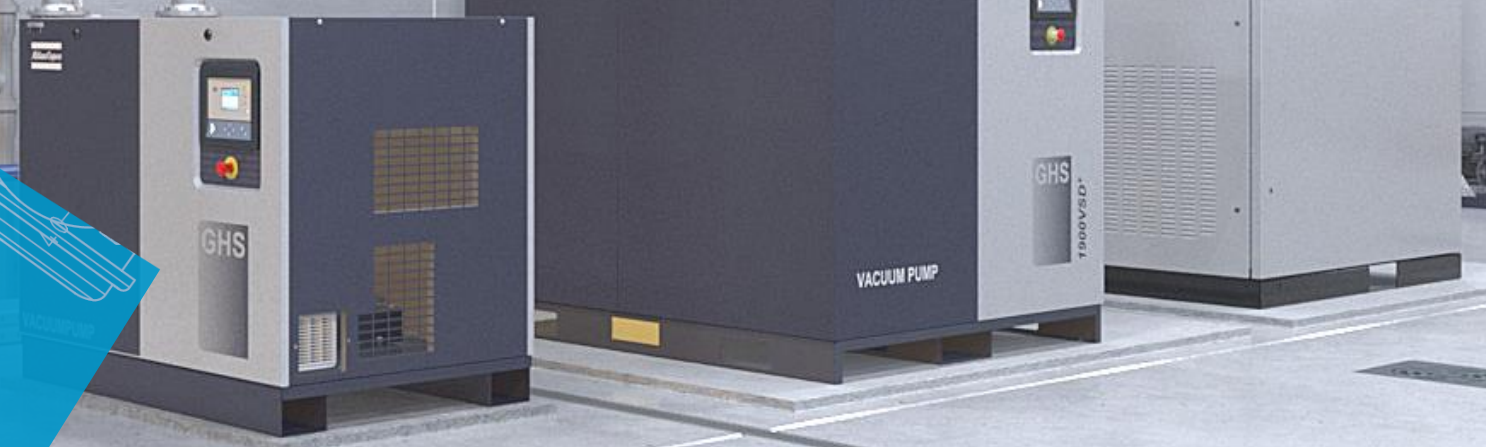


The Atlas Copco logo is positioned in the top right corner of the image. It consists of the company name "Atlas Copco" in a white, serif font, centered between two horizontal white bars. The background of the logo is a solid teal color.A large, semi-transparent teal graphic is overlaid on the left side of the image. It features a technical drawing of a vacuum chamber or component, showing various dimensions and labels such as "1630 (64.2)", "1380 (54.3)", "C-C(1-3)", "Ø12", "Ø72", "10.8", "18.5", "30.8", "10.5", and "4.8".

# Vacuum Technique

Geert Follens, Business Area President

Capital Markets Day 2018



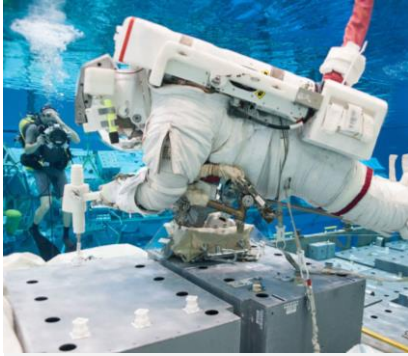
# Agenda

- 1 Facts in brief
- 2 Trends and driving forces
- 3 Focus and priorities
- 4 Innovation in reality
- 5 Summary

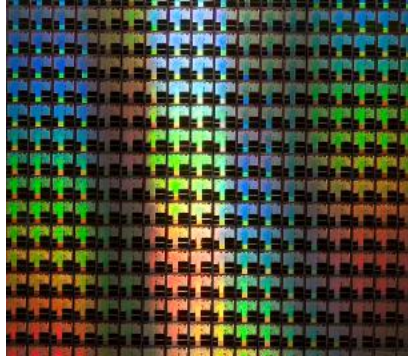


# Vacuum is everywhere!

Space Simulation



Semiconductor



Flat panel displays



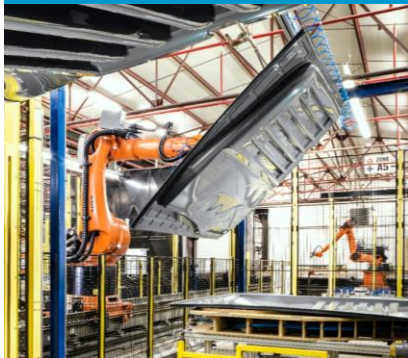
Metallurgy



Electric Vehicles



Conveying



Food & Beverages



Packaging



Forming & Shaping



Coating



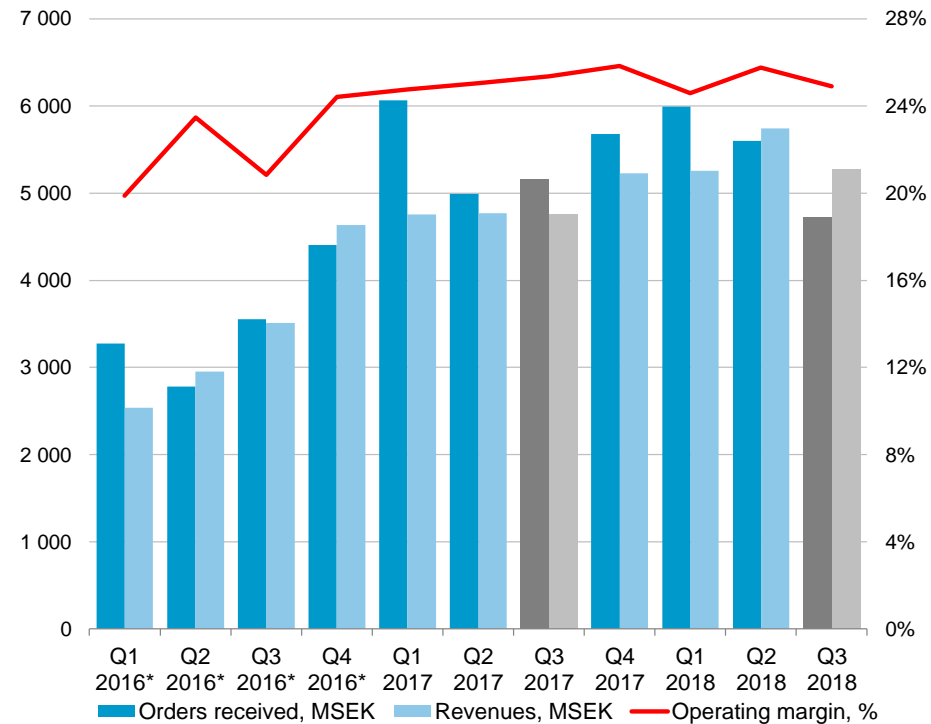
# Vacuum Technique

## Growth drivers

- Successful integration of acquisitions
- Embedding of decentralized organizational structure
- China focus
- Leverage synergies with other business areas and the Group
- Innovation and Digitalization



ORDERS, REVENUES AND OPERATING MARGIN



\* 2016 figures not restated per IFRS 15.

# Orders received – local currency Q3 2018

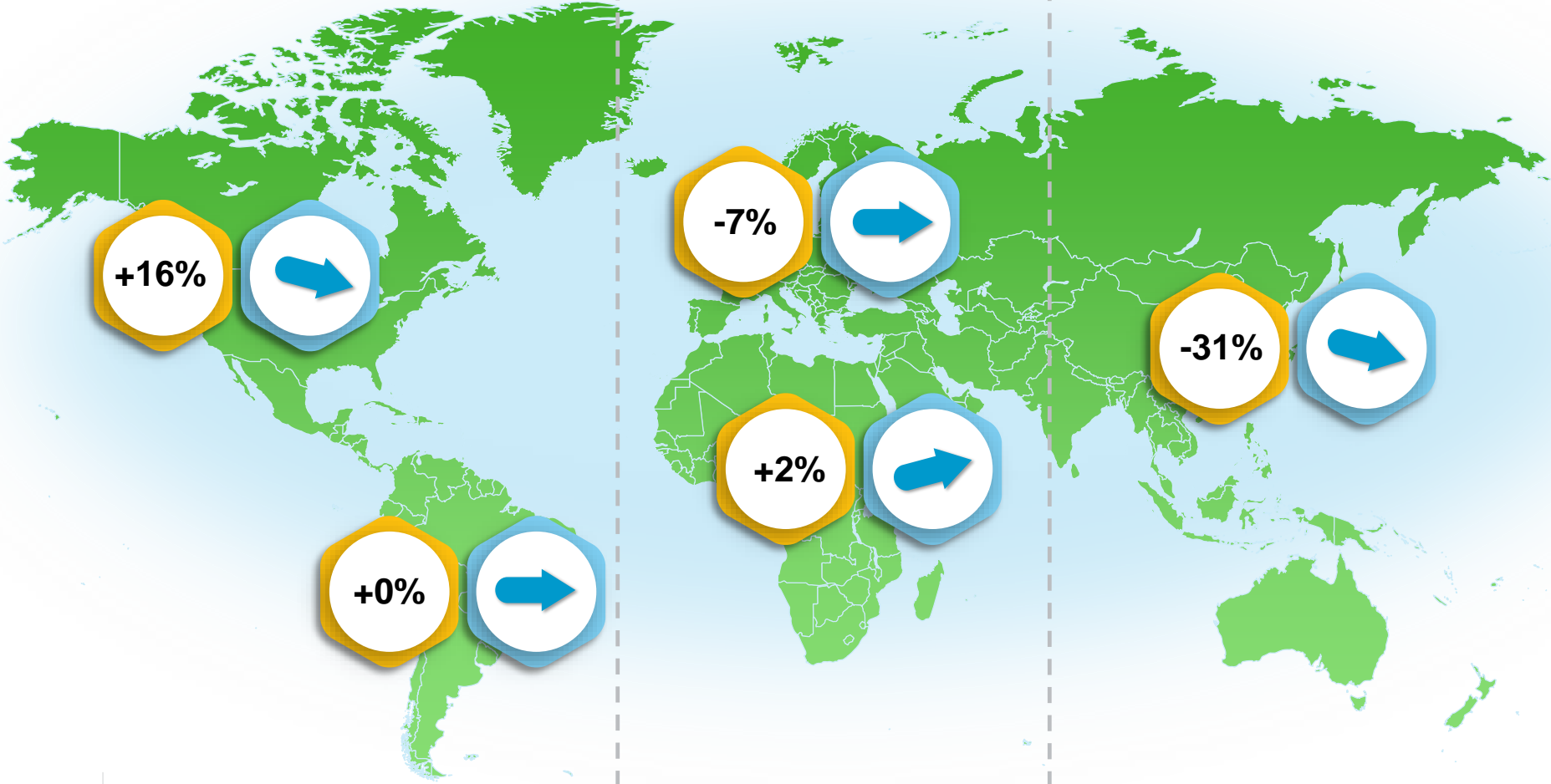
SHARE OF ORDERS RECEIVED YEAR TO DATE:

26%

19%

55%

YoY Q3 vs. Q2



# What is sustainable profitable growth?

## Growth Drivers

### Macro Factors:

- Climate change
- Miniaturization
- Digitalization
- Urbanization

### Micro Factors:

- China Investment
- Internet of Things
- High demand for increasing process efficiency













## Vacuum & Abatement Technology

- Technology Leadership
- Application know-how
- Speed to market

## Market Leadership

- World-class Key Account Management
- Application based solutions delivered through technology leadership
- Extensive Aftermarket
- Lean hi-tech manufacturing close to our customer base

# Impact of growth drivers

Division	Key Drivers of Change	Short Term Growth	Mid-Long Term Growth
Semiconductor	Miniaturization, Legislation, China, Global Data Use, IoT		
High Vacuum	Application Technology Leadership, Broader Product Portfolio, Digitalization		
Industrial Vacuum	New Vacuum Applications, Energy Efficiency and Dry Pumps		
Semiconductor Service	Global Manufacturing Capacity, Digitalization, Legislation		
Vacuum Technique Service	Digitalization, Brand Management		

# Summary focus, priorities and strategy

Agility and  
resilience



Growth in  
industrial  
vacuum



Technology  
leadership



Opportunities  
in China



Integration of  
cryogenics  
business



Service



# Agility and resilience

## Structure built for agility

Flexible and agile cost structure.

Additional 200 MUSD of cryo business with low overheads.

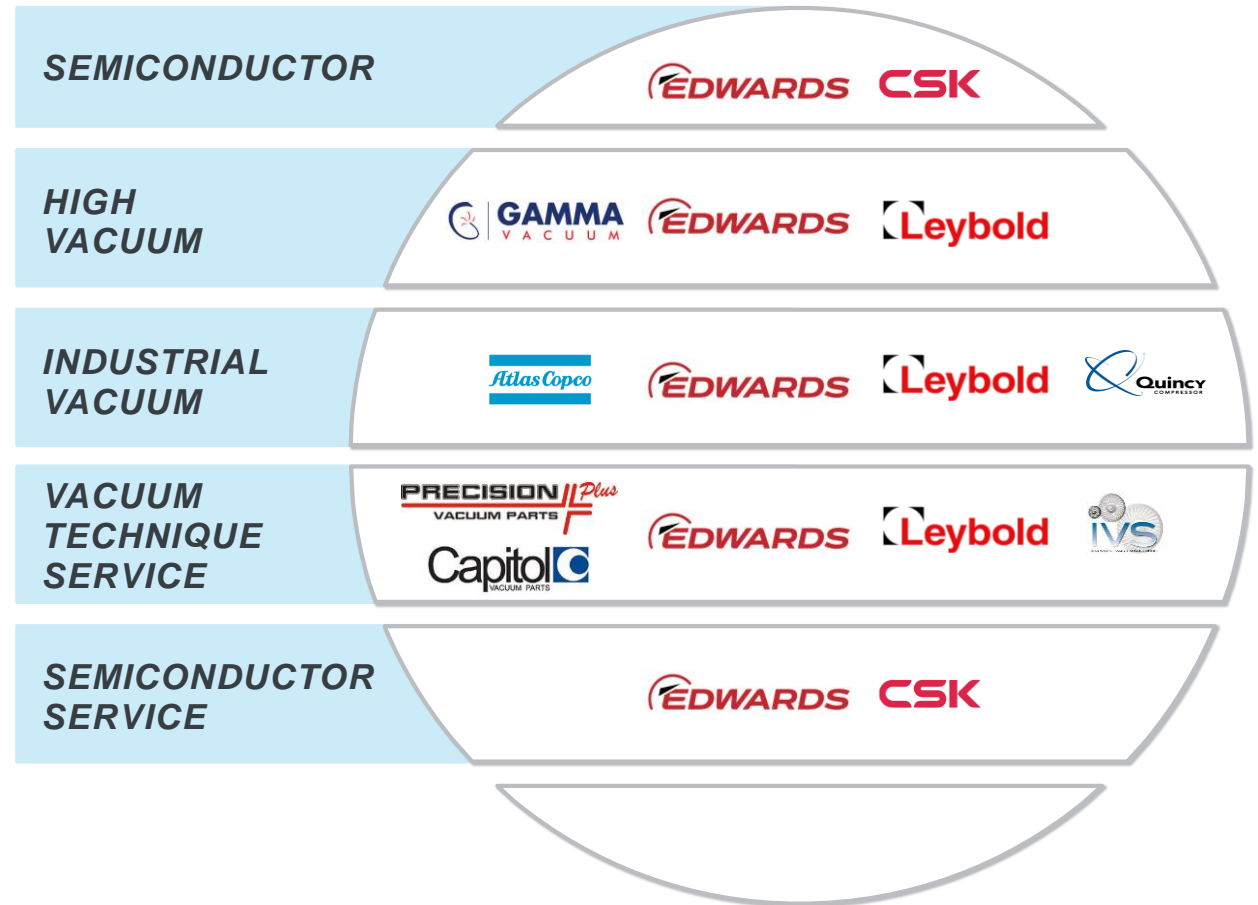
Adaptable workforce >20% temporary roles.

Agile supply chain.

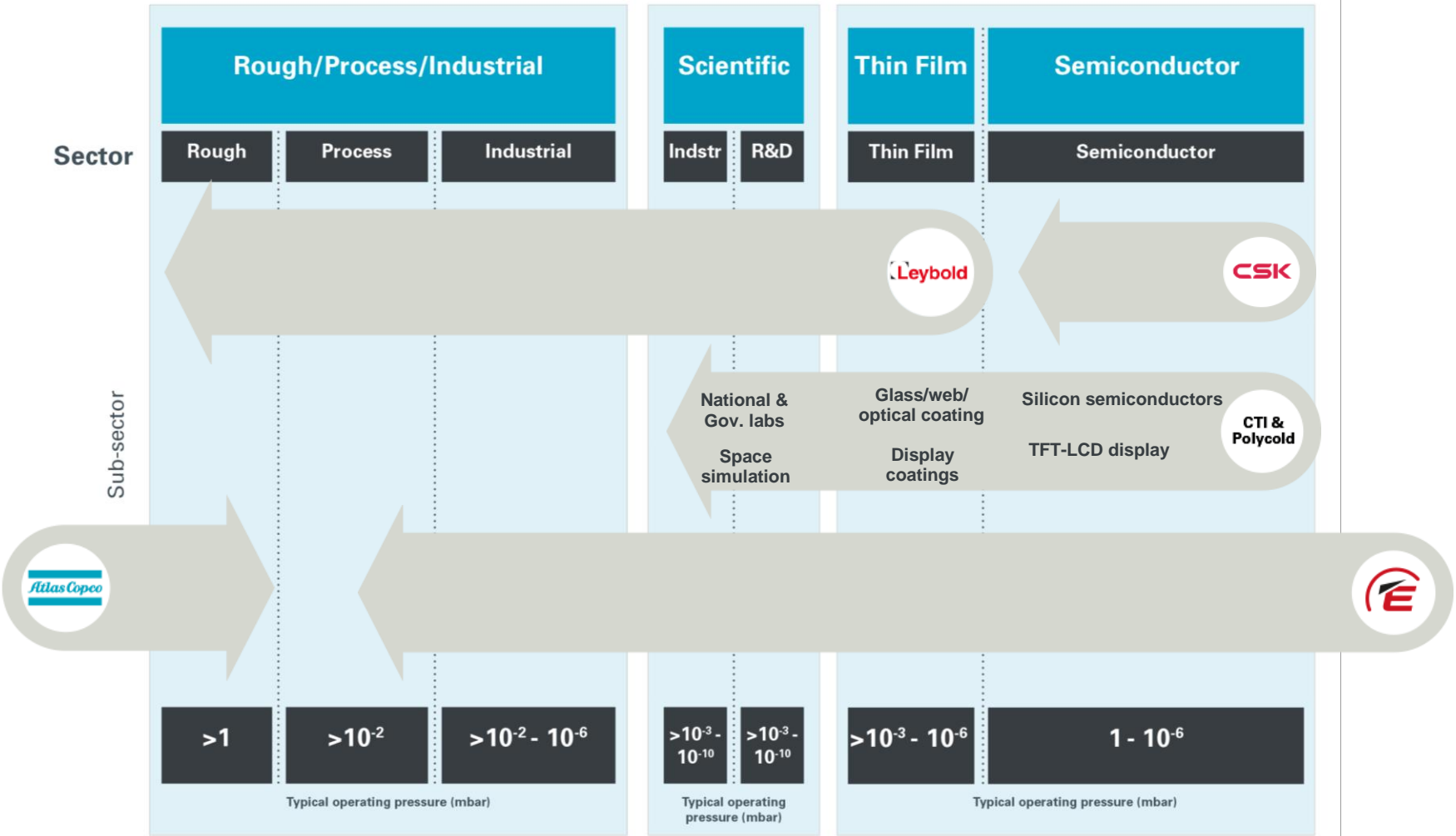
Move from sellers to buyers market.

Strong development in both service divisions.

Agility without compromising strategy.



# Becoming the undisputed leader in vacuum technology



# Brooks Cryogenic Business

Leader in high value cryogenics solutions under two leading brands – CTI and Polycold

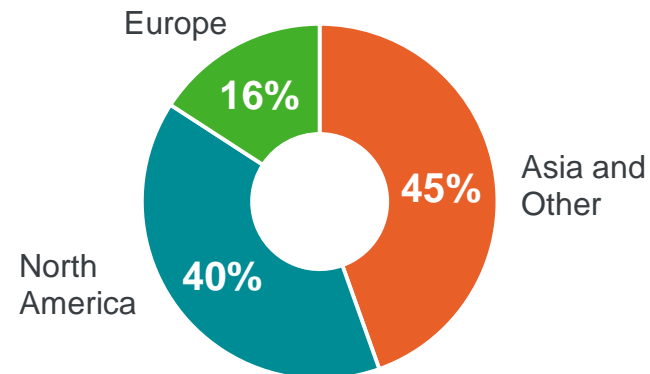
Extensive track record – 85,000+ CTI Cryopumps and 20,000+ Polycold chillers installed globally.

Market leader in Semiconductor – critical products in deposition and ion implant processes.

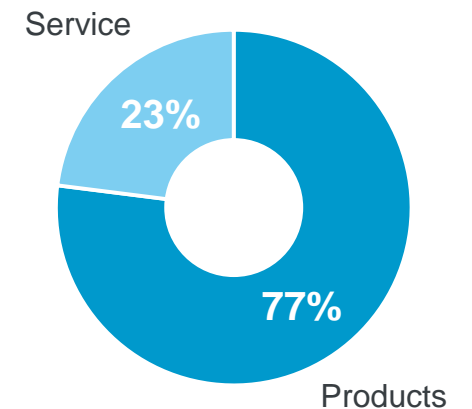
Used in a wide range of thin film and scientific applications.

50/50 JV with Ulvac Inc which produces cryopumps for flat panel display market.

REVENUE  
BY REGION

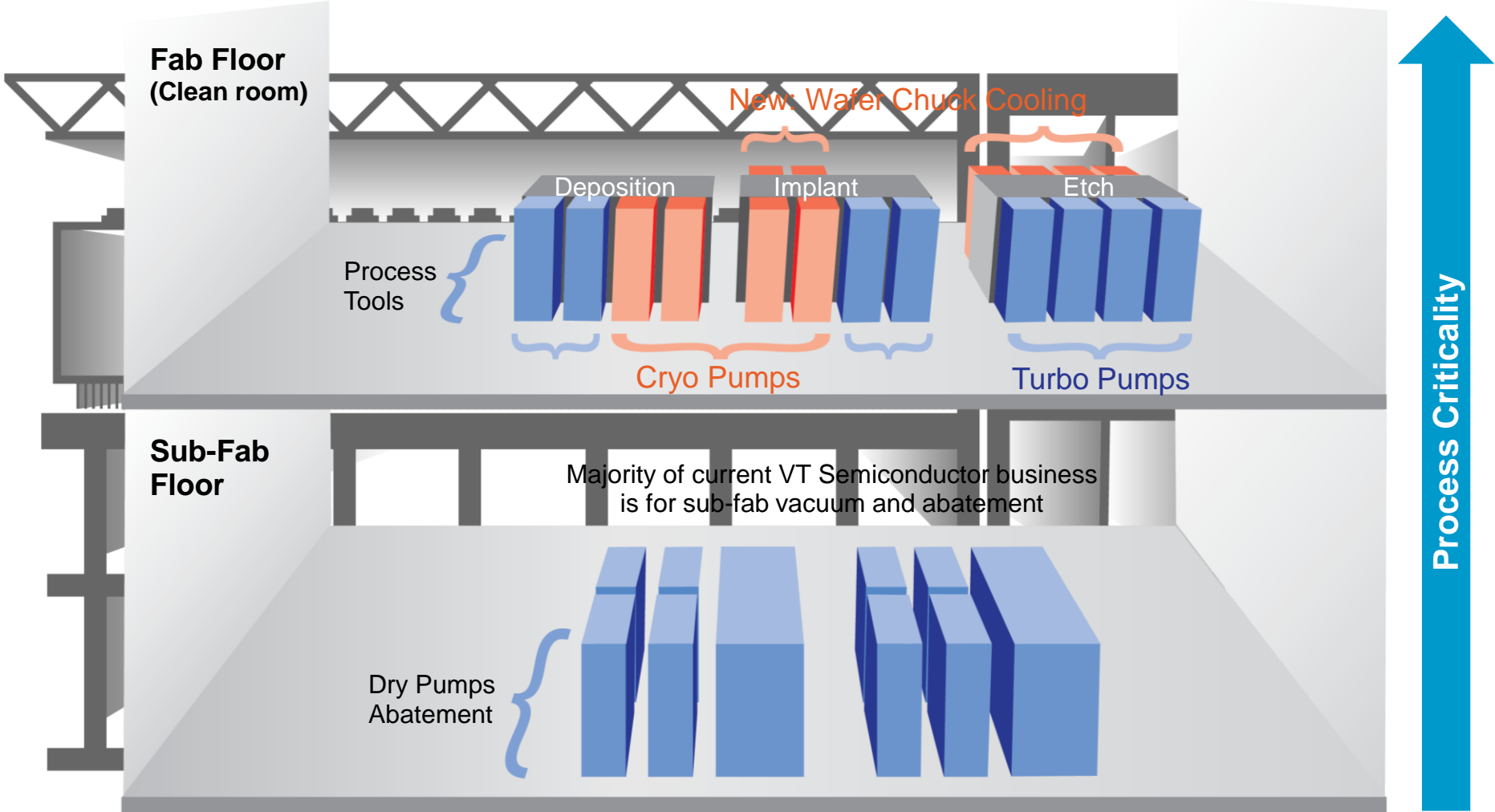


REVENUE  
BY BUSINESS TYPE

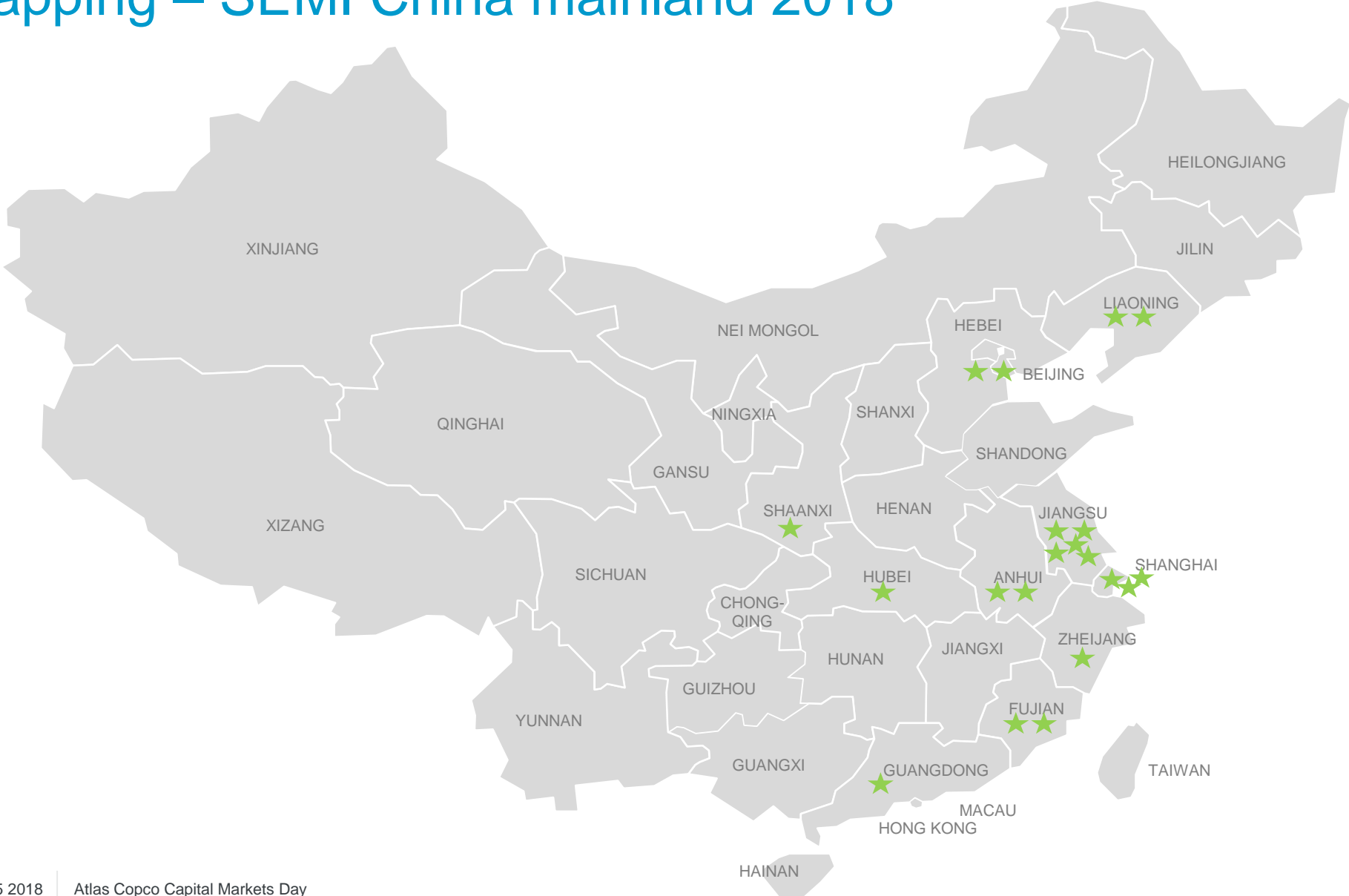


# Cryo Technology: Increasing footprint on Process Tool Chambers

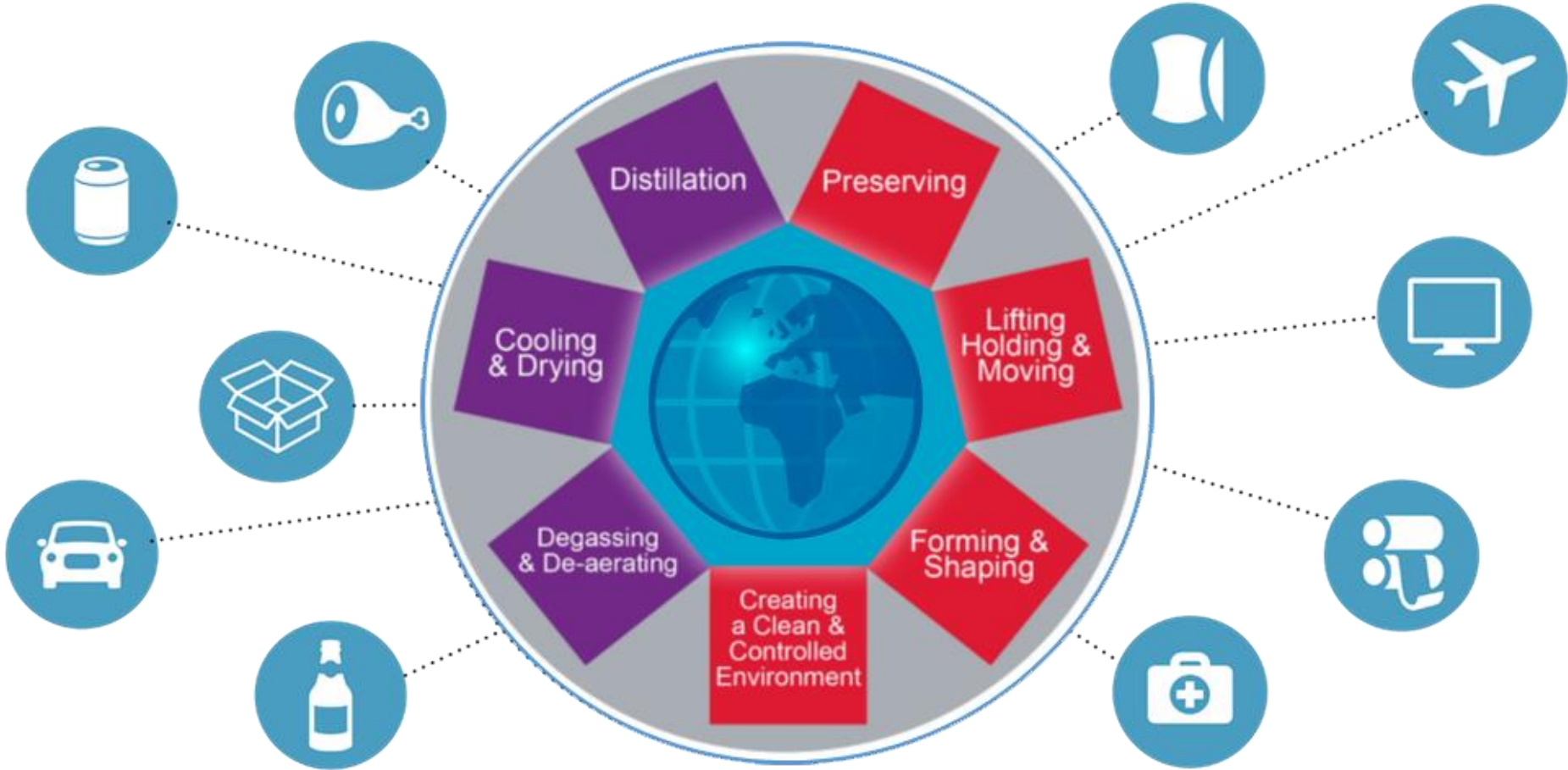
## Inside the Fab and Sub-Fab



# Fab Mapping – SEMI China mainland 2018



# Industrial Vacuum



# Industrial Vacuum

New technologies market      Traditional markets (old products, traditional users)



*Introduce disruptive innovations in a traditional market*



# Service

Two stable and growing service businesses

## Vacuum Technique Service



Share growth potential  
Investing in presence  
Merged Leybold and Edwards hubs; Plan to merge Cryo business hubs  
Develop a Product Portfolio for proactive Service offerings

## Semiconductor Service



Ongoing high fab utilization  
Benefiting from huge growth of install base over last 5-years  
Customer presence with >1,000 on-site service personnel



# Innovative products to be launched in the coming months

## Innovation in vane technology



- Easy operation – clean exhaust
- Easy integration – compact
- Comfortable operation – low noise level

## Next generation dry vacuum pump for harsh processes

- Harsher process capability
- Lower power
- Smaller footprint



iXH Mk2

DHS VSD+



New dry screw vacuum pumps

## Revolution in liquid ring vacuum technology

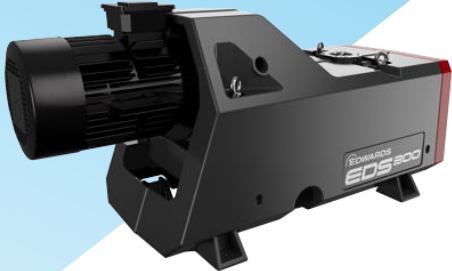


LRP VSD+

Atlas Mk4

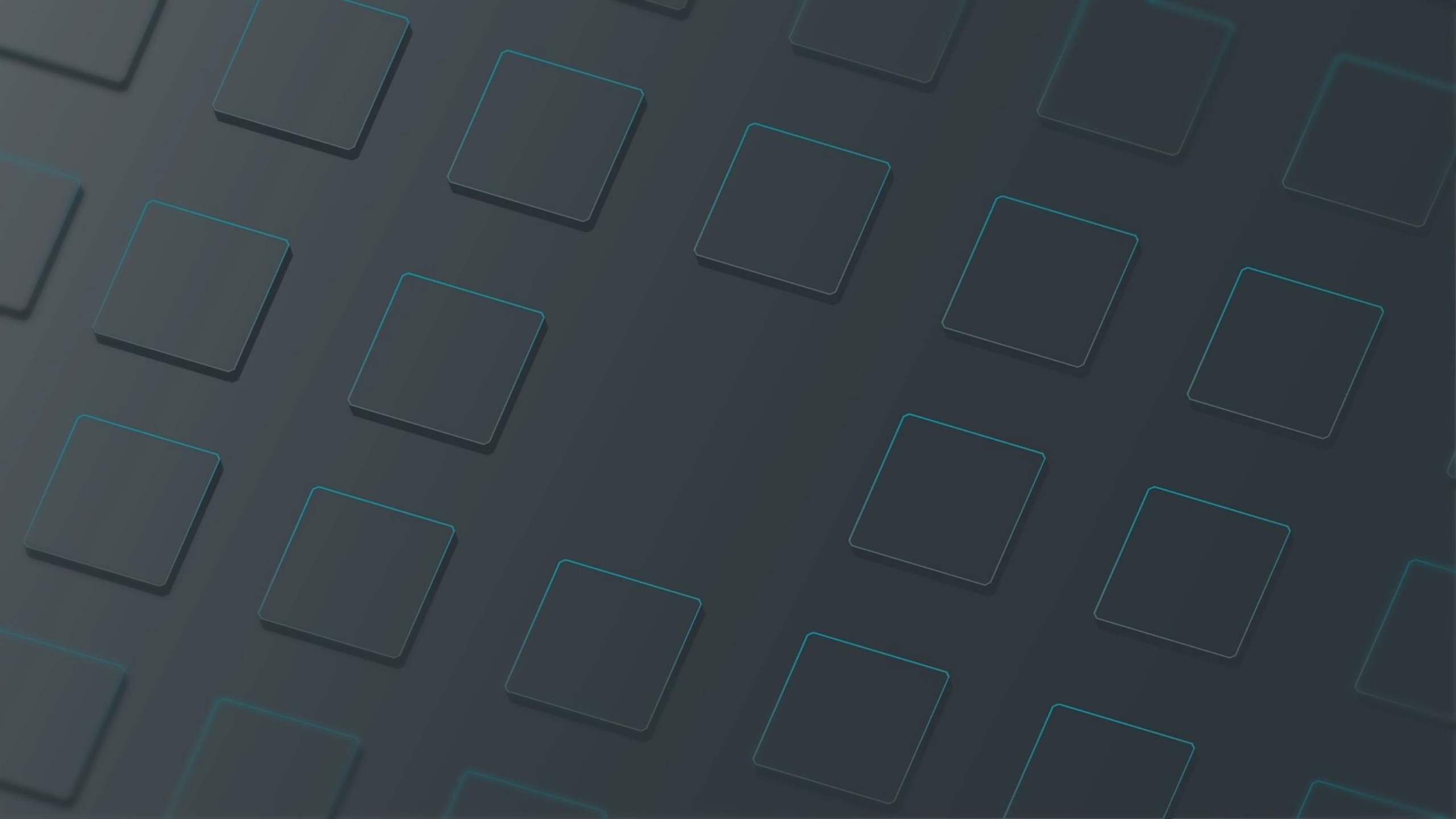


Next generation abatement system



Extended range EDS dry screw pump technology

# Innovation in reality





# Summary

Market share gain.

Growth through breakthrough innovative new products.

Very strong service growth through utilization and presence.

An integrated sustainable strategy.

Excellence in Brand Portfolio management.

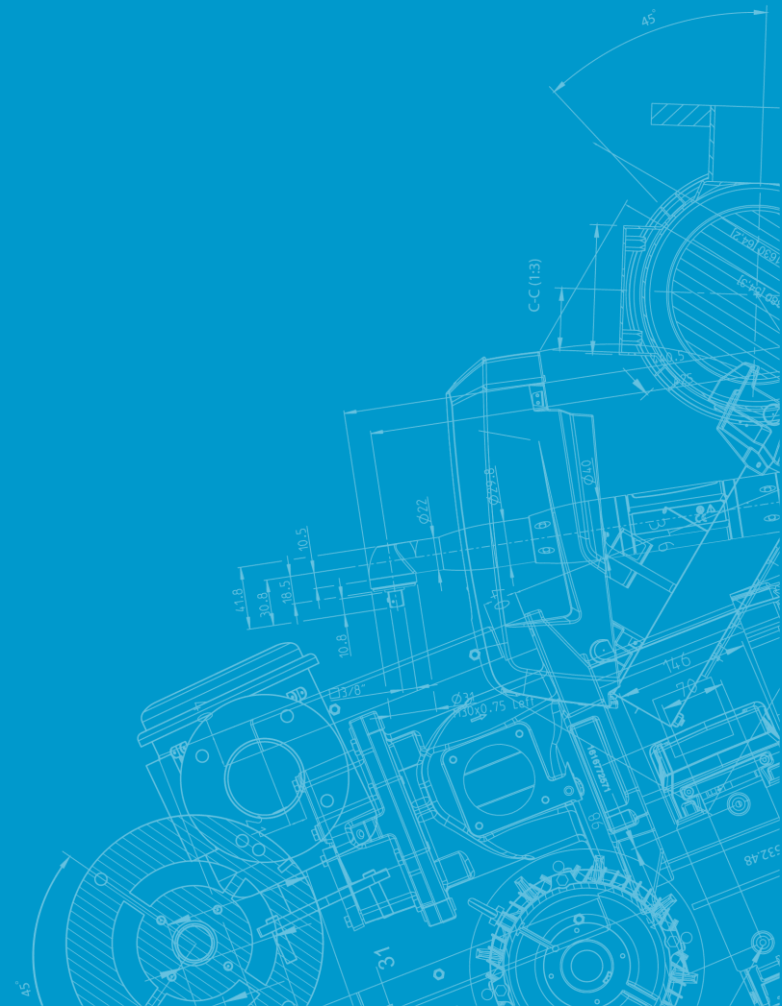
Clear divisional roadmaps driving towards strategic convergence and Sustainable Profitable Growth.

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*Atlas Copco*

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[www.atlascopcogroup.com](http://www.atlascopcogroup.com)



# Cautionary Statement

“Some statements herein are forward-looking and the actual outcome could be materially different. In addition to the factors explicitly commented upon, the actual outcome could be materially and adversely affected by other factors such as the effect of economic conditions, exchange-rate and interest-rate movements, political risks, the impact of competing products and their pricing, product development, commercialization and technological difficulties, supply disturbances, and major customer credit losses.”