



CAPITAL MARKETS DAY 2018

Johan Menckel
CEO

Gränges today

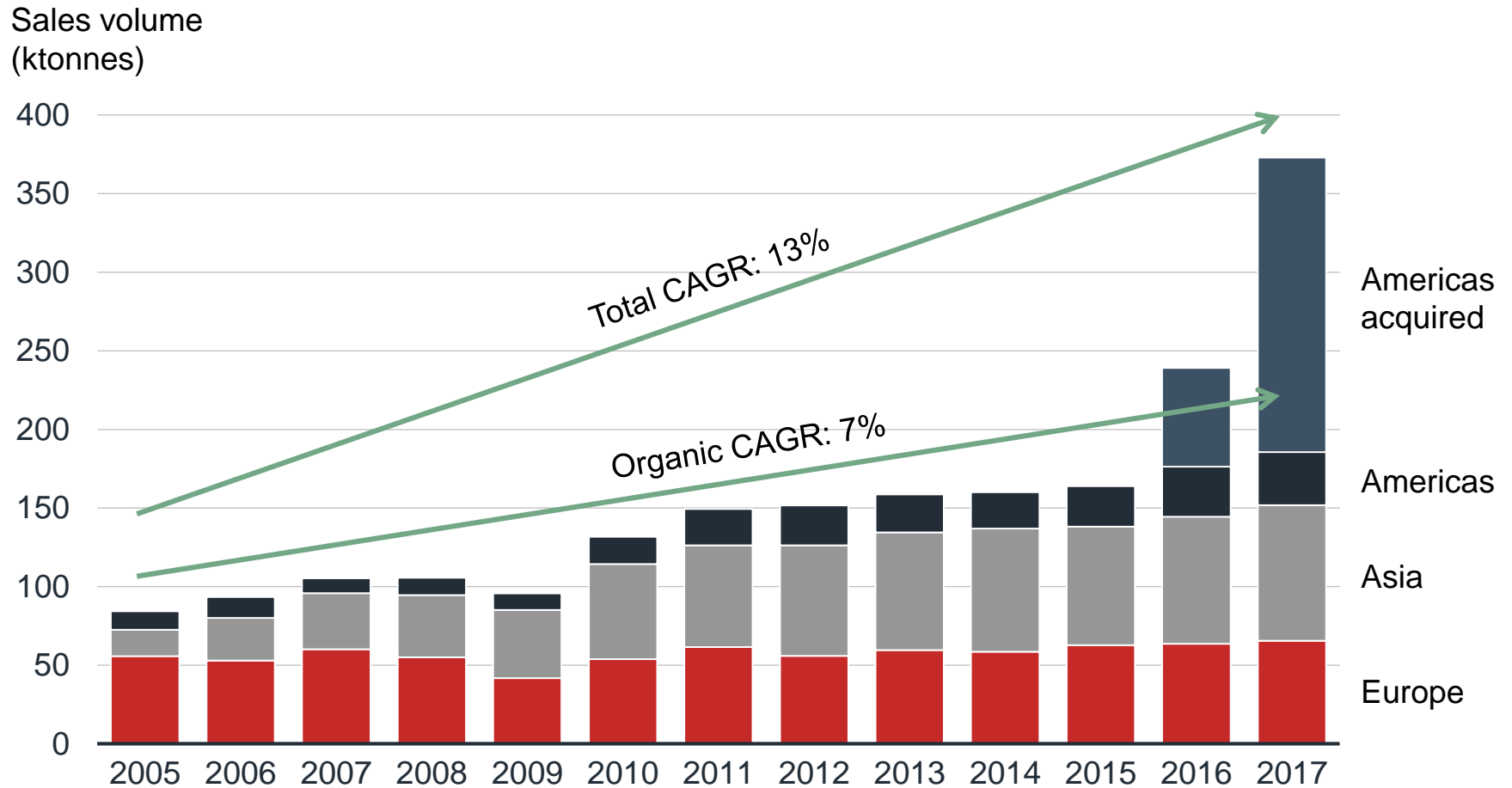
- **1,600** employees
- Listed on Nasdaq Stockholm
- Net sales of SEK **11** billion
- Production capacity of **420,000** metric tonnes
- Adjusted operating profit of SEK **933** million

20%

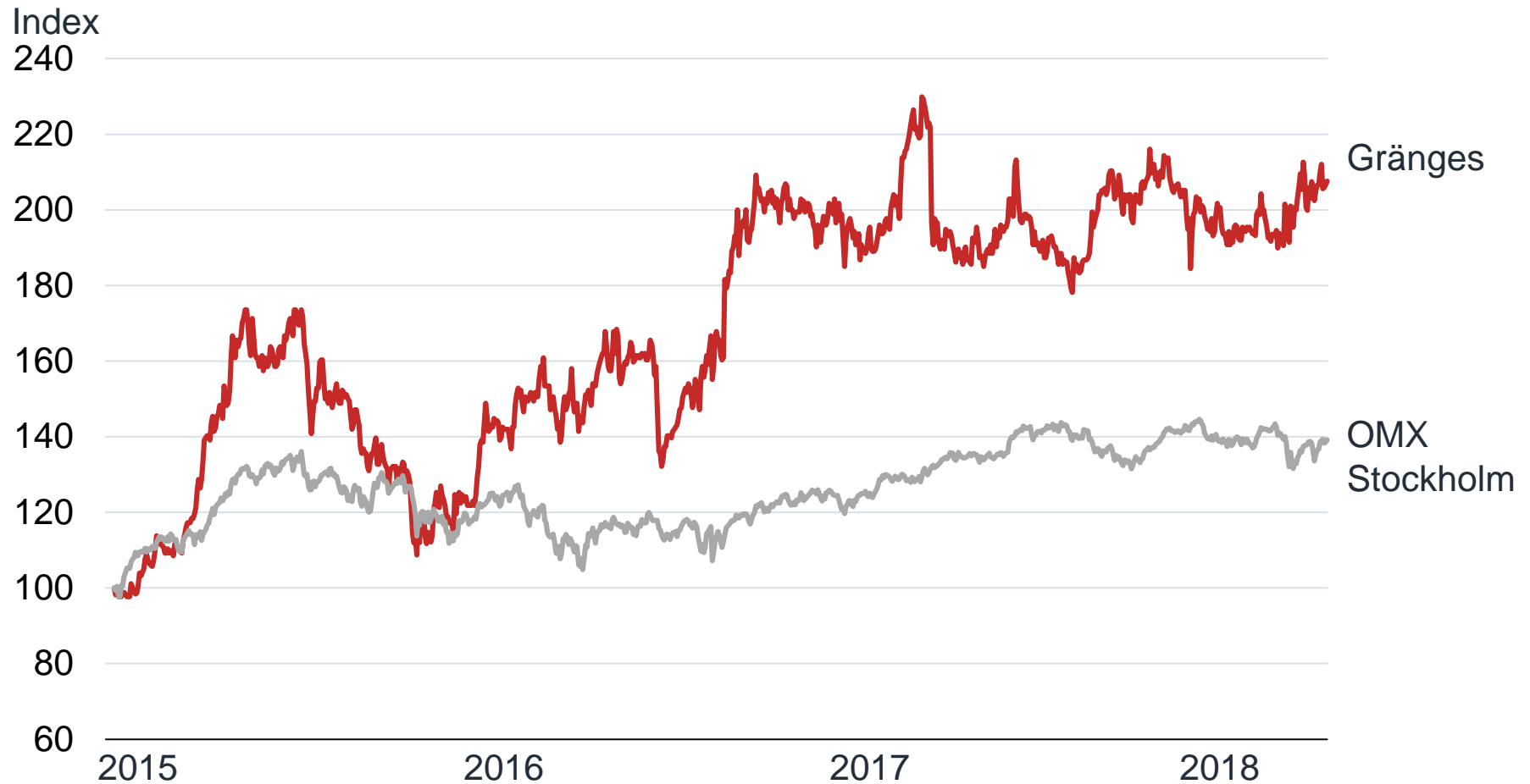
Global market share in rolled products for brazed aluminium heat exchangers



Gränges has a strong track record of growth



Gränges' share price has outperformed the market since the listing in October 2014



Today's agenda

Time	Program	Speaker
08:00	Registration and coffee	
08:30	Update on goals and strategy	Johan Menckel, CEO
	Drive growth through innovation	Kent Schölin, SVP Research & Innovation
	Electric vehicles	Torbjörn Sternsjö, SVP Technology & Business Development
09:50	Q&A Session	
10:10	Coffee break	

Today's agenda

Time	Program	Speaker
10:30	Create value from sustainability	Sofia Hedevalg, VP Sustainability
	Gränges Asia	Colin Xu, President Asia
	Gränges Americas	Patrick Lawlor, President Americas
	Financial update	Oskar Hellström, CFO
12:15	Q&A Session	
12:25	Closing remarks and summary	Johan Menckel, CEO
12:30	Lunch	

UPDATE ON GOALS AND STRATEGY

Achievements since launch and
strategic direction for the future

Gränges – a leading position on the global market



- Production facilities in Sweden, China and the US
- Research & Innovation centres in Sweden and China

Focused product portfolio

Sales volume per end customer market 2017 – Total sales volume 373 ktonnes



Niche markets



28%

46%

26%



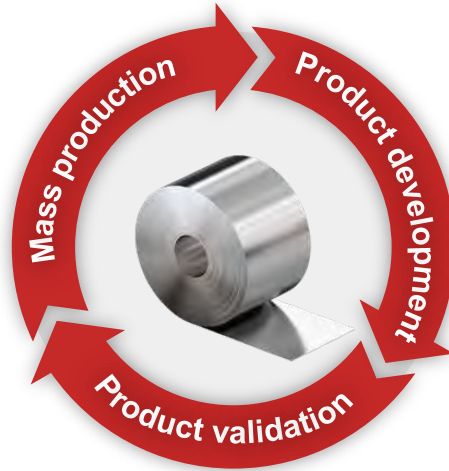
Automotive industry



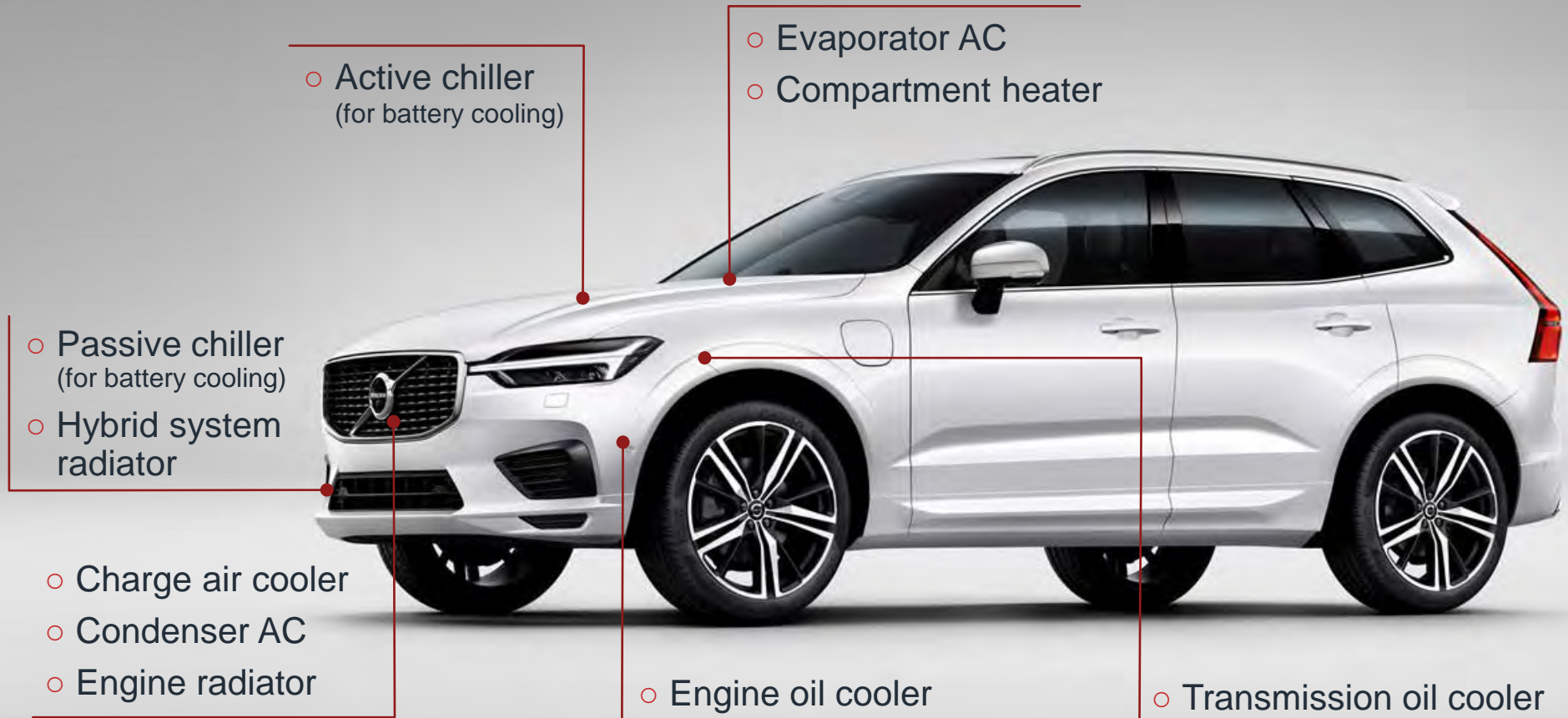
HVAC industry

HVAC = Heating, ventilation and air conditioning.

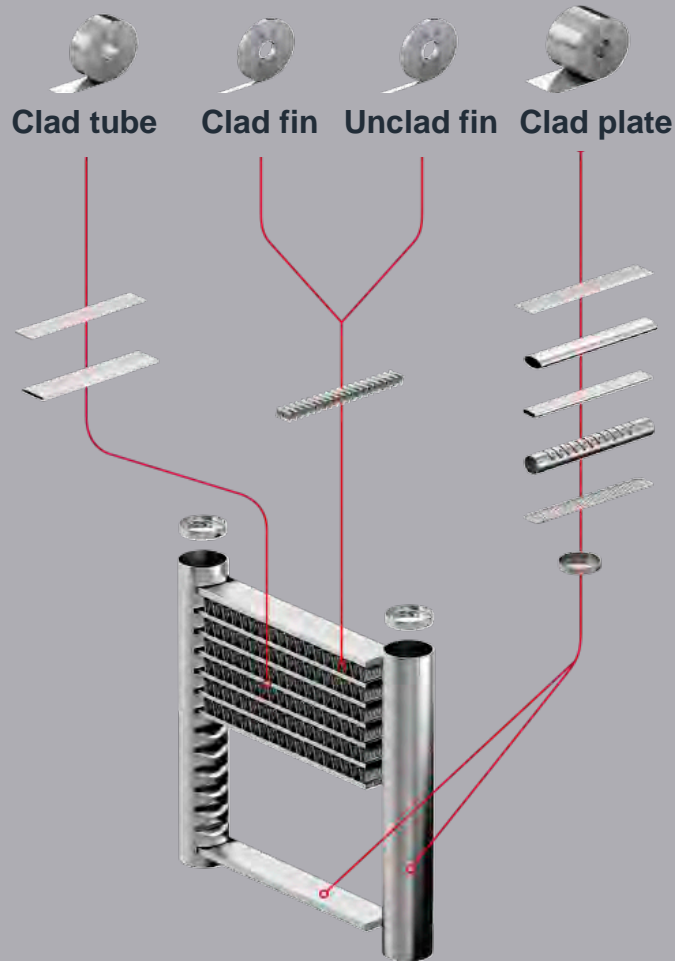
A strong position in the value chain



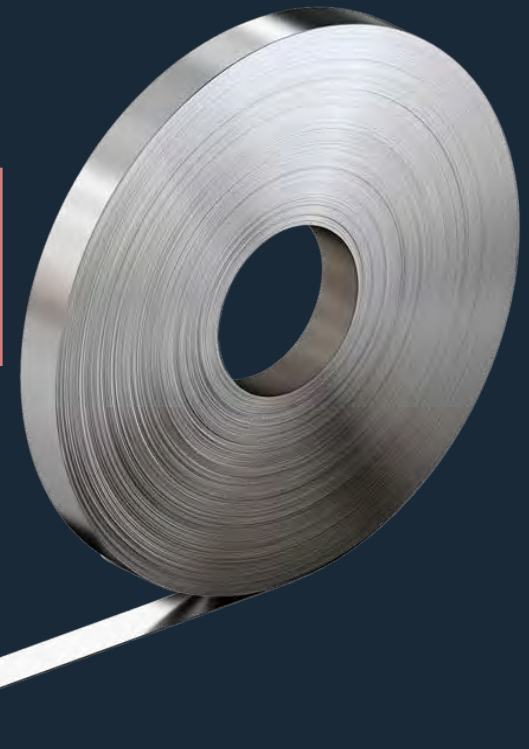
A modern car can have more than ten different heat exchangers



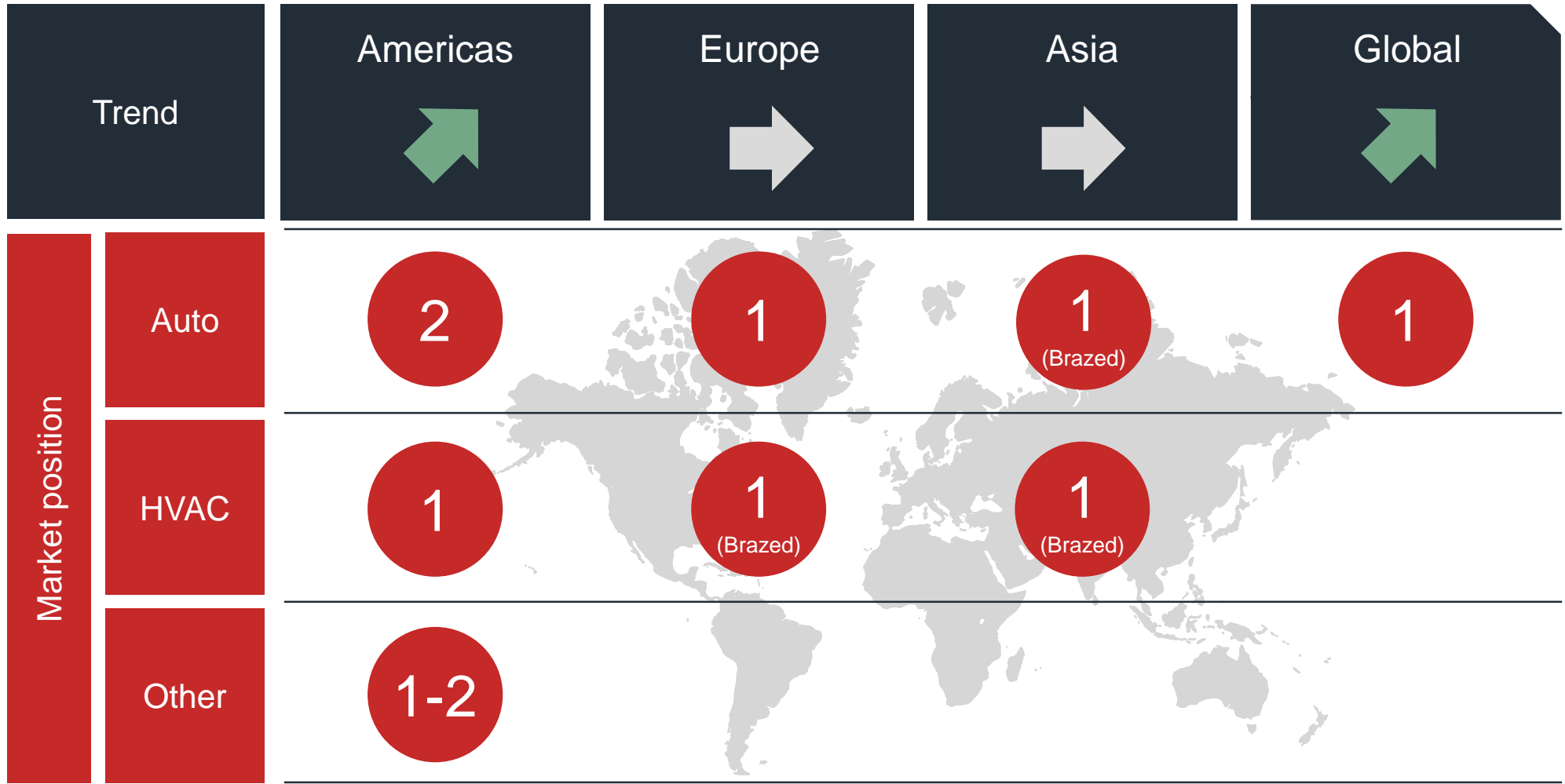
Multi-layer cladding adds unique properties and enables tailored solutions



~200 active alloy combinations
~3,000 active articles



Where we are today



End customer markets characteristics

The automotive industry

- High barriers to entry
- High technical requirements
- Customized products
- Long-term relationships
- Global customers

The HVAC industry

- High demands on operational efficiency
- Delivery precision
- Strong customer relations
- Geographical proximity

Global trends

– industry growth drivers

Urbanization

Digitalization

Limited resources



Implications for the industry

- Artificial intelligence, autonomous driving and electrification of the automotive industry
- Connectivity and shared economy
- New marketing channels and supply chains
- Energy efficiency, recycling and circular economy increasingly important

Success factors

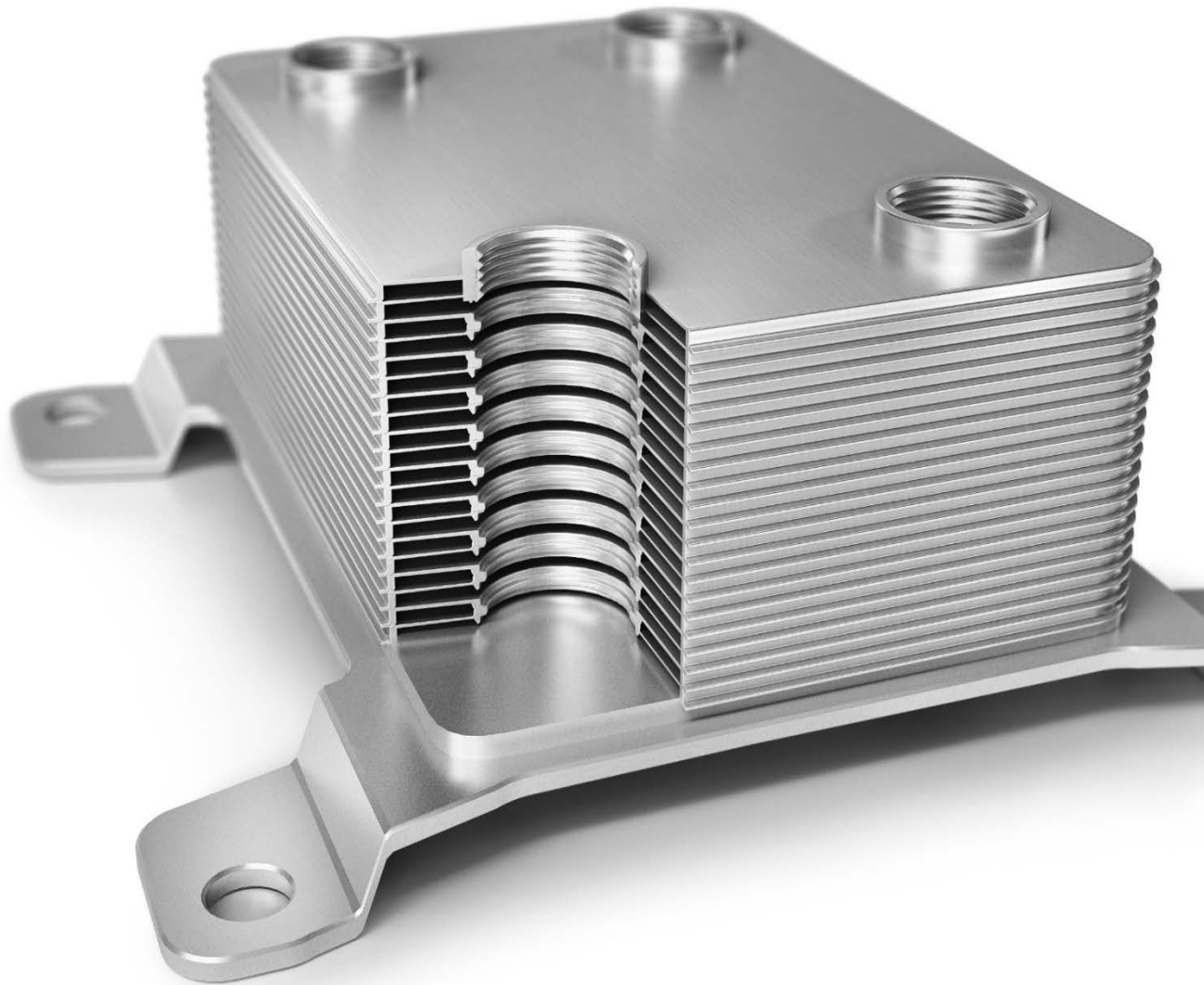
Attention to
customer needs

Leading-edge
technology

Operational
excellence

Vision

To transform the world through innovative, aluminium engineering



Business concept

We support our customers with research and innovation, product development, and technical support during the product's lifecycle.

Thereby, Gränges helps create smaller, lighter and more designable materials that increase economic efficiency and reduce environmental impact.

Gränges' 2020 goals

- Grow significantly above the market rate
- Become the market leader in all geographical regions
- Maintain good and sustainable profitability



Gränges' 2020 strategy

Drive growth
through
innovation

Create value
from
sustainability

Increase efficiency
through continuous
improvements

Grow presence
through structural
expansion

Gränges' 2020 goal and strategy – achievements

Drive growth
through innovation

- New organization for Gränges Research & Innovation
- Increased number of development projects with external parties
- 165 patents, with further 73 patent applications pending
- Launch of TRILLIUM® Lean in the autumn of 2017

Gränges' 2020 goal and strategy – achievements

Create value
from sustainability

- A carbon footprint study was conducted to provide a baseline for reduced emissions
- Increased focus on cross-audits to improve safety and share of best practice
- Completed training in Gränges' Code of Conduct
- Updated the sustainability framework

Gränges' 2020 goal and strategy – achievements

Increase efficiency
through continuous
improvements

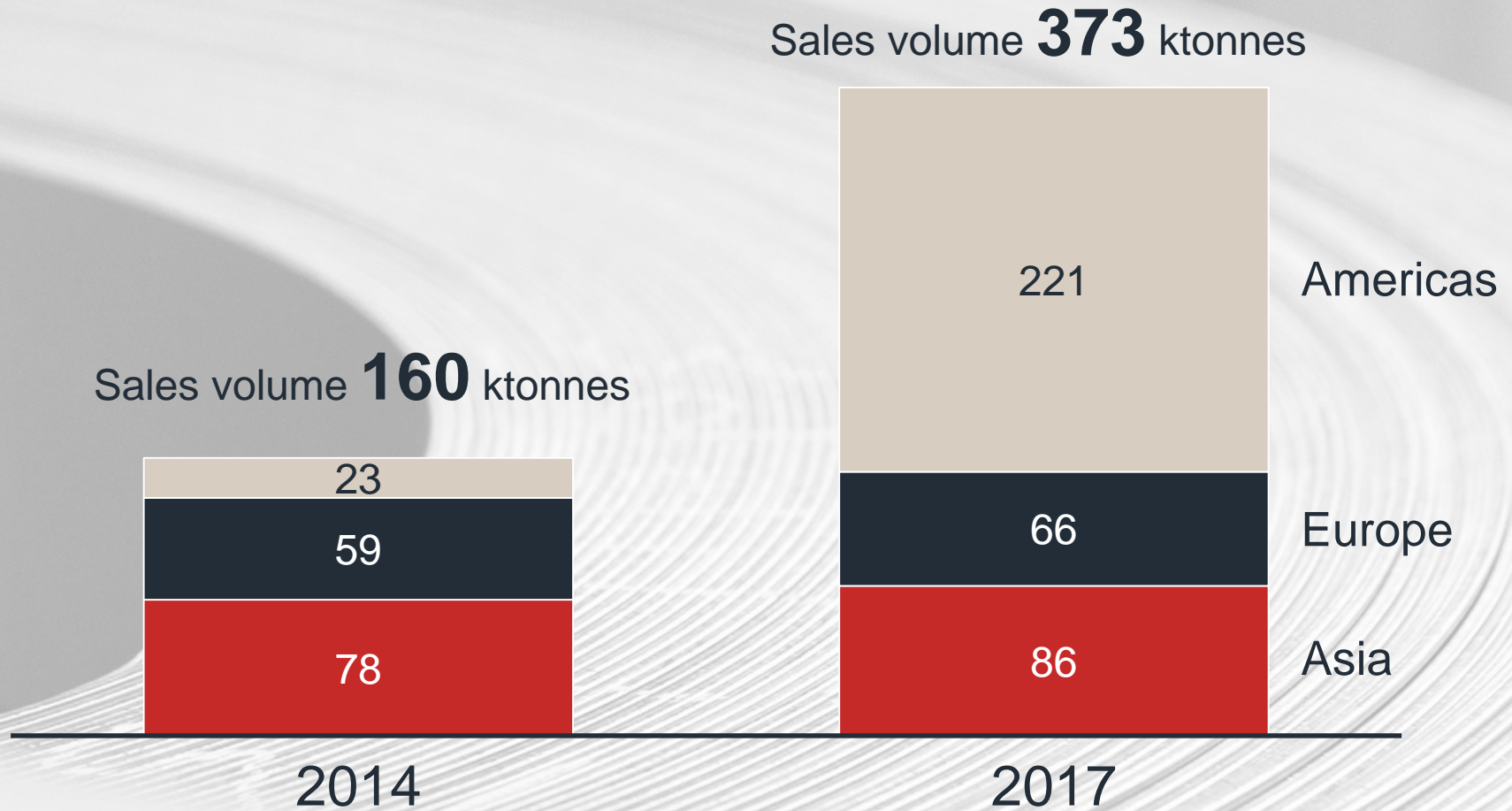
- Increased capacity in the Americas by 5%
- Improved quality and reduced number of claims by 25% has contributed to higher productivity
- Reduced energy consumption by 2%
- Increased share of internal recycled aluminium in production by 3%

Gränges' 2020 goal and strategy – achievements

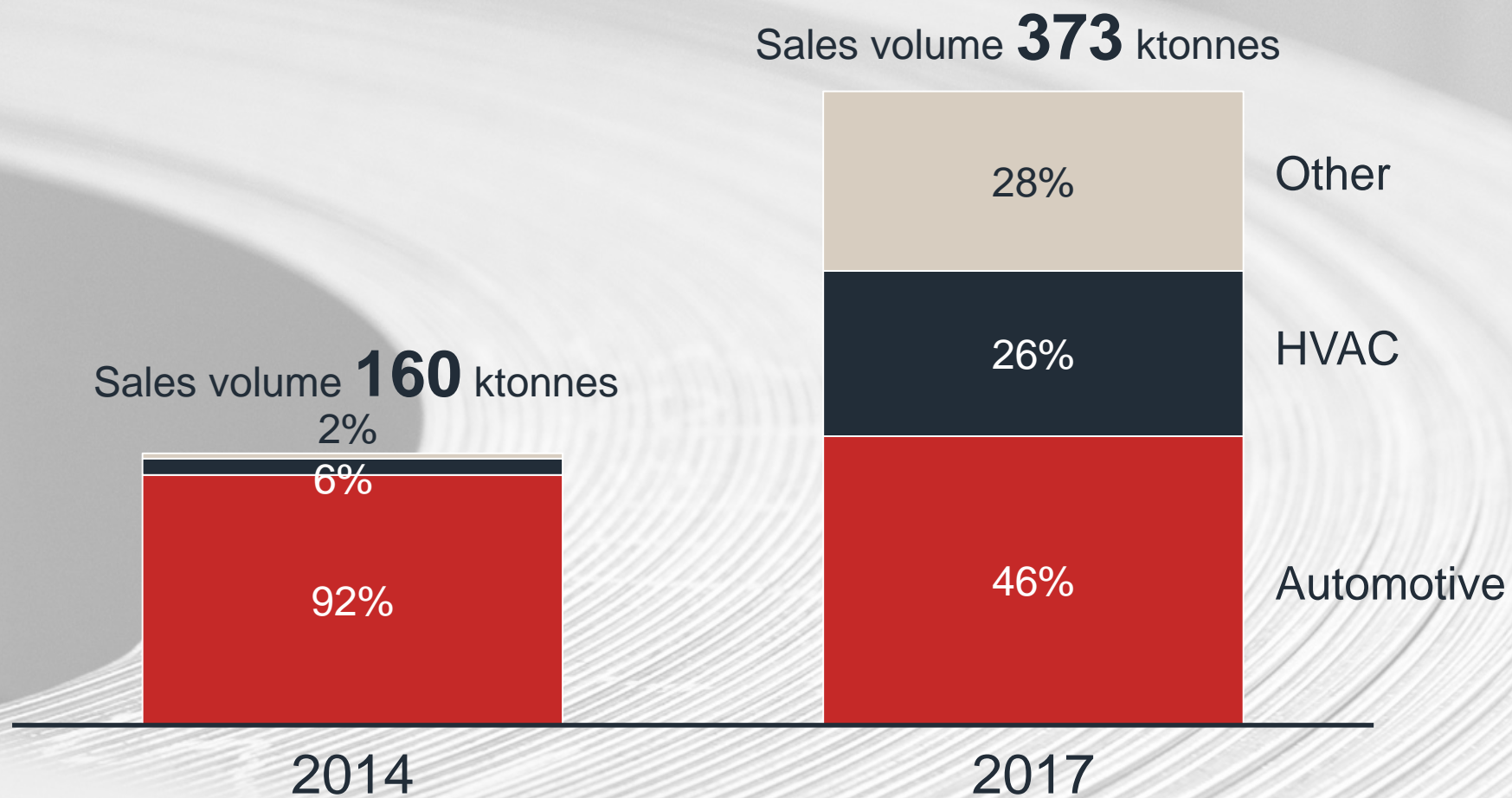
Grow presence
through structural
expansion

- Acquisition of Noranda's downstream operations in the United States in 2016 – added nearly 200,000 tonnes in capacity and sales of SEK 4.7 billion yearly
- Announced plans for expansion in Huntingdon (USA)
- LOI signed with Mitsubishi Aluminum to establish a joint venture in North America for production of brazed heat exchanger material
- Investment in spray-forming production to secure supply of TRILLIUM® billets

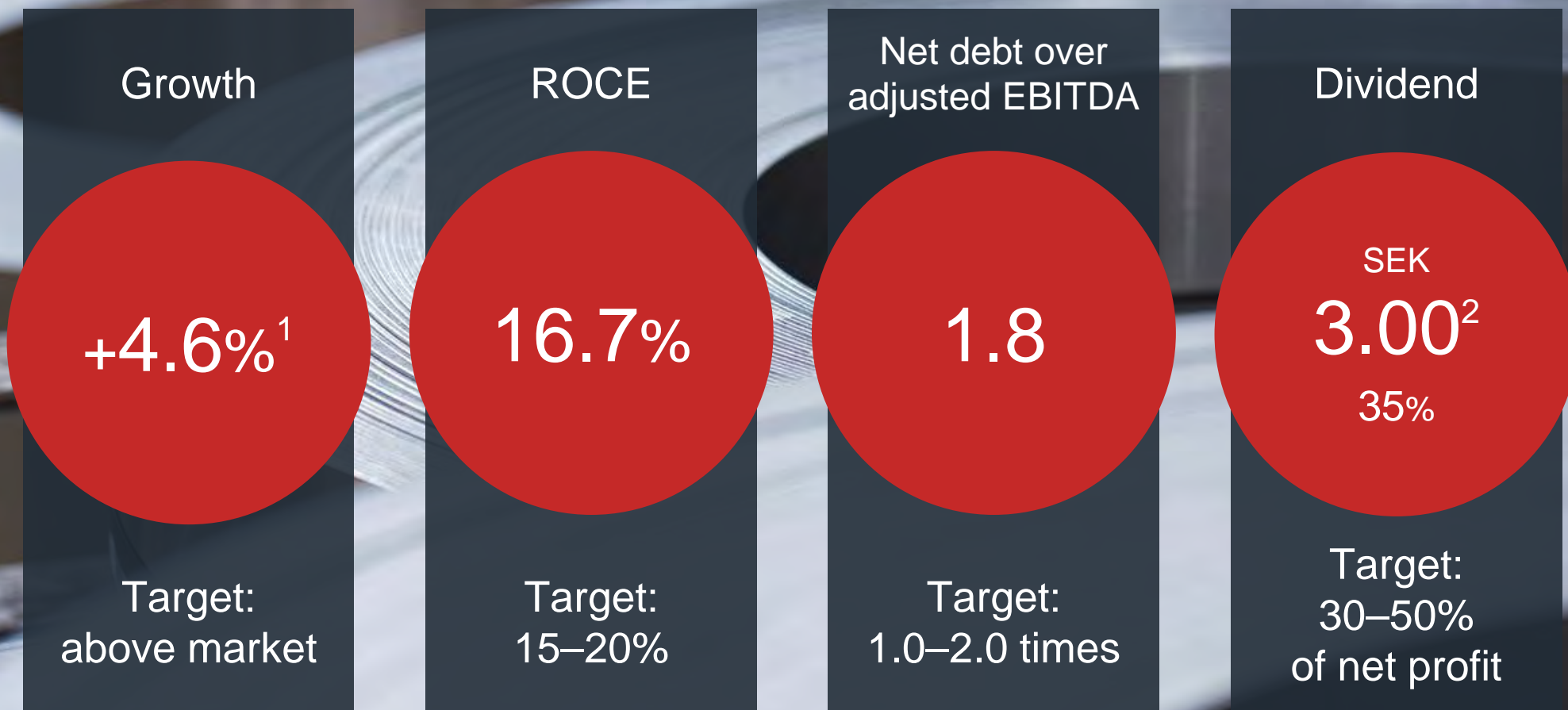
Gränges has more than doubled in size



More diversified product portfolio



Strong performance against targets 2017



(1) Organic sales volume growth in 2017

(2) The Board of Director's proposal for the 2018 Annual General Meeting

Focus 2018

- Continue to assess growth opportunities in all regions
- Increase efforts in R&I and business development related to solutions for electrical vehicles
- Implement the new global and group-wide sustainability framework
- Continue to implement and communicate Gränges' model for operational excellence and continuous improvements
- Continue to develop our leaders and build diverse and high performing teams

Conclusion

- Gränges has delivered on its goals and strategy since the IPO in 2014
- Strong position in market niches serves as a foundation for future growth
- R&I to play an even more important role in the future
- An integrated sustainability work and operational excellence will ensure that we maximize value and minimize negative impact from our operations
- Several strategic growth projects in pipeline



DRIVE GROWTH THROUGH INNOVATION

Kent Schölin
SVP Research & Innovation

Innovation part of Gränges' 2020 strategy

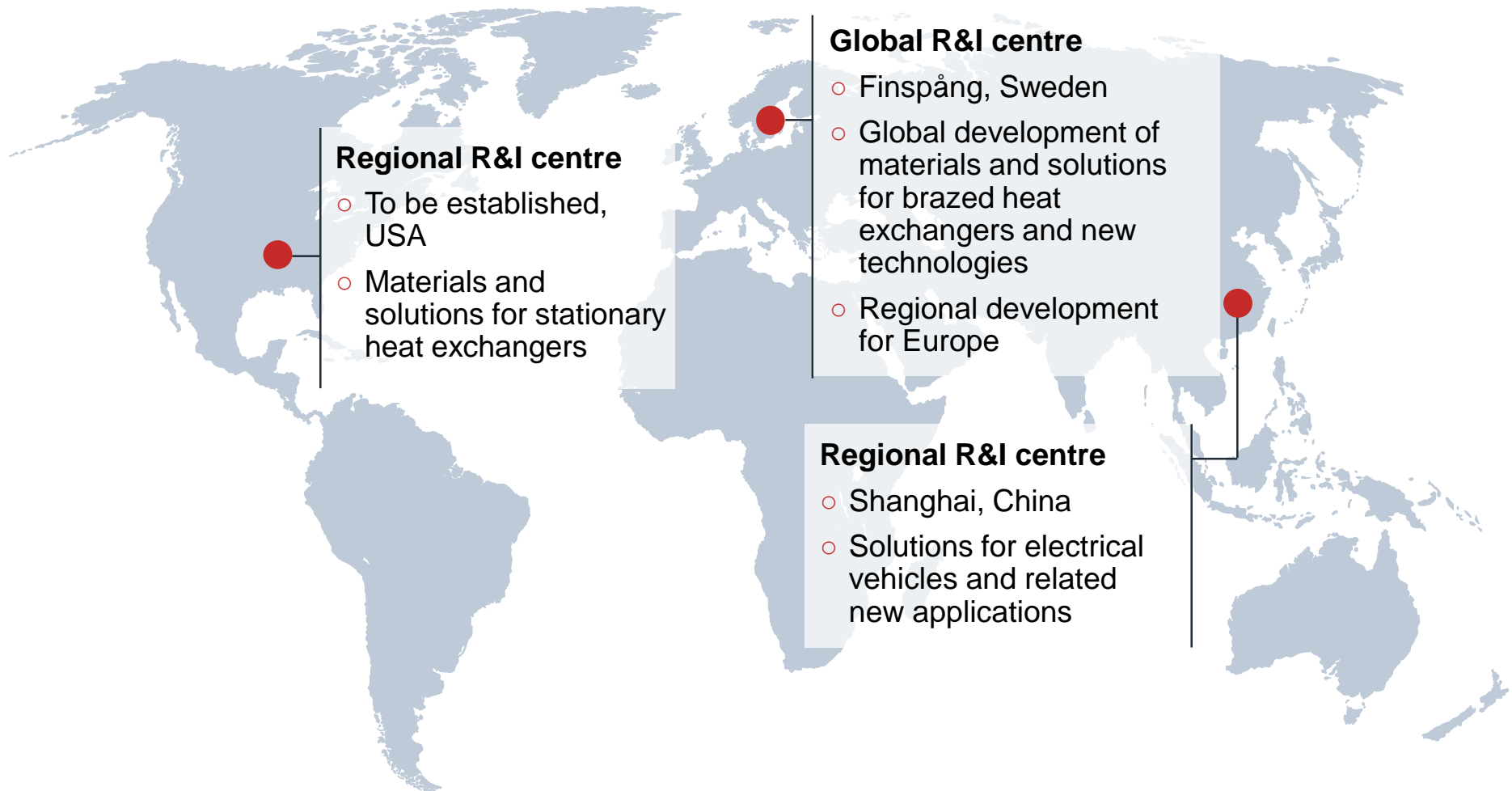
Drive growth
through innovation

Create value from
sustainability

Increase efficiency
through continuous
improvements

Grow presence
through structural
expansion

Increased focus on Research & Innovation



Gränges R&I

– 60 highly educated employees worldwide



Metallurgists

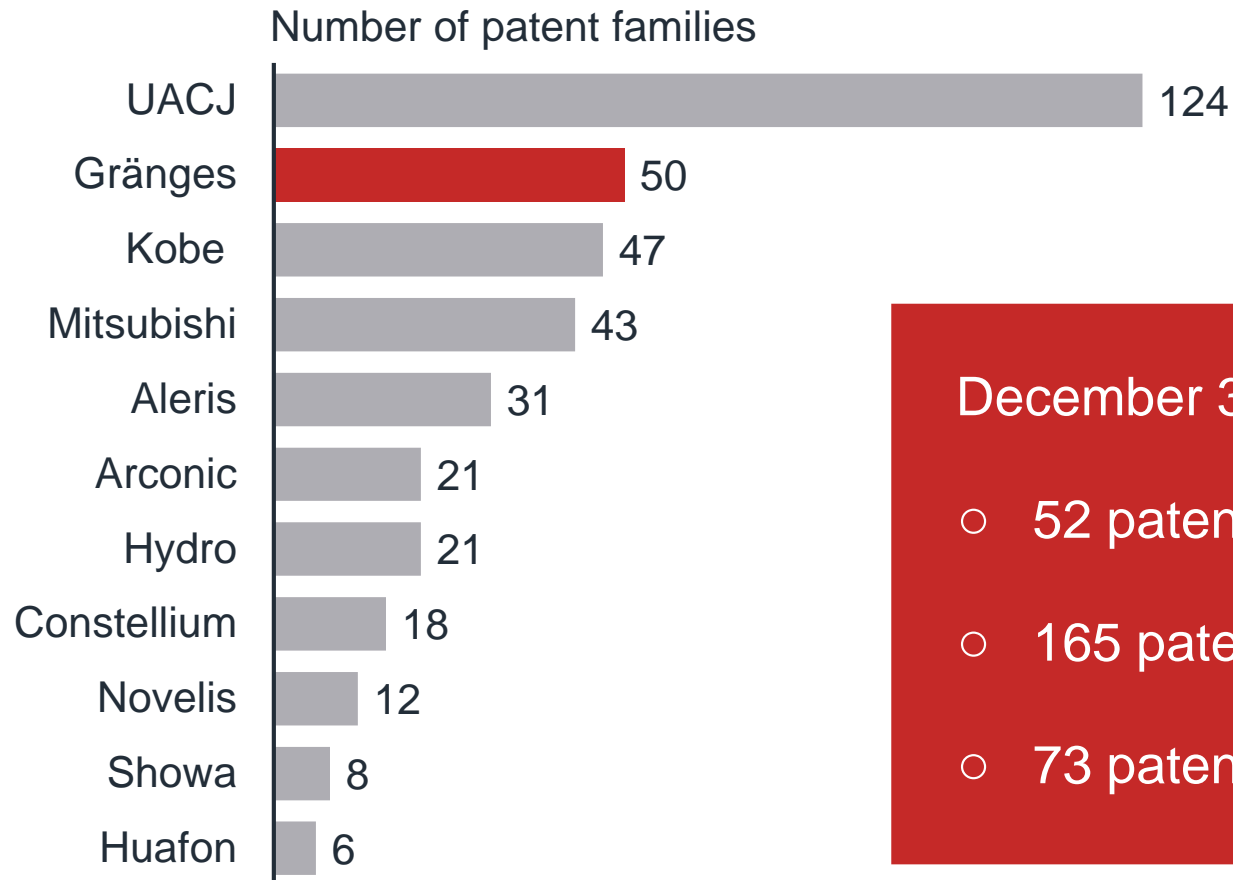
Chemists

Metallographers

Physicists

Technicians

Continued rapid pace of innovation



December 31, 2017

- 52 patent families
- 165 patents
- 73 patent applications pending

Note: Published patent families with priority date 1997-2017

Annual technical seminars in Asia

2016 in Nanjing, China



400 participants consisting of customers and leading industry representatives

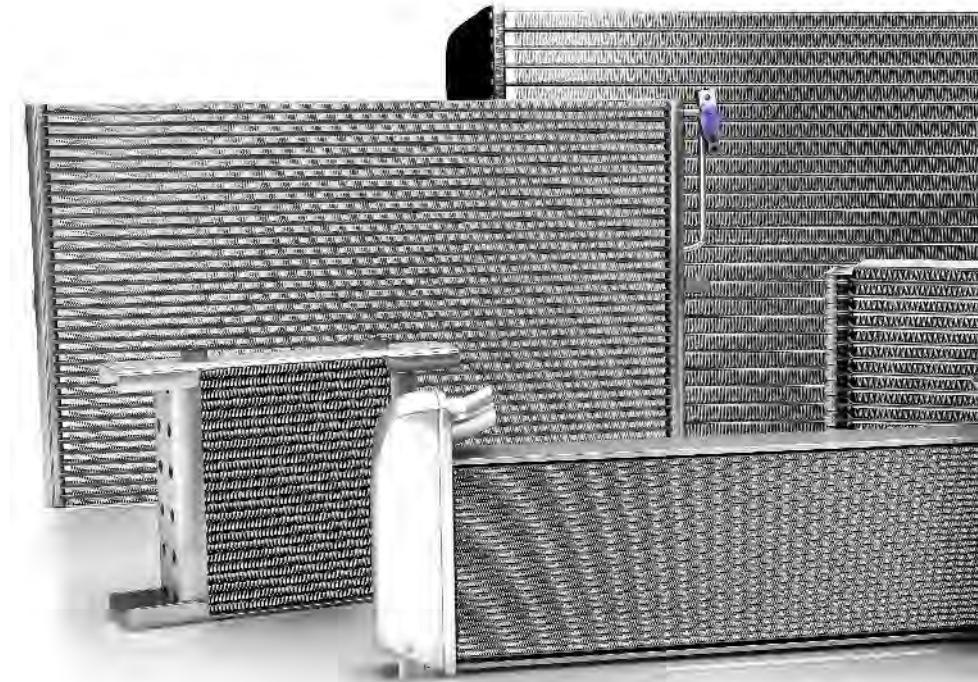
2017 in Pune, India



80 participants consisting of customers, suppliers and OEMs

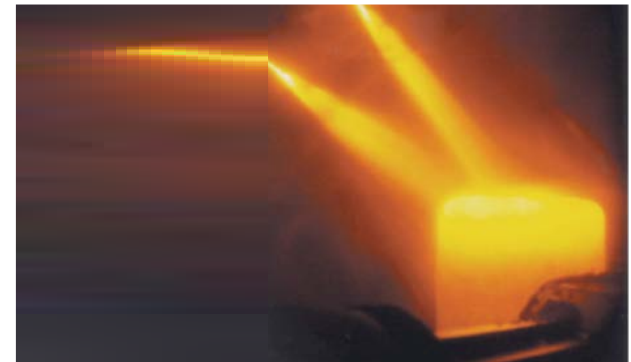
Innovative products for heat exchanger applications

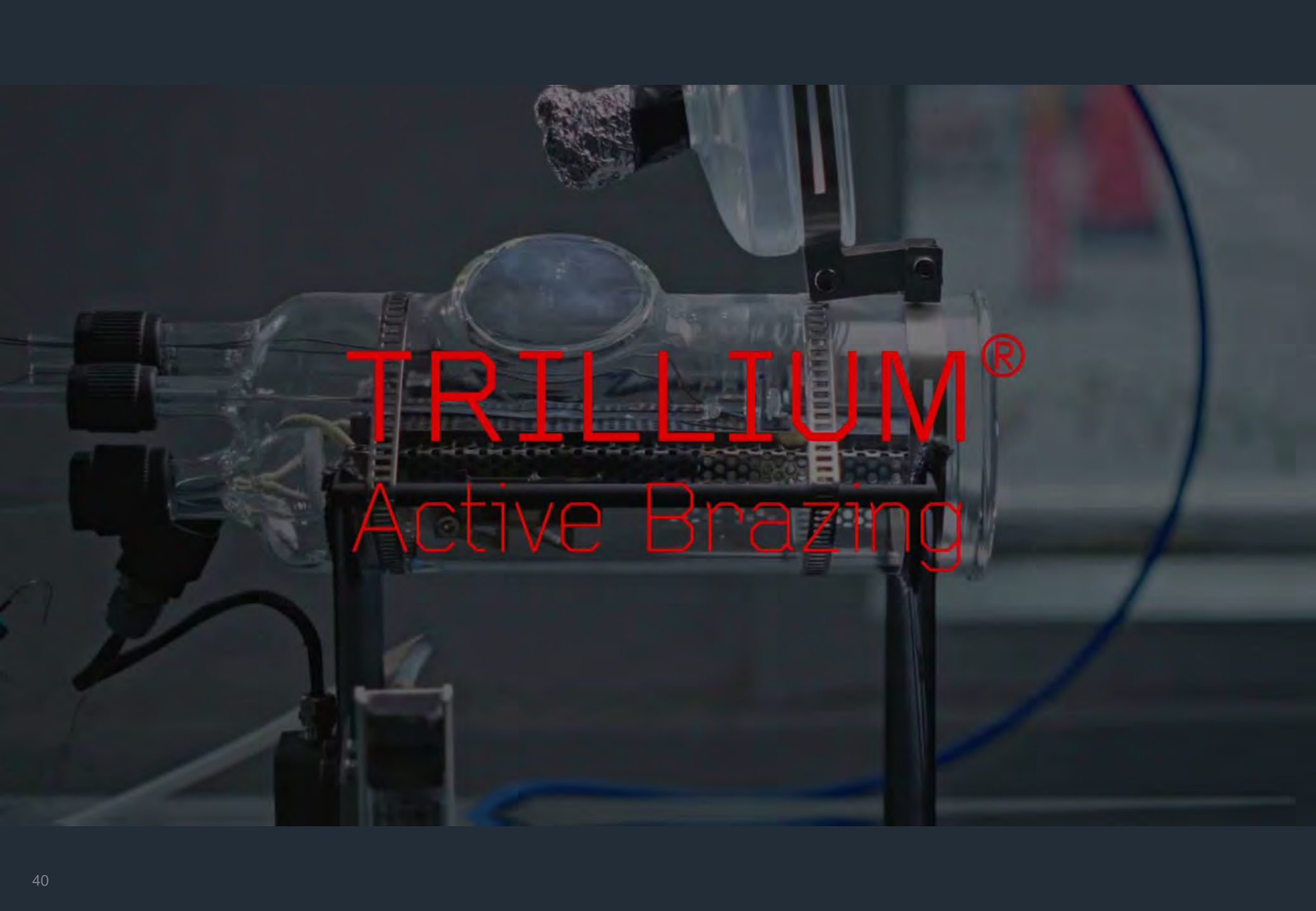
- TRILLIUM® – a disruptive technology
- Multi-layer products – more layers for improved brazeability and corrosion resistance to support further down-gauging
- Strong sagging resistant fins – advanced processing giving improved properties
- Strong temperature resistant tubes – improved strength during use of the heat exchanger
- Corrosion resistant tube and fin for EGR – to convert steel HEX to aluminium



New technologies for the future

- Investment in Getek for spray forming of TRILLIUM® billets in 2017
- Possibilities for development of high performing alloys for HEX and other applications
- Aluminium with high content of other metals
- Aluminium with added non-metallic materials – metal matrix composites
- Functional claddings with exciting properties



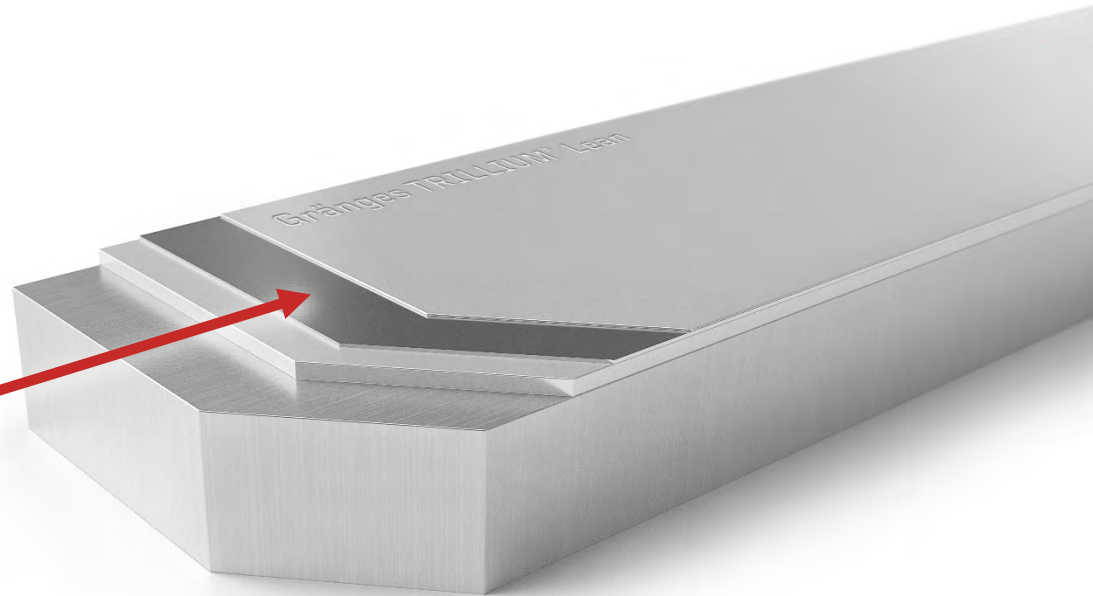
A laboratory setup for active brazing. The central component is a glass chamber containing a heating element and various sensors. The chamber is connected to a power source and a data acquisition system. The text "TRILLIUM®" and "Active Brazing" is overlaid in red on the image.

TRILLIUM®
Active Brazing

Less work, more capacity

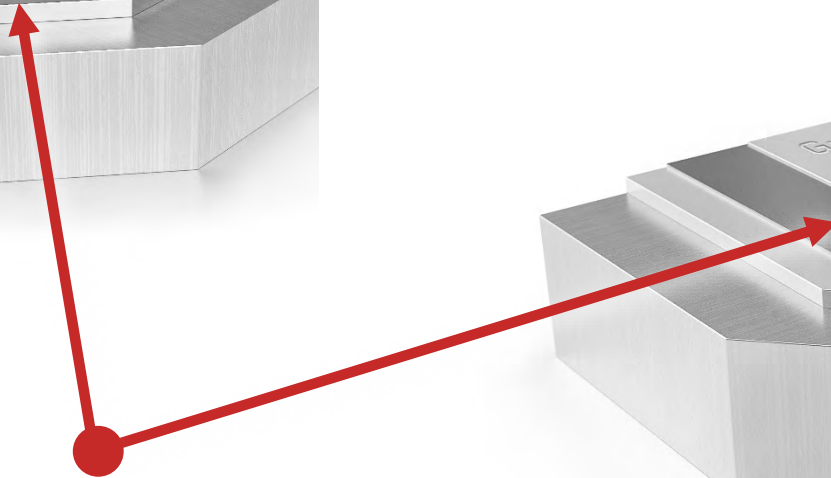


TRILLIUM® Solid



TRILLIUM® Lean

Flux containing braze metal



Well suited for most components in the customer applications

Welded tubes

Folded tubes

Tube plates, stamped plates, drawn plates

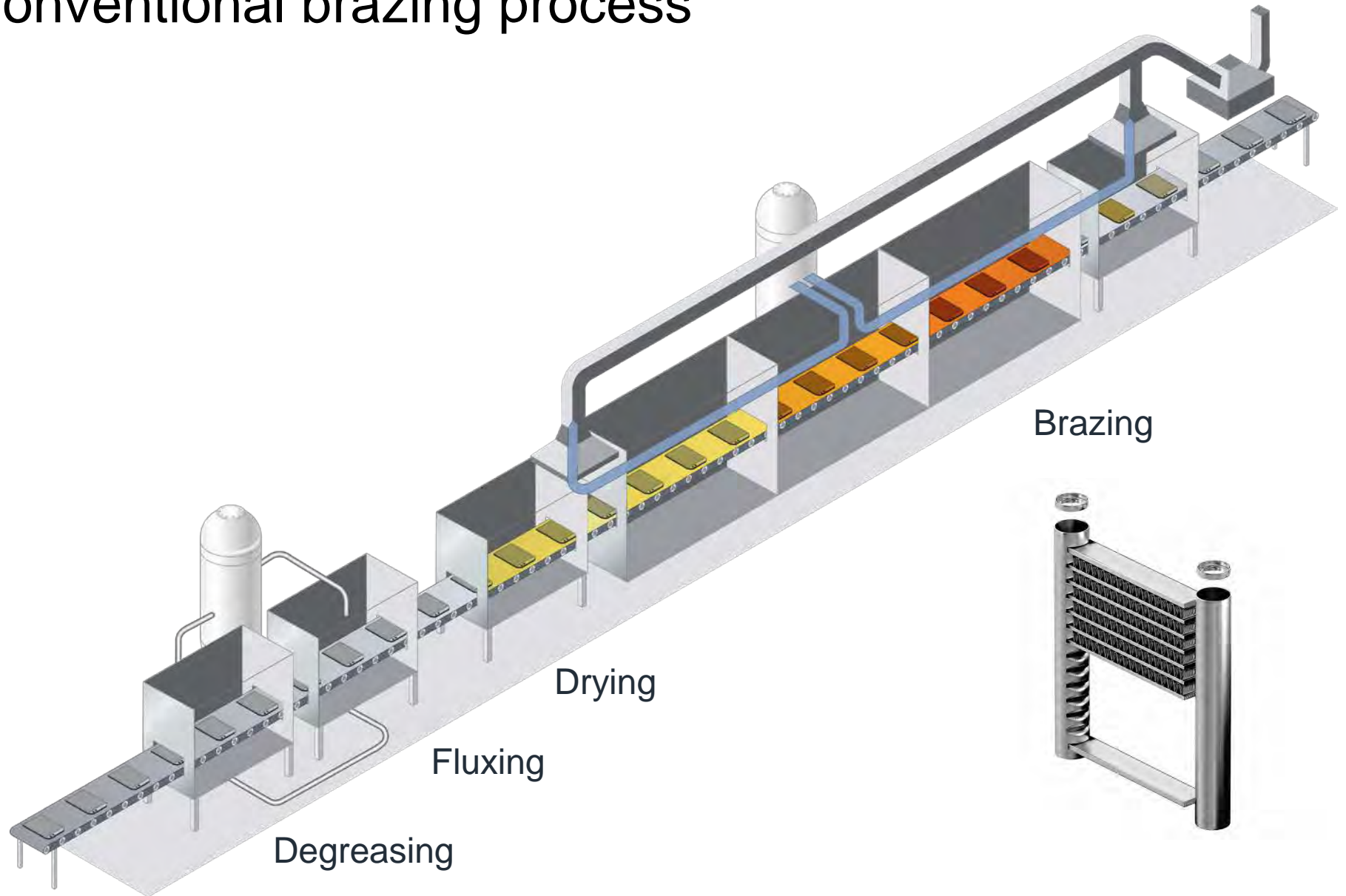
Inserts, turbulators

Headers

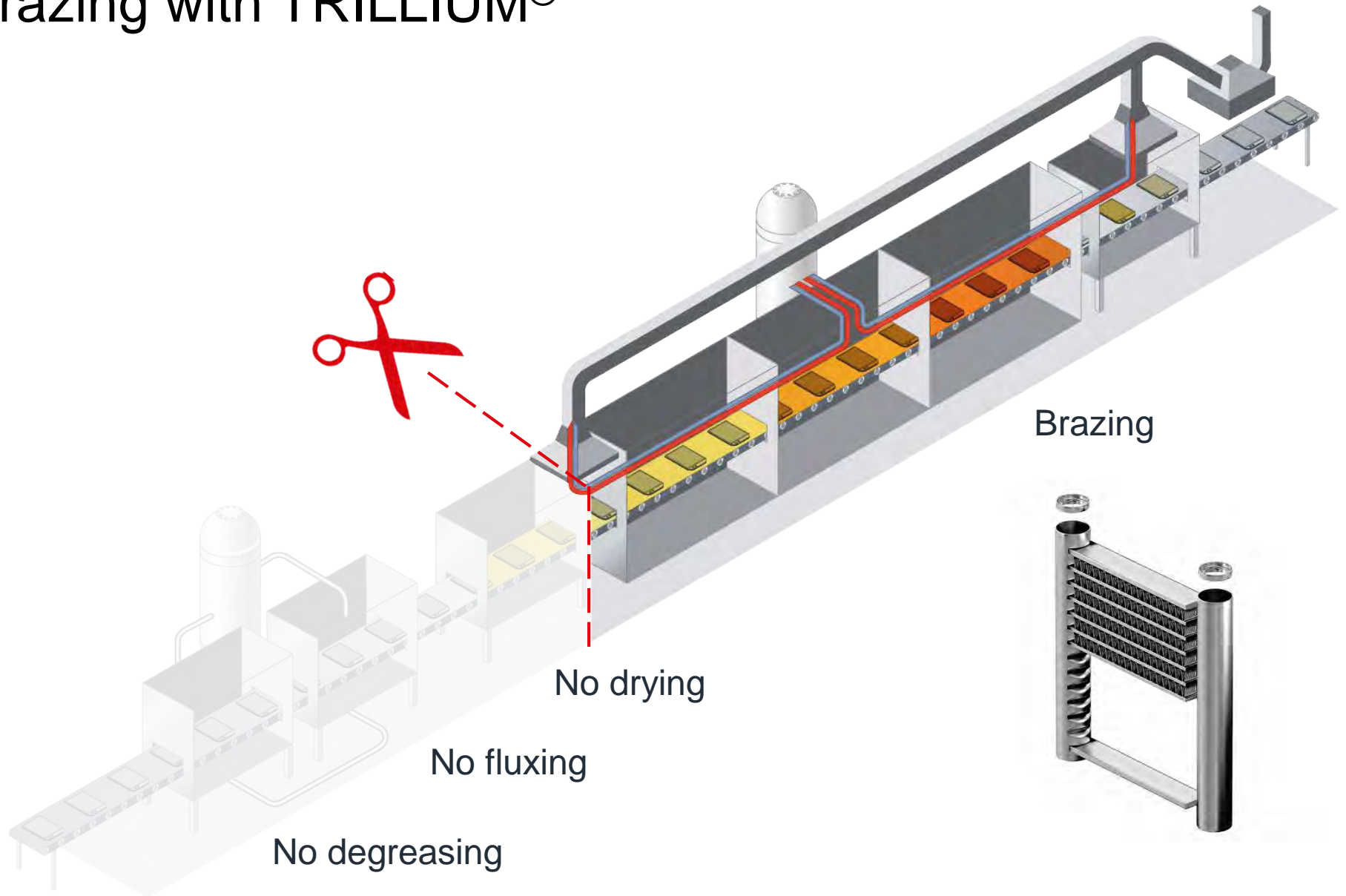
Side plates



Conventional brazing process



Brazing with TRILLIUM®



Added value from every angle

DESIGN FREEDOM

More complex constructions possible

PROCESS OPTIMIZATION

Simpler, faster production process

COST SAVINGS

Less flux, nitrogen, energy and labour costs

PERFORMANCE IMPROVEMENT

Lower weight loss and improved resistance to corrosion

ENVIRONMENT, HEALTH AND SAFETY

Streamlined process, environmentally-conscious product development

Electrical vehicles



Customer case – Raal

“The main advantages we have seen with TRILLIUM® technology are reduced labour and production costs. We also achieve much better fluxing and brazing quality and uniformity, especially in complex structures.”

Cornelia Cocian
Chemical Engineer, Raal



Conclusion

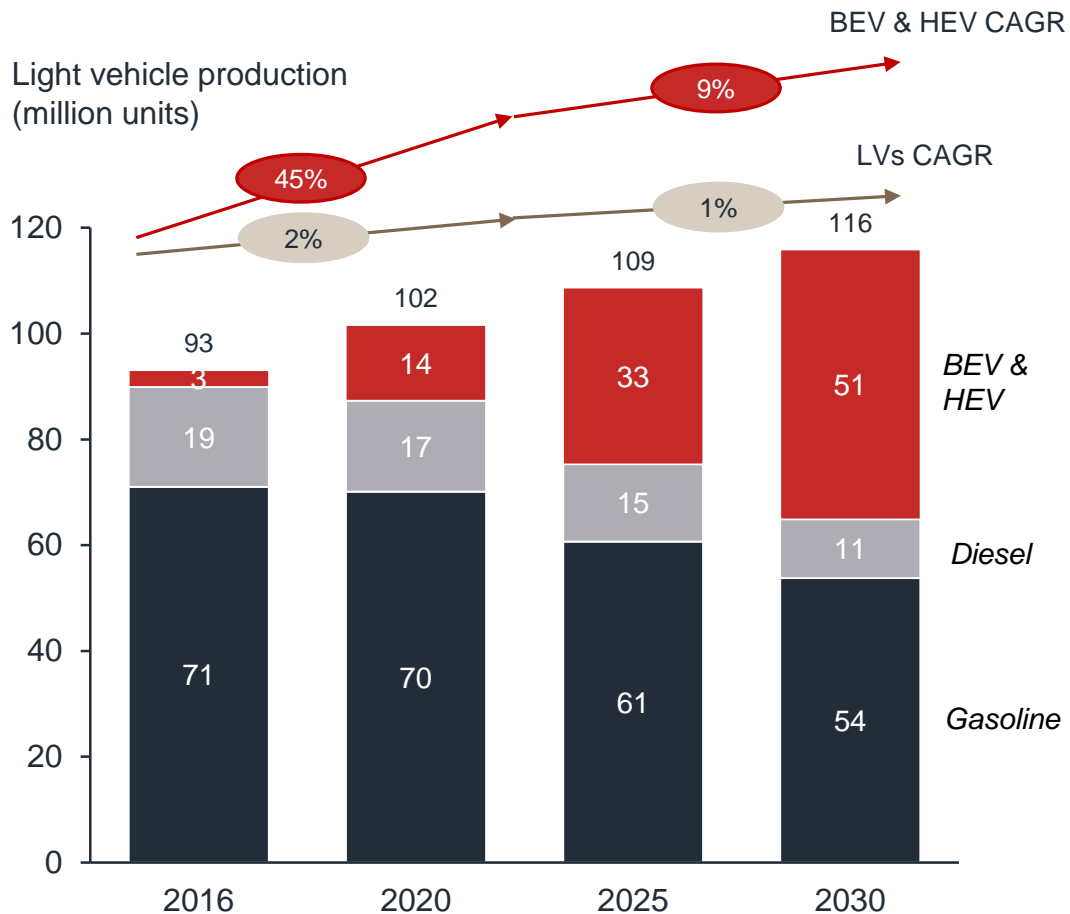
- Increase efforts in R&I
- Leading development in heat exchanger materials
- Large potential in other advanced aluminium applications with spray forming investment
- Development in cooperation with customers



ELECTRIC VEHICLES

Torbjörn Sternsjö
SVP Technology & Business Development

Hybrids and battery electric vehicles will make up a significant share of the market in 2025



Source: IHS Automotive 2017

Note: BEV: Battery Electric Vehicle,
HEV: Hybrid Electric Vehicle

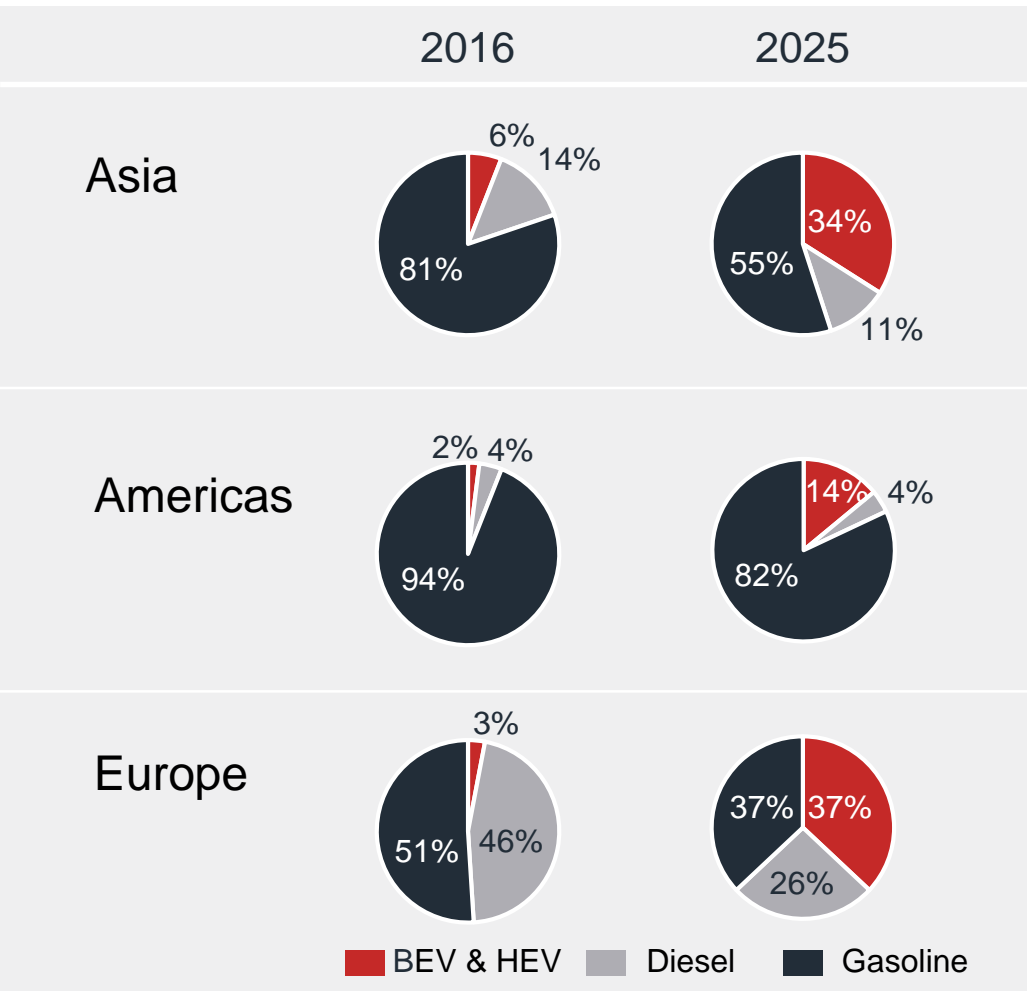
Adaptation of battery electric vehicles and hybrids speeding up

- Technical innovation
- Changing consumer preferences
- Policies and regulations
 - Diesel gate
 - China ambitions

Uncertainty in forecasts

- Rate of substitution from internal combustion engine vehicles to battery vehicles and hybrids
- Variations of battery vehicles and hybrids
- Battery technology

Growth in the number of hybrids and battery electric vehicles will affect share of powertrains significantly...



- Regional differences
 - Europe and Asia will have the largest change in powertrains

- Gränges has a strong presence in both Europe and Asia
 - R&I center in Asia focused on heat exchanger applications for battery electric vehicles
 - R&I center in Europe focused on material development for battery electric vehicles

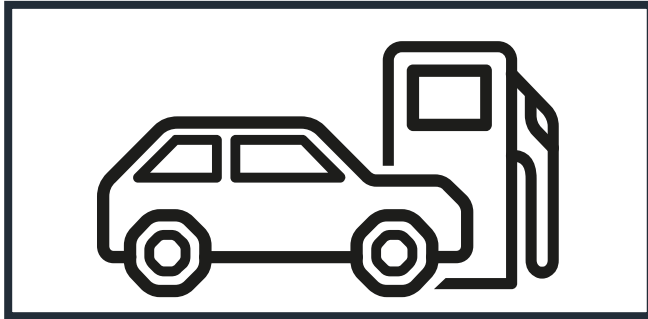
- Growth in new and existing applications
 - Battery cooling and chillers for battery electric vehicles and hybrids
 - Charge air coolers for hybrid electric vehicles and internal combustion engines

Source: IHS Automotive 2017

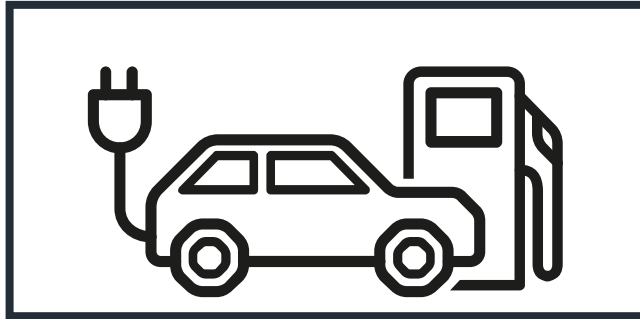
Note: BEV: Battery Electric Vehicle,
HEV: Hybrid Electric Vehicle

...and creates new requirements and new system designs for thermal management

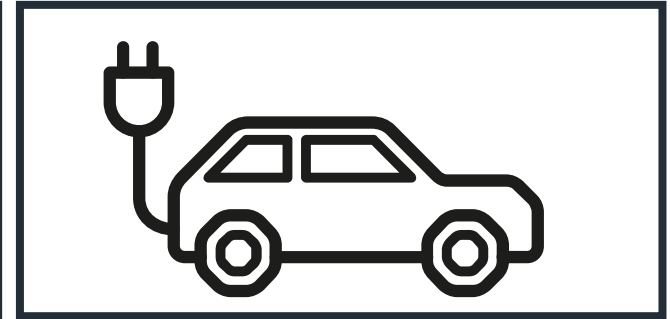
Internal combustion engine vehicle



Hybrid electric vehicle



Battery electric vehicle



Examples of heat exchangers

Radiator

Charge air cooler

Condenser

Evaporator

Heater core

Oil cooler

Other

Radiator

Charge air cooler

Condenser

Evaporator

Heater core

Cooling plate

Chiller

Cooling plate

Condenser

Evaporator

Heater core

Chiller

Battery powered cars have significant need for thermal management

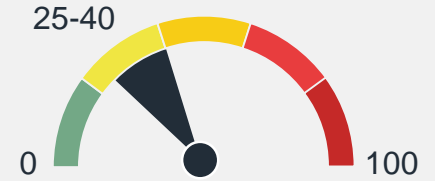
Battery



Key challenges

- Thermal management for performance and lifetime
- Cooling and heating

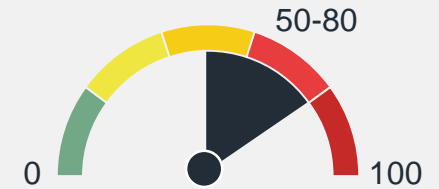
Operating temp (°C)



Powertrain electronics and e-motor



- Cooling only
- Intermittent heat generation



Cabin



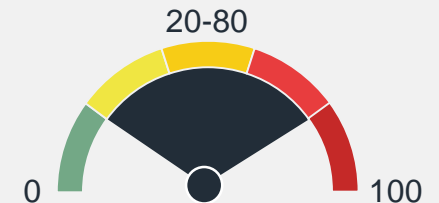
- Cooling and heating
- ICE waste heat non existent



On-board electronics



- Cooling only



Note: ICE: Internal Combustion Engine

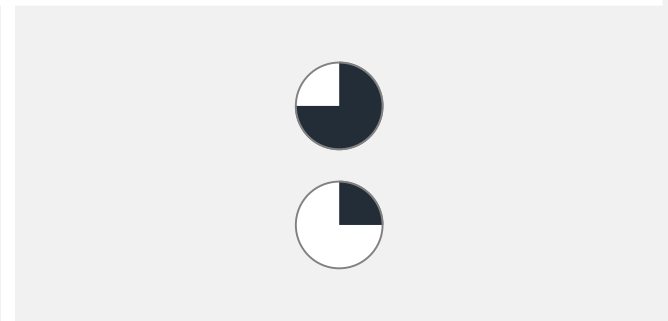
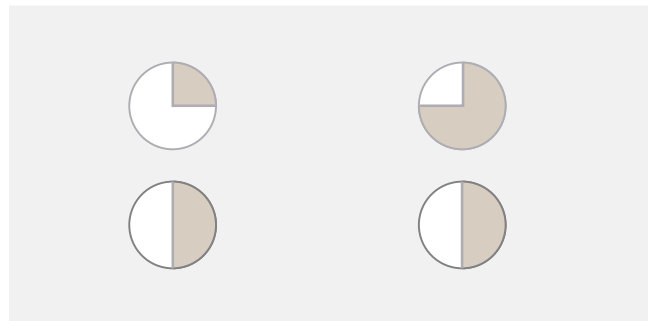
Three main cooling system solutions for batteries



- Air forced through the battery pack, by a fan
 - Air dissipates the heat
 - Air can be cooled by A/C system
- | | | |
|--|-------------|----------------|
| | Ambient air | A/C-cooled air |
|--|-------------|----------------|

- Liquid circulated through the battery pack
 - Liquid cooled by A/C and/or air-to-liquid heat exchanger
- | | | |
|--|--------|-------------------|
| | Liquid | A/C-cooled liquid |
|--|--------|-------------------|

- Refrigerant liquid channelled through battery cooling plates
- Evaporation takes place inside the battery pack



Chinese manufacturers of electric vehicles are adopting active thermal management solutions



- BYD mainly uses liquid cooling system for battery thermal management, including its JV brand with Daimler, DENZA

- NIO ES8 debuted in December 2017, uses liquid cooling for its 70 kWh battery

- Byton unveiled its concept car at CES 2018
- Byton's concept car is equipped with active cooling system to keep batteries at optimal temperatures and prevent thermal overruns

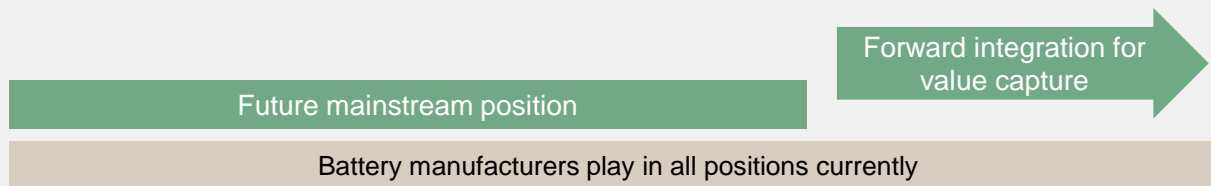
Source: SWS Research, Wired, Cleantechica, CNET
Note: CES: Consumer Electronics Show, Las Vegas

Automotive OEMs position in value chain is being challenged by electrification/battery players

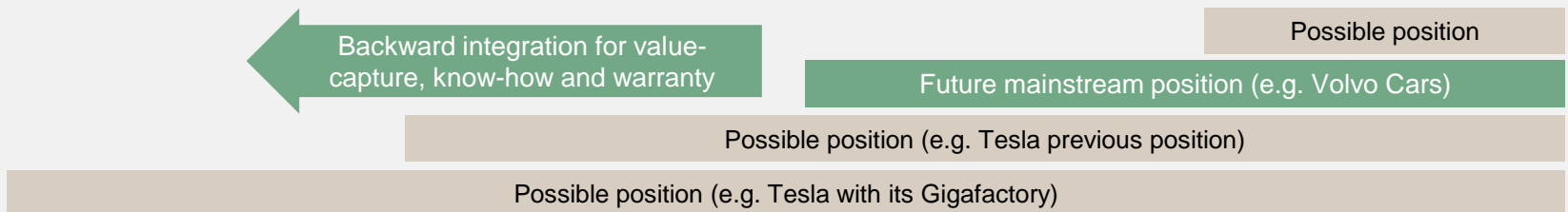
Automotive Tier-structure



Battery manufacturers' value chain position



Automotive OEMs' value chain position

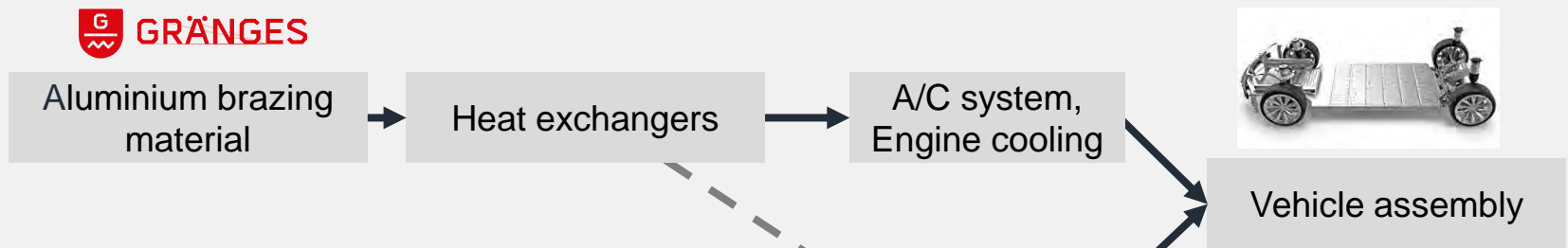


Dynamics in the value chain could impact the thermal management supply chain

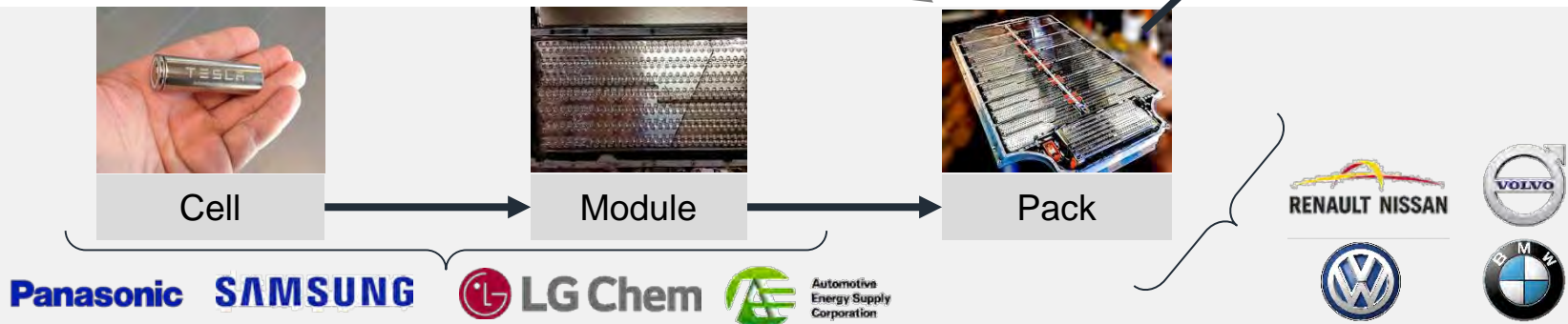
Automotive Tier-structure



Thermal management value chain

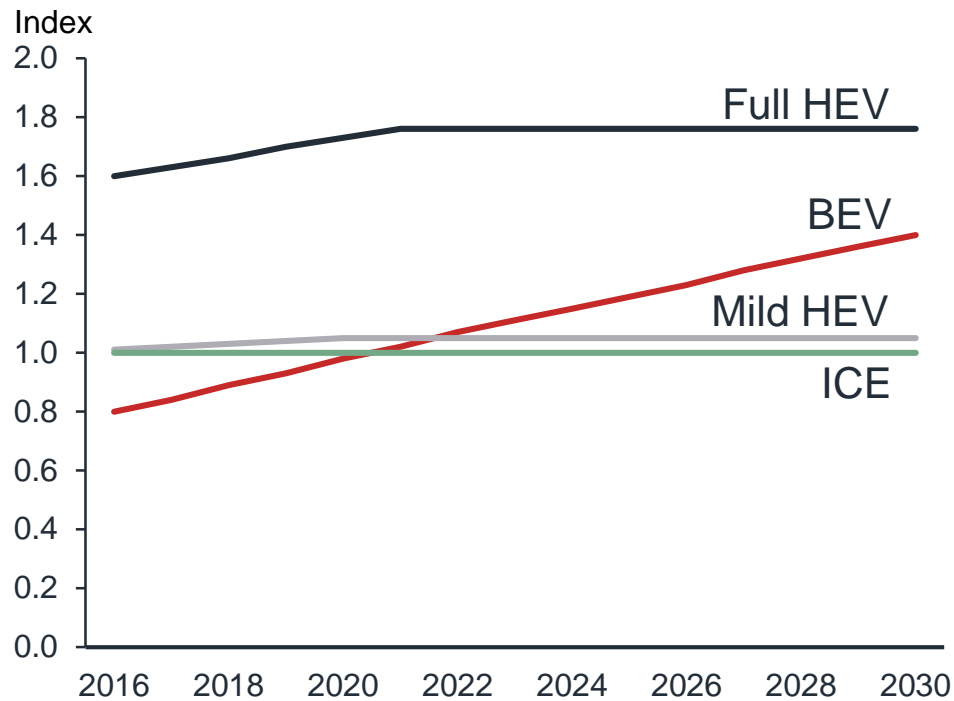


Li-ion battery value chain

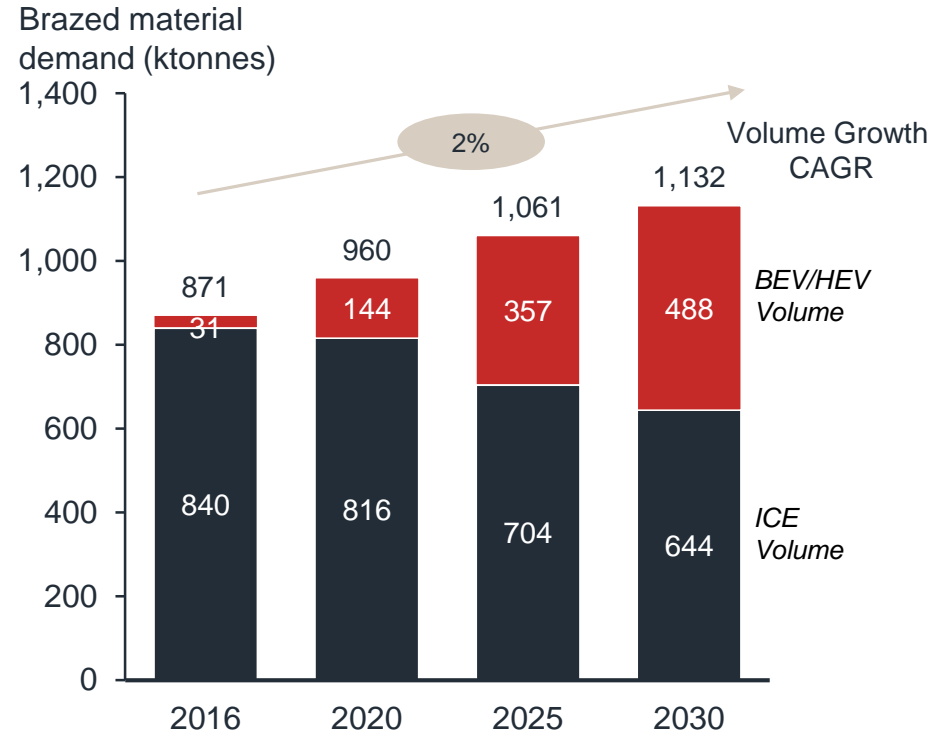


Electrification creates new opportunities for Gränges in brazed material development

Volume index of brazed material in different powertrains



Volume forecast 2016-2030



Source: Gränges Analysis based on data from IHS Automotive 2017

Note: ICE: Internal Combustion Engine, BEV: Battery Electric Vehicle, HEV: Hybrid Electric Vehicle

Pipeline of new materials ready for launch to meet new needs from electric vehicles

New portfolio of materials being launched...

...to meet customers new needs



- TRILLIUM® Lean
- Further down gauging
- New stamping and tube designs

- Battery cooling plates
- Chillers
- Charge air coolers

Gränges building on core strengths and working across value chain to benefit from electrification

Thermal management value chain getting more and more integrated and connected



Building on core strength

- Material development
- Application know-how
- R&I capabilities
- Global footprint

Early adaptation to market trends by working across the value chain

- Proactively driving inhouse material development in dialogue with customer base around future designs
- External collaboration with universities, solution providers and OEMs
- Structural business activities organically and/or through M&A under investigation
- Tapping into battery value chain through new collaborations

Conclusion

Heat exchanger material demand

- Battery powered cars have significant need for thermal management
- Exponentially growing markets in early phases of its product lifecycle

Technology shift

- No mainstream “solution” apparent in current and next generation battery electric vehicles
- New requirements on thermal management systems drive new requirements on heat exchanger material

Value chain remodelling

- Opportunities/uncertainties in value chain around “owner” of electric drivetrain/components
- Movements across value chain with a higher level of integration

- Gränges well positioned to capture growth
- Pipeline of new materials and applications to meet future needs
- Early adaptation to market trends – working across the value chain with the market leaders

CREATE VALUE FROM SUSTAINABILITY

Sofia Hede våg
VP Sustainability



Sustainability part of Gränges' 2020 strategy

Drive growth
through innovation

Create value from
sustainability

Increase efficiency
through continuous
improvements

Grow presence
through structural
expansion

Strong global push for sustainable development



- Today's world a challenging one
- Strong global push for sustainable development
- Increased focus on sustainability will benefit both our planet and our citizens
- Also offers a competitive edge
- **How can Gränges turn this opportunity into success?**

Aluminium as the **green metal** with unique properties

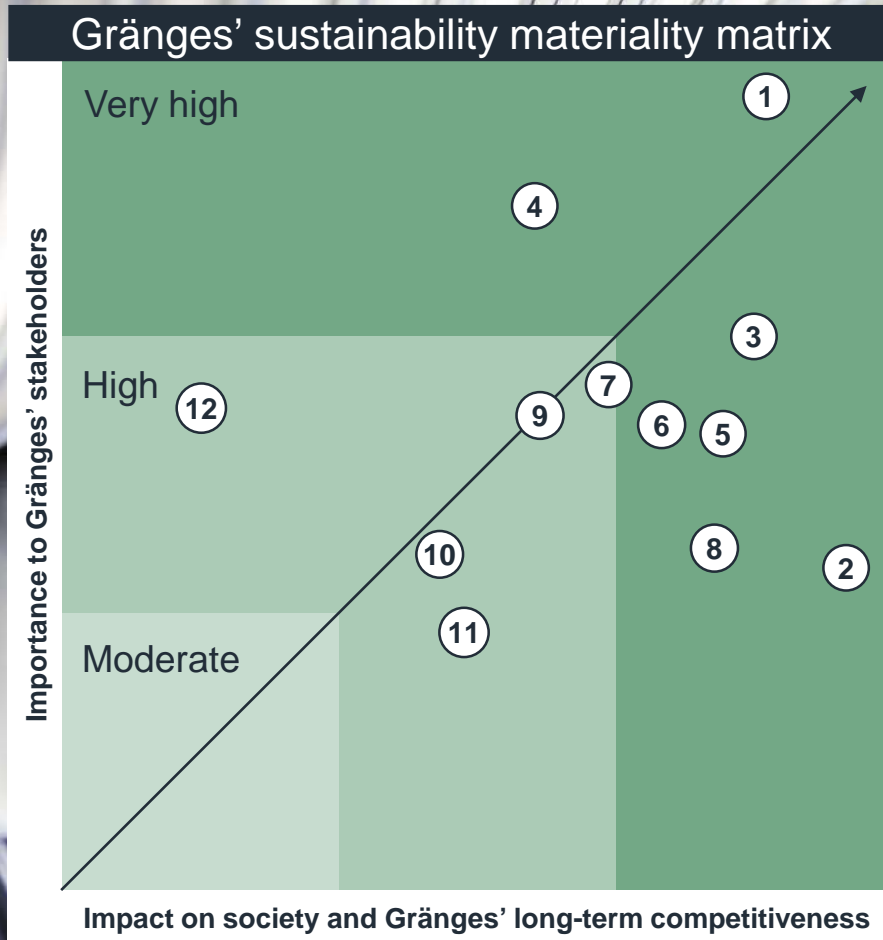
- ▶ Light but strong
- ▶ High corrosion resistance and durable
- ▶ Versatile
- ▶ Impermeable
- ▶ Energy saving and highly recyclable

Gränges' main objective is to maximize value creation

– For our business and stakeholders



Stakeholders' input has been guiding our sustainability priorities



Material topics

- ① Occupational health and safety
- ② Recycled aluminium
- ③ Ethics and anti-corruption
- ④ Emissions to air and water
- ⑤ Energy use
- ⑥ Research and development
- ⑦ Supplier assessment
- ⑧ Material stewardship
- ⑨ Labour practices
- ⑩ Equality and diversity
- ⑪ Career and leadership development
- ⑫ Water use

Our updated global sustainability pillars and topics

ENSURE RESPONSIBLE & SUSTAINABLE SOURCING 	SECURE ETHICAL BUSINESS PRACTICES 	RUN SUSTAINABLE OPERATIONS 	BUILD DIVERSE & HIGH-PERFORMING TEAMS 	DEVELOP SUSTAINABLE PRODUCT OFFERINGS 
<ul style="list-style-type: none"> ○ Responsible sourcing ○ Sustainable supply chain performance 	<ul style="list-style-type: none"> ○ Ethics and anti-corruption 	<ul style="list-style-type: none"> ○ Climate ○ Energy use ○ Recycled aluminium ○ Water use ○ Workplace safety 	<ul style="list-style-type: none"> ○ Career and leadership development ○ Diversity and equality ○ Employee well-being 	<ul style="list-style-type: none"> ○ Eco-responsible innovation ○ Sustainable product performance
<i>SVP Technology & Business Development</i>	<i>General Counsel</i>	<i>SVP Process Engineering & Operational Development</i>	<i>SVP Human Resources</i>	<i>SVP Research & Innovation</i>

Ensure responsible and sustainable sourcing

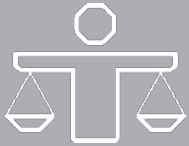


WE WILL ensure that our suppliers maintain high sustainability standards by enforcing strict sustainability criteria in supplier sourcing agreements and partnerships.

We also strive to improve the environmental performance of our supply base.

- Conducted audits of strategic suppliers to ensure compliance to Gränges' sustainability standards
- Initiated a global responsible sourcing program to ensure compliance and reduce environmental impact

Secure ethical business practices



WE WILL be a reliable and ethically sound partner in all our business relations and in the societies in which we conduct our business.

We never accept corruption and always act rapidly, and vigorously if discovering unethical behaviour.

- Participates in the UN Global Compact since October 2016
- Completed training in Gränges' Code of Conduct and anti-corruption
- Initiated project to update Code of Conduct and whistleblower process

Run sustainable operations



WE WILL strengthen operational efficiency and continuous improvements in our operations (energy, materials), reduce emissions to air and water and provide a safe and secure workplace for our employees.

- Reduced the energy use by 2% per tonne
- Increased the share of internal recycled aluminium in production by 3%
- Conducted safety cross-audits to improve safety and promote best practice

Run sustainable operations

- Energy recovery project in Finspång



Build diverse and high-performing teams



WE WILL ensure that our people are motivated and committed and that we provide an open, diverse and non-discriminatory workplace where employees can realize their full potentials and contribute to a high-performing organization.

- Focused on building “One Gränges”; our corporate culture
- Established a global HR Council
- Worked to increase the share of females among new recruits

Build diverse and high-performing teams

– Family Days in Shanghai



Develop sustainable product offerings

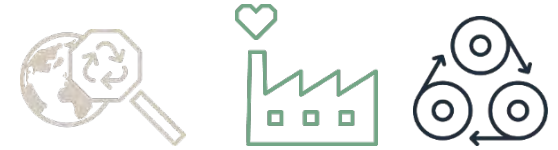


WE WILL enhance the environmental performance of our products through development of innovative and eco-responsible offerings which will contribute positively to our competitiveness and a more circular industry approach.

- Initiated efforts to establish environmental performance deliverables into our R&I process
- Conducted a carbon footprint study to provide a baseline for future target setting and a reduced carbon footprint

The carbon footprint study

– In accordance with GHG protocol



Supply chain

- **Scope 3:** Indirect emissions from transports and production of purchased materials and fuels for Gränges' sites

Gränges' operations

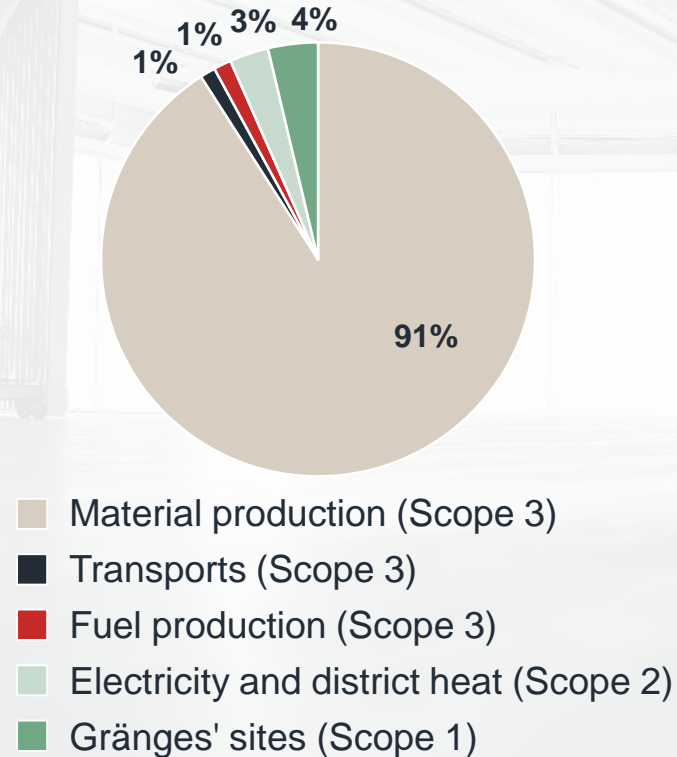
- **Scope 1:** Direct emissions from Gränges' sites
- **Scope 2:** Indirect emissions from purchased electricity and heat to Gränges' sites

Customers

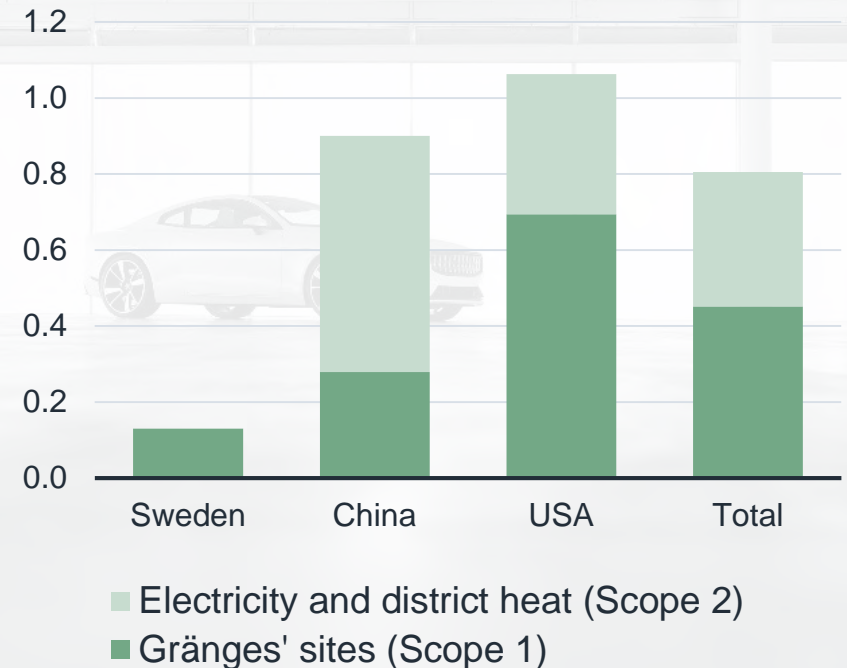
- **Scope 3:** Indirect emissions from use of Gränges' products

Main material production accounts for more than 90 per cent of total impact

Total CO₂e emissions 2017: 4.6 Mtonnes



Direct CO₂e emissions & indirect CO₂e emissions from purchased electricity and heat [tonnes CO₂e/tonnes product]



Turning the opportunity into success

– Shared benefits for our business and stakeholders



Conclusion

- Global push for sustainable development brings opportunities
- Aluminium with its unique properties contributes positively to sustainable development
- Continued integration of sustainability aspects across our business
- Long-term objective is to create value from sustainability and secure our competitiveness and growth, which will also bring benefits for our stakeholders and society in large



GRÄNGES ASIA

Colin Xu
President Asia

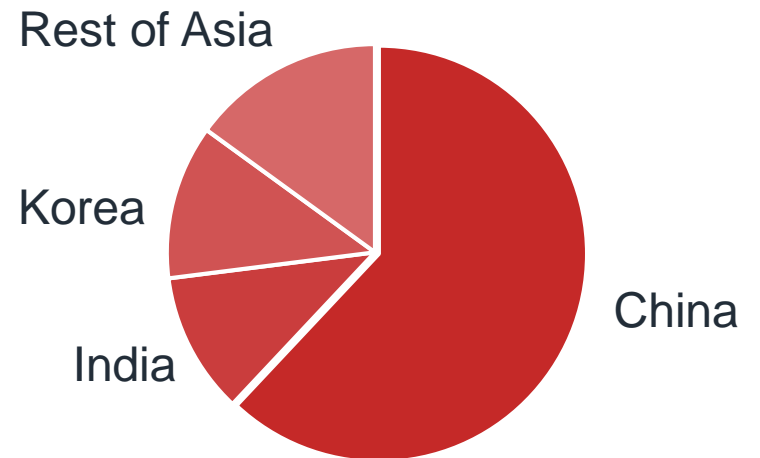
Gränges Asia



Gränges has presence in major Asian markets



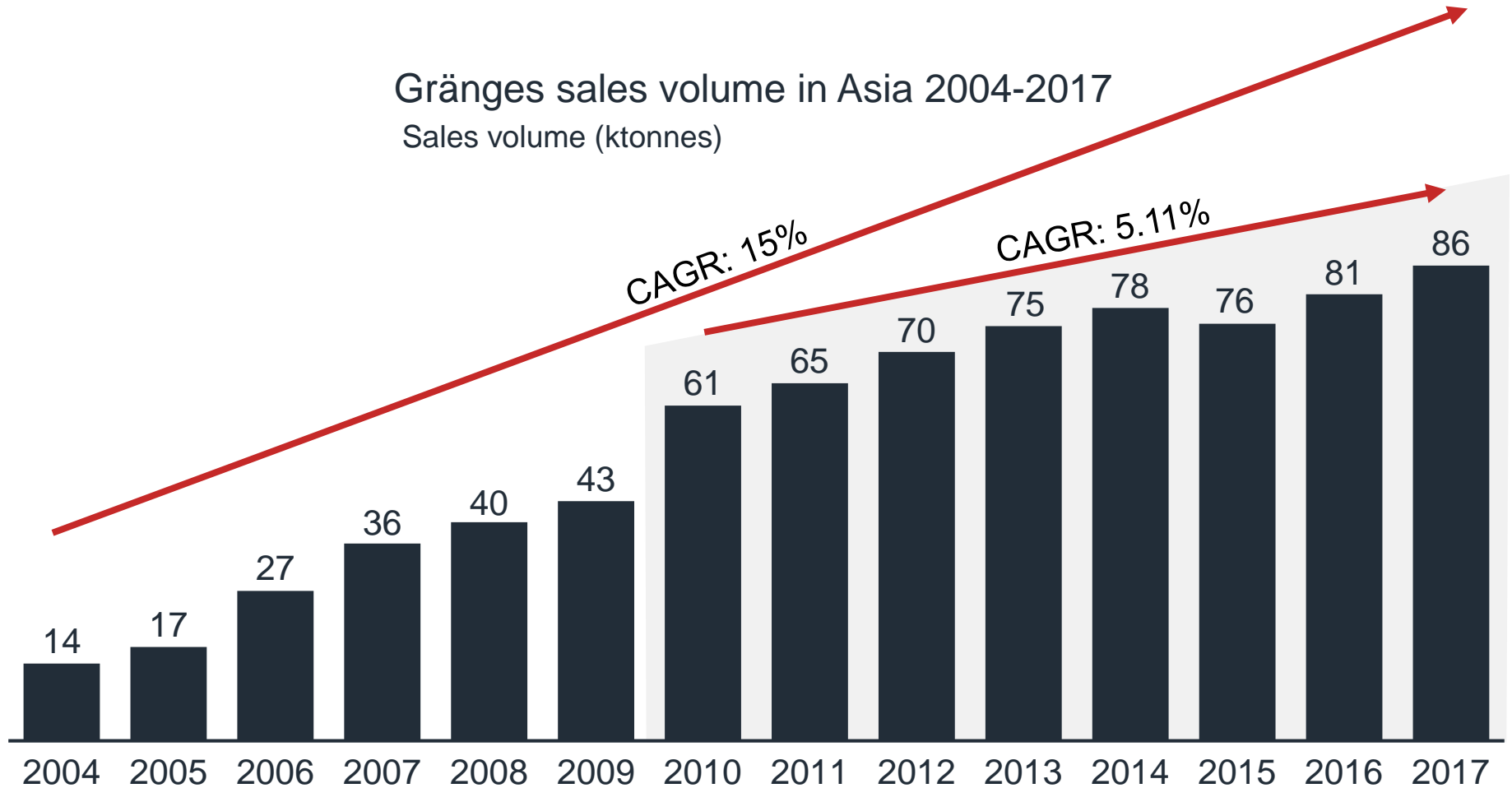
Distribution of sales volume in Asia in 2017



Strong historical track record – sales volume driven by rapid growth in Chinese automotive market

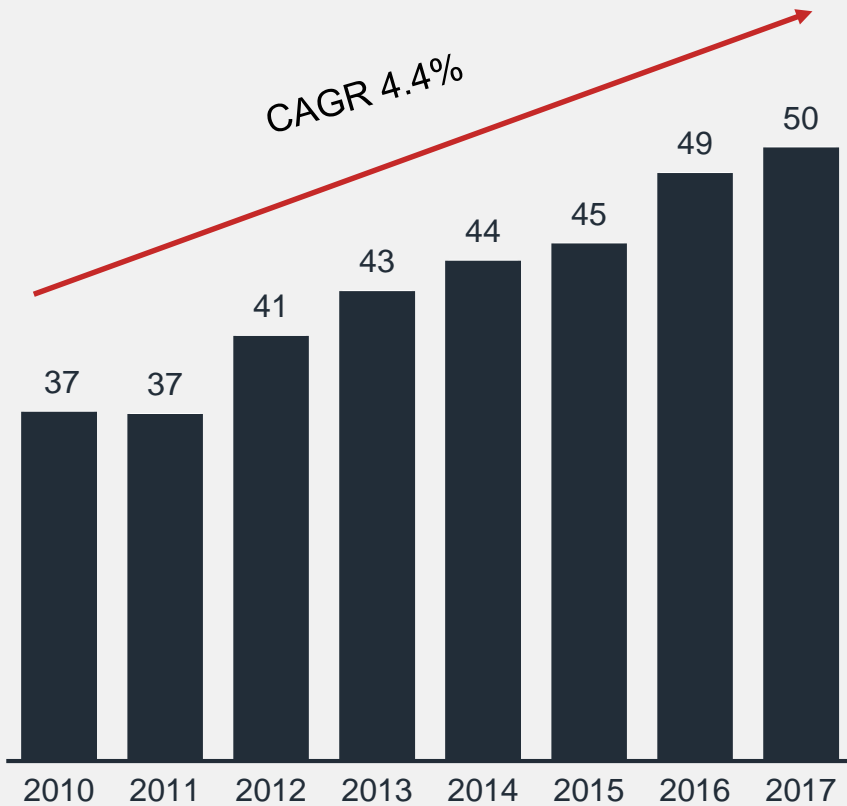
Gränges sales volume in Asia 2004-2017

Sales volume (ktonnes)



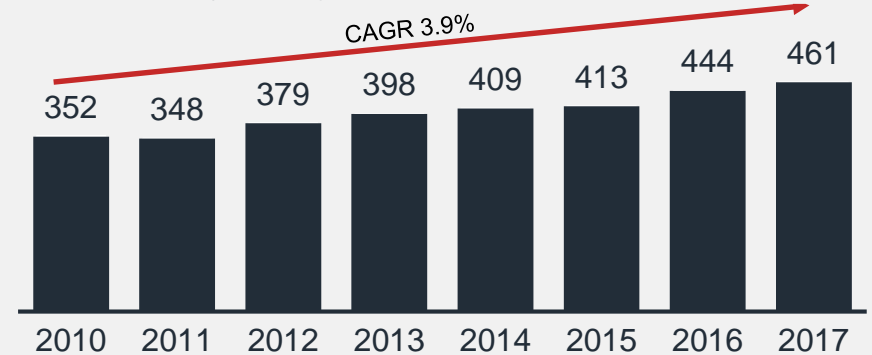
Asian market has outperformed the global growth in the automotive industry

Light vehicle production in Asia
(Million units)



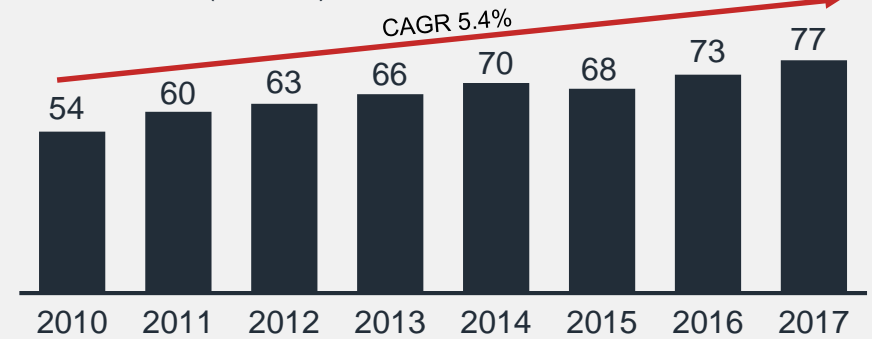
Source: IHS December 2017

Rolled aluminium heat exchanger material in Asia
Sales volume (ktonnes)



Source: Gränges analysis

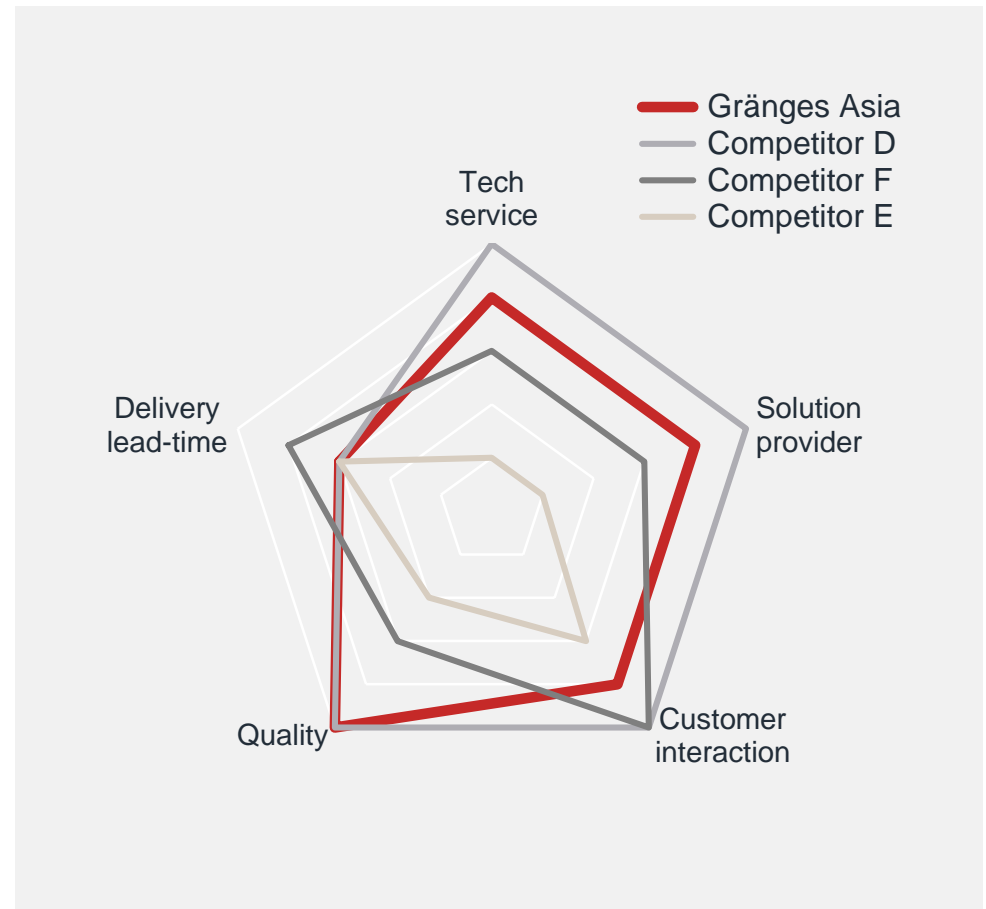
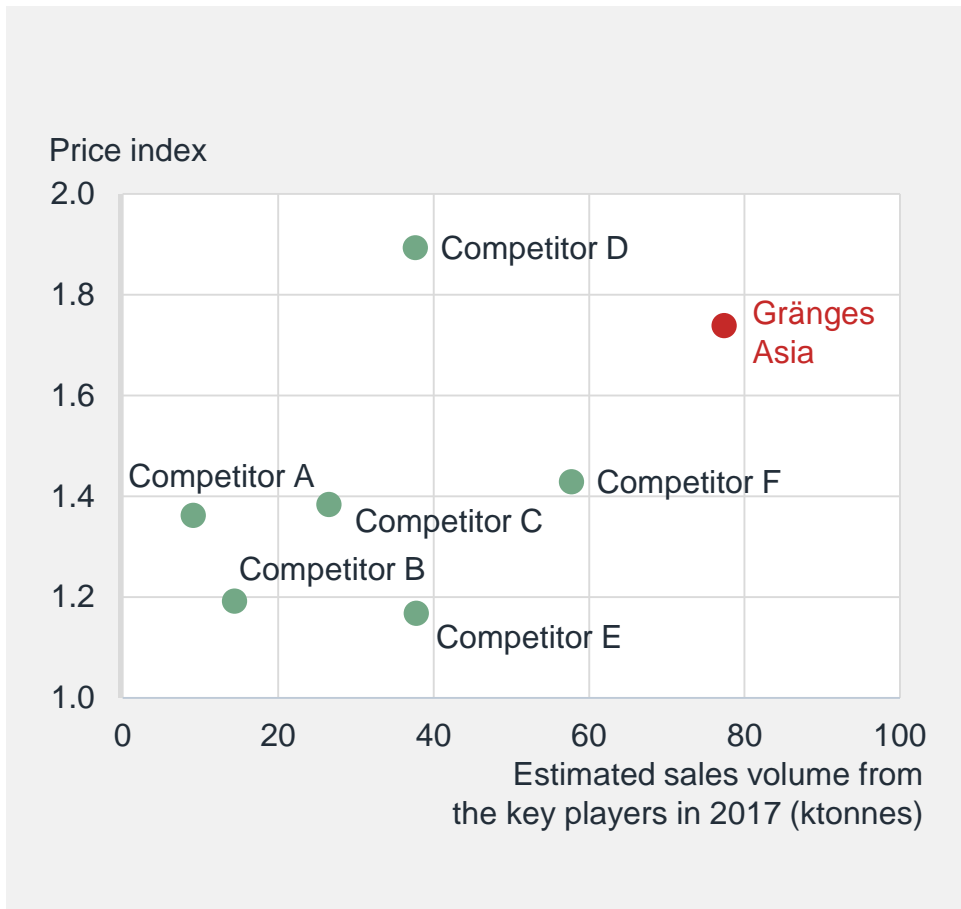
Gränges Asia sales volume for Auto heat exchangers
Sales volume (ktonnes)



Source: Gränges analysis

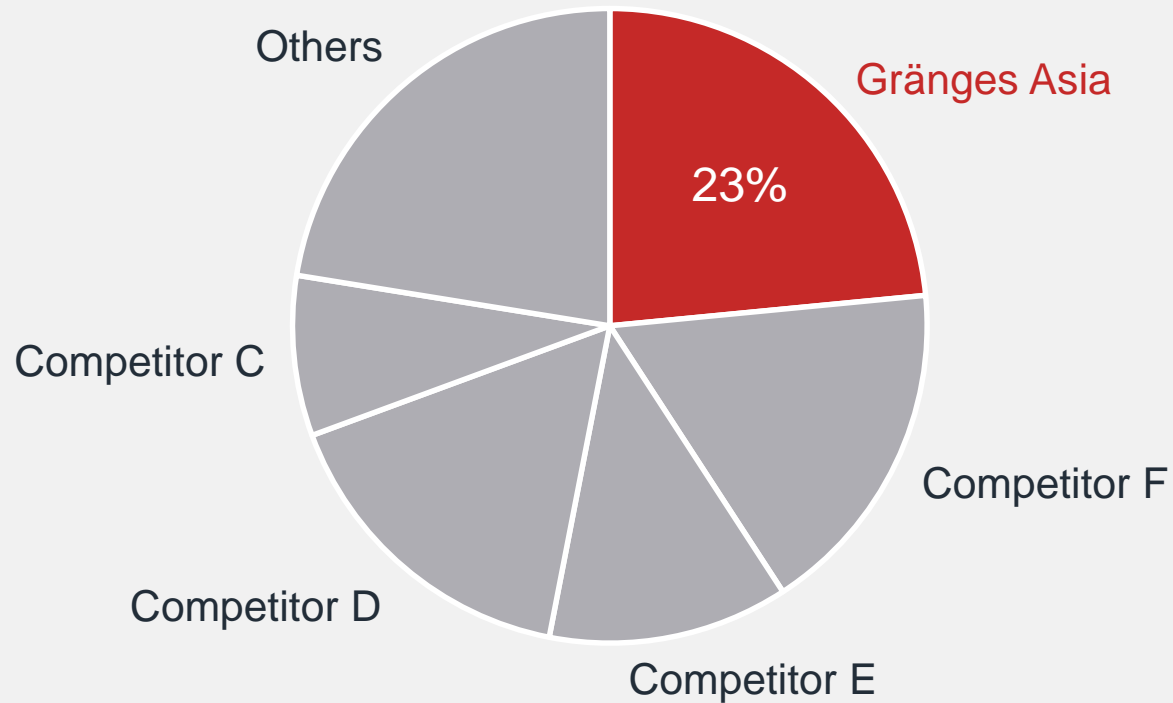
Gränges has gained a leading position among customers as a high quality supplier

Gränges position in clad materials in Asia



Gränges holds a market share of 23 per cent in clad products in Asia

Clad product market shares



Success factors

Quality reputation

Customer tailored solutions

Market-driven innovation

Technical support

Operational excellence

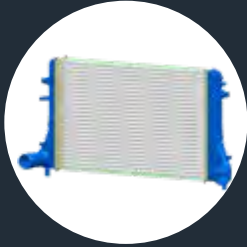
Strong culture

Gränges Asia awarded Best Performance Supplier by Hanon China

- Hanon Group has been one of Gränges' strategic and largest global key accounts for many years
- Gränges was awarded for high quality, outstanding performance and good team work
- The event was held on 14 December 2017



Focus on fast growing heat exchanger applications



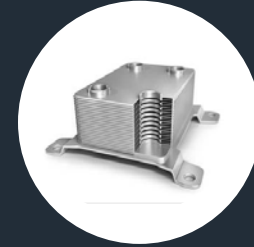
Charge air cooler

- Conversion to folded tube design in Commercial vehicles
- 15% CAGR in passenger vehicles installation
- Severe corrosion requirements
- Solution ready with superior corrosion and strength performance
- Development projects with most customers



Folded tube

- Is becoming standard to replace multiport extrusions in condensers and evaporators
- 35% estimated conversion by 2018
- Advanced forming and brazing processes
- Major supplier to pioneer global key account
- Development with in-house folded tube line

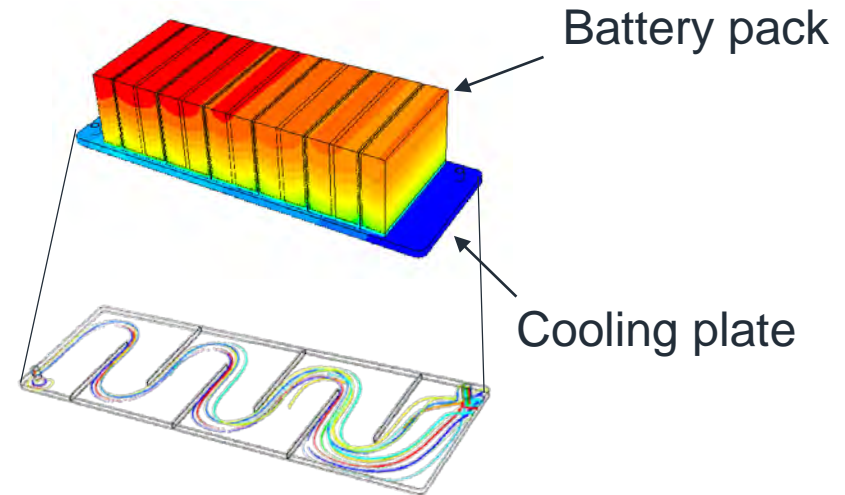


Chiller

- Critical application in all electrical vehicle systems
- Estimated CAGR: 35%
- High requirements on mechanical property and cleanliness after brazing
- Gränges Asia is leading the development and growth

Added resources and competence to focus on EV trend and explore new opportunities

- Battery air cooling is the common solution – trend is towards liquid cooling
- Stamping + brazing design looks promising for lighter weight and better cost position
- Designing and prototyping works are ongoing with OEMs and pack producers in China
- Development to reach down gauging target is ongoing together with customers
- New solution with TRILLIUM® technology is under verifying



Cooling plate
~35% CAGR
14 ktonnes material
consumption by 2020

Innovative solutions provide growth opportunities for non-auto business

- Windmill market becomes new growth engine for vacuum brazed heat exchanger materials
- 30% power capacity newly installed in 2017
- Establish material standard for the industry together with leading OEMs and suppliers
- Awarded sole material supplier for off-shore projects
- Collaborate with downstream partner to achieve flexible delivery – new business model

Gränges sales volume of vacuum brazed products in China has *tripled* 2013-2017

Research & Innovation competences strongly focused to serve Asian customers

- Integrated part of the customer offering
- Product management
- Yearly technical forums
- Application center complementing product development
- Development projects for electrical vehicles



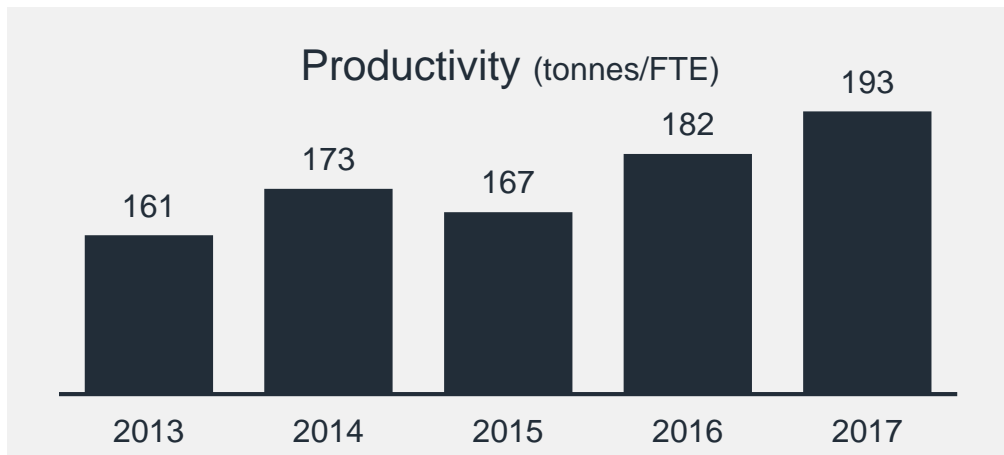
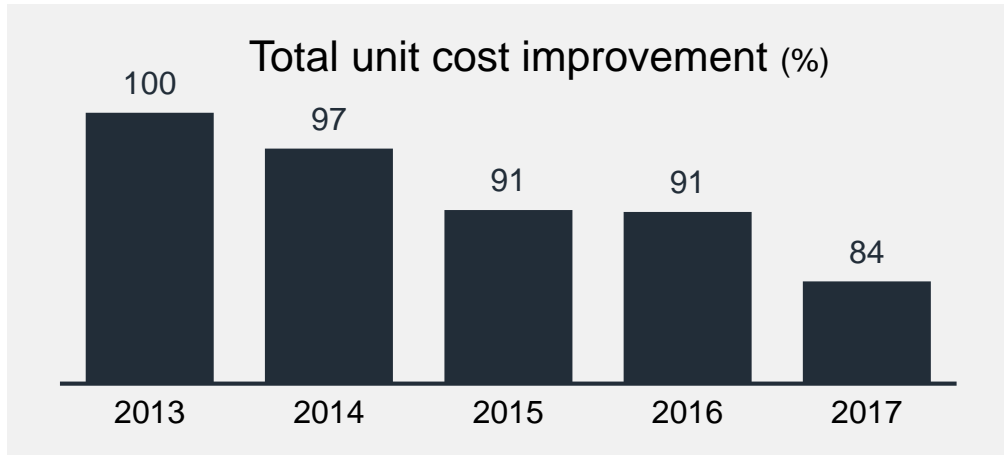
Research & Innovation plays more important role in business development



Customer case

- Harsh standards on corrosion – needed new solution
- R&I team initiated new trials of process innovation
- New solution was developed with creative ideas of material process change
- Optimization of brazing process with customers' process knowledge finally secured performance

Continuous efforts to improve productivity and address cost competitiveness



- Operational excellence
 - Productivity – scale
 - Metal management
 - Quality programs
 - Process yield improvement
 - Sourcing optimization
 - Headcount freeze
- Close-loop cost control

Improved metal management has contributed to better cost position, but still room for further improvements

Achieved

- Better sorting operation
- Dynamic cast house planning
- Slab outsourcing optimization
- New scrap categories

Potential

- Complete optimization model
- Complete sorting system
- Execute follow-up system
- Implement external scrap sourcing model

Clad scrap recycle rate last five years increased more than

50%

Annual quality program leads to significant improvement and helps maintaining premium quality reputation

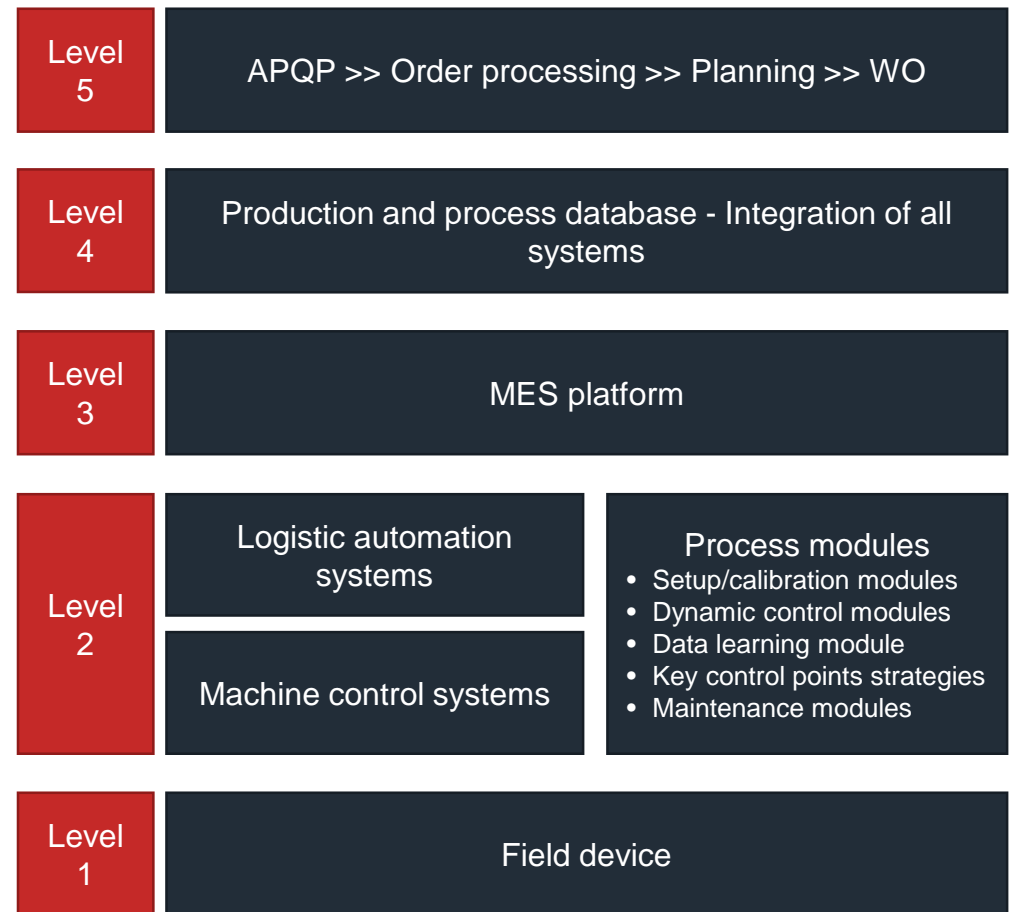
- Risk oriented Quality system
 - Focus on effectiveness
- Process capability
 - Know-how built in process
 - Sophisticated monitoring and inspection systems
 - Automation
- Prevent defects
 - Smart delivery control systems
 - Customer requirements included in execution process
- Organizational competence

72%

Decrease in number of customer claims 2013-2017

Digitalization will continue to drive operational excellence and efficiency

- On our way to be less labor intense and maximize contribution by engineering competence
- Achieved high level of in-plant logistic automation
- Efficient and quality customization and standardization
- Data-driven process optimization
- IoT to be applied to maintenance and process control systems
- Data integration to further support full line process optimization



Stable and engaged workforce



WE ARE FAMILY


Turnover
<5%

Employed
over 10 years
>50%

Annual OPI
>1,500



External factors that will have an impact on Gränges' strategic agenda in Asia



Macro trends

Competition

Customers

Supply

New entries

Grow with healthy profitability and remain the leading player

Drive growth through innovation

- Focus on development of target heat exchanger applications
- Electrical vehicles application development and commercialization
- Product management to optimize portfolio

Create value from sustainability

- Zero accident target
- Improve scrap recycling
- Exceed environmental regulations and strive for best standards
- Multiple sourcing

Increase efficiency through continuous improvements

- Autonomation/digitalization
- Increase productivity
- Increase energy efficiency
- Improve metal management

Grow presence through structural expansion

- M&A to expand capacity
- Explore adjacent market segment (folded tube, non-auto applications)

Conclusion

- Gränges Asia holds a strong market position through a well-defined value proposition
- The success factors have enabled Gränges Asia to deliver value and staying competitive
- The success factors will remain important to achieve healthy and sustainable performance in coming years



GRÄNGES AMERICAS

Patrick Lawlor
President Americas

Aluminum Markets



Foil

HVAC

Auto Hex

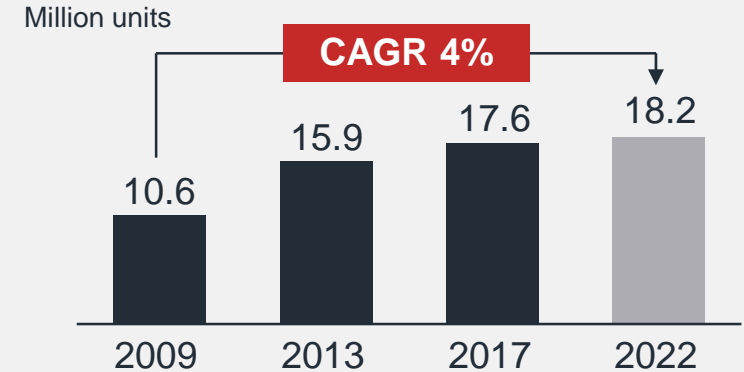
Strong macroeconomic outlook in the United States

Positive outlook for both
Employment & Consumer Confidence



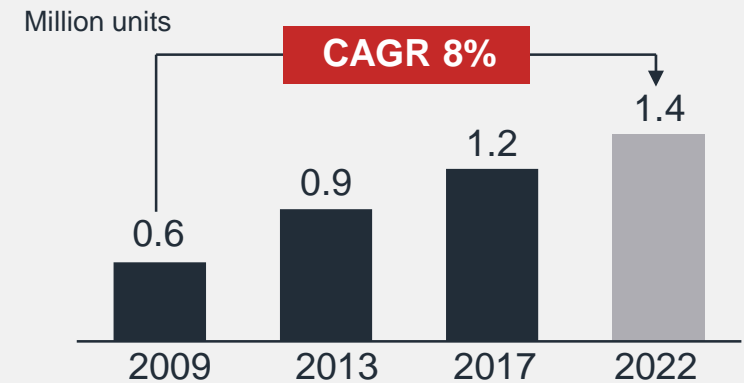
Source: Bureau of Labor Statistics, Statista

Light Vehicle Sales Forecast



Source: FRED University of Michigan Consumer Sentiment

Housing Starts Forecast



Source: National Association of Home Builders (NAHB)

Trade legislation impacting aluminium imports into the United States

Foil case

- March 15, 2018, U.S. ITC voted unanimously that unfairly-traded Chinese imports had materially injured Aluminum foil producers
- AD duties ranging from 49 to 106% and CV duties from 17 to 81%

Sheet case

- US Commerce Department self-initiated ADD/CVD
- Preliminary CVD margins to be announced April 13, 2018
- Preliminary ADD margins to be announced June 12, 2018

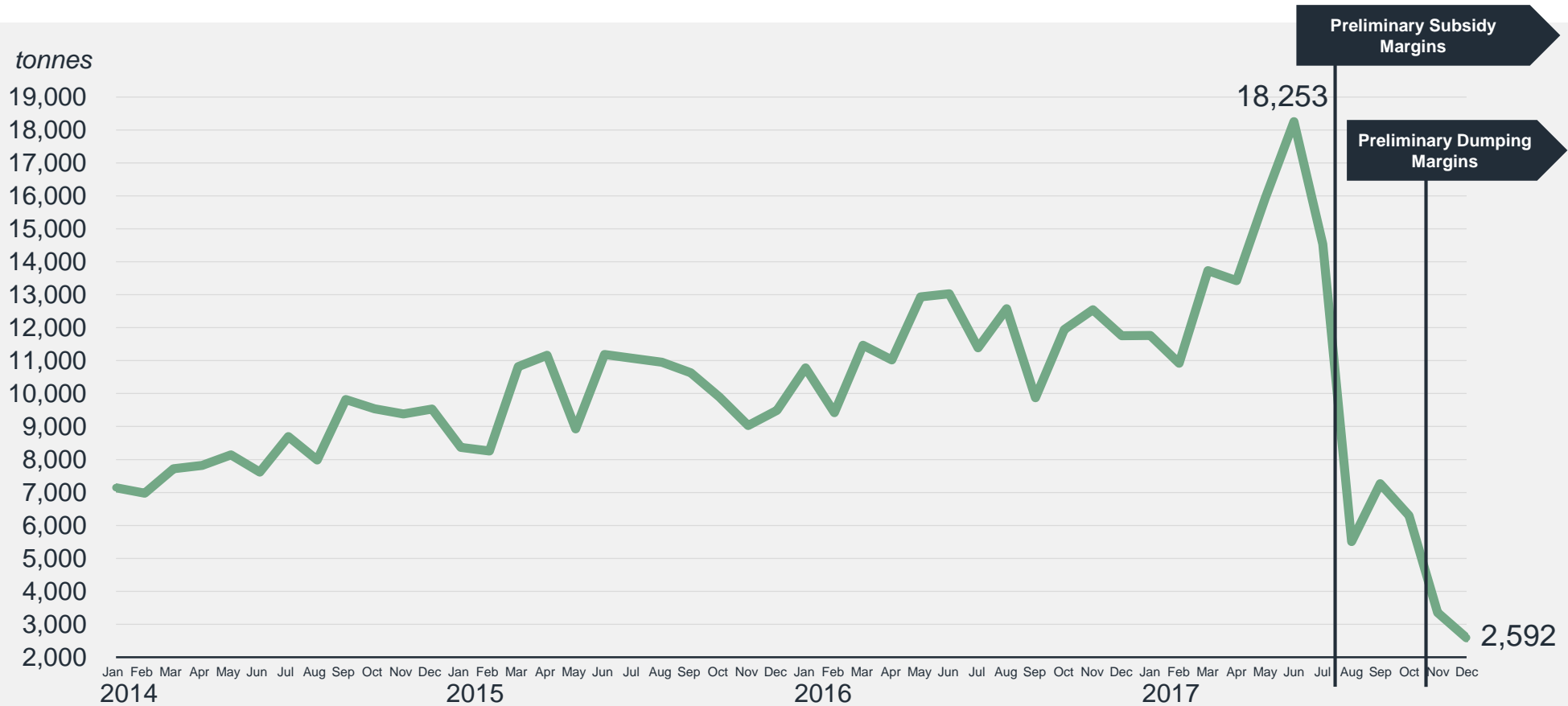
Section 232 general tariffs of 10% on all aluminium imports

- March 8, 2018, President Trump signed proclamations formally adjusting the tariffs on aluminium (10%) and steel (25%)
- The tariffs will go into effect March 23, 2018



Note: Anti-dumping duties (ADD) and Countervailing duties (CVD) are applicable on imports from China into the United States

U.S. imports of aluminum foil from China



Commerce determined Chinese foil sold at 48.64 to 106.09 per cent less than fair value and provided unfair subsidies to its producers of aluminum foil at rates of 17.17 to 80.97 percent

Gränges Americas – efficient manufacturing facilities with a track record of consistent performance



Huntingdon, TN
Newport, AR
Franklin, TN
Salisbury, NC

200 ktonnes capacity

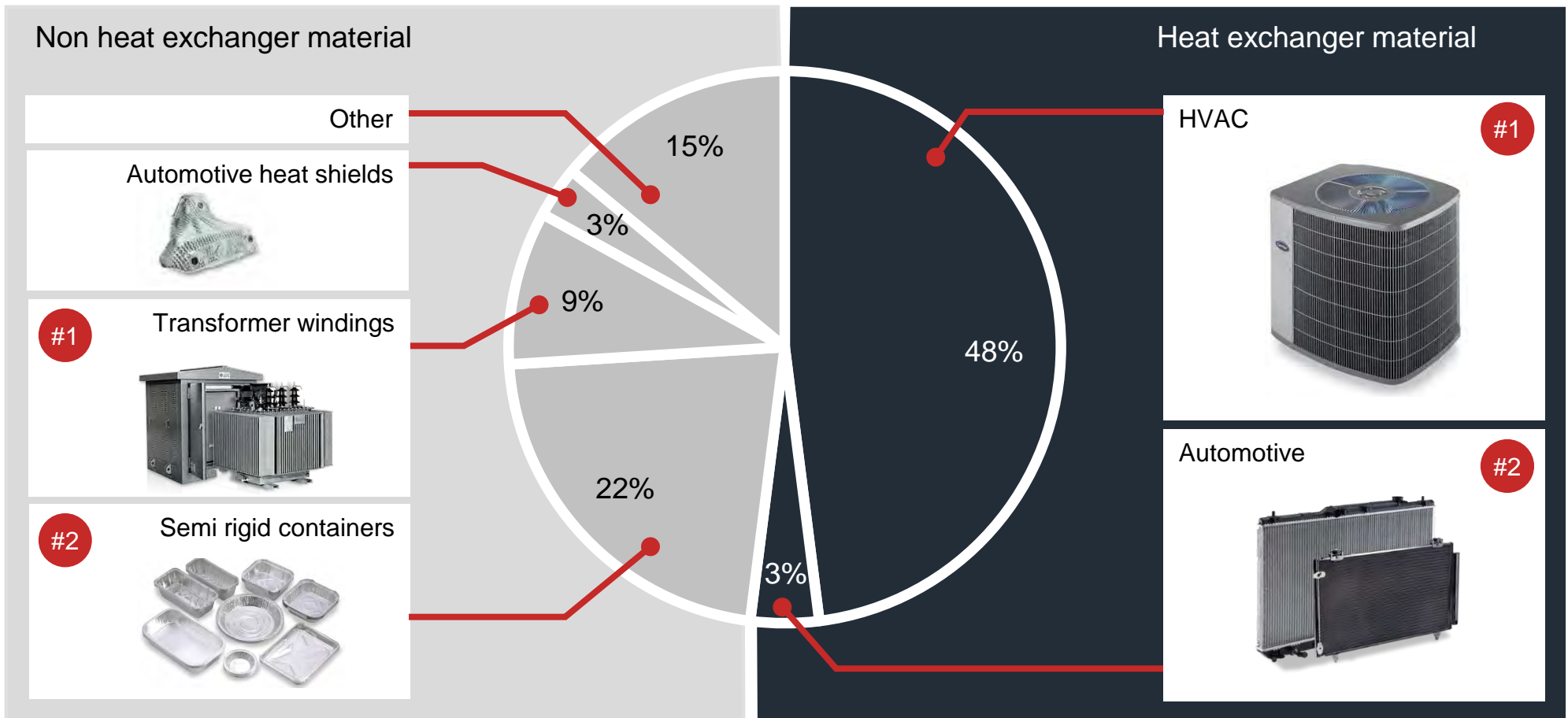
Gränges Americas Footprint

Huntingdon, TN	Newport, AR	Salisbury, NC
160 ktonnes	idle	40 ktonnes

Gränges Americas serves niche segments totaling 12 per cent of the flat rolled market

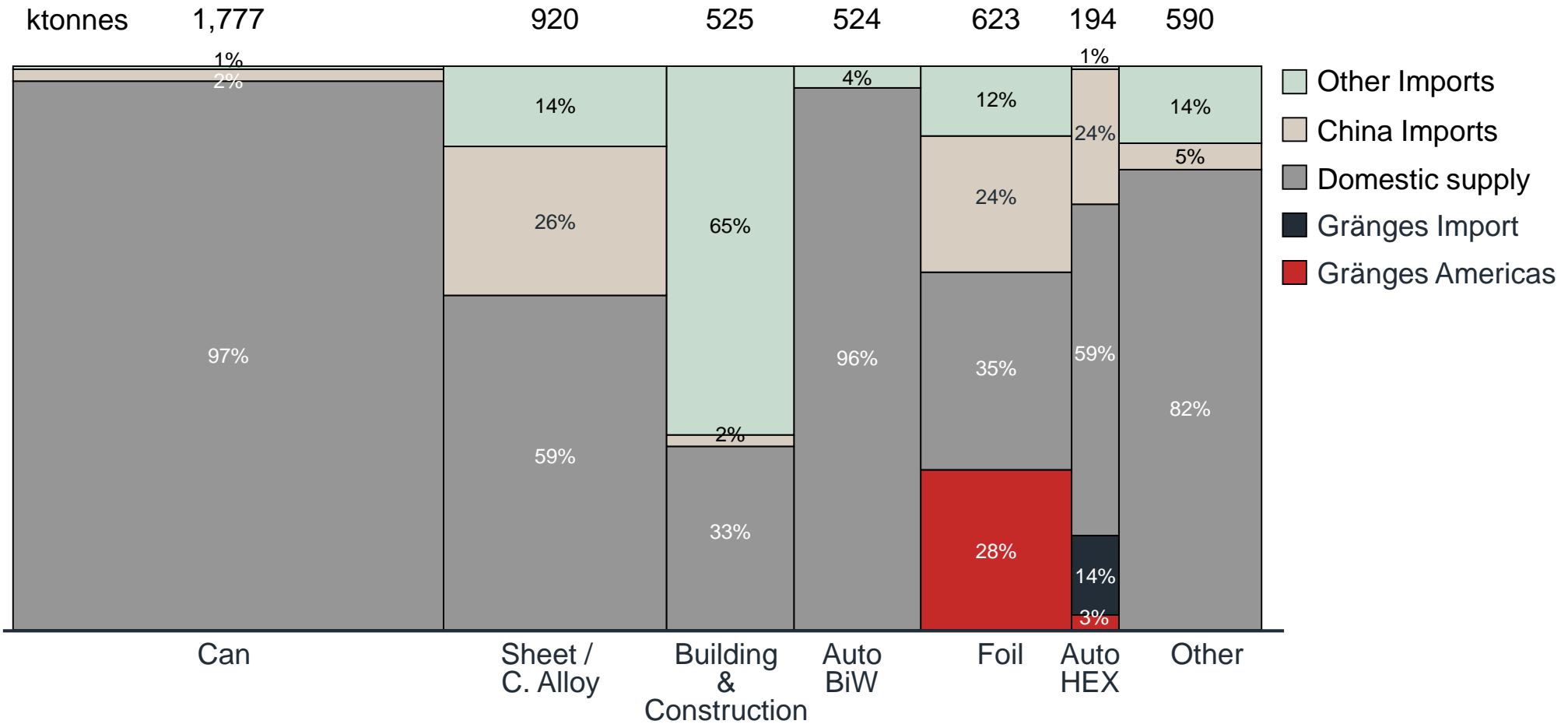
Sales volume per end use market – excluding imports

Market position in North America

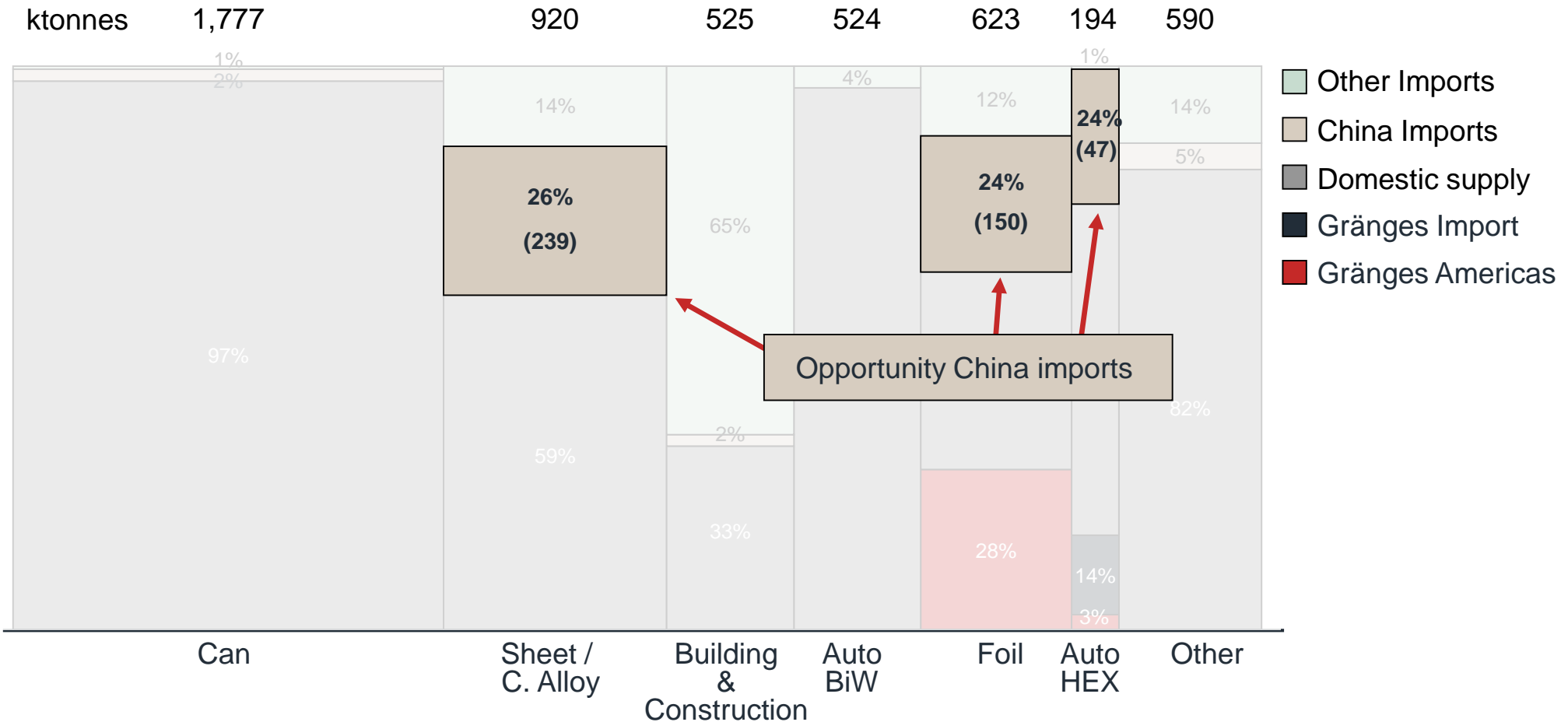


Note: Market position in automotive heat exchanger materials include imports.







Gränges Americas is a highly focused niche player in the 5.2 million tonnes North American market



...with significant opportunity for growth as proposed legislation targets sheet, foil and Auto HEX



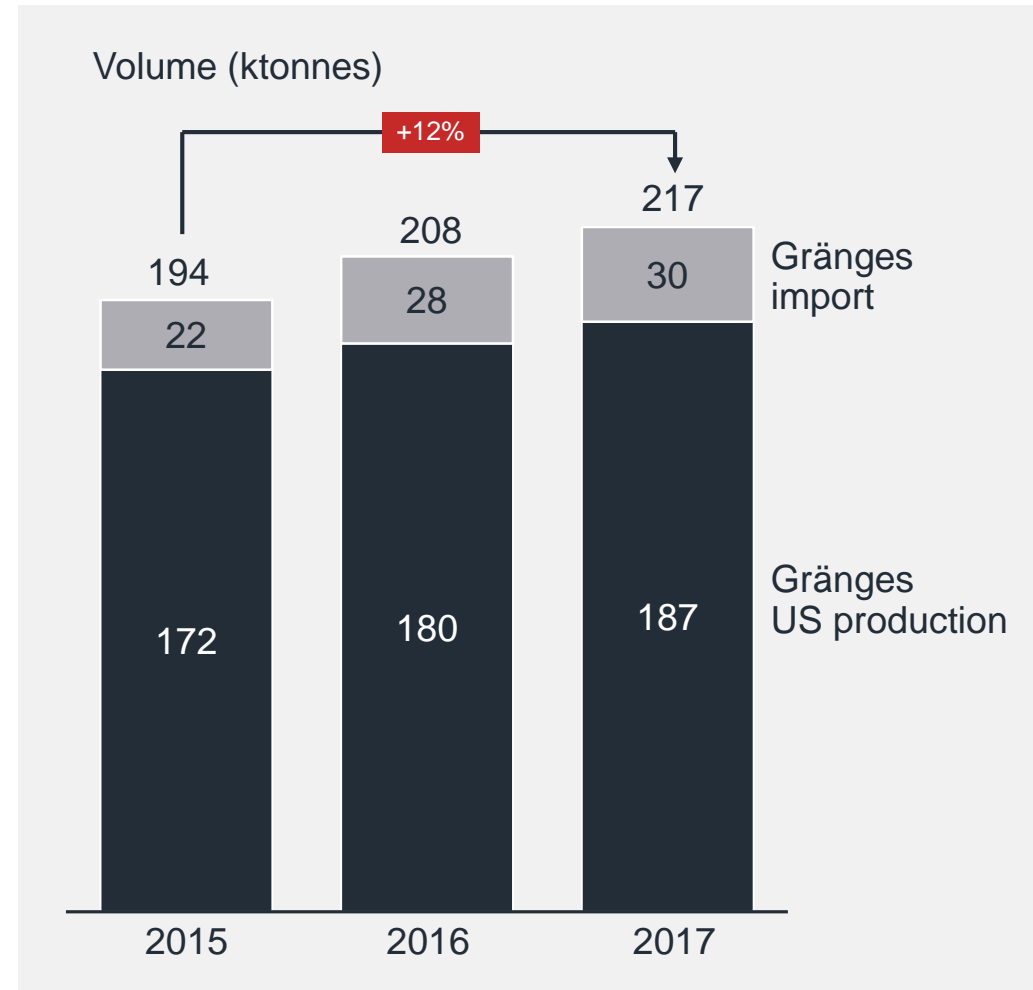
Americas market growth of 4 per cent expected in 2018

Market	Q1 2018 outlook	FY 2018 outlook
Automotive	 +2%	 +4%
HVAC	 +7%	 +6%
Container / Packaging	 +2%	 +2%

Source: IHS Automotive, December 15, 2017
 BSRIA Global HVAC Industry Report, January 22, 2018
 Aluminum Foil Containers Manufacturers Association, February 2018

Continued strong performance in 2017

- Adjusted operating profit was SEK 268 million in 2017 (87)
- Cashflow from operations amounted to SEK 302 million in 2017 (183)



Note: 2016 Post-Acquisition timeframe of August 22, 2016, through December 31, 2016

Strong and long term relationships with customers

50%

of volume under contract until end 2019

- 2018 price increases in place on the other 50% of volume
- Sales volume limited by capacity constraints – expect low, single digit growth in 2018



Air Conditioning & Heating



GM Components Holdings, LLC



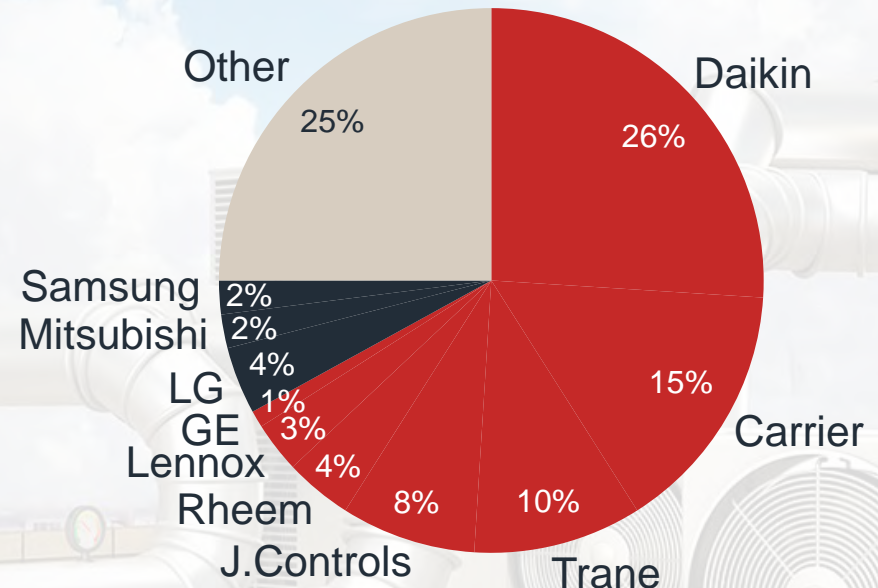
TRANE



North American HVAC market facts

- HVAC market grew by 7% in 2017; projected at +6% in 2018 (20M units)
- Main market drivers are housing starts, consumer confidence, and environmental legislation
- 95% of homes built after 2000 have air conditioning
- 70% of new units used for residential; 30% for commercial applications
- Within residential, 80% units for replacement, 20% new homes

North American HVAC market by manufacturer (by value)



Gränges share at 58%

Source: BSRIA 2018 & U.S. Energy Information Administration

Focused investments to achieve our growth strategy

Huntingdon plant expansion

- Domestic unclad automotive heat exchanger production
- Foil growth above market to maintain leading share
- New capacity available in second half of 2019

Potential JV with Mitsubishi Aluminum

- Enable automotive heat exchanger growth in line with Gränges' group strategy
- Production capabilities to produce a full range of clad and unclad products
- Strategic niche transportation and industrial product market entry

Evaluate to reopen Newport plant and invest in Salisbury to serve the light gauge foil market

- The light gauge foil market is underserved domestically
- Trade legislation has made this an attractive market once again
- Invest to re-enter and address lack of domestic light gauge production

Gränges will invest USD 110 million to expand capacity and capabilities in the Huntingdon plant

- Investment in Huntingdon, Tennessee to meet growing demand on automotive heat exchanger materials, HVAC, and foil
- Production capacity to increase from 160 to 200 ktonnes
- The expansion will create 85 permanent full-time jobs
- The project will contribute positively to operating profit in 2019

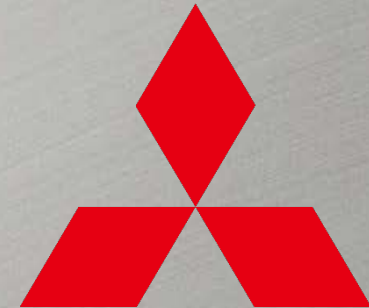


Gränges and Mitsubishi Aluminum to form a joint venture in North America

- Gränges has signed an LOI with Mitsubishi Aluminum Co., Ltd to form a joint venture in North America for manufacturing of advanced aluminium products for brazed heat exchangers and selected niche industrial applications
- Both parties to evaluate establishment of a new production facility in North America
- The joint venture agreement is expected to be signed in 2018. Additional terms will be disclosed when finalized



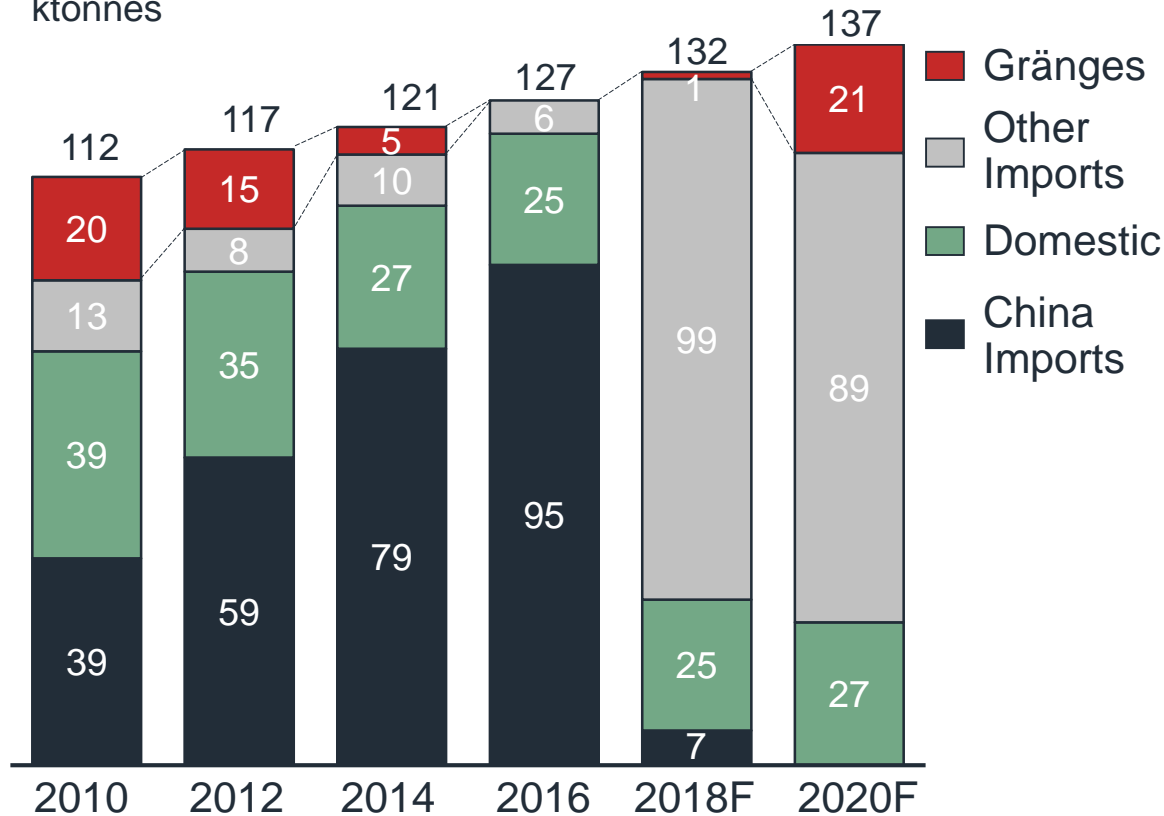
GRÄNGES



Trade legislation presents an opportunity to once again serve light gauge foil customers

Market evolution timeline

ktonnes



Next steps (to be investigated)

- Restart idled light gauge mill in Salisbury
- Upgrade the Newport plant
- Ramp up production in Newport



A black and white photograph of two industrial workers in a factory. They are wearing hard hats and safety glasses. One worker is pointing towards a large roll of metal, while the other looks on. The background shows industrial machinery and lights.

Conclusion

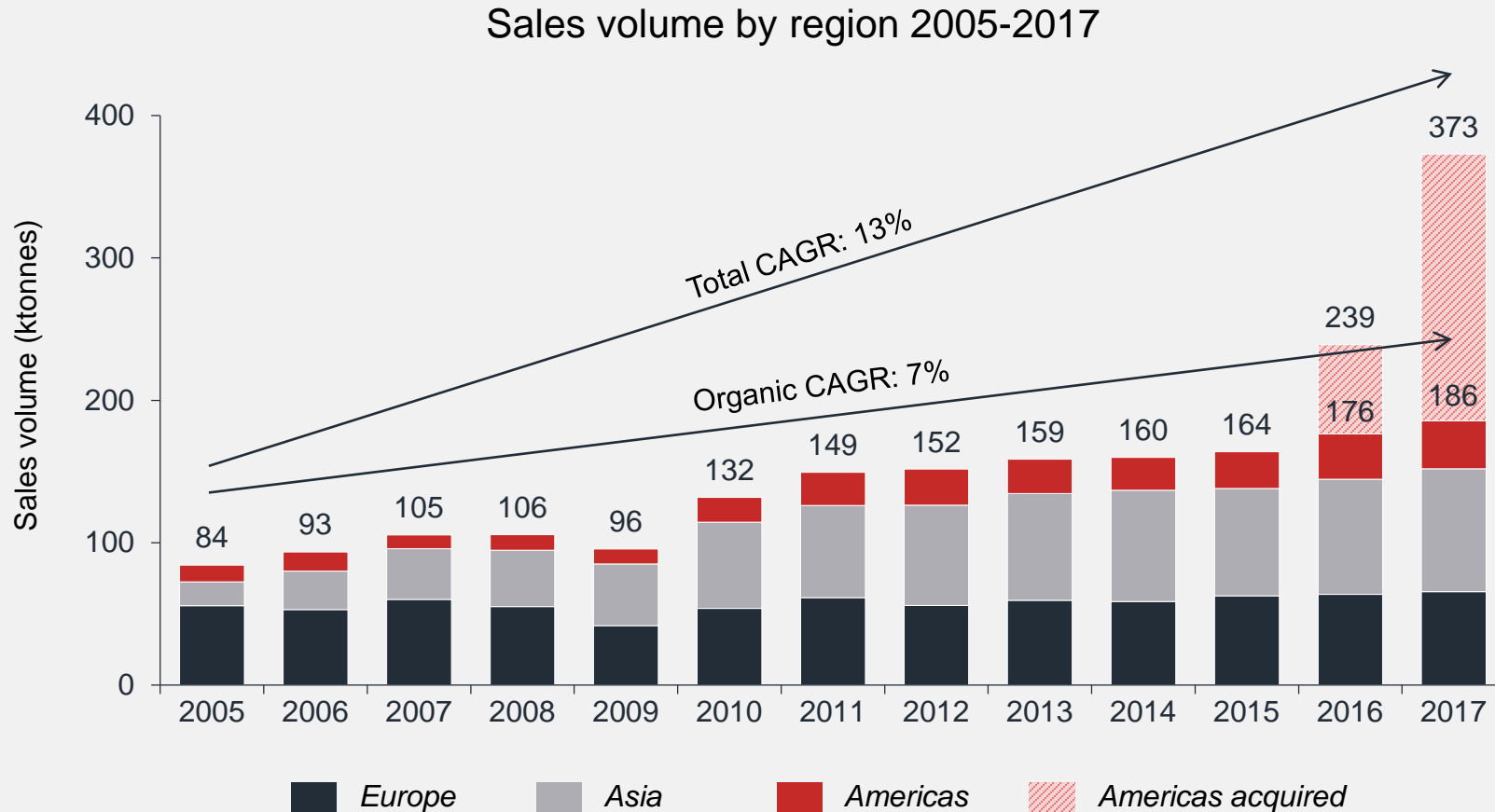
- Strong foundation for growth
- Strategy supports group targets
- Niche market diversification
- Timing of US investments critical



FINANCIAL UPDATE

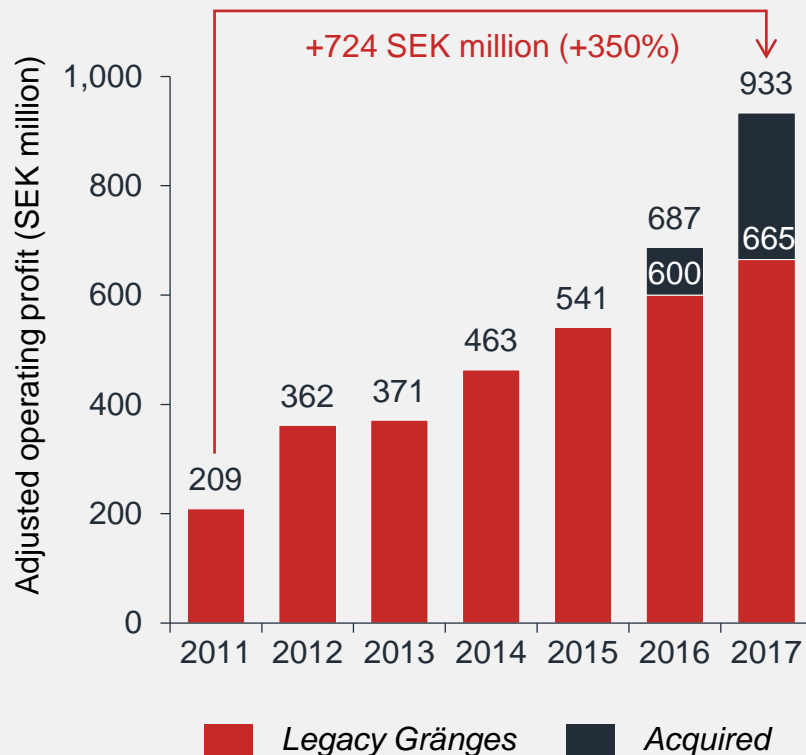
Oskar Hellström
CFO

Gränges has a strong track record of growth

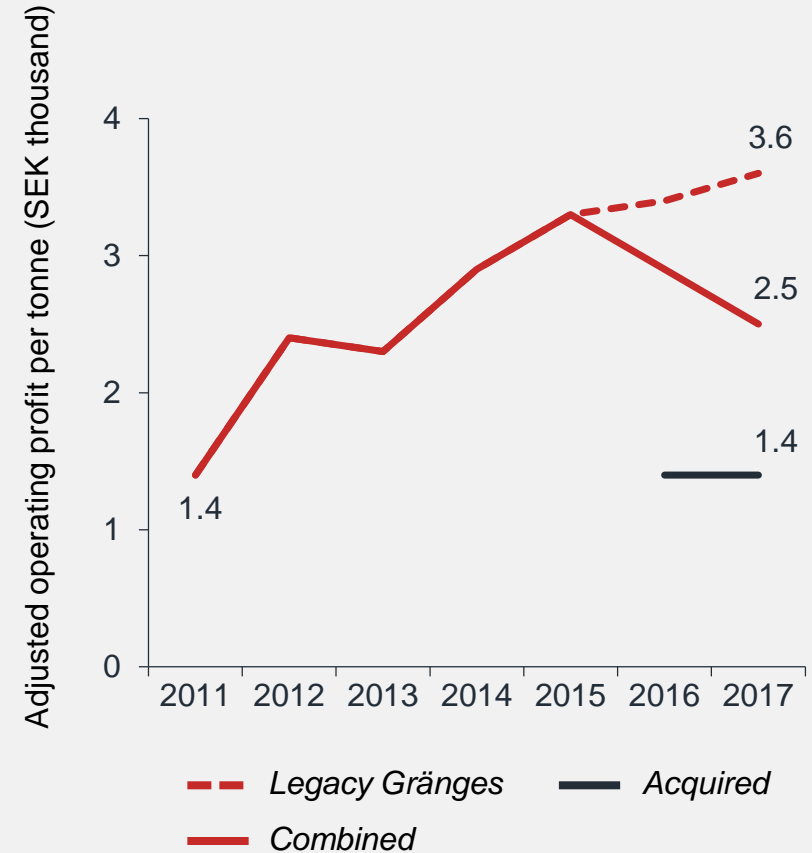


Earnings have improved by 350 per cent since 2011

Adjusted operating profit 2011-2017

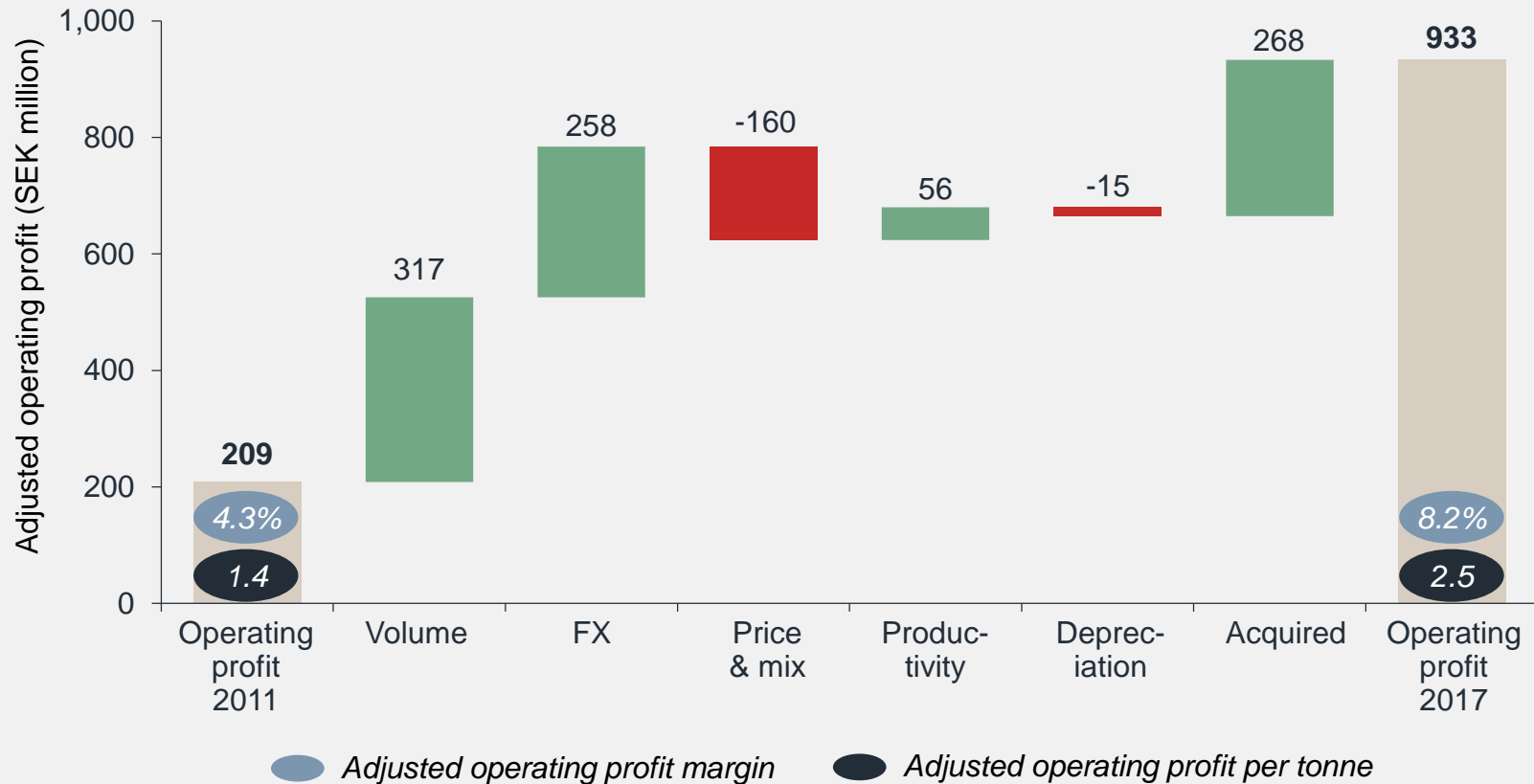


Adjusted operating profit per tonne 2011-2017



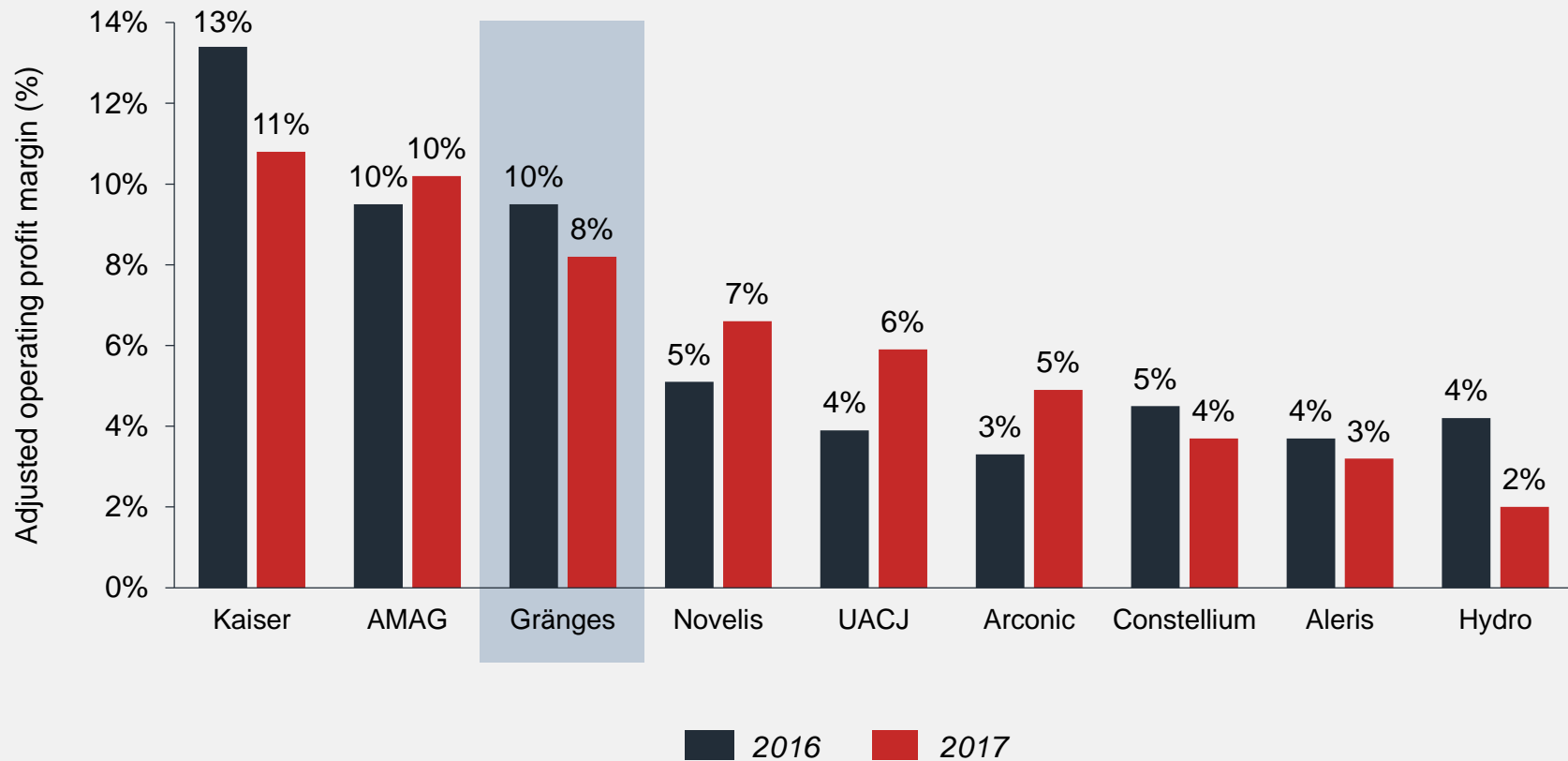
Earnings improvement driven by volume and productivity increase, US acquisition, and FX tailwind

Adjusted operating profit 2011 vs 2017



Gränges has established itself as one of the most profitable companies in the industry

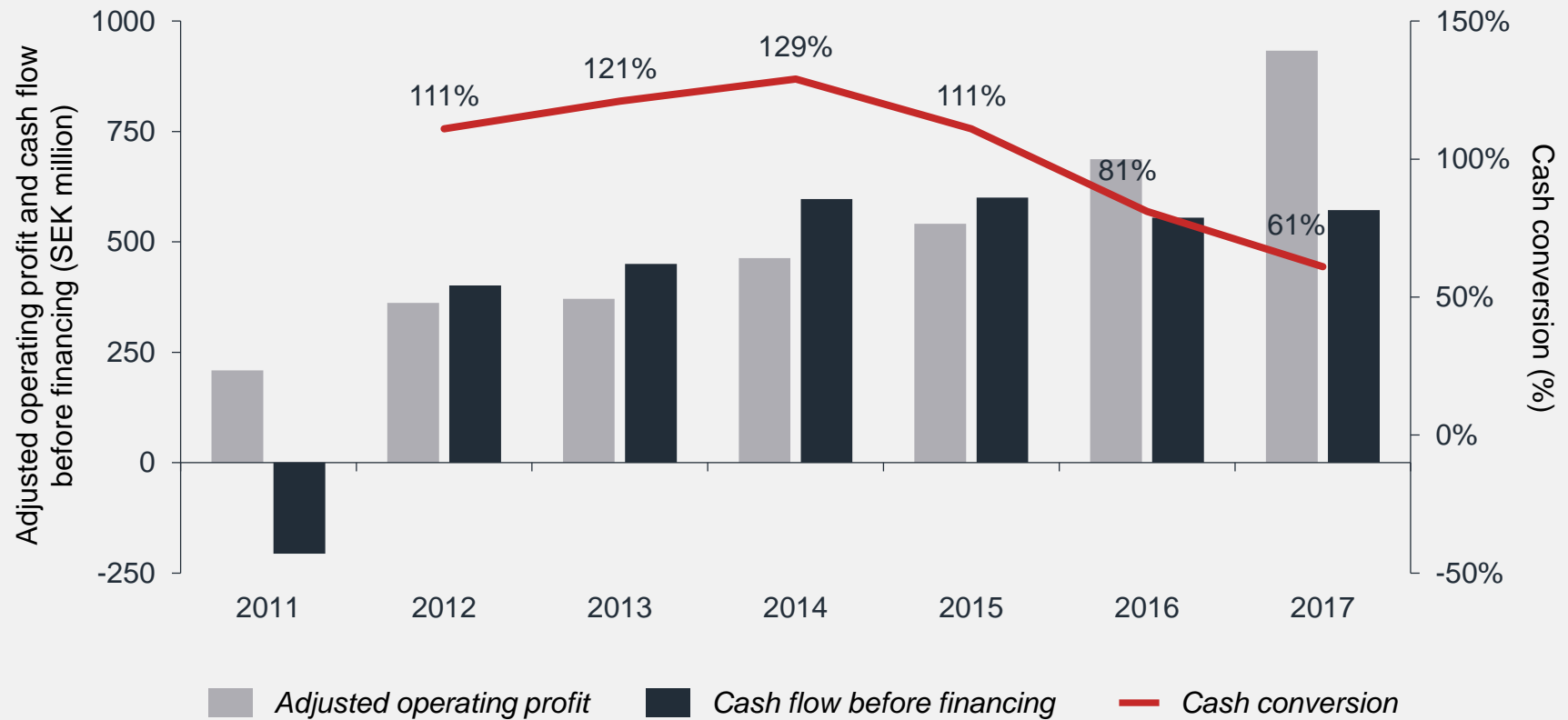
Aluminium rolling suppliers' operating profit margin 2016-2017



Note: Figures refer to aluminium rolling business unit where applicable and are based on full year reports for 2016 and 2017, except for Aleris where first three quarters of 2017 are used. Figures adjusted to include corporate over head and metal costs but excluding extraordinary items.

Improved earnings successfully converted into cash

Adjusted operating profit to cash flow before financing conversion 2011-2017



Note: Cash flow before financing in 2016 adjusted for cash consideration for Gränges Americas acquisition and tax on dividend from Gränges Asia

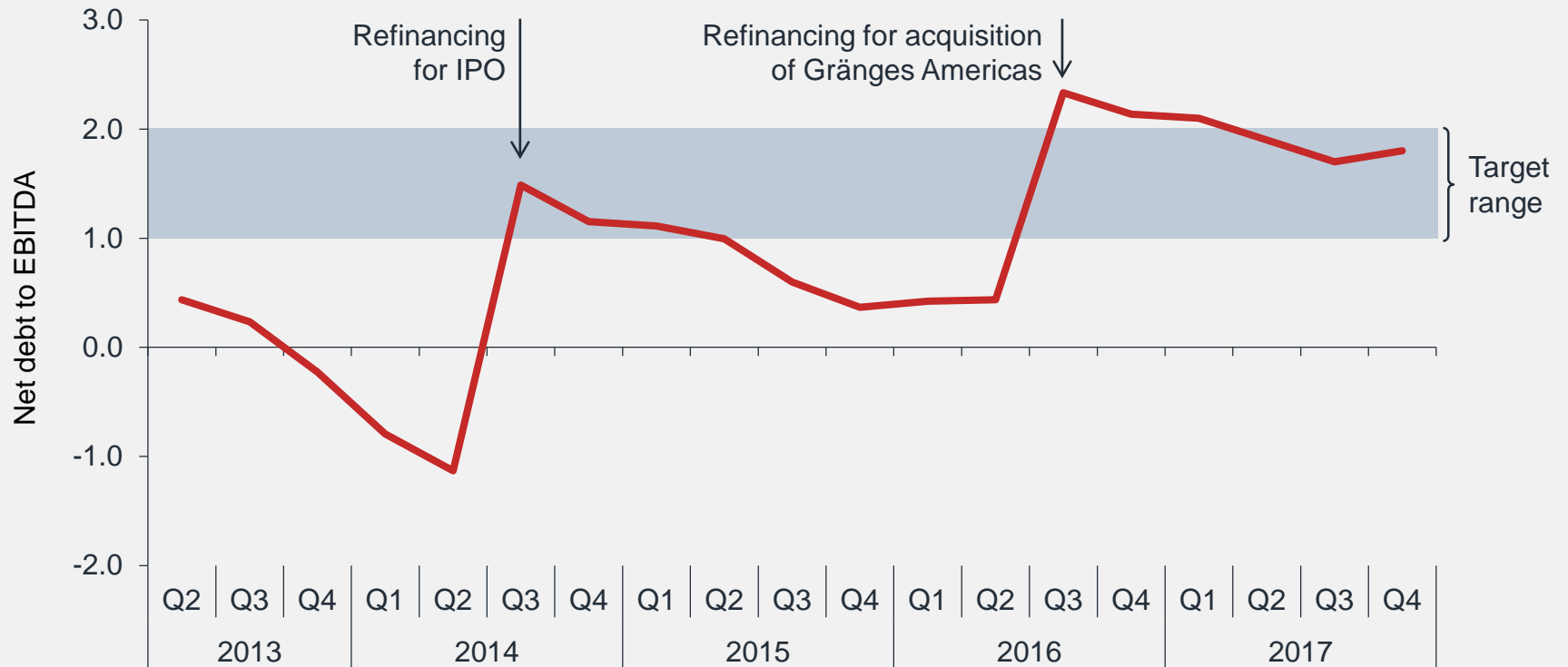
Cash generation supported by working capital reduction



Note: Working capital days calculated based on rolling 3 months average working capital and rolling 3 months sales

Strong debt repayment capacity

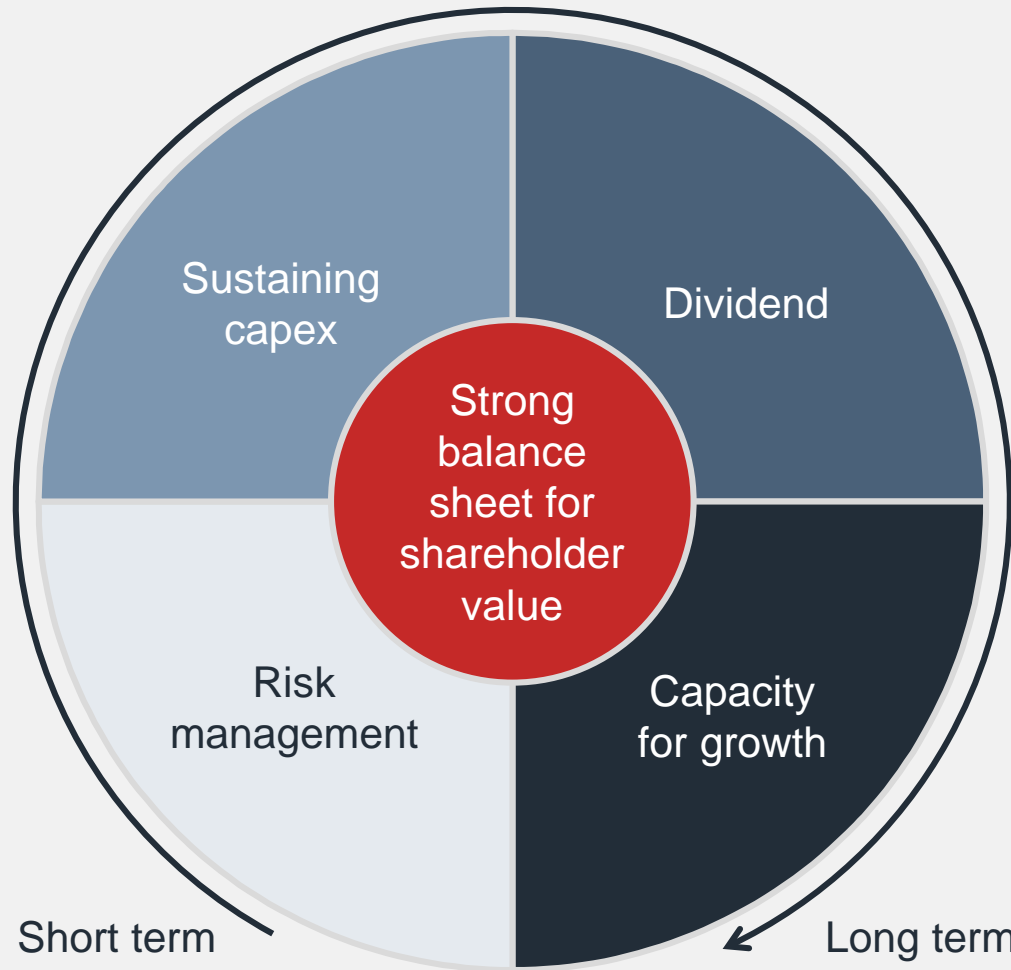
Net debt to EBITDA ratio 2013-2017



Gränges' strong financial position provides flexibility while balancing business risk

- Sustaining capex to ensure operational excellence, improve productivity, and reduce costs

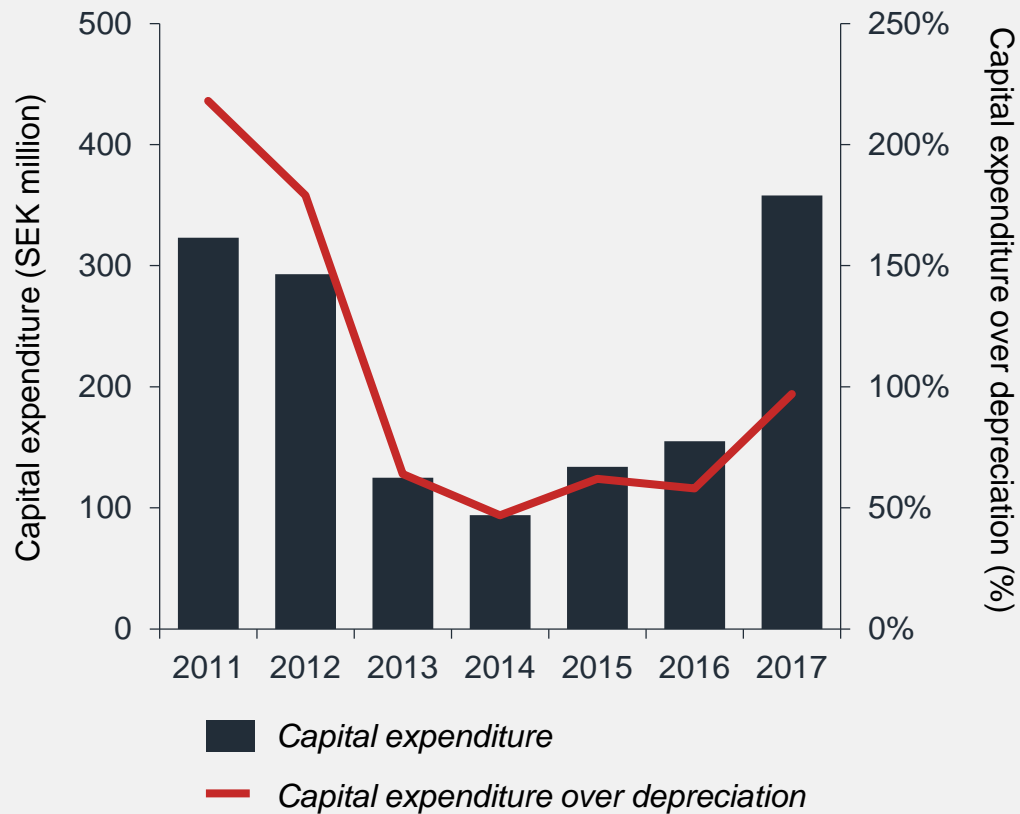
- Exposure to automotive industry cyclicality
- Exposure to metal price fluctuations on working capital



- Reliable and predictable dividend payments
- Reinvestments in profitable organic growth and M&A

Capital expenditure to increase following decision to expand in Huntingdon

Capital expenditure 2011-2017

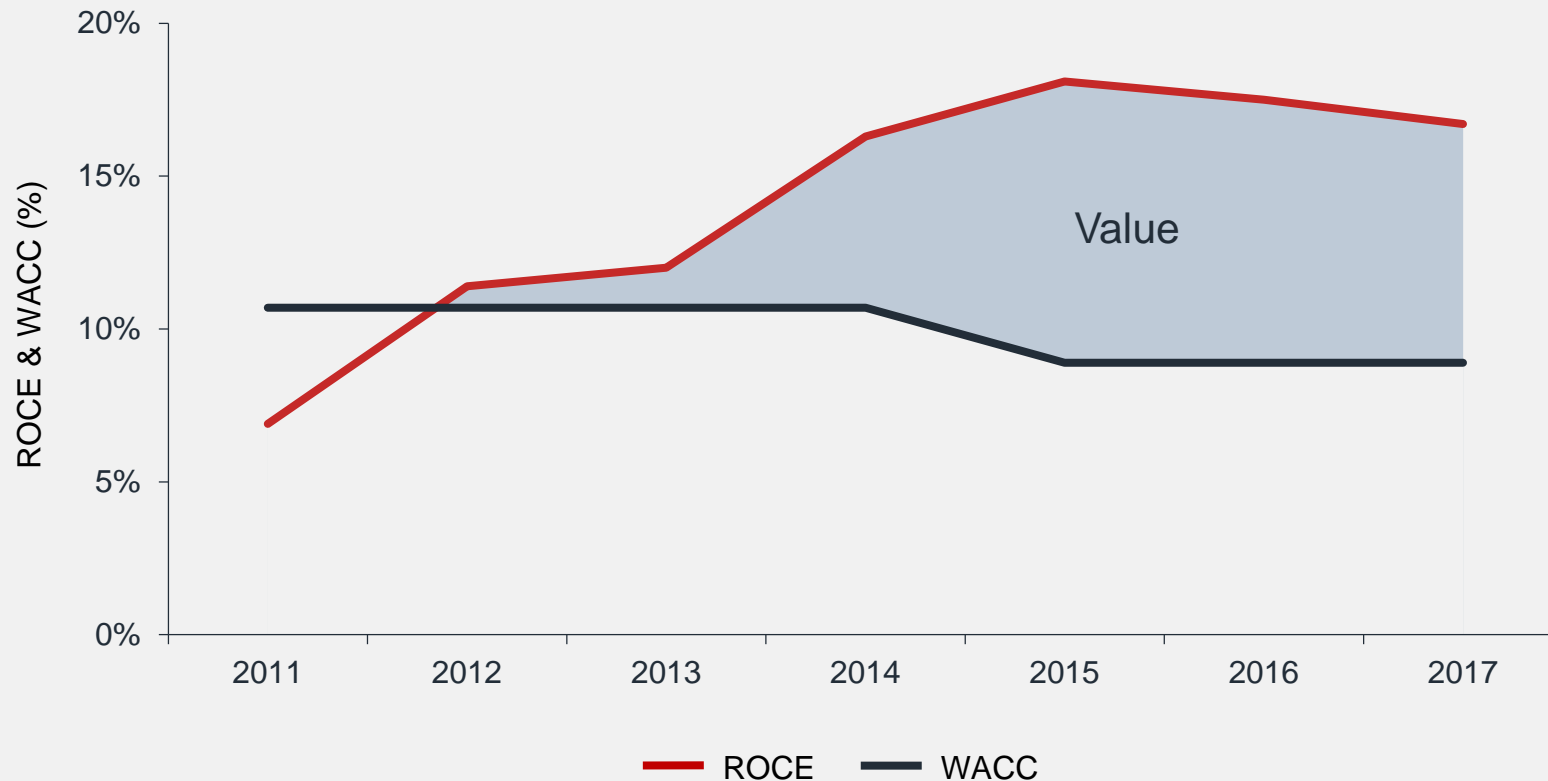


Capital expenditure guidance

- Long term sustaining capex 80-90% of depreciation
- 2018 sustaining capex approximately at depreciation level
- 2018 / 2019 expansion capex for Huntingdon facility about USD 50 million per year

Track record of increased value creation

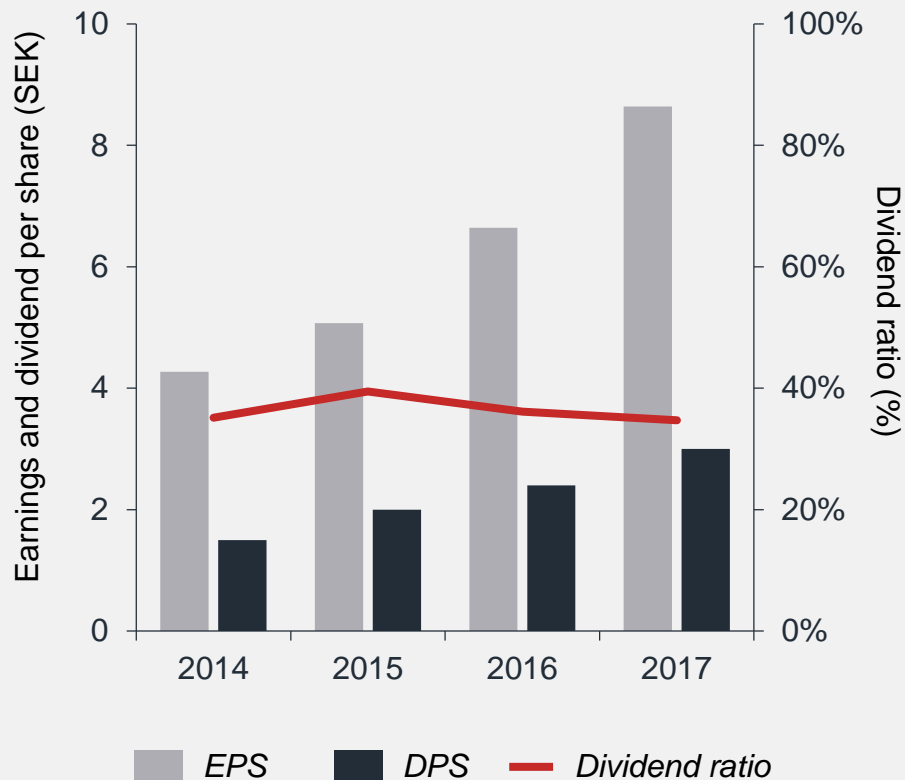
Return on capital employed (ROCE) vs weighted average cost of capital (WACC)¹ 2011-2017



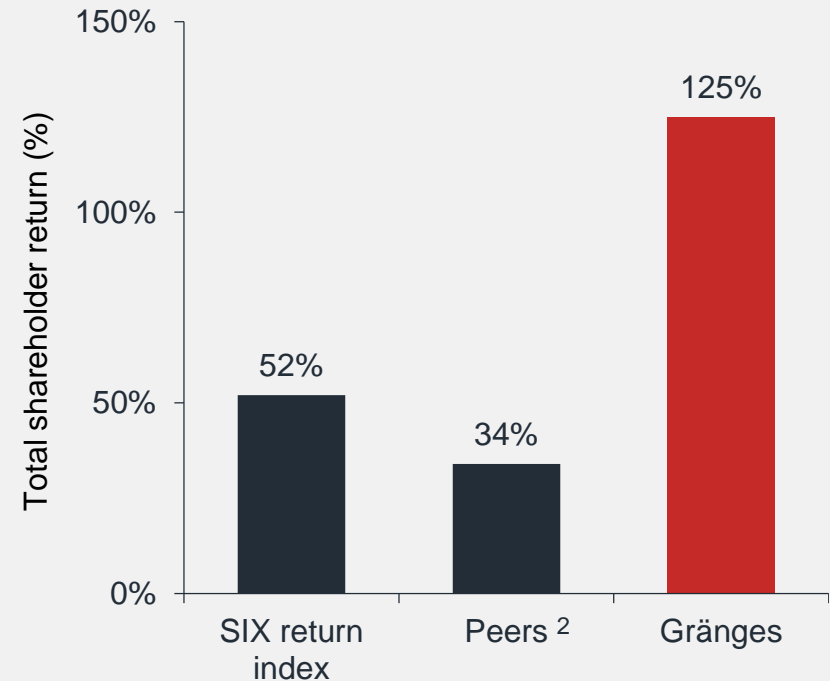
(1) WACC pre-tax, 2011-2014 Orkla Group WACC for Gränges 10.7%, 2015-2017 Gränges Group WACC 8.9%

Increased value creation has benefitted shareholders

Gränges earnings per share and dividend 2014-2017



Total shareholder return 2014-2018¹



(1) Total shareholder return, 10 October, 2014 to 28 February, 2017.

(2) Peers include AMAG, Arconic, Constellium, Hydro, and UACJ. Source: Thomson Reuters



Conclusion

- Strong track record of growth and earnings improvement
- Top profitability among industry peers
- Effective capital management supporting cash conversion and debt repayment
- Solid balance sheet allowing for dividends and investments in future growth
- Increasing value creation and returns