes and is estimated by discounting the future cash flows of principal and interest discounted at the current market rate. In the fair value measurement of borrowings the credit spread has remained constant unless there is clear evidence that a change in the Group's creditworthiness has resulted in an observable change in the credit spread. The fair value of borrowings amounted in 2018 to SEK 2,641 million (2,805).

**Other receivables and liabilities**

For other receivables and liabilities, which are short-term, the carrying amount is considered to reflect the fair value.

No transfers from one level to another in the valuation hierarchy were made in 2018 and 2017.

**21 CURRENT RECEIVABLES**

SEK million	2018	2017
Accounts receivable	1,414	1,599
Derivatives	76	68
Other current receivables	316	91
<b>Total financial receivables</b>	<b>1,807</b>	<b>1,758</b>
Advances to suppliers/accrued income	45	28
Tax receivables	7	39
<b>Total current receivables</b>	<b>1,859</b>	<b>1,826</b>

**Change in provisions for bad debts**

SEK million	2018	2017
Provisions for bad debts at 1 January	-19	-32
Bad debts recognized in income statement	-5	10
Used during the year	1	1
Translation differences	-1	1
<b>Provisions for bad debts at 31 December</b>	<b>-23</b>	<b>-19</b>

**Accounts receivables maturity structure**

SEK million	2018	2017
Not yet due	1,116	1,105
Overdue 1-30 days	218	293
Overdue 31-60 days	55	85
Overdue 61-90 days	23	35
Overdue more than 90 days	26	101
Provisions for bad debts at 31 December	-23	-19
<b>Accounts receivable, carrying amount at 31 December</b>	<b>1,414</b>	<b>1,599</b>

The maturity structure of overdue receivables has been relatively stable over time and reflects the fact that Gränges operates in certain regions and markets where payments from customers are generally somewhat slow. Overdue accounts receivable are allocated across the whole customer base.

Bad debts have historically been relatively small and stable. Five customers accounted for 33 per cent of total outstanding accounts receivable at 31 December 2018 (five customers accounted for 20 per cent of the total in 2017).

A more detailed description of the customer base is given in Note 6.

**22 CASH AND CASH EQUIVALENTS**

SEK million	2018	2017
Cash and bank balances	457	742
<b>Total cash and cash equivalents</b>	<b>457</b>	<b>742</b>

**23 SHARE CAPITAL**

	2018	2017
Opening numbers of shares	75,517,386	75,155,386
Rights issue	-	362,000
<b>Closing numbers of shares</b>	<b>75,517,386</b>	<b>75,517,386</b>

SEK million	2018	2017
Share capital, opening balance	101	101
Rights issue	-	0
<b>Share capital, closing balance</b>	<b>101</b>	<b>101</b>

SEK million	2018	2017
Share premium, opening balance	49	33
Rights issue	-	16
<b>Share premium, closing balance</b>	<b>49</b>	<b>49</b>

The articles of association for Gränges AB state that the share capital shall be not less than SEK 80,000,000 and not more than SEK 320,000,000. The number of shares shall be not less than 32,000,000 and not more than 128,000,000.

Due to the exercise of options from the Group's prior incentive program new shares were issued during 2017. The rights issue increased equity by SEK 16 million, whereof share capital by SEK 0 million and number of shares with 362,000.

The share capital comprises a single class of share and amounts to SEK 101 million as of 31 December 2018. Share capital is divided into 75,517,386 shares, each with a quota value of SEK 1.339775. For earnings per share and dilutive effect, see Note 16.

## 24 OTHER CURRENT LIABILITIES

SEK million	2018	2017
Accounts payable	1,250	986
Derivatives	71	67
Non-interest-bearing liabilities	2	2
<b>Total non-interest-bearing financial liabilities</b>	<b>1,323</b>	<b>1,055</b>
Value-added tax, employee withholding tax etc.	39	38
Accrued expenses	145	144
Employee-related liabilities	241	195
Other current liabilities	34	42
<b>Total other current liabilities</b>	<b>1,781</b>	<b>1,474</b>

## 25 CAPITAL MANAGEMENT

Gränges' capital management is governed by principles adopted by the Board of Directors. The capital structure is also adapted to legal and tax considerations. The company's financial objective for capital management is a net debt of one to two times adjusted EBITDA over the past twelve months. A further description of Gränges' management of financing is given in Notes 26 and 27. Gränges does not currently have an official credit rating.

SEK million	2018	2017
Total interest-bearing liabilities	2,632	2,791
Total interest-bearing receivables	2	33
Cash and cash equivalents	457	742
<b>Net interest-bearing liabilities</b>	<b>2,172</b>	<b>2,017</b>
Provision for pensions	321	276
Net debt	2,494	2,292
Adjusted EBITDA	1,357	1,303
<b>Net debt/Adjusted EBITDA</b>	<b>1,8</b>	<b>1,8</b>

For definition and calculation of adjusted EBITDA, see alternative performance measures on page 94.

## 27 FINANCIAL RISK

### Financial risk management

Gränges operates on a global basis and is exposed to financial risks such as market risk in the form of currency risk, commodity price risk and interest rate risk, and also to liquidity risk and credit risk. Gränges uses derivatives and other financial instruments to reduce the risks in accordance with the Group's Financial Management Policy.

To secure the Group's short- and long-term financial flexibility and to monitor and manage financial risks are some of the treasury department's central responsibilities. This is done in cooperation with the operating companies within Gränges.

Financial risk refers to risk pertaining to financial instruments. The financial risks that cannot be mitigated by a natural hedge, are hedged with financial derivatives according to policies decided by the Board. Gränges manages financial risks in a non-speculative manner and all transactions in financial derivatives are adapted to limit financial risks in the operations.

### Currency risk

#### Transaction exposure

Gränges conducts operations globally and is thereby exposed to currency risk. Exposure occurs as the Group's sales and purchases are carried out in different currencies. The currency risks may cause fluctuations in the value of financial instruments, that is debt instruments, accounts receivables and accounts payables, and the value of expected and contracted payment flows. In 2018, sales volume to countries outside Sweden accounted for 98 per cent (97) of Gränges'

## 26 FINANCING AND INTEREST-BEARING LIABILITIES

### Financing

Gränges' long-term interest-bearing debt consists of USD term loans of USD 170 million and bonds issued in the Group's MTN program. During the third quarter 2018 two bonds of SEK 300 million each were issued. The tenor was 3 and 5 years at floating interest rate. The duration of the interest-bearing debt portfolio was approximately three months at 31 December 2018. Gränges has a revolving credit facility of SEK 1,200 million, available in several currencies with a remaining time to maturity of two years. At 31 December 2018 SEK 0 million (0) was utilized. Gränges commercial paper program was utilized to SEK 250 million (300) at year end 2018. Additional short-term debt amounted to SEK 265 million (276). The loan facilities are subject to covenants, which are Net Debt/EBITDA and Interest coverage ratio. The covenants were fulfilled at 31 December 2018.

SEK million	Carrying amount	
	2018	2017
<i>Non-current interest-bearing liabilities</i>		
Interest-bearing loans	1,512	2,215
Bonds in MTN program	600	–
Current interest-bearing derivatives	4	–
<b>Total non-current interest-bearing liabilities</b>	<b>2,117</b>	<b>2,215</b>
<i>Current interest-bearing liabilities</i>		
Interest-bearing loans	265	276
Commercial papers	250	300
<b>Total current interest-bearing liabilities</b>	<b>515</b>	<b>576</b>
<b>Total interest-bearing liabilities</b>	<b>2,632</b>	<b>2,791</b>
<i>Interest-bearing receivables</i>		
Non-current interest-bearing receivables	2	33
Cash and cash equivalents	457	742
<b>Total interest-bearing receivables</b>	<b>459</b>	<b>774</b>
<b>Net interest-bearing liabilities</b>	<b>2,172</b>	<b>2,017</b>

Under the current loan agreements Gränges has entered into customary undertakings not to pledge assets or in a similar manner use its property to give creditors a better right than the banks providing the credit facility.

total sales volume while net sales in foreign currencies totalled SEK 12,542 million (11,140). The largest currencies were USD, CNY and EUR.

The selling price for Gränges' products is divided into a metal price component for the raw aluminium and a conversion price component covering Gränges' processing costs and margin. The cost of the aluminium is passed on to the customer through metal price clauses. The aluminium price is generally set in connection with delivery. As both purchase and selling price for the metal component in general are based on the London Metal Exchange (LME) price for aluminium, which is expressed in US dollars, no material currency exposures arise on the metal price component. Unlike the metal price, the conversion price is subject to contracts covering a longer period of time, thus creating a greater currency risk.

The largest portion of Gränges' cost base for processing is in USD, CNY and SEK while the conversion price is set primarily in USD, CNY and EUR. The Group's sensitivity to exchange rate fluctuations before currency hedges, that is excluding the impact of currency derivatives, is shown in the table below.

2018	Change, %	Effect on operating profit, SEK million
USD/CNY	+/-10%	+/-65
USD/SEK	+/-10%	+/-44
EUR/SEK	+/-10%	+/-54

&gt;&gt; CONT. NOTE 27

The transaction risk is hedged according to the Financial Management Policy. The objective for Gränges' currency hedging activities is to minimize the effect of rapid changes in currency rates in the short and medium term by hedging a part of the Group's foreign currency exposure. Exposures relating to customer orders without firm commitments are hedged up to 24 months out in time based on a rolling fore-

cast in which a portion of the forecast currency exposure is hedged. In 2018, 50–70 per cent of the forecast currency exposure of the coming 12 months was hedged.

The Group's total outstanding currency hedges of future transactions at the balance sheet date are shown in the tables below.

#### Currency contracts linked to hedging of future income and expenses<sup>1)</sup>

Maturity 31 Dec 2018	EUR/SEK		USD/SEK		USD/CNY	
	Sold volumes, EUR million net	Price	Sold volumes, USD million net	Price	Sold volumes, USD million net	Price
Q1 2019	21	10.06	11	8.45	18	6.72
Q2 2019	18	10.16	9	8.63	17	6.76
Q3 2019	14	10.07	7	8.41	11	6.72
Q4 2019	11	10.32	4	8.54	11	6.82
FY 2020	18	10.40	0	7.82	6	6.87
<b>Total</b>	<b>82</b>	<b>10.19</b>	<b>31</b>	<b>8.50</b>	<b>63</b>	<b>6.77</b>
31 Dec 2017						
FY 2018 and FY 2019	87	9.65	51	8.33	64	6.81

#### Metal related currency contracts linked to hedging of future income and expenses<sup>1)</sup>

Maturity 31 Dec 2018	EUR/SEK		USD/SEK		USD/CNY	
	Sold volumes, EUR million net	Price	Sold volumes, USD million net	Price	Sold volumes, USD million net	Price
Q1–2 2019	–11	10.26	38	8.92	2	6.72
31 Dec 2017						
Q1–2 2018	–7	9.88	28	7.99	7	6.75

1) In currency pairs where the net hedged position exceeds SEK 20 million.

Gränges applies hedge accounting for most hedges of future transactions, either cash flow hedges or fair value hedges of firm commitments. The various types of hedging are described in Note 28.

#### Translation exposure

As SEK is the presentation currency for the Group, Gränges is exposed to currency risk upon translation of net investments in foreign operations. This refers mainly to CNY and USD, and the total translation exposure was SEK 3,190 million (2,843) at 31 December 2018. Gränges does not hedge this exposure.

#### Commodity price risk

Aluminium is traded mainly on the London Metal Exchange (LME), but also on the Shanghai Futures Exchange (SHFE). For Gränges the price on metal purchases are mainly affected by fluctuations in the market price of aluminium on LME and SHFE. The guiding principle is that Gränges should, where possible, avoid exposures to changes in the LME price or other benchmark prices, such as the SHFE price. Gränges reduces this risk primarily by linking prices from metal suppliers to the prices it offers the customers. In addition, futures contracts for aluminium on LME and SHFE are used in order to reduce the price risk in connection with orders and secure the value of metal in stock.

Gränges normally has a certain level of stock for which the price to the customers has not been fixed. The part of the stock where the price has not been fixed with the customers are hedged using financial instruments. At 31 December 2018 Gränges had sold a net 15,725 tonnes (11,500) of aluminium for hedging on LME and 12,190 tonnes (7,500) for hedging on SHFE.

#### Interest rate risk

Gränges' interest rate risk is primarily related to the Group's interest-bearing liabilities and assets. Gränges' revolving credit facility allows for borrowing with interest terms of one, two, three or six months. The average duration in the loan portfolio at 31 December 2018 was three months (three months). Gränges' loans have variable interest rates. The interest bearing debt's duration was not prolonged with financial instruments during 2018.

#### Liquidity risk

Liquidity risk is the risk that Gränges will be unable to fulfil its payment obligations. Gränges' Financial Management Policy stipulates metrics to ensure adequate liquidity in the Group. Cash flow from operating activities is managed centrally in Gränges Group and Gränges monitors both short and long-term liquidity in the Group.

The table below shows the maturity structure for the Gränges Group's contractual financial liabilities. The amounts refer to non-discounted future cash flows and may therefore differ from the recognized figures. All variable interest cash flows have been calculated at the rate prevailing on the balance sheet date and all future cash flows in foreign currency are translated to SEK using the closing rate at year-end. The table also includes derivatives which are recognized as assets at the balance sheet date, as derivatives can include both positive and negative cash flows, and the fair value varies over time. Financial liabilities are managed using operating cash flow, liquid and interest-bearing assets and, where necessary, available credit facilities.



## &gt;&gt; CONT. NOTE 27

2018 SEK million	Carrying amount	Contractual cash flows	< 1 year	1–2 years	2–4 years	> 4 years
Other interest-bearing liabilities	2,632	2,864	610	59	1,892	303
Accounts payable	1,250	1,250	1,250	–	–	–
Other current liabilities	2	2	2	–	–	–
Net-settled derivatives <sup>1)</sup> – aluminium derivatives	34	–	–	–	–	–
Inflow	–	–61	–61	–	–	–
Outflow	–	27	27	–	–	–
Gross-settled derivatives <sup>1)</sup> – currency derivatives	–28	–	–	–	–	–
Inflow	–	–21	–23	2	–	–
Outflow	–	–6	–6	0	–	–
<b>Total</b>	<b>3,891</b>	<b>4,055</b>	<b>1,799</b>	<b>61</b>	<b>1,892</b>	<b>303</b>

2017 SEK million	Carrying amount	Contractual cash flows	< 1 year	1–2 years	2–4 years	> 4 years
Other interest-bearing liabilities	2,791	3,034	656	516	1,650	212
Accounts payable	986	986	986	–	–	–
Other current liabilities	2	2	2	–	–	–
Net-settled derivatives <sup>1)</sup> – aluminium derivatives	–12	–	–	–	–	–
Inflow	–	–27	–27	–	–	–
Outflow	–	39	39	–	–	–
Gross-settled derivatives <sup>1)</sup> – currency derivatives	–15	–	–	–	–	–
Inflow	–	–3,534	–3,160	–374	–	–
Outflow	–	3,519	3,147	372	–	–
<b>Total</b>	<b>3,752</b>	<b>4,019</b>	<b>1,643</b>	<b>514</b>	<b>1,650</b>	<b>212</b>

1) Including derivatives recognized as assets.

**Credit risk**

The management of credit risks related to accounts receivable and other current assets is handled as part of the commercial risk and monitored continuously by the operating units. Gränges customers are also spread over various countries and geographic markets. Credit losses have historically been low due to the relatively strong financial position of Gränges' customers as well as strict credit procedures. Gränges' credit risks related to other financial instruments are managed by choosing counterparties with a good credit rating and by minimising the risk per counterparty. Gränges also enters into customary agreements with financial counterparties, as for example ISDA-agreements.

**Sensitivity analysis**

Financial instruments in the Gränges Group are exposed to different types of market risk which can affect the income statement or equity. Financial instruments, especially derivatives, are used as a means of hedging financial and operational exposures.

The table below shows a partial analysis of the sensitivity of financial instruments, where the isolated effect of each type of risk on the income statement and other comprehensive income is calculated. This is done on the basis of a chosen hypothetical change in market prices or prices in the balance sheet at 31 December. In accordance with IFRS, the analysis only covers financial instruments and is not intended to provide a full overview of the Group's market risk, for example:

- For currency hedges of concluded contracts changes in the fair value of the hedging instrument will affect the income statement while changes in the fair value of the underlying hedged contract that is offset by the hedging instrument will not be shown, as this is not a financial instrument.
- If one of the parameters changes the analysis will not take account of any correlations with other parameters.
- Financial instruments issued in the functional currency of individual units do not create a currency risk and are therefore not included in this analysis. For the same reason the currency exposure is not included upon translation of such financial instruments into the presentation currency.

Generally, the effect on the income statement and other comprehensive income of financial instruments shown in the table below is expected to offset the effects of the hedged items in cases where the financial instruments are included in a hedging relationship.

Accounting effects of changes in market risk are classified to the income statement and other comprehensive income depending on where the effect of changes in fair value should be recognized initially. Effects which are accounted for in the income statement also affect other comprehensive income in addition to the figures presented in the table.

SEK million	Accounting before tax effects on			
	Income statement		Other comprehensive income	
	2018	2017	2018	2017
Interest rate risk: 100 bp parallel shift in yield curves, all currencies	–/+22	–/+20	–	–
Currency risk: +/-10 % change in FX rate, USD/SEK	–/+6	–/+3	–/+22	–/+31
Currency risk: +/-10 % change in FX rate, EUR/SEK	–/+7	0	–/+63	–/+70
Currency risk: +/-10 % change in FX rate, CNY/USD	0	0	–/+38	–/+37
Price risk: +/-20 % change in LME prices	–/+110	–/+82	+/–14	+/–11

## 28 DERIVATIVES AND HEDGING

The table below shows the fair value of all outstanding derivatives grouped by their treatment in the financial statements.

### Derivatives and hedging

SEK million	2018		2017	
	Assets (+)	Liabilities (-)	Assets (+)	Liabilities (-)
<b>Cash flow hedges</b>				
Currency forwards, currency swaps	7	-26	26	-13
Aluminium futures	0	-7	3	0
<b>Total</b>	<b>7</b>	<b>-33</b>	<b>29</b>	<b>-13</b>
<b>Fair value hedges</b>				
Currency forwards, currency swaps	3	-4	6	-7
Aluminium futures	61	-19	22	-39
<b>Total</b>	<b>64</b>	<b>-23</b>	<b>28</b>	<b>-46</b>
<b>Other derivatives – changes in fair value recognized in income statement</b>				
Currency forwards, currency swaps	7	-15	15	-11
Interest rate swaps	-	-4	-	-
Aluminium futures	0	-1	1	0
<b>Total</b>	<b>7</b>	<b>-20</b>	<b>16</b>	<b>-11</b>
<b>Total derivatives</b>	<b>78</b>	<b>-76</b>	<b>73</b>	<b>-70</b>

### Cash flow hedges

Gränges' purchases futures contracts for aluminium on LME and SHFE, as well as currency forwards are identified as hedging instruments in cash flow hedges. All derivatives are classified as hedging instruments in cash flow hedges accounted for at fair value in the balance sheet. Changes in fair value are recognized in other comprehensive income and accumulated in the hedging reserve in equity and reclassified to the income statement when the hedged cash flows are recognized in the income statement.

No gain or loss has been recognized in the income statement as a result of ineffective hedging in 2018 and 2017. All expected cash flows that were hedged in 2018 still qualify for hedge accounting.

### Change in hedging reserve

SEK million	2018	2017
<b>Opening hedging reserve before tax</b>	<b>16</b>	<b>-38</b>
Reclassified to income statement	-14	31
Change in value during the year	-27	22
<b>Closing hedging reserve before tax</b>	<b>-26</b>	<b>16</b>
Deferred tax, hedging reserve	6	-4
<b>Closing hedging reserve after tax</b>	<b>-20</b>	<b>12</b>

A negative hedging reserve will result in negative figures in the income statement in the future. Accumulated hedging gains and losses from cash flow hedges which were recognized in the hedging reserve as at 31 December 2018 and are expected to be recognized in the income statement (before tax) are SEK -27 million for 2019 and SEK 2 million after 2019.

### Fair value hedging

Gränges sells aluminium futures contracts to hedge the value of inventory. Where there also is a currency risk exposure, related currency derivatives are entered into. Metal and currency derivatives are then together designated as a hedging instrument in fair value hedges. Gains and losses on hedged items, as well as the hedging instrument are accounted for as currency gains and losses in the income statement and the value of inventory is adjusted by changes in the fair value of the hedged risk. Gain on the hedging instruments amounted to SEK 60 million in 2018 (-2) and loss on the hedged items attributable to the hedged risk amounted to SEK -60 million in 2018 (2).

### Offsetting

Financial assets and liabilities subject to an enforceable master netting arrangement or similar agreement relate only to the Group's derivatives. Gränges has entered into ISDA-agreements with relevant financial counterparties.

SEK million	Gross amounts	Offset	Net amounts in balance sheet	Derivatives not intended to be settled net	Collaterals received/pledged	Net amounts
<b>2018</b>						
Derivative assets	78	-	78	44	-	34
Derivative liabilities	-71	-	-71	-44	-	-28
<b>2017</b>						
Derivative assets	73	-	73	50	-	23
Derivative liabilities	-70	-	-70	-50	-	-20

## 29 LEASING

The Group has no agreements classified as financial leasing. Operational leasing is primarily attributable to agreements regarding warehousing, office facilities, vehicles and equipment. In Finspång, Sweden, Gränges conduct rental of industrial premises.

### Operating leases – lessees

Future minimum lease payments relating to leases and other leases in the capacity of lessees attributable to non-cancellable agreements are distributed on the balance sheet date over the following maturity dates:

SEK million	Land and buildings		Machinery and equipment		Fixtures and vehicles		Other assets		Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Within 1 year	-16	-8	-16	-5	-19	-6	-1	-	-52	-19
Within 2–5 years	-47	-31	-70	-18	-36	-18	0	-	-153	-67
After 5 years	-5	-12	-128	-	0	0	-	-	-133	-13
<b>Total future lease costs</b>	<b>-67</b>	<b>-52</b>	<b>-213</b>	<b>-23</b>	<b>-55</b>	<b>-24</b>	<b>-1</b>	<b>-</b>	<b>-337</b>	<b>-99</b>

The expense for lease payments for the period is shown in Note 11.

### Operating leases – lessor

Future minimum lease payments relating to leases and other leases as lessor attributable to non-cancellable agreements are distributed on the balance sheet date over the following maturity dates:

SEK million	Land and buildings		Machinery and equipment		Fixtures and vehicles		Other assets		Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Within 1 year	20	20	-	-	-	-	-	-	20	20
Within 2–5 years	6	19	-	-	-	-	-	-	6	19
After 5 years	0	0	-	-	-	-	-	-	0	0
<b>Total future lease income</b>	<b>26</b>	<b>40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>26</b>	<b>40</b>

Rental income for 2018 amounts to SEK 21 million (21).

## 30 ACQUISITION

### Norca

Norca Heat Transfer LLC (“Norca”), in which Gränges held a 50 per cent ownership until January 2018, administered the import and distribution of Gränges’ heat exchanger materials to customers in the Americas, supplied from the production sites in Finspång and Shanghai. 2 January 2018 Gränges acquired the remaining 50 per cent of Norca for a purchase price of USD 4 million. Gränges has from 2018 coordinate the Group’s distribution in North America through Gränges Americas.

### Purchase price allocation Norca

	USD million	SEK million
Current assets, excluding cash	59.8	482
Cash	7.1	57
Interest-bearing liabilities	24.5	197
Other current liabilities	34.5	278
<b>Net identifiable assets and liabilities</b>	<b>8.0</b>	<b>64</b>
<b>Purchase price</b>	<b>8.0</b>	<b>64</b>
<b>Cash consideration paid for acquisition</b>	<b>-4.0</b>	<b>-32</b>
Fair value of investment in joint venture	-4.0	-32
<b>Total purchase price</b>	<b>-8.0</b>	<b>-64</b>

Norca was until the acquisition classified as a joint venture and consolidated according to the equity method. Following the acquisition, the operation is consolidated according to the acquisition method. The consolidated value of share in associates was SEK 11 million at the time of acquisition. The result of revaluation at fair value amounted to SEK 22 million and is recognized as profit from joint ventures in the income statement.

Norca only distributed products from Gränges, meaning that the inventory in Norca consisted of products only from Gränges. When consolidating using the equity method, 50 per cent of the intercompany profit in inventory was eliminated and accounted for in the line investments in joint ventures. When using the acquisition method 100 per cent of internal profit in inventory is eliminated and accounted for within cost of materials.

The purchase price allocation is determined without adjustments.

## 31 PLEDGED ASSETS, GUARANTEES AND CONTINGENT LIABILITIES

### Pledged assets

SEK million	2018	2017
Property mortgages	–	15
Own liabilities covered by property mortgages	–	1

### Contingent liabilities

SEK million	2018	2017
Guarantee for supply of electricity	13	–
Guarantee commitment PRI Pensionsgaranti	2	2
Guarantee for worker's compensation	5	7
Guarantee for bank loan at Norca Heat Transfer LLC	–	170
<b>Total contingent liabilities</b>	<b>20</b>	<b>178</b>

For the loan agreements described in Note 26, Gränges has entered into a customary undertaking to not pledge assets or in a similar manner use its property to give creditors a better right than the banks that are providing the credit facilities. The commitment that was covered by the property mortgages has ceased and there are no longer any pledged assets within the Group.

In 2018, a new guarantee was issued for the supply of electricity to the Swedish operation.

During 2017 Gränges issued a guarantee for a bank loan to its current joint venture company Norca Heat Transfer LLC. The bank loan was repaid 2 January 2018 and the guarantee did at the same time expire.

### Disputes

From time to time disputes with counterparties arise in the ongoing operations. The Group regularly makes assessments and provisions if necessary in the accounts. Currently, the Group is not involved in any major litigation that is expected to substantially affect the accounts negatively.

### Environmental issues

The Group has conducted industrial production for a long time at facilities in Finspång, Västerås and Upplands Väsby. In light of the public review of potentially polluted areas in Sweden that is being conducted by the Swedish Environmental Protection Agency and country administrative boards, Gränges may be involved in reviews and investigations relating to facilities where industrial production has historically taken place. For instance, industrial production has been conducted by various operators at Gränges' facility in Finspång since the 16th century. There are currently no ongoing cases relating to responsibility in this respect.

## 32 RELATED PARTY TRANSACTIONS

Intra Group transactions are executed in accordance with specific arrangements at arm's length and shared costs in Gränges are allocated among the companies in the Group using allocation formulas depending on the types of expenditure.

During 2017 transactions with Norca Heat Transfer LLC ("Norca") were identified as transactions with joint ventures. Subsequently, after the acquisition of the remaining shares in Norca, only transactions with Moriyasu Aluminium Co Ltd. are included in transactions with joint ventures in 2018.

For information on remuneration and benefits to board members and key individuals in senior positions, see Note 8.

There are no other transactions with related parties.

SEK million	2018	2017
<b>Transactions with joint ventures</b>		
Sales	7	751
Other income and expenses	0	3
Non-current interest-bearing receivables	2	33
Accounts receivable	3	255
Non-interest-bearing liabilities	–	8

## 33 EVENTS AFTER THE BALANCE SHEET DATE

No significant events have occurred after the year end.

## ALTERNATIVE PERFORMANCE MEASURES

Gränges makes use of the alternative performance measures return on capital employed, net debt, equity to assets ratio and cash conversion. Gränges believes that these performance measures are useful for readers of the financial reports as a complement to other performance measures when assessing the possibility of dividends, the implementation of strategic investments, and the Group's ability to meet financial commitments. Further, Gränges uses the alternative performance measures adjusted operating profit, adjusted operating profit per tonne and adjusted EBITDA, which are measures that Gränges considers to be relevant for investors who want to understand the profit generation excluding items affecting comparability. For definitions of the measures, see page 105.

SEK million	2018	2017
<b>Adjusted operating profit</b>		
Operating profit	940	917
Items affecting comparability	64	16
<b>Adjusted operating profit</b>	<b>1,005</b>	<b>933</b>
<b>Adjusted operating profit per tonne</b>		
Adjusted operating profit	1,005	933
Sales volume, ktonnes	375.0	373.0
<b>Adjusted operating profit per tonne, kSEK</b>	<b>2.7</b>	<b>2.5</b>
<b>Adjusted EBITDA</b>		
Adjusted operating profit	1,005	933
Depreciation and amortization	353	370
<b>Adjusted EBITDA</b>	<b>1,357</b>	<b>1,303</b>
<b>Return on capital employed</b>		
Total assets less cash and cash equivalents and interest-bearing receivables, rolling 12 months average	7,999	7,111
Non-interest bearing liabilities, rolling 12 months average	-2,194	-1,810
Pensions, rolling 12 months average	293	280
<b>Capital employed</b>	<b>6,098</b>	<b>5,581</b>
Adjusted operating profit	1,005	933
<b>Return on capital employed, %</b>	<b>16.5</b>	<b>16.7</b>
<b>Net debt/Adjusted EBITDA</b>		
Cash and cash equivalents and interest-bearing receivables	-459	-775
Interest-bearing liabilities	2,632	2,791
Pensions	321	276
<b>Net debt</b>	<b>2,494</b>	<b>2,292</b>
<b>Equity to assets</b>		
Equity	3,873	3,322
Total assets	8,773	8,005
<b>Equity to assets, %</b>	<b>44.2</b>	<b>41.5</b>
<b>Adjusted cash flow before financing activities</b>		
Cash flow from operating activities	1,351	968
Cash flow from investing activities	-819	-396
Cash flow from expansion investments	470	38
Cash flow from acquisitions	-24	42
<b>Adjusted cash flow before financing activities</b>	<b>977</b>	<b>652</b>
<b>Cash conversion</b>		
Adjusted cash flow before financing activities	977	652
Adjusted operating profit	1,005	933
<b>Cash conversion, %</b>	<b>97</b>	<b>70</b>





# PARENT COMPANY INCOME STATEMENT

SEK million	Note	2018	2017
Net sales	3	203	219
Payroll expenses	7	-96	-84
Other operating expenses	4, 5, 6	-161	-156
Depreciation, amortization and impairment charges	10, 11	-26	-27
<b>Operating loss</b>		<b>-80</b>	<b>-47</b>
<b>Profit/loss from financial items</b>			
Dividends from subsidiaries		517	378
Financial income	8	135	117
Financial costs	8	-117	-103
<b>Financial items</b>		<b>535</b>	<b>391</b>
<b>Profit after financial items</b>		<b>455</b>	<b>344</b>
<b>Appropriations</b>			
Change in accelerated depreciation		43	-25
Group contributions		115	90
Tax on profit for the year	9	-53	-23
<b>Profit for the year</b>		<b>560</b>	<b>385</b>

The parent company has no items which are accounted for as other comprehensive income. Total comprehensive income is therefore the same as profit for the year.

# PARENT COMPANY BALANCE SHEET

SEK million	Note	2018	2017
<b>ASSETS</b>			
<b>Non-current assets</b>			
Intangible assets	10	7	159
Property, plant and equipment	11	206	217
Participations in Group companies	12	1,160	1,160
Receivables from Group companies		2,674	2,344
Interest-bearing receivables		-	33
Other non-current receivables		8	13
<b>Total non-current assets</b>		<b>4,054</b>	<b>3,925</b>
<b>Current receivables</b>			
Accounts receivable		3	4
Receivables from Group companies		161	147
Other receivables		67	84
Prepaid expenses and accrued income		5	7
<b>Total current receivables</b>		<b>237</b>	<b>242</b>
<b>Cash and cash equivalents</b>			
Cash and bank balances		120	106
<b>Total cash and cash equivalents</b>		<b>120</b>	<b>106</b>
<b>Total current assets</b>		<b>356</b>	<b>348</b>
<b>TOTAL ASSETS</b>		<b>4,411</b>	<b>4,273</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Restricted equity</b>			
Share capital	13	101	101
Statutory reserve		7	6
<b>Total restricted equity</b>		<b>108</b>	<b>107</b>
<b>Non-restricted equity</b>			
Share premium reserve		-	16
Retained earnings		938	765
Profit for the year		560	385
<b>Total non-restricted equity</b>		<b>1,498</b>	<b>1,166</b>
<b>Total equity</b>		<b>1,606</b>	<b>1,273</b>
<b>Untaxed reserves</b>			
Accelerated depreciation		37	80
<b>Total untaxed reserves</b>		<b>37</b>	<b>80</b>
<b>Provisions</b>			
Provisions for pensions	14	27	22
<b>Total provisions</b>		<b>27</b>	<b>22</b>
<b>Non-current liabilities</b>			
Interest-bearing liabilities	15	2,117	2,215
Other non-current liabilities		0	3
<b>Total non-current liabilities</b>		<b>2,117</b>	<b>2,218</b>
<b>Current liabilities</b>			
Interest-bearing liabilities	15	450	548
Accounts payable		46	14
Other liabilities		70	68
Accrued expenses and deferred income	16	55	50
<b>Total current liabilities</b>		<b>622</b>	<b>680</b>
<b>Total liabilities</b>		<b>2,804</b>	<b>3,000</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>4,411</b>	<b>4,273</b>

# PARENT COMPANY STATEMENT OF CHANGES IN EQUITY

SEK million	Share capital	Statutory reserve	Share premium reserve	Retained earnings	Profit for the year	Total equity
<b>Opening balance at 1 January 2018</b>	<b>101</b>	<b>6</b>	<b>16</b>	<b>765</b>	<b>385</b>	<b>1,273</b>
Appropriation of retained earnings:						
Carried forward	-	-	-16	401	-385	-
Dividend	-	-	-	-227	-	-227
Profit for the year	-	-	-	-	560	560
Change in fund for development expenditure	-	1	-	-1	-	-1
Rights issue	-	-	-	-	-	-
<b>Closing balance at 31 December 2018</b>	<b>101</b>	<b>7</b>	<b>-</b>	<b>938</b>	<b>560</b>	<b>1,606</b>
<b>Opening balance at 1 January 2017</b>	<b>101</b>	<b>5</b>	<b>33</b>	<b>195</b>	<b>718</b>	<b>1,052</b>
Appropriation of retained earnings:						
Carried forward	-	-	-33	751	-718	-
Dividend	-	-	-	-180	-	-180
Profit for the year	-	-	-	-	385	385
Change in fund for development expenditure	-	0	-	-0	-	-
Rights issue	0	-	16	-	-	16
<b>Closing balance at 31 December 2017</b>	<b>101</b>	<b>6</b>	<b>16</b>	<b>765</b>	<b>385</b>	<b>1,273</b>

# PARENT COMPANY CASH FLOW STATEMENT

SEK million	Note	2018	2017
Operating loss		-80	-47
Depreciation and impairment charges		26	27
Change in net working capital etc.		91	-55
Taxes paid		24	-3
<b>Cash flow from operating activities</b>		<b>61</b>	<b>-79</b>
Investments in property, plant and equipment and intangible assets	10, 11	-8	-17
Divestments of property, plant and equipment and intangible assets	10, 11	152	
Investments in subsidiaries	12	-	-67
<b>Cash flow from investing activities</b>		<b>144</b>	<b>-84</b>
Dividend paid to shareholders		-227	-180
Rights issue		-	16
Dividend received from subsidiary		491	359
Interest paid/received		37	-1
New Loans		3,000	831
Repayment of loans		-3,365	-1,164
Financial intra-group transactions		-127	224
<b>Cash flow from financing activities</b>		<b>-191</b>	<b>86</b>
<b>Cash flow for the year</b>		<b>14</b>	<b>-77</b>
<b>Cash and cash equivalents at 1 January</b>		<b>106</b>	<b>182</b>
Cash flow for the year		14	-77
<b>Cash and cash equivalents at 31 December</b>		<b>120</b>	<b>106</b>

## Reconciliation between opening and closing balance of liabilities whose cash flows are recognized in financing activities

SEK million	2018	2017
<b>Interest-bearing liabilities at 1 January</b>	2,761	3,260
Cash flow	-365	-333
<i>Non-cash items</i>		
Exchange rate differences	165	-170
Change in accrual borrowing costs	5	4
<b>Interest-bearing liabilities at 31 December</b>	<b>2,566</b>	<b>2,761</b>



# NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

## 1 ACCOUNTING PRINCIPLES

The Parent Company financial statements have been prepared in accordance to the Annual Accounts Act and RFR 2 Reporting for Legal Entities. Application of RFR 2 entails that the Parent Company is to apply all IFRS and interpretations approved by the EU as far as possible within the framework of the Swedish Annual Accounts Act, the Pension Obligation Vesting Act and in regard to the connection between accounting and taxation. Changes in RFR 2 has not had material impact on the financial reports of the parent company.

An account of the Gränges Group's accounting policies are described in Note 4 Accounting standards in the consolidated financial statements. The main deviations between the accounting policies applied by the Gränges Group and the parent company are described below.

Gränges Group applies IAS 19 Employee Benefits in the consolidated financial statements. The Parent Company applies the principles of the Pension Obligations Vesting Act. Consequently there are differences between the Gränges Group and the Parent Company in the accounting of defined benefit pension plans.

The Parent Company recognizes the difference between depreciation according to plan and tax depreciation as accumulated additional depreciation, included in untaxed reserves.

Group contributions received from subsidiaries are recognized as appropriations.

Capitalised development expenditure is allocated to a fund for development expenditure. The fund is restricted equity and dissolve at the same rate as amortization or impairment of the capitalized development.

## 2 FINANCIAL RISK MANAGEMENT

Gränges' financial risks are monitored centrally in the Group, see the notes to the consolidated financial statements, Note 27 Financial risk.

The Parent Company applies hedge accounting for the risk exposure arising from the derivative transactions with Gränges Sweden AB by entering into offsetting derivatives. As hedge accounting is applied and the relationships are expected to be highly effective no unrealized gains or losses are recognized on the derivatives.

In addition, the Parent Company holds a few derivatives to an insignificant value at the closing date.

## 3 BREAKDOWN OF NET SALES BY AREA OF OPERATION

SEK million	2018	2017
Intra-group service charges	103	95
Rental income	30	31
Research and development	60	40
Licence fees	–	49
Other	10	5
<b>Total breakdown of net sales by area of operation</b>	<b>203</b>	<b>219</b>

## 4 ITEMS AFFECTING COMPARABILITY

SEK million	2018	2017
M&A costs	–	–
Closure costs for US sales company	–	–8
<b>Total items affecting comparability</b>	<b>–</b>	<b>–8</b>

## 5 OPERATING LEASE PAYMENTS

### Distribution of lease payments

Future minimum lease payments relating to leases and other leases in the capacity of lessees attributable to non-cancellable agreements are distributed on the balance sheet date over the following maturity dates:

SEK million	2018	2017
Within one year	–4	–4
Later than one year but within five years	–16	–15
After five years	–3	–7
<b>Total future minimum lease payments</b>	<b>–23</b>	<b>–27</b>

Leasing costs amount to SEK –6 million (–3) during 2018.

### Distribution of lease income

Future minimum lease payments relating to leases and other leases as leaseholders attributable to non-cancellable agreements are distributed on the balance sheet date over the following maturity dates:

SEK million	2018	2017
Within one year	29	30
Later than one year but within five years	10	47
After five years	0	0
<b>Total future minimum lease payments</b>	<b>39</b>	<b>77</b>

For information about rental income, see Note 3.

## 6 REMUNERATION TO AUDITORS

SEK million	2018	2017
<b>Ernst &amp; Young AB</b>		
Audit engagement	-0.9	-1.3
Audit services in addition to audit engagement	-0.7	-0.4
Tax advisory services	-0.2	-0.9
Other services	-0.1	-0.7
<b>Total remuneration to auditors</b>	<b>-1.9</b>	<b>-3.4</b>

Audit engagement refers to the review of the annual report and accounting records and of the Board of Directors and CEO's management of the company, other tasks incumbent on the company's auditor as well as advice and other assistance occasioned by observations made in the course of such examinations or the performance of such other tasks. Audit services in addition to audit engagement consisted in 2018 and in 2017 primarily of review of interim reports. Tax advisory services include advice on tax, including transfer pricing issues, as well as value-added tax. Other services refer to advice that is not attributable to any of the aforementioned categories of services.

## 7 PAYROLL EXPENSES

Salaries and remuneration totalled SEK -63.7 million (-53.3), and social charges were SEK -32.6 million (-30.4), whereof SEK -14.1 million (-12.9) refers to pension costs. Pension costs of SEK -1.9 million (-1.8) refer to the CEO. The company's outstanding pension obligations for the CEO are SEK 4.6 million (0.1).

Read more about the average number of employees, salaries and remuneration, including incentives, in Note 8 to the consolidated financial statements.

## 8 FINANCIAL INCOME AND COSTS

SEK million	2018	2017
Interest income from Group companies	130	115
External interest income	1	2
Net foreign exchange gain	5	-
<b>Total financial income</b>	<b>135</b>	<b>117</b>
External interest expense	-105	-81
Interest expense, pensions	-1	-1
Net foreign exchange losses	-	-11
Other financial expenses	-12	-10
<b>Total financial costs</b>	<b>-117</b>	<b>-103</b>
<b>Total financial income and costs</b>	<b>18</b>	<b>13</b>

## 9 TAXES

### Tax expense for the year

SEK million	2018	2017
Current tax	-43	-23
<i>Deferred tax attributable to</i>		
Changes in temporary differences for the year	-10	0
<b>Total tax</b>	<b>-53</b>	<b>-23</b>

When cash and cash equivalents in China shall be made available for the parent company, this is done through dividend payments which today is being taxed with 5 per cent. Cash and cash equivalents per 31 December 2018 for the Chinese subsidiary amounts to SEK 135 million (131).

### Reconciliation of effective tax

SEK million	2018	%	2017	%
Profit before tax	612	-	409	-
Tax at applicable tax rate	-135	-22.0	-90	-22.0
Tax effects of:				
Non-deductible expenses	-1	-0.1	-1	-0.2
Non-taxable income	115	18.8	87	21.3
Adjustment of tax in respect of prior years	0	0.0	3	0.8
Foreign taxes	-32	-5.2	-24	-5.5
<b>Total tax</b>	<b>-53</b>	<b>-8.6</b>	<b>-23</b>	<b>-5.8</b>

The company's effective tax rate of 8.6 per cent (5.8) in 2018 differs from the nominal tax rate in Sweden, which is primarily an effect of a dividend received from Gränges Aluminium (Shanghai) Ltd. This income is also included in the basis for non-taxable income. Foreign taxes mainly relates to paid tax in China on the received dividend.

### Deferred tax

SEK million	2018	2017
Buildings and land improvements	-1	-1
Endowment insurance	1	1
Tax loss carry forwards	-	10
<b>Total deferred tax asset (+) / liability (-)</b>	<b>0</b>	<b>10</b>

## 10 INTANGIBLE ASSETS

SEK million	Intellectual property	IT	Total intangible assets	SEK million	Intellectual property	IT	Total intangible assets
<b>Carrying amount at 1 January 2018</b>	<b>153</b>	<b>6</b>	<b>159</b>	<b>Carrying amount at 1 January 2017</b>	<b>164</b>	<b>6</b>	<b>170</b>
Acquisitions	–	2	2	Acquisitions	–	–	–
Sales	–143	–	–143	Sales	–	–	–
Amortization	–10	–1	–11	Amortization	–11	–1	–12
<b>Carrying amount at 31 December 2018</b>	<b>–</b>	<b>7</b>	<b>7</b>	<b>Carrying amount at 31 December 2017</b>	<b>153</b>	<b>6</b>	<b>159</b>
<b>Cost at 31 December 2018</b>	<b>–</b>	<b>8</b>	<b>8</b>	<b>Cost at 31 December 2017</b>	<b>168</b>	<b>6</b>	<b>174</b>
Accumulated amortization and impairment charges	–	–1	–1	Accumulated amortization and impairment charges	–15	–1	–16
<b>Carrying amount at 31 December 2018</b>	<b>–</b>	<b>7</b>	<b>7</b>	<b>Carrying amount at 31 December 2017</b>	<b>153</b>	<b>6</b>	<b>159</b>

Intellectual property related to the operation in the US has been sold to Gränges Americas Inc. during 2018. The consideration of SEK 148 million resulted in a net profit of SEK 5 million. The IT mainly relates to capital development expenses for an ERP implementation.

## 11 PROPERTY, PLANT AND EQUIPMENT

SEK million	Land, land improvements and buildings	Machinery and equipment	Fixtures, vehicles, etc.	Assets under construction	Total property, plant and equipment
<b>Carrying amount at 1 January 2018</b>	<b>192</b>	<b>7</b>	<b>6</b>	<b>11</b>	<b>217</b>
Acquisitions	–	–	–	6	6
Sales	0	–	–1	–	–1
Transferred assets, fixed assets under construction	6	–	7	–13	–
Depreciations and impairment charges	–11	–1	–3	–	–15
<b>Carrying amount at 31 December 2018</b>	<b>187</b>	<b>5</b>	<b>10</b>	<b>3</b>	<b>206</b>
<b>Cost at 31 December 2018</b>	<b>430</b>	<b>120</b>	<b>24</b>	<b>3</b>	<b>578</b>
Accumulated depreciation and impairment charges	–242	–115	–14	–	–372
<b>Carrying amount at 31 December 2018</b>	<b>187</b>	<b>5</b>	<b>10</b>	<b>3</b>	<b>206</b>
<b>Carrying amount at 1 January 2017</b>	<b>197</b>	<b>4</b>	<b>8</b>	<b>5</b>	<b>214</b>
Acquisitions	–	–	–	16	16
Sales	–	–	–	–	–
Transferred assets, fixed assets under construction	7	4	–	–11	–
Depreciations and impairment charges	–11	–1	–2	–	–15
<b>Carrying amount at 31 December 2017</b>	<b>192</b>	<b>7</b>	<b>6</b>	<b>11</b>	<b>217</b>
<b>Cost at 31 December 2017</b>	<b>424</b>	<b>120</b>	<b>19</b>	<b>11</b>	<b>574</b>
Accumulated depreciation and impairment charges	–231	–114	–13	–	–358
<b>Carrying amount at 31 December 2017</b>	<b>192</b>	<b>7</b>	<b>6</b>	<b>11</b>	<b>217</b>

## 12 PARTICIPATIONS IN GROUP COMPANIES

SEK million	Reg. no	Registered office	No. of shares	Share of capital and votes, %	Carrying amount, SEK million
<i>Swedish Group companies</i>					
Gränges Sweden AB	556002-6113	Finspång	300,000	100/100	164
Gränges Skultuna AB	556913-7358	Skultuna	50,000	100/100	0
<b>Total</b>					<b>164</b>
<i>Foreign Group companies</i>					
Gränges Americas Inc.	–	Delaware, USA	–	100/100	671
Gränges Aluminium (Shanghai) Ltd	–	Shanghai, China	–	100/100	256
Gränges International Inc.	–	Delaware, USA	–	100/100	67
Gränges Japan Ltd	–	Tokyo, Japan	–	100/100	3
<b>Total</b>					<b>996</b>
<b>Total participations in Group companies</b>					<b>1,160</b>

## 13 SHARE CAPITAL

	2018	2017
Opening numbers of shares	75,517,386	75,155,386
Rights issue	-	362,000
<b>Closing numbers of shares</b>	<b>75,517,386</b>	<b>75,517,386</b>
SEK million	2018	2017
Share capital, opening balance	101	101
Rights issue	-	0
<b>Share capital, closing balance</b>	<b>101</b>	<b>101</b>

The articles of association for Gränges AB state that the share capital shall be not less than SEK 80,000,000 and not more than SEK 320,000,000. The number of shares shall be not less than 32,000,000 and not more than 128,000,000.

Due to the exercise of options within the Group's prior incentive program new shares were issued during 2017. The rights issue increased equity by SEK 16 million, whereof share capital by SEK 0 million and number of shares with 362,000.

The share capital comprises a single class of share and amounts to SEK 101 million as of 31 December 2018. Share capital is divided into 75,517,386 shares, each with a quota value of SEK 1.339775. Earnings per share and dilutive effect is presented in the Group's Note 16.

## 14 PROVISION FOR PENSIONS AND SIMILAR OBLIGATIONS

SEK million	2018	2017
Provision under Pension Obligations Vesting Act – FPG/PRI pensions	22	22
Pension obligation secured through endowment insurance	5	
Pension obligation secured through transfer of funds to pension trust	-	0
<b>Total provision for pensions and similar obligations</b>	<b>27</b>	<b>22</b>

Specification of change in pension liability recognized in the balance sheet.

SEK million	2018	2017
Liability at beginning of year related to pension obligations	22	22
Cost recognized in income statement	7	2
Pension payments	-1	-2
<b>Liability at the end of year related to pension obligations</b>	<b>27</b>	<b>22</b>

Actuarial bases for calculating the capital value pursuant to the Pension Obligations Vesting Act are defined by the Swedish Financial Regulatory Authority. Application of the Pension Obligations Vesting Act is a condition for the right to make tax deductions. Excluding cost for pension premiums, fees paid to PRI and premiums paid to FPG, the pension cost for the year is distributed as follows:

SEK million	2018	2017
Pensions paid during the year	-1	-2
Increase/decrease in capital value	-6	0
Less interest portion in PRI	1	1
Total operating expense	-6	-1
Interest expense	-1	-1
<b>Total</b>	<b>-7</b>	<b>-2</b>

## 15 INTEREST-BEARING LIABILITIES

Gränges' interest bearing debt consists mainly of USD term loans amounting to USD 170 million and SEK term loans of SEK 200 million. Interest bearing debt also includes corporate bonds of SEK 600 million, issued under the MTN program established during the year. Gränges commercial paper was utilized to SEK 250 million at 31

December 2018. Gränges also has a revolving credit facility of SEK 1,200 million, with a remaining time to maturity of two years. The revolving credit facility was unutilized at 31 December 2018. The loan facilities are subject to covenants, which are Net Debt/EBITDA and Interest coverage ratio.

## 16 ACCRUED EXPENSES AND DEFERRED INCOME

SEK million	2018	2017
Accrued salaries, holiday pay and social-security contributions	48	34
Other accrued expenses and deferred income	8	16
<b>Total accrued expenses and deferred income</b>	<b>55</b>	<b>50</b>

## 17 PLEDGED ASSETS

SEK million	2018	2017
For own liabilities and provisions:		
– Property mortgages	–	15
<b>Total pledged assets</b>	<b>–</b>	<b>15</b>

Gränges has, in connection with signing the new credit facility described in Note 15, entered into a customary undertaking to not pledge assets or in a similar manner use its property to give creditors a better right than the banks that are providing the credit facility.

## 18 CONTINGENT LIABILITIES

SEK million	2018	2017
Other contingent liabilities	106	279
– of which, for subsidiaries	106	108
– of which, for joint venture	0	170

### Disputes

The company is not a party to any dispute. As long as the company does not have any legal or formal obligation as a result of a past event, and it is uncertain whether an outflow of economic resources will be required to settle a future obligation, nothing is recognized in the income statement or balance sheet.

## 19 RELATED PARTY TRANSACTIONS

No board member or senior executive of Gränges AB or its subsidiaries has independently or through a company or related party had any direct involvement in a business transaction concluded by Gränges AB that was or is of an unusual character or subject to unusual terms and conditions.

SEK million	2018		2017	
	Subsidiaries	Associates	Subsidiaries	Associates
Sales and purchases during the year:				
Sales of assets to related parties	148	–	–	–
Sales to related parties	172	–	197	–
Purchases from related parties	57	–	20	3
Interest income on receivables from related parties	126	–	115	1
Interest expenses on liabilities to related parties	1	–	–	–
Outstanding intermediary size at year end:				
Interest-bearing receivables from related parties	2,016	–	1,810	33
Non-interest-bearing receivables from related parties	713	–	681	–
Non-interest-bearing liabilities to related parties	29	–	–	–

## 20 PROPOSED APPROPRIATION OF RETAINED EARNINGS

The Board of Directors proposes that the retained earnings of:

SEK	
Profits carried forward	939,786,604
Change in fund for development expenditure	–1,385,622
Profit for the year	559,836,262
<b>Non-restricted equity</b>	<b>1,498,237,244</b>

The proposed dividend of SEK 242 million, or SEK 3.20 per share, represents 35 per cent of the Group's profit for 2018. In preparing its dividend proposal the Board of Directors has taken account of the company's financial position, cash flow and outlook.

Be appropriated as follows:

Dividend to shareholders of 3.20 SEK per share	241,655,635
Carried forward	1,256,581,609
<b>Total</b>	<b>1,498,237,244</b>

# DEFINITIONS

## **Adjusted EBITDA**

Adjusted operating profit before depreciation and impairment charges.

## **Adjusted cash flow before financing activities**

Cash flow before financing activities excluding cash flow from expansion investments and acquisitions.

## **Adjusted operating profit**

Operating profit excluding items affecting comparability.

## **Adjusted operating profit per tonne**

Adjusted operating profit divided by sales volume.

## **Average number of employees**

The average number of employees converted to full-time positions.

## **Cash conversion**

Adjusted cash flow before financing activities divided by adjusted operating profit.

## **Capital employed**

Total assets less cash and cash equivalents and interest-bearing receivables, minus non-interest bearing liabilities.

## **Earnings per share**

Profit for the period divided by the total number of shares.

## **Equity to Assets**

Equity divided by total assets.

## **Items affecting comparability**

Non-recurring income and expenses.

## **ktonnes**

Volume expressed in thousands of metric tonnes.

## **Cash flow before financing activities**

Cash flow from operating activities plus cash flow from investing activities.

## **Net debt**

Cash and cash equivalents and interest-bearing receivables minus interest-bearing liabilities, including pensions.

## **Operating profit**

Profit before net financial items and tax.

## **Return on capital employed**

Adjusted operating profit divided by average capital employed during the past 12-month period.

## **Return on equity**

Profit for the period divided by average equity during the past 12-month period.

## **Sales volume**

Volumes sold in metric tonnes.



# FIVE-YEAR SUMMARY

SEK million	2018	2017	2016	2015	2014
Sales volume, ktonnes	375.0	373.0	239.1	163.9	160.0
<b>Income statement</b>					
Net sales	12,910	11,435	7,207	5,494	4,748
Adjusted EBITDA <sup>1)</sup>	1,357	1,303	952	749	664
Adjusted operating profit <sup>1)</sup>	1,005	933	687	541	463
Operating profit	940	917	559	538	422
Profit for the year	688	652	498	379	319
Adjusted EBITDA margin	10.5	11.4	13.2	13.6	14.0
Adjusted operating margin	7.8	8.2	9.5	9.8	9.7
Operating margin	7.3	8.0	7.8	9.8	8.9
Net margin	5.3	5.7	6.9	6.9	6.7
<b>Balance sheet</b>					
Non-current assets	4,489	3,827	4,071	1,800	1,829
Current assets	4,285	4,179	3,878	2,601	2,631
Equity	3,873	3,322	2,942	2,499	2,137
Non-current liabilities	2,522	2,555	3,209	989	1,071
Current liabilities	2,378	2,128	1,799	914	1,253
<b>Cash flow</b>					
Operating activities	1,351	968	686	725	678
Investing activities	-819	-396	-2,732	-125	-81
Cash flow before financing activities	532	572	-2,046	600	597
Financing activities	-825	-650	2,245	-647	-941
Cash flow for the year	-294	-79	198	-47	-344

1) Adjusted for items affecting comparability (see Note 12 in the notes to the consolidated accounts).

## Capital structure, return indicators and employees

Capital employed	6,367	5,615	5,664	2,775	2,901
Net debt	2,494	2,292	2,722	275	765
Equity/assets ratio, %	44.2	41.5	37.0	56.8	47.9
Net debt/Adjusted EBITDA, multiple	1.8x	1.8x	2.1x <sup>2)</sup>	0.4x	1.2x
Capital employed (rolling 12 month average)	6,098	5,581	3,930	2,982	2,837
Return on capital employed, %	16.5	16.7	17.5	18.1	16.3
Equity (rolling 12 month average)	3,633	3,093	2,636	2,385	2,755
Return on equity, %	18.9	21.1	18.9	15.9	11.6
Average number of employees	1,699	1,568	1,136	964	952

2) Calculated on a rolling 12-month basis, including estimated adjusted EBITDA on a stand alone basis for the acquired business in the US.

	2018	2017	2016	2015	2014
<b>Data per share, SEK</b>					
Earnings per share, basic	9.11	8.65	6.66	5.07	4.27
Earnings per share, diluted	9.11	8.64	6.64	5.07	4.27
Equity <sup>1)</sup>	51.29	44.04	39.27	33.45	28.63
Cash flow from operating activities <sup>1)</sup>	17.89	12.82	9.15	9.70	9.08
Dividend	3.20 <sup>2)</sup>	3.00	2.40	2.00	1.50
Dividend yield, %	3.98	3.56	2.79	2.86	2.94
Share price at year-end	80.5	84.25	86.00	70.00	51.00
Weighted outstanding ordinary shares, basic in thousands	75,517.4	75,370.6	74,703.9	74,639.4	74,639.4
Weighted outstanding ordinary shares, diluted in thousands	75,517.4	75,440.7	74,913.9	74,719.4	74,639.4
<b>Sales volume by region, ktonnes</b>					
Asia	86.2	86.3	80.8	75.5	78.3
Europe	65.4	65.6	63.7	62.7	58.6
Americas	223.3	221.1	94.6	25.8	23.1
<b>Total</b>	<b>375.0</b>	<b>373.0</b>	<b>239.1</b>	<b>163.9</b>	<b>160.0</b>
<b>Net sales by region, SEK million</b>					
Asia	3,004	2,911	2,623	2,637	2,378
Europe	2,424	2,230	1,933	1,978	1,679
Americas	7,482	6,294	2,651	880	691
<b>Total</b>	<b>12,910</b>	<b>11,435</b>	<b>7,207</b>	<b>5,494</b>	<b>4,748</b>

1) Calculated on weighted outstanding ordinary shares, diluted.

2) Cash dividend for 2019 as proposed.

# PROPOSED APPROPRIATION OF RETAINED EARNINGS

The Board of Directors proposes that the retained earnings of:

SEK	
Profits carried forward	939,786,604
Change in fund for development expenses	-1,385,622
Profit for the year	559,836,262
<b>Non-restricted equity</b>	<b>1,498,237,244</b>

Be appropriated as follows:

Dividend to shareholders of 3.20 SEK per share	241,655,635
Carried forward	1,256,581,609
<b>Total</b>	<b>1,498,237,244</b>

The proposed dividend of SEK 242 million, or SEK 3.20 per share, represents 35 per cent of the Group's profit for 2018. In preparing its dividend proposal the Board of Directors has taken account of the company's financial position, cash flow and outlook.

The undersigned certify that the consolidated accounts and the annual report have been prepared in accordance with the International Financial Reporting Standards ("IFRS"), as adopted for use in the EU, and generally accepted accounting principles respectively, and give a true and fair view of the financial positions and results of the Group and the Company and describes substantial risks and uncertainties that the Group companies faces.

Stockholm 7 March 2019  
The Board of Directors of Gränges AB (publ)

Anders G. Carlberg  
*Chairman of the Board*

Johan Menckel  
*Chief Executive Officer*

Carina Andersson  
*Member of the Board*

Peter Carlsson  
*Member of the Board*

Katarina Lindström  
*Member of the Board*

Hans Porat  
*Member of the Board*

Ragnhild Wiborg  
*Member of the Board*

Mats Backman  
*Member of the Board*

Öystein Larsen  
*Employee representative*

Konny Svensson  
*Employee representative*

We submitted our audit report on 11 March 2019  
Ernst & Young AB

Erik Sandström  
*Authorized Public Accountant*

This information is such that Gränges must disclose pursuant to the Swedish Securities Market Act and/or the Swedish Financial Instruments Trading Act. The information was submitted for publication on Thursday, 14 March 2019.

# AUDITOR'S REPORT

To the general meeting of the shareholders of Gränges AB (publ),  
corporate identity number 556001-6122

## Report on the annual accounts and consolidated accounts

### Opinions

We have audited the annual accounts and consolidated accounts of Gränges AB (publ) except for the corporate governance statement on pages 55–65 for the year 2018. The annual accounts and consolidated accounts of the company are included on pages 52–108 in this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2018 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2018 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. Our opinions do not cover the corporate governance statement on pages 55–65. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the general meeting of shareholders adopts the income statement and balance sheet for the parent company and the group.

Our opinions in this report on the annual accounts and consolidated accounts are consistent with the content of the additional report that has been submitted to the parent company's audit committee in accordance with the Audit Regulation (537/2014) Article 11.

### Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements. This includes that, based on the best of our knowledge and belief, no prohibited services referred to in the Audit Regulation (537/2014) Article 5.1 have been provided to the audited company or, where applicable, its parent company or its controlled companies within the EU.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

### Key Audit Matters

Key audit matters of the audit are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and consolidated accounts of the current period. These matters were addressed in the context of our audit of, and in forming our opinion thereon, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements

## Valuation of finished goods and work-in-process products

### Description

As described in Note 19 for the consolidated financial statements, inventories of finished goods and work-in-process products are recorded at 1 372 MSEK in the consolidated balance sheet per the 31st of December 2018, equivalent to 16 % of the Company's total assets. Inventories are valued at the lowest of acquisition cost and net realizable value.

The acquisition cost of inventories is based on the cost of production less obsolescence write-downs, if applicable. The valuation at production cost is performed using inventory valuation models where direct and indirect production-related costs are allocated to products. Incorrect assumptions and calculations related to direct and indirect production costs affect the valuation of goods produced which affects recorded inventory and the cost of goods sold. For this reason we have determined that this is a key audit matter.

A description of the Company's inventory valuation method for finished goods and work-in-process products is presented in the accounting principles in Note 4 under the notes to the consolidated financial statements.

### How our audit addressed this key audit matter

In our audit for the financial year we have assessed the Company's routines for accounting for finished goods and work-in-process products, and whether the Company's accounting principles for inventory is compliant with applicable standards.

We have also performed procedures to verify calculation models and assessed the reasonableness of applied prices, consumption rates and assumptions regarding the allocation of indirect production costs. We have also performed procedures on metal hedging related to inventory.

Finally, we have also reviewed the disclosures provided in the annual report.

## Property, plant and equipment

Description	How our audit addressed this key audit matter
<p>The Company's property, plant and equipment is recorded at 3 651 MSEK in the consolidated balance sheet, equivalent to 42 % of the Company's total assets. Property, plant and equipment is recorded at acquisition cost net of accumulated depreciation and write-downs, if applicable. Depreciation is recorded over the estimated useful life of components. Accounting principles for property, plant and equipment is presented in Note 4, significant estimates and judgments are presented in Note 5 and disclosures regarding property, plant and equipment is presented in Note 18. The valuation and accounting treatment of property, plant and equipment is a key audit matter due to the significance of the recorded amounts in relation to the total assets in the consolidated balance sheet, and because changes in estimates and judgments could have a significant effect on the value.</p> <p><b>Depreciation</b> Depreciation is recorded over the estimated useful life of components. A change in the estimated useful life of components would result in different recorded values.</p> <p><b>Impairment</b> In case an indicator of impairment is identified, the recorded value is tested through comparison to the estimated recoverable amount for the asset. Based on current and expected future financial development the Company has determined that there was no indication of impairment for the financial year 2018.</p>	<p><b>Depreciation</b> In our audit for the financial year we have assessed the reasonableness of the assumptions for useful life which the Company has applied during the year. These procedures have included an assessment of the Company's method for determining useful life periods, comparisons to historical actuals and business plans, as well as comparisons with the estimated useful lives used by other comparable companies.</p> <p><b>Impairment</b> In our audit for the financial year we have analyzed and assessed the assumptions and estimates made by the Company regarding potential indicators of impairment compared to current and expected future cash flows from affected assets. We have also reviewed the disclosures provided in the annual report. Finally, we have also reviewed the disclosures provided in the annual report.</p>

### Other Information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1–51 and 112–128. The Board of Directors and the Managing Director are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Responsibilities of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act and, concerning the consolidated accounts, in accordance with IFRS as adopted by the EU. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, The Board of Directors and the Managing Director are responsible for the assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Managing Director intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

The Audit Committee shall, without prejudice to the Board of Directors' responsibilities and tasks in general, among other things oversee the company's financial reporting process.

### Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden 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 annual accounts and consolidated accounts.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual accounts and consolidated accounts, 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 opinions. 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 the company's internal control relevant to our 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 company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors and the Managing Director.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting in preparing the annual accounts and consolidated accounts. We also draw a conclusion, based on the audit evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the company's and the group'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 annual accounts and consolidated accounts or, if such disclosures are inadequate, to modify our opinion about the annual accounts and consolidated accounts. 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 a company and a group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual accounts and consolidated accounts, including the disclosures, and whether the annual accounts and consolidated accounts represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated accounts. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

We must inform the Board of Directors of, among other matters, the planned scope and timing of the audit. We must also inform of significant audit findings during our audit, including any significant deficiencies in internal control that we identified.

We must also provide the Board of Directors 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 the Board of Directors, we determine those matters that were of most significance in the audit of the annual accounts and consolidated accounts, including the most important assessed risks for material misstatement, and are therefore the key audit matters. We describe these matters in the auditor's report unless law or regulation precludes disclosure about the matter.

## Report on other legal and regulatory requirements

### Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the Managing Director of Gränges AB (publ) for the year 2018 and the proposed appropriations of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit be appropriated (loss be dealt with) in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

### Basis for opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

### Responsibilities of the Board of Directors and the Managing Director

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the group's type of operations, size and risks place on the size of the parent company's and the group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organization and the administration of the company's affairs. This includes among other things continuous assessment of the company's and the group's financial situation and ensuring that the company's organization is designed so that the accounting, management of assets and the company's financial affairs otherwise are controlled in a reassuring manner. The Managing Director shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

### Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Managing Director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropriations of the company's profit or loss are not in accordance with the Companies Act.

As part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional skepticism throughout the audit. The examination of the administration and the proposed appropriations of the company's profit or loss is based primarily on the audit of the accounts. Additional audit procedures performed are based on our professional judgment with starting point in risk and materiality. This means that we focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular importance for the company's situation. We examine and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to our opinion concerning discharge from liability. As a basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss we examined the Board of Directors' reasoned statement and a selection of supporting evidence in order to be able to assess whether the proposal is in accordance with the Companies Act.

### The auditor's examination of the corporate governance statement

The Board of Directors is responsible for that the corporate governance statement on pages 55–65 has been prepared in accordance with the Annual Accounts Act.

Our examination of the corporate governance statement is conducted in accordance with FAR's auditing standard RevU 16 The auditor's examination of the corporate governance statement. This means that our examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

A corporate governance statement has been prepared. Disclosures in accordance with chapter 6 section 6 the second paragraph points 2–6 of the Annual Accounts Act and chapter 7 section 31 the second paragraph the same law are consistent with the other parts of the annual accounts and consolidated accounts and are in accordance with the Annual Accounts Act.

Ernst & Young AB, Jakobsbergsgatan 24, 111 44, Stockholm, was appointed auditor of Gränges AB by the general meeting of the shareholders on the 3 May 2018 and has been the company's auditor since the 10 May 2007.

Stockholm 11 March 2019

Ernst & Young AB

Erik Sandström

Authorized Public Accountant



# SUSTAINABILITY NOTES

## ABOUT GRÄNGES' SUSTAINABILITY REPORT

The sustainability information in this report has been prepared in accordance with GRI Standards: Core option and constitutes Gränges' Communication on Progress in line with UN Global Compact guidelines. The report and its contents have not been externally assured. GRI's guidance on the reporting principles of materiality, stakeholder inclusiveness, sustainability context, and completeness, has been used to define the content of the report.

The statutory sustainability report in accordance with the Swedish Annual Accounts Act has been issued by Gränges' Board of Directors. See details on page 53.

The report relates to the financial year 2018 and covers all fully owned operations of the Group at the start of 2018, as listed on page 102.<sup>1)</sup>

1) The sustainability report does not cover operations that are not fully owned by Gränges, for example the jointly owned production company Getek GmbH which was partly acquired by Gränges in October 2017.

Gränges has published a sustainability report each year since 2015. The company's last sustainability report was published on 13 March 2018. Gränges intends to continue to publish a report annually.

For more information, please contact:  
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## SUSTAINABILITY GOVERNANCE

Gränges sustainability efforts are led by Group Management and the VP Sustainability, who coordinates, facilitates and drives the global sustainability strategy, long-term targets and sustainability related policies. The VP Sustainability also communicates on sustainability performance and progress to different stakeholders and coordinates a continuous stakeholder dialogue.

Gränges' CEO regularly presents global sustainability performance to the Board of Directors, who in turn reviews and monitors performance against the company's targets. The Board of Directors is the body which approves the company's global sustainability strategy, long-term targets and policies, and adopts the annual sustainability report.

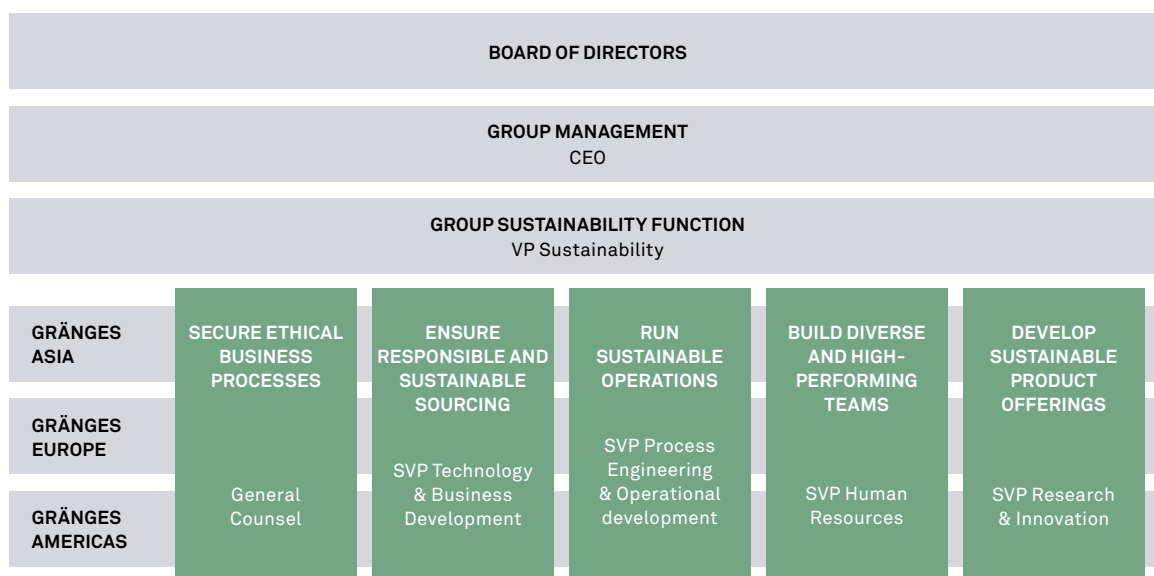
Group Management ensures that Gränges' global sustainability strategy, long-term targets and policies are aligned with the company's

vision and strategy. The team also reviews and monitors sustainability performance against sustainability targets, as well as makes decisions related to global sustainability priorities.

As illustrated below, each sustainability pillar is governed by one member of Group Management. This individual proposes global sustainability priorities and coordinates with Gränges' regional teams to implement local sustainability activities within a specific sustainability pillar.

The regions in turn ensure that a local sustainability strategy, long-term targets and policies are in place and aligned with the global strategy and the needs of the local business. They also report on local sustainability performance and progress.

## GRÄNGES' SUSTAINABILITY ORGANIZATION



## STAKEHOLDER DIALOGUE

Gränges seeks to establish long-term and transparent dialogues with stakeholders. The key issues raised in the stakeholder dialogue constitute the main parts of the company's materiality assessment and reporting.

Stakeholder inclusiveness is a priority for Gränges and the company maintains an ongoing dialogue with its stakeholders to ensure it meets

their expectations. Additionally, as part of the sustainability reporting process, Gränges engages selected stakeholders in a structured dialogue to identify key sustainability topics and reporting content. Based on the nature of the company's operations, Gränges in 2016 identified five main stakeholder groups to include in the stakeholder dialogue: customers, employees, investors, society and suppliers.

Stakeholder group	Dialogue forum	Key sustainability topics for stakeholders	Page
<b>Customers</b>	<ul style="list-style-type: none"> <li>• Customer survey</li> <li>• Fairs, seminars</li> <li>• Ongoing dialogue</li> <li>• Questionnaires from customers</li> <li>• Stakeholder surveys and in-depth interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Customer satisfaction</li> <li>• Energy and emissions</li> <li>• Health and safety</li> <li>• Product life-cycle performance</li> <li>• Recycled aluminium and material handling</li> <li>• Supplier assessment</li> </ul>	43 36–37, 118–119 38–39, 120 43, 122 33–35, 117–118 33, 117
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Annual performance reviews</li> <li>• Employee surveys every two years</li> <li>• Internal training</li> <li>• Intranet communication</li> <li>• Stakeholder surveys and in-depth interviews</li> <li>• Workplace meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Diversity and equality</li> <li>• Emissions to air and water</li> <li>• Ethics and anti-corruption</li> <li>• Gränges as a workplace</li> <li>• Health and safety</li> <li>• Product life-cycle performance</li> <li>• Supplier assessment</li> </ul>	41, 122 37–38, 119–120 32, 117 38–42, 120–122 38–39, 120 43, 122 33, 117
<b>Investors</b>	<ul style="list-style-type: none"> <li>• Annual general meeting</li> <li>• Annual and quarterly reports</li> <li>• Capital markets days every two years</li> <li>• Quarterly conference calls</li> <li>• Investor and analyst meetings</li> <li>• Press releases</li> <li>• Stakeholder surveys and in-depth interviews</li> <li>• Sustainability questionnaires from ESG data providers</li> <li>• Website</li> </ul>	<ul style="list-style-type: none"> <li>• Customer satisfaction</li> <li>• Economic performance</li> <li>• Energy and emissions</li> <li>• Ethics and anti-corruption</li> <li>• Gränges as a workplace</li> <li>• Recycled aluminium</li> <li>• Supplier assessment</li> </ul>	43 1, 66–107 36–37, 118–119 32, 117 38–42, 120–122 33–35, 117–118 33, 117
<b>Society</b>	<ul style="list-style-type: none"> <li>• Local cooperation, ongoing dialogue</li> <li>• Interns and student dissertations</li> <li>• Participation in networks and working groups</li> <li>• Stakeholder surveys and in-depth interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Energy and emissions</li> <li>• Gränges in the local community</li> <li>• Health and safety</li> </ul>	36–37, 118–119 <a href="http://www.granges.com/sustainability">www.granges.com/sustainability</a> 38–39, 120
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>• Ongoing dialogue</li> <li>• Stakeholder surveys and in-depth interviews</li> <li>• Supplier Code of Conduct</li> <li>• Supplier assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Customer satisfaction</li> <li>• Economic performance</li> <li>• Ethics and anti-corruption</li> <li>• Health and safety</li> <li>• Recycled aluminium</li> <li>• Purchasing processes</li> </ul>	43 1, 66–107 32, 117 38–39, 120 33–35, 117–118 33, 117

In 2016, Gränges conducted its first structured stakeholder dialogue via a web-based survey which aimed to help identify which sustainability topics were most important to Gränges' stakeholders. Topics included in the survey were identified through analysis of industry standards, sustainability reporting frameworks, and issues previously raised by stakeholders. Respondents could also raise additional sustainability issues in the survey. In total, 323 respondents from different stakeholder groups responded to the survey and provided input to Gränges' materiality analysis. Gränges also conducted interviews with a selection of stakeholders to understand more about their expectations.

In June 2017, after it had acquired operations in the US, Gränges complemented its stakeholder dialogue by inviting US employees and selected representatives from other stakeholder groups in the US to

respond to its web-based survey. In total, the company received 71 responses. In-depth interviews were also carried out with representatives from each stakeholder group in Sweden, China, and the US to ensure that Gränges' sustainability reporting is in line with stakeholder expectations.

In December 2017, as part of updating its sustainability framework, Gränges sent out a new web-based sustainability survey to 46 senior executives internally, both participants of group and regional management teams as well as sustainability experts. The aim was to collect quantitative input on which of the sustainability topics were assessed to have the highest impact on Gränges' long-term competitiveness and success, and the topics' broader impact on society, the environment and the economy. The response rate was 85 per cent.

## MATERIALITY ANALYSIS AND TOPIC BOUNDARIES

In line with the principle of materiality, Gränges in 2018 validated its materiality analysis and choice of material topics using input from the three stakeholder surveys and the in-depth interviews. Combined results from the surveys were presented to and assessed by Group Management who qualitatively discussed and validated the materiality of each topic. The discussion led to a decision of twelve material topics, which were re-articulated and clustered into five sustainability pillars

with a clearly assigned internal ownership. The two topics customer satisfaction and economic performance were assessed to be the result of the other topics and so not defined as material.

Compared with the materiality analysis carried out in 2017, the following were added to the list of material topics: employee wellbeing; career and leadership development; eco-responsible innovation; and product life-cycle sustainability performance.

### Gränges' material topics and their boundaries

Gränges' sustainability pillar	Gränges' material topics	Corresponding GRI Standards topic	Impact occurs in/at Gränges'			Page
			Supply chain	Operations	Customers	
<b>Secure ethical business practices</b>	Ethics and anti-corruption	Anti-corruption	x	x	x	32, 117
	Responsible sourcing	Supplier environmental assessment Supplier social assessment	x			33, 117
<b>Ensure responsible and sustainable sourcing</b>	Sourced recycled aluminium	Materials	x	x	x	34–35, 118
	Emissions and climate impact	Emissions	x	x	x	37, 119
<b>Run sustainable operations</b>	Energy	Energy	x	x		35–36, 118
	Water management	Water		x		38, 120
	Workplace safety	Occupational health and safety		x		38–39, 120
<b>Build diverse and high-performing teams</b>	Employee wellbeing			x		42, 122
	Diversity and equality	Diversity and equal opportunity		x		41, 122
	Career and leadership development	Training and education		x		40, 121
<b>Develop sustainable product offering</b>	Eco-responsible innovation	–		x	x	43
	Product life-cycle sustainability performance	Materials stewardship <sup>1)</sup>	x	x	x	43, 122










1) GRI G4 Mining and Metals Sector Supplement.

## EXTERNAL INITIATIVES AND MEMBERSHIPS

Gränges participates in the following industry initiatives: Aluminium Association, Aluminium Stewardship Initiative<sup>1</sup>, China Nonferrous Metals Industry Association, Confederation of Swedish Enterprise in Europe, European Aluminium, European Aluminium Foil Association, Global Aluminium Foil Roller Initiative, Nonferrous metals Society of Shanghai, Shanghai Aluminium Trade Association and Svenskt Aluminium. Gränges Europe is also a member of the local Finspång associations Näringslivsrådet, Vision East Sweden, and Östsvenska Handelskammaren, as there is a strategic interest at local level related to areas such as recruitment, infrastructure and influence in important political topics.

Gränges supports international standards on human rights, labour conditions, the environment and anti-corruption, the UN Global Compact, UN Universal Declaration of Human Rights and the OECD Guidelines for Multinational Corporations.

Gränges also helps to fulfil the 2030 Agenda and UN Sustainable Development Goals (SDGs). In the table below, those ten SDGs that have been identified as most relevant for Gränges' business and where the company has its largest contributions, are outlined.

UN SDG number	UN SDG name	UN SDG subtargets	Gränges' contribution to the UN Sustainable Development Goals	Gränges' material topic
	<b>Gender equality</b>	5.1 5.5	Gränges works to promote equal opportunities, diversity and gender equality and has articulated a 2025 target to have at least 30 per cent women in senior management.	• Diversity and equality
	<b>Clean water and sanitation</b>	6.5	Gränges works to implement water management plans in all sites.	• Water management
	<b>Affordable and clean energy</b>	7.2 7.3	Gränges has initiated efforts to increase the share of renewable energy in its operations and to promote the topic in its supply chain. Gränges also works to improve energy intensity and has a target to reduce by 17 per cent to 2025 compared with 2017.	• Energy
	<b>Decent work and economic growth</b>	8.4 8.5 8.8	Gränges works to improve resource efficiency in its operations, ensures full employment and decent work with equal pay, and works to ensure safe working environments towards an injury free workplace.	• Career and leadership development • Diversity and equality • Employee wellbeing • Sourced recycled aluminium • Workplace safety
	<b>Industry, innovation and infrastructure</b>	9.4	Gränges' light-weighting aluminium products enable customers to achieve significant savings in energy consumption and greenhouse gas emissions – both in customers' production process and for the end users. Gränges' products are mainly used in the automotive and HVAC industries.	• Eco-responsible innovation • Product life-cycle sustainability performance
	<b>Reduced inequalities</b>	10.3	Gränges works to ensure equal opportunities and to eliminate discrimination among its workforce. This is followed up by for example employee surveys every second year.	• Diversity and equality
	<b>Responsible consumption and production</b>	12.2 12.6	Gränges works to improve material efficiency and recycling rates, integrate sustainability information into its reporting cycle, and ensure sustainable procurement practices. Gränges also aims to create value along the value chain by improving its products' life-cycle sustainability performance.	• Product life-cycle sustainability performance • Sourced recycled aluminium • Responsible sourcing
	<b>Climate action</b>	13.1 13.3	Gränges works to counteract climate change. The company has conducted a carbon footprint study to better understand its climate impacts. Results from the study were used to formulate the 2025 target of reducing direct and energy indirect carbon emissions intensity by 25 per cent versus 2017.	• Emissions and climate impact
	<b>Peace, justice and strong institutions</b>	16.5	Gränges has zero tolerance for bribery and other types of corruption in its operations, and has set a 2025 target that all applicable employees <sup>2</sup> are trained each year.	• Ethics and anti-corruption
	<b>Partnerships for the goals</b>	17.16	Gränges has been a signatory of the UN Global Compact since 2016, and works through industry associations and local community networks to support and enhance the partnership for sustainable development.	–

1) The membership in Aluminium Stewardship Initiative was formalized on 7 January, 2019.

2) Employees working in sales, purchasing and senior executives who have external contacts.

## SUSTAINABILITY PERFORMANCE SUMMARY

	Target 2025	2018	2017	2016	Note
<b>Secure ethical business practices</b>					
Share of employees annually trained in Gränges' Code of Conduct, %	100	99	–	–	1
Share of applicable employees <sup>1)</sup> annually trained in anti-corruption, %	100	–	–	–	1
Number of incidents related to corruption	–	0	0	0	1
<b>Ensure responsible and sustainable sourcing</b>					
Number of significant suppliers <sup>2)</sup>	–	143	116	–	2
Share of purchase value from significant suppliers committed to Gränges' Supplier Code of Conduct or equivalent standard, %	100	98	–	–	2
Number of supplier audits	–	10	–	–	2
Share of sourced recycled aluminium of total sourced metal inputs, %	20	16.7	11.5	13.9	3
Share of sourced renewable energy, %	Increase <sup>6)</sup>	9	9	9	4
Indirect carbon emissions intensity from purchased materials and services (scope 3), tonnes CO <sub>2</sub> e/tonne product	Reduce <sup>6)</sup>	11.2	11.9	12.2	5
<b>Run sustainable operations</b>					
<i>Environmental indicators</i>					
Total energy use, GWh	–	1,231.4	1,236.0	1,200.8	4
Energy intensity, MWh/tonne product	–17% <sup>6)</sup>	3.3	3.3	3.4	4
Direct and energy indirect carbon emissions intensity (scope 1+2), tonnes CO <sub>2</sub> e/tonne product	–25% <sup>6)</sup>	0.76	0.81	0.83	5
Water withdrawal, million m <sup>3</sup>	–	3.5	3.3	3.5	6
Number of sites with a local water management plan	All sites	0/5	0/5	0/5	6
<i>Workplace safety indicators</i>					
Number of recordable workplace accidents	–	23	28	14	7
Number of lost workday cases	–	14	14	9	7
Number of fatalities	–	0	0	0	7
Total Recordable Rate, number of recordable accidents per million hours worked	3.0	6.1	7.8	6.2	7
Severity Rate, number of lost workdays per million hours worked	50	165	112	–	7
<b>Build diverse and high-performing teams</b>					
Average number of employees <sup>3)</sup>	–	1,699	1,568	1,136	–
Number of employees at year end <sup>4)</sup>	–	1,803	1,637	–	8
Employees with permanent contract, %	–	95	–	–	8
Employees with temporary contract, %	–	5	–	–	8
Full-time employees, %	–	100	–	–	8
Part-time employees, %	–	0	–	–	8
White-collar employees, %	–	30	31	–	8
Blue-collar employees, %	–	70	69	–	8
Share of employees having annual performance and development discussion, %	100	99	–	–	9
Share of women in Board of Directors/Group Management <sup>4)</sup> , %	–	43/13	50/13	57/13	10
Share of women among senior management <sup>4) 5)</sup> , %	30	20	20	–	10
Share of women in total workforce <sup>4)</sup> , %	–	14	14	–	10
Employee engagement index, %	85	78	–	–	11
Sick-leave <sup>3)</sup> , %	–	1.6	2.0	2.2	11
Employee turnover <sup>3)</sup> , %	–	9.1	7.4	3.4	11
Share of employees covered by collective bargaining agreements, %	–	70	70	–	–
<b>Develop sustainable product offering</b>					
Products with verified sustainability information available, %	80	–	–	–	12

1) Employees working in sales, purchasing and senior executives who have external contacts.

2) Suppliers with a purchase value above 5 MSEK, 5 MCNY or 0.5 MUSD.

3) Expressed as full-time positions. For 2016, average number of employees include Gränges' operations in the US from 22 August, while sick-leave and employee turnover exclude operations in the US.

4) Expressed as headcount on Dec 31.

5) Employees eligible to participate in Gränges' long-term incentive (LTI) programme.

6) Versus baseline 2017.

## NOTES

### 1 ETHICS AND ANTI-CORRUPTION

#### Code of Conduct training, including anti-corruption

Share of employees trained in Code of Conduct, %	2018	2017	2016
Asia	100	–	–
Europe	98	–	–
Americas	100	–	–
<b>Gränges total</b>	<b>99</b>	<b>–</b>	<b>–</b>

#### Incidents of corruption

Number	2018	2017	2016
Incidents of corruption	0	0	0
Incidents of terminated business contracts due to corruption	0	0	0

**Comment:** In 2018, Gränges updated its Code of Conduct with the focus to make it more modern and user-friendly. In connection to the launch, the company for the first time conducted a group-wide Code of Conduct e-learning. All employees, except for blue-collar employees in Gränges Americas who had classroom training, were invited to complete the training. Total training participation ended at 99 per cent, with 100 per cent in Gränges Asia and Gränges Americas and 98 per cent in Gränges Europe. Anti-corruption was included in the training. No corruption incidents were detected during 2018. During 2019, Gränges plans to implement a specific anti-corruption training for applicable employees.

**Reporting principles and definitions:** Data for Code of Conduct training participation is collected and consolidated annually via the e-learning system used for online training. Data from Gränges AB is included in the data for Gränges Europe. Comparable data for 2016 and 2017 are not available. Data for Code of Conduct training includes employees in duty and is adjusted for long-term sick-leave, parental leave, resignations and employees off duty for a longer period.

*Applicable employees* are defined as employees working in sales, purchasing and senior executives who have external contacts.

**Governance and policies:** The topic is managed by Gränges' General Counsel and the regional Legal representatives. The governing policy is Gränges' Code of Conduct which is updated annually and applicable for all employees and board members in entities owned by Gränges. It also applies to independent contractors and consultants or others acting on behalf of Gränges. Also, Gränges Anti-corruption Policy defines, explains and expands on what Gränges means by corruption.

**Long-term target:** Gränges' 2025 target is that 100 per cent of its employees are annually trained in the Code of Conduct, and that 100 per cent of applicable employees are annually trained in anti-corruption.

### 2 RESPONSIBLE SOURCING

#### Significant suppliers

Number of significant suppliers	2018	2017	2016
Asia	18	19	–
Europe	35	32	–
Americas	90	65	–
<b>Gränges total</b>	<b>143</b>	<b>116</b>	<b>–</b>

#### Supplier Code of Conduct commitment

Share of purchase value from significant suppliers committed to Gränges' Supplier Code of Conduct or equivalent standard, %	2018	2017	2016
Asia	94	–	–
Europe	97	–	–
Americas	100	–	–
<b>Gränges total</b>	<b>98</b>	<b>–</b>	<b>–</b>

#### Supplier audits

Number of audits conducted among significant suppliers	2018	2017	2016
Asia	5	5	–
Europe	5	4	–
Americas	0	0	–
<b>Gränges total</b>	<b>10</b>	<b>9</b>	<b>–</b>

**Comment:** In 2018, Gränges rolled out its updated Supplier Code of Conduct to its significant suppliers. In total, 137 suppliers, corresponding to 98 per cent of the total purchase value from significant suppliers, signed the Supplier Code of Conduct or were – via an internal escalation process – assessed to have equivalent standards in place which are in line with Gränges' sustainability requirements. In Gränges Asia and Gränges Europe, Gränges conducted in total ten supplier audits in 2018, of which one was a new supplier. Such audits are conducted periodically depending on suppliers' strategic importance and results from supplier performance assessments.

**Reporting principles and definitions:** Data is reported at a regional level by the purchasing organizations and consolidated annually at group level using common definitions and principles. Data from Gränges AB is included in the data for Gränges Europe. Comparable data for 2016 and for one indicator also 2017 is not available.

*Significant supplier* is defined as a supplier with a total purchase value above 5 MSEK, 5 MCNY or 0.5 MUSD. Local purchase value has been converted to SEK using average currency rates for 2018.

**Governance and policies:** The topic is managed by SVP Technology & Business Development and the regional purchasing representatives. The governing policy is Gränges' Code of Conduct which states that the Supplier Code of Conduct, which in turn outlines Gränges' requirements on suppliers' commitment to sustainability principles, should be included as part of the supplier contract.

**Long-term target:** Gränges' 2025 target is that 100 per cent of the purchase value from significant suppliers should be committed to Gränges' Supplier Code of Conduct or equivalent standard.



### 3 SOURCED RECYCLED ALUMINIUM

#### Weight of sourced recycled aluminium

ktonnes	2018	2017	2016
Asia	3.1	5.5	3.8
Europe	14.0	15.3	16.8
Americas	53.3	26.0	37.1
<b>Gränges total</b>	<b>70.4</b>	<b>46.7</b>	<b>57.6</b>

#### Share of sourced recycled aluminium

Share of sourced recycled aluminium of total sourced metal inputs, %	2018	2017	2016
Asia	2.7	4.4	3.2
Europe	13.5	16.0	18.1
Americas	26.5	13.8	18.2
<b>Gränges total</b>	<b>16.7</b>	<b>11.5</b>	<b>13.9</b>

Note: Data for Gränges Asia and Gränges Americas has been restated compared to data presented in the Annual report 2017, due to an update of the parameter definition to only include third-party recycled aluminium. The previously stated data also included third-party processed recycled aluminium from Gränges' operations.

**Comment:** The use of sourced recycled aluminium increased significantly in 2018, driven by Gränges Americas where volumes more than doubled compared to 2017. The result was mainly achieved through expanded sourcing of recycled aluminium through commodity traders. It was also positively affected by expanded customer recycling programs. The result in Gränges Americas was slightly offset by a decline in sourced recycled aluminium in Gränges Asia and Gränges Europe compared to 2017, due to fluctuations in availability of recycled material which has sufficient quality.

**Reporting principles and definitions:** Data is reported at regional level and consolidated annually at group level using common definitions and principles. Data for 2016 includes operations in the US.

*Sourced recycled aluminium* is defined as sourced recycled aluminium used as input materials [tonnes] divided by total sourced metal input materials [tonnes].

**Governance and policies:** The topic is managed by SVP Technology & Business Development and the regional purchasing representatives. The governing policy is Gränges' EHS Policy, which is reviewed annually and applies to all employees working at Gränges.

**Long-term target:** Gränges' 2025 target is that 20 per cent of the total sourced metal inputs should be sourced recycled aluminium.

### 4 ENERGY

#### Total energy use

GWh	2018	2017	2016
Natural gas	764.6	773.4	747.6
Electricity	407.4	403.2	394.8
Liquefied petroleum gas	46.2	48.2	46.1
Diesel	8.2	8.5	9.4
District heating	4.1	2.7	2.8
Petrol	0.9	0.1	0.1
<b>Gränges total</b>	<b>1,231.4</b>	<b>1,236.0</b>	<b>1,200.8</b>

#### Energy intensity

MWh/tonne product	2018	2017	2016
Asia	2.3	2.3	2.4
Europe	2.1	2.2	2.3
Americas	4.3	4.4	4.3
<b>Gränges total</b>	<b>3.3</b>	<b>3.3</b>	<b>3.4</b>
Reduction versus prior year, %	-1		

#### Share of renewable energy sourced

%	2018	2017	2016
Asia	10	10	10
Europe	36	38	37
Americas	2	2	2
<b>Gränges total</b>	<b>9</b>	<b>9</b>	<b>9</b>

**Comment:** The energy intensity in Gränges Americas and Gränges Europe was reduced in 2018, resulting in a 1 per cent total improvement compared to the 2017 level. The improvement is a result of different energy efficiency measures at the production facilities. The use of district heating in Gränges Europe increased compared to previous years due to unusually cold weather until April, which led to a need for additional heating. Gränges' total share of renewable energy was

unchanged at 9 per cent (9). In Gränges Europe, the share was 2 percentage points lower compared to 2017 due to a slightly higher share of nuclear power in the purchased electricity mix, which replaced renewable energy sources. The share of nuclear power was slightly higher also in the purchased electricity mix in Gränges Americas, replacing non-renewable fossil energy sources.

**Reporting principles and definitions:** Data is reported at regional level and consolidated annually at group level using common definitions and principles. Data for 2016 includes operations in the US.

*Energy intensity* is defined as total energy use [MWh] divided by the total packed products [tonnes].

*Renewable energy sources* are defined as wind, solar, hydro, geothermal, tidal and biomass. The share of renewable energy is calculated as renewable energy sourced [MWh] divided by the total energy used [MWh] using total energy use per source and the supplier-specific mix for delivered electricity and heating.

**Regulations:** Gränges adheres to applicable energy regulations in the countries of operations; Gränges Asia under the Shanghai Energy Conservation Regulations and Gränges Europe under the Energy Efficiency Directive. Currently Gränges Americas does not have any energy related regulations affecting its operations.

**Governance and policies:** The topic energy use and intensity is managed by SVP Process Engineering & Operational Development and the regional representatives from operations. The topic sourced renewable energy is managed by SVP Technology & Business Development and the regional purchasing representatives. The governing policy is Gränges' EHS Policy, which is reviewed annually and applies to all employees working at Gränges. The production site of Gränges Europe is certified in accordance with the energy management standard ISO 50001, while Gränges Americas and Gränges Asia have initiated pre-studies to implement an energy management system.

**Long-term target:** Gränges' 2025 target is to reduce energy intensity by 17 per cent versus 2017, and to increase the share of sourced renewable energy (electricity, heat, fuels).

## 5 EMISSIONS AND CLIMATE IMPACT

### Total emissions of greenhouse gases

ktonnes CO <sub>2</sub> e	Scope 1			Scope 2			Scope 3		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Asia	27.5	28.6	28.5	61.1	63.8	63.5	2,200	2,400	2,300
Europe	11.3	11.2	11.5	0.0	0.0	0.0	600	500	500
Americas	128.7	129.9	124.3	56.0	68.9	67.2	1,400	1,500	1,600
<b>Gränges total</b>	<b>167.5</b>	<b>169.7</b>	<b>164.3</b>	<b>117.1</b>	<b>132.7</b>	<b>130.7</b>	<b>4,200</b>	<b>4,500</b>	<b>4,400</b>

Note: Data for Gränges Americas' 2017 scope 3 emissions has been restated due to updated data for primary aluminium use.

### Carbon intensity

Tonnes CO <sub>2</sub> e/tonne product	Scope 1			Scope 2			Scope 3		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Asia	0.28	0.28	0.30	0.63	0.62	0.67	23.1	23.5	24.3
Europe	0.12	0.13	0.14	0.00	0.00	0.00	6.5	6.1	6.2
Americas	0.68	0.69	0.68	0.30	0.37	0.37	7.4	8.2	8.6
<b>Gränges total</b>	<b>0.44</b>	<b>0.45</b>	<b>0.46</b>	<b>0.31</b>	<b>0.35</b>	<b>0.37</b>	<b>11.2</b>	<b>11.9</b>	<b>12.2</b>

Note: Data for Gränges Americas' 2017 scope 3 emissions has been restated due to updated data for primary aluminium use. Data for Gränges' total 2016 scope 3 carbon intensity has been corrected due to a calculation error.

### Emissions by category (scope 3)

Share of total scope 3 greenhouse gas emissions, %	2018	2017	2016
Purchased goods and services	97.4	97.5	97.5
Fuel and energy-related activities	1.4	1.3	1.3
Transportation incl. business travel	1.3	1.2	1.2
<b>Gränges total</b>	<b>100</b>	<b>100</b>	<b>100</b>

### Other emissions to air – dust

Tonnes	2018	2017	2016
Asia	3.6	3.8	3.6
Europe	0.2	0.2	0.3
Americas	7.3	7.5	7.2
<b>Gränges total</b>	<b>11.1</b>	<b>11.5</b>	<b>11.0</b>

Note: Data for Gränges Americas' dust emissions have been restated compared to data presented in the Annual report 2017, due to an update of the emission factors used.

**Comment:** The direct and energy indirect carbon intensity (scope 1+2) decreased by 6 per cent compared to 2017, driven by improved energy intensity and by a higher share of low carbon nuclear electricity, which replaced fossil fuel-based electricity in Gränges Americas. The carbon intensity for other indirect emissions (scope 3) decreased by 6 per cent compared to 2017, mainly driven by increased use of recycled aluminium replacing primary aluminium in Gränges Americas, and by improved material efficiency in Gränges Asia. Emissions of dust decreased compared to 2017 due to lower consumption of natural gas.

**Reporting principles and definitions:** Data is reported at regional level and consolidated annually at group level using common definitions and principles. Data for 2016 includes operations in the US.

*Greenhouse gas emissions* are presented as carbon dioxide equivalents. In accordance with the GHG Protocol, the definitions of the respective scopes are the following.

*Scope 1* is defined as direct emissions from Gränges' operations, which include production facilities, office buildings and company owned vehicles. Emissions are calculated based on fuel consumption and emission factors.

*Scope 2* is defined as energy indirect emissions from the generation of purchased electricity and heat consumed by Gränges, in production facilities and office buildings. Emissions are calculated using specific data from Gränges' electricity and heat suppliers.

*Scope 3* is defined as other indirect emissions. These include emissions from extraction, production and processing of main purchased materials, fuel and energy related activities (not included in scope 1 or scope 2), upstream and downstream goods transportation as well as business travel. Fuel and energy related activities include production of fuels used in Gränges' operations and in generation of purchased electricity. Emissions from producing primary aluminium are based on regional industry averages, and supplier data is used for purchased slabs and recycled aluminium. Emissions from producing fuels are based on regional industry data and emissions from transportation and business travel are based on specific data from Gränges' transport routes.

*Carbon intensity* is defined as total emissions of greenhouse gases [tonnes CO<sub>2</sub>e] divided by the total packed products [tonnes].

*Dust emissions* are calculated either using local emission factors or based on continual measurements.

*Other emissions* such as nitrogen oxides, sulphur dioxide, oil and VOC are not reported as methods and data collection procedures for these emissions are currently being harmonized across the organization. Gränges aims to start reporting these emissions next year.

**Regulations:** Gränges observes all applicable local and international laws and regulations for environmental impact. Emission limits in Europe are based on requirements from the Industry Emissions Directive (IED). In Asia, limits are linked to Regulations of Shanghai Municipality on the Prevention and Control of Atmospheric Pollution, and in the US the National Ambient Air Quality Standards (NA AQS) provides the relevant legal framework. Local authorities continually monitor compliance to ensure that emissions are within limits. Emissions regulated by legislation include nitrogen oxides, sulphur dioxide, dust, volatile organic compounds (VOC) and, in some regions, oil emissions.

**Governance and policies:** The topic is managed by SVP Process Engineering & Operational Development (direct emissions), SVP Technology & Business Development (energy and other indirect emissions), and the regional operational and purchasing representatives. The governing policy is Gränges' EHS Policy, which is reviewed annually and applies to all employees working at Gränges. The production sites of Gränges Asia and Gränges Europe are certified in accordance with the environmental management standard ISO 14001, while Gränges Americas has initiated a pre-study to implement an environmental management system. Emissions are monitored and managed as part of daily operations. Compliance is a prerequisite for Gränges' continued license to operate.

**Long-term target:** Gränges' 2025 target is to reduce direct and energy indirect carbon emissions intensity (scope 1+2) by 25 per cent versus 2017. The company has also set a long-term target to reduce indirect carbon emissions intensity from purchased materials and services (scope 3) versus the 2017 baseline.

## 6 WATER MANAGEMENT

### Water withdrawal, by source

Million m <sup>3</sup>	2018	2017	2016
Surface water	2.6	2.0	2.1
Ground water	0.6	0.8	0.9
Municipal water	0.3	0.5	0.6
<b>Gränges total</b>	<b>3.5</b>	<b>3.3</b>	<b>3.5</b>

### Water withdrawal, by region

Million m <sup>3</sup>	2018	2017	2016
Asia	0.2	0.2	0.2
Europe	2.6	2.0	2.1
Americas	0.7	1.2	1.3
<b>Gränges total</b>	<b>3.5</b>	<b>3.3</b>	<b>3.5</b>

### Water intensity

m <sup>3</sup> /tonne product	2018	2017	2016
Asia	1.6	1.5	1.6
Europe	28.9	23.3	25.7
Americas	3.7	6.3	6.9
<b>Gränges total</b>	<b>9.2</b>	<b>8.9</b>	<b>9.7</b>

**Comment:** In 2018, total water withdrawal increased compared to 2017, to the same level as in 2016. The withdrawal of surface water increased in the Finspång facility in Gränges Europe due to unusually warm weather from June to August, which led to increased need for cooling water. The increase in Gränges Europe was however offset by improvements in Gränges Americas, where replacement of cooling tower units in the Huntingdon facility significantly reduced the water withdrawal. In 2019, Gränges will initiate work to develop local water management plans in all sites.

**Reporting principles and definitions:** Data is reported at regional level and consolidated annually at group level using common definitions and principles. Data for 2016 includes operations in the US.

*Water withdrawal* is defined as water used in the production facility withdrawn from wetlands, rivers, lakes, own wells, waste water from other organizations, municipal water suppliers or from other public or private water utilities [m<sup>3</sup>].

**Regulations:** The water use and management for Gränges Asia is regulated via permits and by legislation such as Water Pollution Prevention and Control Law of the People's Republic of China, Water Law of the People's Republic of China, and Management in Shanghai Drainage Ordinance.

**Governance and policies:** The topic is managed by SVP Process Engineering & Operational Development, and the regional representatives from operations. The governing policy is Gränges' EHS Policy, which is reviewed annually and applies to all employees working at Gränges.

**Long-term target:** Gränges' 2025 target is to implement water management plans in all sites.

## 7 WORKPLACE SAFETY

### Total Recordable Rate (TRR)

Number of recordable accidents per million hours worked	2018	2017	2016
Asia	2.8	6.3	3.5
Europe	9.6	11.7	12.3
Americas	7.3	7.2	5.7
<b>Gränges total</b>	<b>6.1</b>	<b>7.8</b>	<b>6.2</b>

### Severity Rate

Number of lost workdays per million hours worked	2018	2017	2016
Asia	162	163	–
Europe	87	128	–
Americas	212	48	–
<b>Gränges total</b>	<b>165</b>	<b>112</b>	<b>–</b>

**Comment:** In 2018, the Total Recordable Rate (TRR) reached 6.1 (7.8), an improvement by more than 20 per cent. The Severity Rate however deteriorated because of two accidents that resulted in long recovery of the injured individuals.

**Reporting principles and definitions:** All incidents and accidents are registered and categorized in incident reporting systems. Events reported in the incident reporting systems are followed weekly and monthly. Data is reported at regional level and consolidated monthly at group level using common definitions and principles. Data for TRR 2016 includes operations in the US. Comparable data for Severity Rate 2016 is not available.

*Contracted workers*, defined as individuals working onsite or offsite on behalf of Gränges, are included in the safety data.

*Recordable accident* is defined as as medical treatment cases, restricted work cases and lost workday cases.

*Total Recordable Rate (TRR)* is defined as total number of recordable accidents per million hours worked.

*Lost workday cases* are defined as number of recordable accidents resulting in absence from work.

*Lost workdays* are defined as the sum of workdays by employees being absent from work due to a recordable accident.

*Severity Rate* is defined as total number of lost workdays per million hours worked.

*Serious injury* is defined as an irreversible injury such as an amputated finger or lost eyesight, or a reversible injury causing prolonged periods of pain or suffering for the employee, or an accident with an absence longer than 15 days.

**Governance and policies:** The topic is managed by SVP Process Engineering & Operational Development and the regional safety representatives. The governing policy is Gränges' EHS Policy, which is reviewed annually and applies to all employees working at Gränges. The production site of Gränges Asia is certified in accordance with the occupational health and safety standard OHSAS 18001 while Gränges Americas and Gränges Europe have initiated pre-studies to implement an occupational health and safety management system in accordance with OHSAS 18001 or ISO 45001.

**Long-term target:** Gränges' 2025 target is to have a Total Recordable Rate of 3.0 and a Severity Rate of 50.

## 8 TOTAL EMPLOYEES

### Total number of employees by category

Number	2018	2017	2016
Blue-collar	1,256	1,128	–
White-collar	547	509	–
<b>Gränges total</b>	<b>1,803</b>	<b>1,637</b>	<b>–</b>

### Employment contract and type, by gender and region

Number of employees	Region			Gender	
	Asia	Europe	Americas	Women	Men
Permanent contract	476	497	736	232	1,477
Temporary contract	51	40	3	18	76
<b>Gränges total</b>	<b>527</b>	<b>537</b>	<b>739</b>	<b>250</b>	<b>1,553</b>

Number of employees	Gender	
	Women	Men
Full-time	244	1,550
Part-time	6	3
<b>Gränges total</b>	<b>250</b>	<b>1,553</b>

**Comment:** Total number of employees increased to 1,803 (1,637) in 2018, mainly driven by the expansion plans in Gränges Americas to expand the production plant in Huntingdon and restart production at the Newport plant.

**Reporting principles and definitions:** Data is reported at a regional level and consolidated annually at group level using common definitions and principles. Data for Gränges AB is included in the data for Gränges Europe. Data is based on headcount on 31 December 2017 and 2018. Comparable data for 2016 is not available.

*Permanent contract* is defined as a contract for an indeterminate period.

*Temporary contract* is defined as a contract of limited duration.

*Full-time employee* is defined according to national legislation and practice regarding working time, such as employees working a minimum of nine months per year and 30 hours per week.

*Part-time employee* is defined as employees working less than a full-time employee.

**Governance and policies:** Not applicable as this is a general disclosure.

**Long-term target:** Not applicable as this is a general disclosure.

## 9 CAREER AND LEADERSHIP DEVELOPMENT

### Performance and development discussion

%	2018	2017	2016
Asia	100	–	–
Europe	98	–	–
Americas	100	–	–
<b>Gränges total</b>	<b>99</b>	<b>–</b>	<b>–</b>

**Comment:** In total, 99 per cent of Gränges' employees received a performance and development discussion in 2018. By gender, 100 of all men and 99 per cent of all women received a performance and development discussion. By category, 100 per cent of white-collar employees and 99 per cent of blue-collar employees received a performance and development discussion. A few individuals in Gränges Europe did not receive a performance and development discussion since they were absent during the period when the annual performance and development discussions were conducted.

**Reporting principles and definitions:** Data is reported at a regional level and consolidated annually at group level using common definitions and principles. Data for Gränges AB is included in the data for Gränges Europe. Comparable data for 2016 and 2017 is not available. Data covers employees in duty adjusted for new employees who did not have a performance and development discussion as they started their employment after the period when the annual performance and development discussions were conducted.

**Governance and policies:** The topic is managed by SVP Human Resources and the regional human resources representatives.

**Long-term target:** Gränges' 2025 target is that 100 per cent of all employees annually receive a performance and development discussion.

## 10 DIVERSITY AND EQUALITY

### Gender balance by region

Share of women in total workforce, %	2018	2017	2016
Asia	11	11	–
Europe	20	20	–
Americas	11	12	–
<b>Gränges total</b>	<b>14</b>	<b>14</b>	<b>–</b>

Share of women among senior management, %	2018	2017	2016
Asia	20	20	–
Europe	15	16	–
Americas	29	25	–
<b>Gränges total</b>	<b>20</b>	<b>20</b>	<b>–</b>

### Gender balance and age structure 2018

%	Women	Men	<30 years	30–50 years	>50 years
Board of Directors	43	57	0	29	71
Group Management	13	88	0	50	50
Senior management	20	80	0	66	34
White-collar	28	72	5	64	31
Blue-collar	8	92	16	58	26
<b>Gränges total</b>	<b>14</b>	<b>86</b>	<b>13</b>	<b>60</b>	<b>28</b>

**Comment:** The share of women in the total workforce remained at 14 per cent (14) in 2018 with a small decline in Gränges Americas due to the high number of men among new recruits to support the expansion of the Huntingdon plant and restart production at the Newport plant. The share of women among senior management was unchanged at 20 per cent (20) with a small increase Gränges Americas who increased the number of women in the regional management team.

**Reporting principles and definitions:** Data is reported at a regional level and consolidated annually at group level using common definitions and principles. Data for Gränges AB is included in the data for Gränges Europe. Data is based on headcount on 31 December 2018 and 2017. Comparable data for 2016 is not available.

*Senior management* is defined as employees eligible to participate in Gränges' long-term incentive (LTI) programme.

**Governance and policies:** The topic is managed by SVP Human Resources and the regional human resources representatives. The governing policy is the Diversity Policy, which is reviewed annually and applies to all employees working at Gränges.

**Long-term target:** Gränges' 2025 target is to have at least 30 per cent women among senior management.

## 11 EMPLOYEE WELLBEING

%	2018	2017	2016
Sick-leave	1.6	2.0	2.2
Employee turnover	9.1	7.4	3.4
Employee engagement index	78	–	–

**Comment:** Total sick-leave during the year ended at 1.6 per cent (2.0). Total employee turnover increased to 9.1 per cent (7.4) as a result of low unemployment rates and strong employment market in the US as well as a high number of new employees in Gränges Americas and Gränges Europe to support the company's expansion plans. Some of the new employees ended their employment during the first time period at Gränges. Employee engagement index for 2018 was 78.

**Reporting principles and definitions:** Data is reported at a regional level and consolidated annually at group level using common definitions and principles. Data for Gränges AB is included in the data for Gränges Europe.

Data for sick-leave and employee turnover is based on average number of employees during 2018 (expressed as present full-time positions). Data for 2016 does not include operations in the US.

Data for employee engagement comes from Gränges' employee survey. Results for 2018 include Gränges Asia and Gränges Europe. Gränges Americas plans to conduct an employee survey in the first half of 2019. Comparable data for 2016 and 2017 is not available.

*Sick-leave* is defined as all absent hours for sickness within a year divided by total annual working hours (as applicable in local standards). Excludes permitted leave absences such as holidays, study and parental leave.

*Employee turnover* is defined as number of employees who leave the organization (voluntarily or due to dismissal, retirement, or death in service) during the reporting period divided by total number of employees converted to full-time positions.

*Employee engagement index* is a calculated mean from a number of questions in Gränges' employee survey related to energy and clarity, two important dimensions of employee engagement. The mean is converted to an index 0–100.

**Governance and policies:** The topic is managed by SVP Human Resources and the regional human resources representatives.

**Long-term target:** Gränges' 2025 target is that Employee engagement index should reach 85.

## 12 PRODUCT LIFE-CYCLE SUSTAINABILITY PERFORMANCE

**Comment:** Detailed results for this indicator will be presented once Gränges has put in place and started to measure the share of its products having verified sustainability information available.

**Reporting principles and definitions:** Reporting principles and definitions will be presented once Gränges has established a foundation for how the company will assess and communicate the sustainability performance for its products from a life-cycle perspective.

**Governance and policies:** The topic is managed by SVP Research & Innovation in cooperation with the regional sales and product development representatives.

**Long-term target:** Gränges' 2025 target is that 80 per cent of its products should have verified sustainability information available.

# GRI INDEX

## GENERAL DISCLOSURES

GRI Standard	Disclosure number	Disclosure title	UNGC Principles	Page reference	Omissions
<b>GRI 101: Foundation 2016</b>					
<b>GRI 102: General disclosures 2016</b>					
<b>ORGANIZATIONAL PROFILE</b>					
	102-1	Name of the organization		52	
	102-2	Activities, brands, products, and services		22–24	
	102-3	Location of headquarters		3, 52	
	102-4	Location of operations		3, 52	
	102-5	Ownership and legal form		48–50, 53–54, 57	
	102-6	Markets served		3, 14–18	
	102-7	Scale of the organization		1–3, 16–17, 40, 69	
	102-8	Information on employees and other workers		116, 121	
	102-9	Supply chain	10	30, 33–35	
	102-10	Significant changes to the organization and its supply chain		26–27, 33–35, 48–50	
	102-11	Precautionary Principle or approach	7	46	
	102-12	External initiatives		115	
	102-13	Membership of associations		115	
<b>STRATEGY</b>					
	102-14	Statement from senior decision-maker		6–7	
	102-15	Key impacts, risks, and opportunities		44–47	
<b>ETHICS AND INTEGRITY</b>					
	102-16	Values, principles, standards, and norms of behavior		32, 40–42	
	102-17	Mechanisms for advice and concerns about ethics		32, 117	
<b>GOVERNANCE</b>					
	102-18	Governance structure		55–61, 112, 117–122	
<b>STAKEHOLDER ENGAGEMENT</b>					
	102-40	List of stakeholder groups		113	
	102-41	Collective bargaining agreements	3	116	
	102-42	Identifying and selecting stakeholders		113	
	102-43	Approach to stakeholder engagement		113	
	102-44	Key topics and concerns raised		113	
<b>REPORTING PRACTICE</b>					
	102-45	Entities included in the consolidated financial statements		102	
	102-46	Defining report content and topic Boundaries		114	
	102-47	List of material topics		114	
	102-48	Restatements of information		118, 119	
	102-49	Changes in reporting		114	
	102-50	Reporting period		112	
	102-51	Date of most recent report		112	
	102-52	Reporting cycle		52, 112	
	102-53	Contact point for questions regarding the report		112	
	102-54	Claims of reporting in accordance with the GRI Standards		112	
	102-55	GRI index		123–125	
	102-56	External assurance		112	



## MATERIAL TOPICS

GRI Standard	Disclosure number	Disclosure title	UNGC Principles	Page reference	Omissions
<b>Economic standards</b>					
<b>ANTI-CORRUPTION</b>			10		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		32, 114, 117	
	103-2	The management approach and its components		32, 117	
	103-3	Evaluation of the management approach		32, 117	
GRI 205: Anti-corruption 2016	205-2	Communication and training about anti-corruption policies and procedures		32, 116–117	
	205-3	Confirmed incidents of corruption and actions taken		32, 116–117	
<b>Environmental standards</b>					
<b>MATERIALS</b>			7, 8, 9		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		33–35, 114, 118	
	103-2	The management approach and its components		33–35, 118	
	103-3	Evaluation of the management approach		33–35, 118	
GRI 301: Materials 2016	301-2	Recycled input materials used		33–35, 116, 118	
<b>ENERGY</b>			7, 8, 9		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		35–37, 114, 118	
	103-2	The management approach and its components		35–37, 118	
	103-3	Evaluation of the management approach		35–37, 118	
GRI 302: Energy 2016	302-1	Energy consumption within the organization		36–37, 116, 118	
	302-3	Energy intensity		36–37, 116, 118	
	302-4	Reduction of energy consumption		36–37, 116, 118	
<b>WATER</b>			7, 8		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		38, 114, 120	
	103-2	The management approach and its components		38, 120	
	103-3	Evaluation of the management approach		38, 120	
GRI 303: Water 2016	303-1	Water withdrawal by source		38, 120	
<b>EMISSIONS</b>			7, 8, 9		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		35, 37, 114, 119	
	103-2	The management approach and its components		37, 119	
	103-3	Evaluation of the management approach		35, 37, 119	
GRI 305: Emissions 2016	305-1	Direct (scope 1) GHG emissions		36–37, 116, 119	
	305-2	Energy indirect (scope 2) GHG emissions		35–37, 116, 119	
	305-3	Other indirect (scope 3) GHG emissions		35, 37, 116, 119	
	305-4	GHG emissions intensity		36–37, 116, 119	
	305-5	GHG emissions reductions		35, 119	
	305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions		119	Data only includes dust emissions. Other emissions such as nitrogen oxides, sulphur dioxide and VOC are not reported as methods and data collection procedures for these emissions are currently being harmonized across the organization. Gränges aims to start reporting these emissions next year.
<b>SUPPLIER ENVIRONMENTAL ASSESSMENT</b>			7, 8, 9		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		33–35, 114, 117	
	103-2	The management approach and its components		33–35, 117	
	103-3	Evaluation of the management approach		33–35, 117	
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria		33, 117	
<b>Social standards</b>					
<b>OCCUPATIONAL HEALTH AND SAFETY</b>					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		38–39, 114, 120, 122	
	103-2	The management approach and its components		38–39, 120, 122	
	103-3	Evaluation of the management approach		38–39, 120, 122	

GRI Standard	Disclosure number	Disclosure title	UNGC Principles	Page reference	Omissions
GRI 403: Occupational Health and Safety 2016	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities		38–39, 116, 120, 122	Contracted workers such as maintenance workers managed by Gränges are included in the safety data but not sick-leave. The reporting is aligned with Gränges' internal procedures.
<b>TRAINING AND EDUCATION</b>					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		40, 114, 121	
	103-2	The management approach and its components		40, 121	
	103-3	Evaluation of the management approach		40, 121	
GRI 404: Training and Education 2016	404-3	Percentage of employees receiving regular performance and career development reviews		40, 116, 121	
<b>DIVERSITY AND EQUAL OPPORTUNITY</b>			1, 2, 6		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		41, 114, 122	
	103-2	The management approach and its components		41, 122	
	103-3	Evaluation of the management approach		41, 122	
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees		41, 116, 122	
<b>SUPPLIER SOCIAL ASSESSMENT</b>			1, 2, 3, 4, 5, 6		
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		33–34, 114, 117	
	103-2	The management approach and its components		33–34, 117	
	103-3	Evaluation of the management approach		33–34, 117	
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria		33–117	

## THE TEN PRINCIPLES OF THE UN GLOBAL COMPACT

### Human rights

**Principle 1:** Businesses should support and respect the protection of internationally proclaimed human rights; and

**Principle 2:** make sure that they are not complicit in human rights abuses.

### Labour

**Principle 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

**Principle 4:** the elimination of all forms of forced and compulsory labour;

**Principle 5:** the effective abolition of child labour; and

**Principle 6:** the elimination of discrimination in respect of employment and occupation.

### Environment

**Principle 7:** Businesses should support a precautionary approach to environmental challenges;

**Principle 8:** undertake initiatives to promote greater environmental responsibility; and

**Principle 9:** encourage the development and diffusion of environmentally friendly technologies.

### Anti-corruption

**Principle 10:** Businesses should work against corruption in all its forms, including extortion and bribery.

## AUDITOR'S REPORT ON THE STATUTORY SUSTAINABILITY STATEMENT

To the general meeting of the shareholders of Gränges AB, corporate identity number 556001-6122

### Engagement and responsibility

It is the Board of Directors who is responsible for the statutory sustainability statement for the year 2018, as defined in the board of directors report on page 53, and that it has been prepared in accordance with the Annual Accounts Act.

### The scope of the audit

Our examination has been conducted in accordance with FAR's auditing standard RevR 12 The auditor's opinion regarding the statutory sustainability statement. This means that our examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing

and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

### Opinions

A statutory sustainability statement has been prepared.

Stockholm 11 March 2019

Ernst & Young AB

Erik Sandström

Authorized Public Accountant

# GLOSSARY

## Active brazing

Brazing technology where fluxing agents are built into the braze alloy. TRILLIUM® material is categorized under Active brazing.

## Alloy

Material composed of one metal with additions of other metals and/or elements.

## Aluminium ingot

A small block of aluminium, typically used as input material for re-melting.

## Aluminium strip

Rolled aluminium in coil form.

## Annealing

Heat treatment to partially or fully remove work hardening in the material after cold rolling.

## Brazing

Joining of metals through melting and solidification.

## Casting

Method to convert molten metal to a desired solid form.

## Cladding

A layer of metal bonded to a dissimilar metal or alloy.

## Electric vehicles

Light vehicles that are powered entirely or partly by electricity. They are often divided into Battery Electric Vehicles (BEV) and Hybrid Electric Vehicles (HEV), and in some cases Plug-in Hybrid Vehicles (PHEV).

## Flux

A substance used to disrupt surface oxides to enable brazing.

## Foil

A flat rolled product with a thickness less than 0.2 mm.

## Heat exchanger

A device for transforming heat from one medium to another.

## HVAC

Abbreviation for Heating, Ventilation and Air Conditioning system including heat exchangers. Sometimes used to define the stationary heat exchanger market.

## LME

London Metal Exchange.

## Plate

A flat rolled product with a thickness above 6 mm.

## Rolled aluminium

Aluminium that has been hot and/or cold rolled to desired gauge.

## Sheet

A flat rolled product with a thickness between 0.2 mm and 6 mm cut to length.

## SHFE

Shanghai Futures Exchange.

## Slab

Input material to the rolling process that is produced by casting.

## Spray-forming

Deposition of semi solid sprayed droplets on to a substrate.

## TRILLIUM®

A reactive malleable metal matrix composite material that can be used to produce aluminium brazed joints without the need for adding a fluxing agent.

# ANNUAL GENERAL MEETING 2019

Gränges' Annual General Meeting 2019 will take place on Wednesday, 8 May, 2019, at 4 p.m CEST at Näringslivets Hus in Stockholm. Registration begins at 3 p.m CEST.

## Participation

Shareholders wishing to attend the Annual General Meeting must be registered as shareholders in the share register maintained by Euroclear Sweden AB as of Friday, 26 April, 2019, and have notified the company of their intention to attend no later than Friday, 26 April, 2019.

Registration of participation must be provided in writing to Gränges AB, Juridik, Box 5505, 114 85 Stockholm, Sweden; on the company's website, [www.granges.com](http://www.granges.com); or by telephone at +46 732 07 42 52 on weekdays between 9 a.m and 4 p.m CET during the period 27 March–26 April.

When registering, shareholders must state their name, personal ID or company registration number, address and daytime telephone number and representatives. The information provided is only used for Gränges annual general meeting.

## Nominee-registered shares

Shareholders whose shares are registered with a nominee must, to have the right to attend the Annual General Meeting, have their shares temporarily reregistered with Euroclear Sweden AB. A request for reregistration should be submitted to the nominee well in advance of the Annual General Meeting.

## Notice convening the Annual General Meeting

Gränges' notice convening the Annual General Meeting 2019 will be published on or about Wednesday, 27 March 2019 by a press release and on the company's website. Information about other decision points will be available on the company's website. Printed information can be ordered via [reports@granges.com](mailto:reports@granges.com).

## Dividend

The Board of Directors proposes a dividend of SEK 3.20 (3.00) per share for the 2018 fiscal year, in total SEK 242 million (227). The proposed record date for the dividend is Friday, 10 May, 2019. If the Annual General Meeting resolves in accordance with the proposal, the dividend is expected to be distributed through Euroclear Sweden AB on Wednesday, 15 May, 2019.

## For further information, please contact:

Niclas Nelson  
General Counsel  
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Tel: +46 8 459 59 00

## GRÄNGES ANNUAL REPORT

Gränges' Annual report is available on the company's website, [www.granges.com](http://www.granges.com), in Swedish and English. The Annual report is also available in printed format and can be ordered at [reports@granges.com](mailto:reports@granges.com).

## GRÄNGES FINANCIAL CALENDAR 2019

Interim report, January–March 2019	26 April 2019
Annual General Meeting 2019	8 May 2019
Half-year report, January–June 2019	18 July 2019
Interim report, January–September 2019	24 October 2019

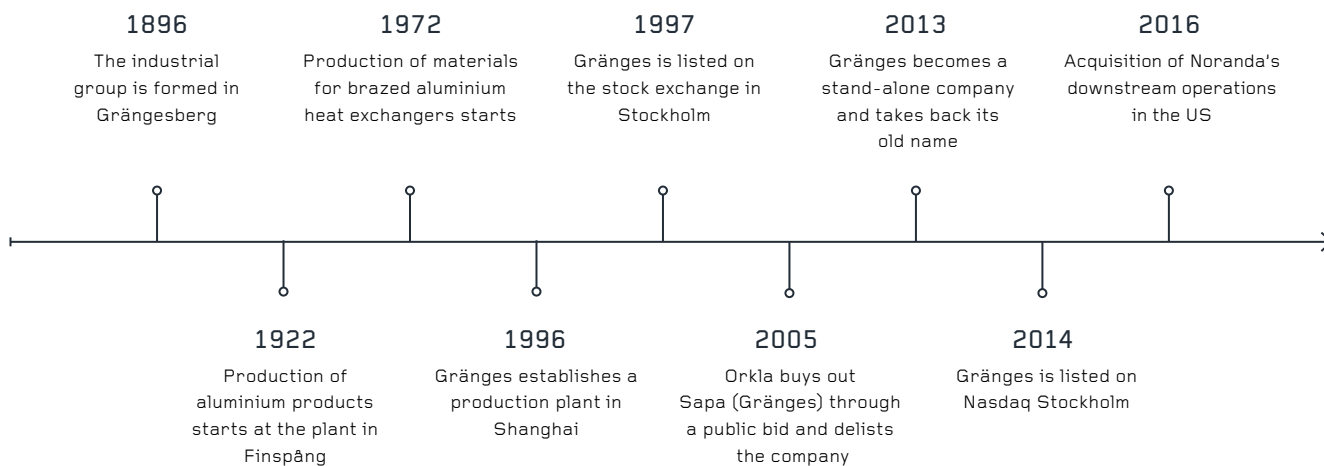
# HISTORY

The foundation for today's Gränges was laid in 1896 in Grängesberg. Thereafter, several different industrial enterprises became part of the Group, including Grängesberg mines, the TGOJ rail business, Oxelösund ironworks, and a shipping business. In 1969, the Group acquired Svenska Metallverken, which included an aluminium products business, an operation that would later evolve into Gränges. In 1972, work began on the development and production of aluminium heat exchanger strips in Finspång.

After the Gränges Group was acquired by Electrolux in 1980, a number of structural changes were implemented, resulting in the sale of most of Gränges' businesses. What remained was the production of aluminium products.

A key milestone came in 1996, when Gränges established a global presence by opening a production plant in Shanghai. In 1997 Gränges was listed on the Stock Exchange in Stockholm and in 2000 Gränges changed name to Sapa. In 2005 Sapa was acquired and delisted after Orkla ASA made a bid for the company. At that time Sapa had two lines of business: rolled aluminium products and extruded aluminium profiles. In 2013 the rolled products business took back the name of Gränges and in 2014 Orkla decided to list Gränges on the Nasdaq Stockholm Stock Exchange.

In 2016, Gränges acquired Noranda's downstream operations in the United States.



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