



HUBER+SUHNER

**We connect people
with people by
connecting things
with things**

Connecting – today and beyond

Agenda

Company overview

Market segment growth opportunities

Financial considerations

HUBER+SUHNER at a glance

Business activity

- Our world is based on connections between humans, places, and systems. They are essential for the functioning of society.

Solutions offering

- Connectors, cables, antennas and systems
- Based on three technologies RF, FO, LF

Product range, development, operations

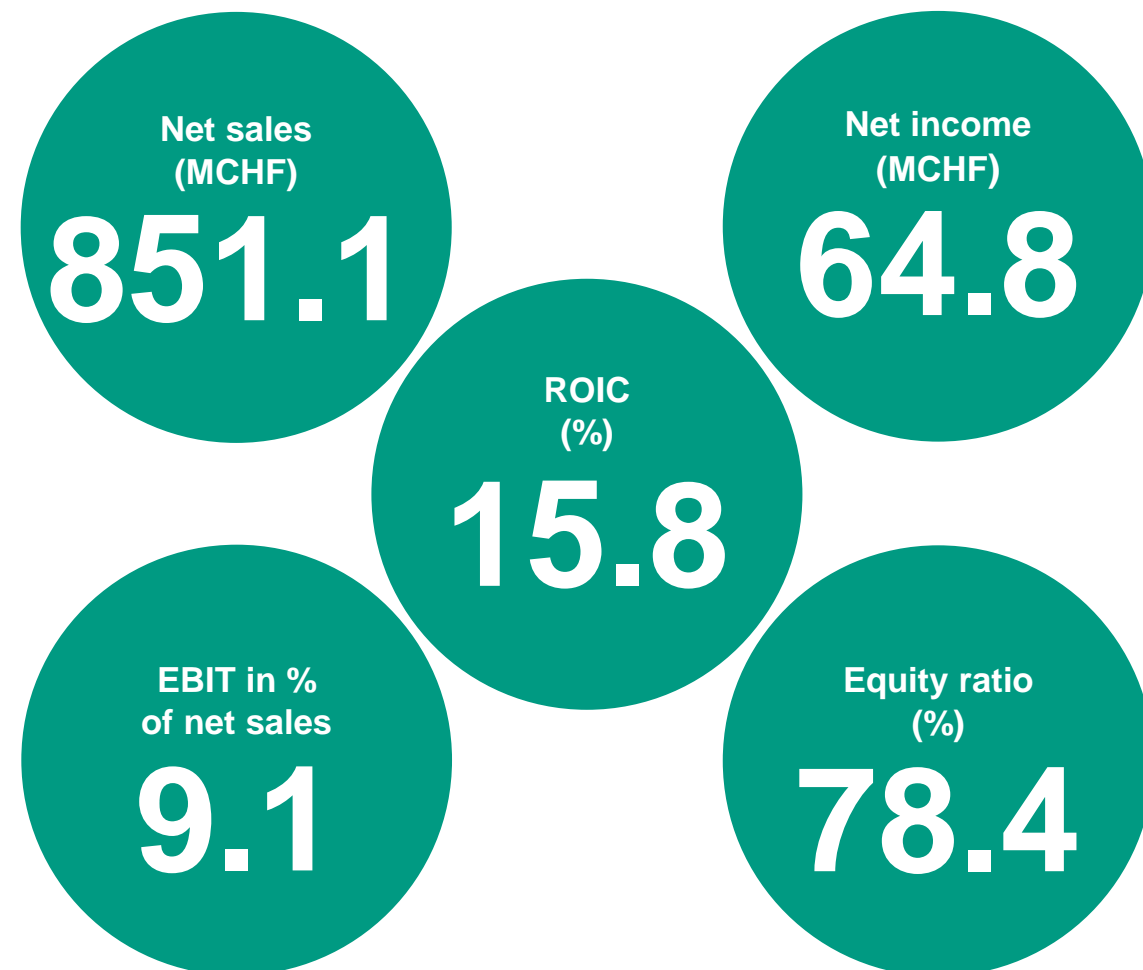
- 2/3 customer specific, 1/3 standardised
- R&D spending >6 % of net sales p.a.
- CAPEX investments of ~6 % of net sales p.a.

Customer proximity

- HUBER+SUHNER has around 4,500 employees and is operating in more than 80 countries

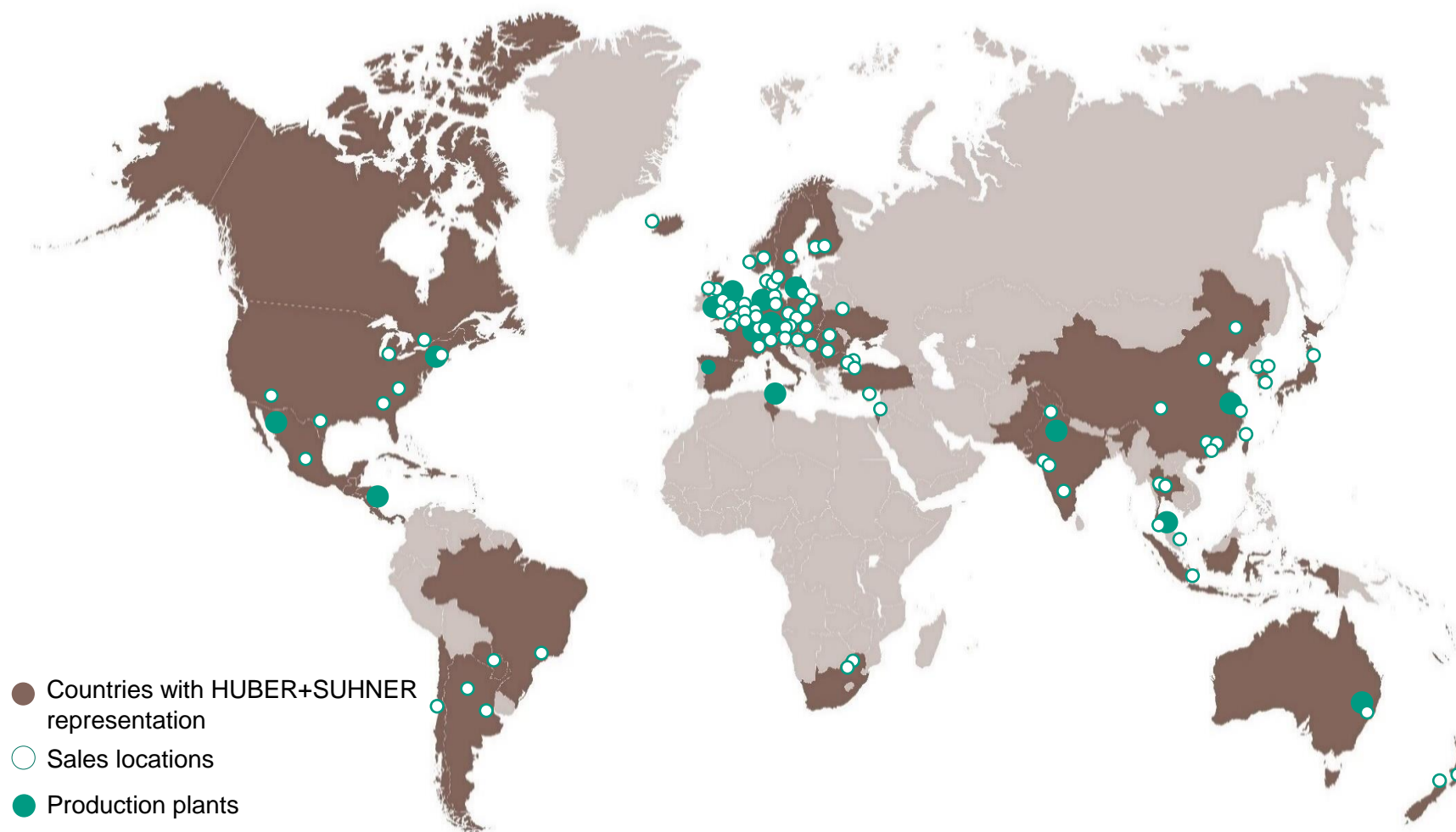
Target markets

- Industrial, Communication, Transportation



Global network

Engineering, production and sales



The global organisation places HUBER+SUHNER close to its customers.

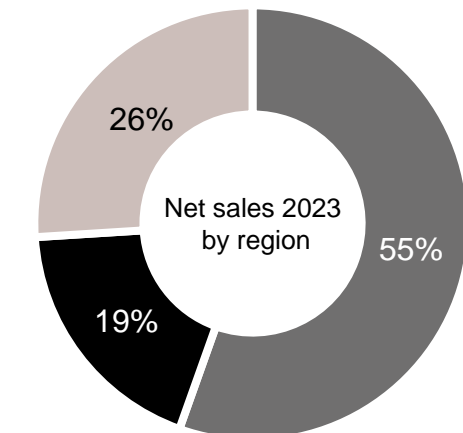
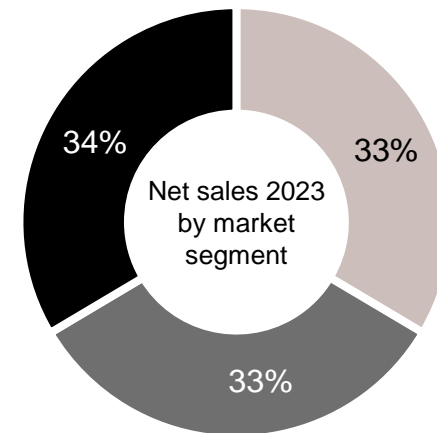
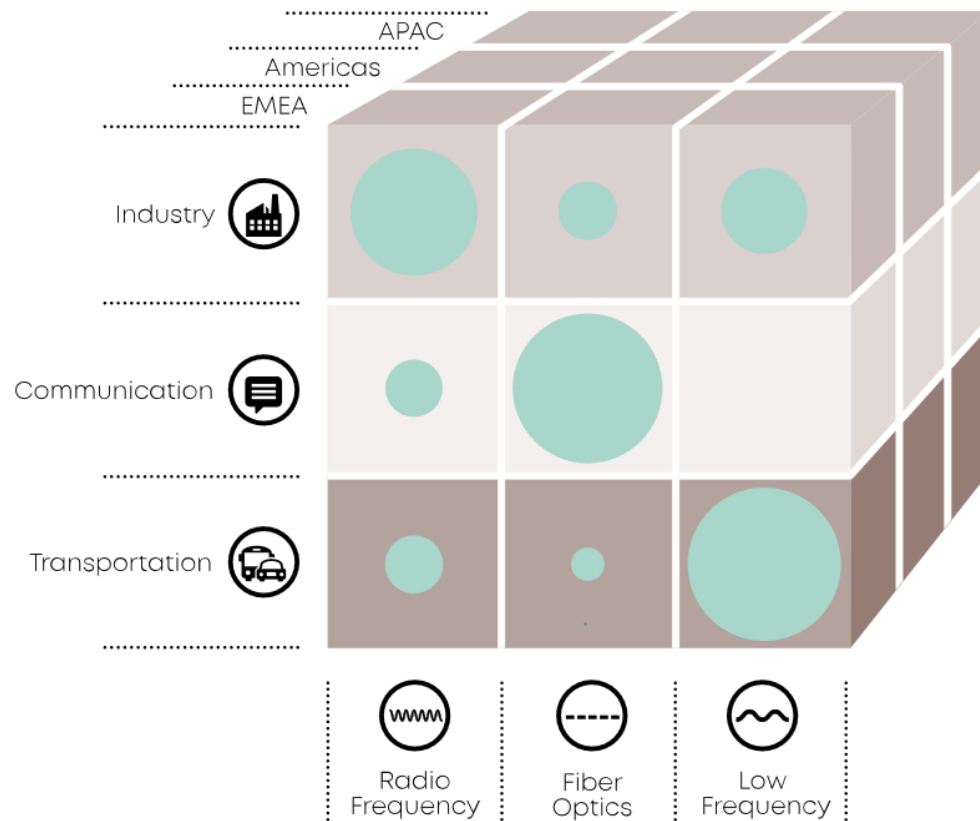
Over 400 sales employees serve customers face to face across all markets, continents and technologies.

Network of distributors adds additional points of sales.

Standard products are increasingly sold via online channels.









18 manufacturing sites ensure regional supply chains and short reaction times.

Broad customer base and balanced portfolio across markets and regions



- Broad base of several thousand buying customers
- Approximately 40 customers generate 50 % of sales
- More than 2/3 are recurring customers

Customer market verticals

Sales by segment	Sales by customer market	H1/2024 growth	Long term growth drivers
Industry  31 %	Industrials <ul style="list-style-type: none"> • Test & Measurement • Energy • High Power Charging 	<ul style="list-style-type: none"> • Medical Device • Process Industries 19 %	 Increasing demand for power and data connectivity (IoT, Industry 4.0,...)
	Aerospace & Defense	12 %	 Communication satellite coverage Defense spendings
Communication  36 %	Fixed Network <ul style="list-style-type: none"> • Equipment Manufacturers • Fixed Access Network • Data Center 	17 %	 Data traffic growth, Artificial Intelligence
	Mobile Network	19 %	 4G → 5G → 6G
Transportation  33 %	Railway <ul style="list-style-type: none"> • Rolling Stock • Rail Communications 	20 %	 Low-emission mobility Communication on the move
	Automotive	<ul style="list-style-type: none"> • Electric Vehicle • ADAS 	13 %

Figures: H1/2024 (as per 30 June 2024)

Agenda

Company overview

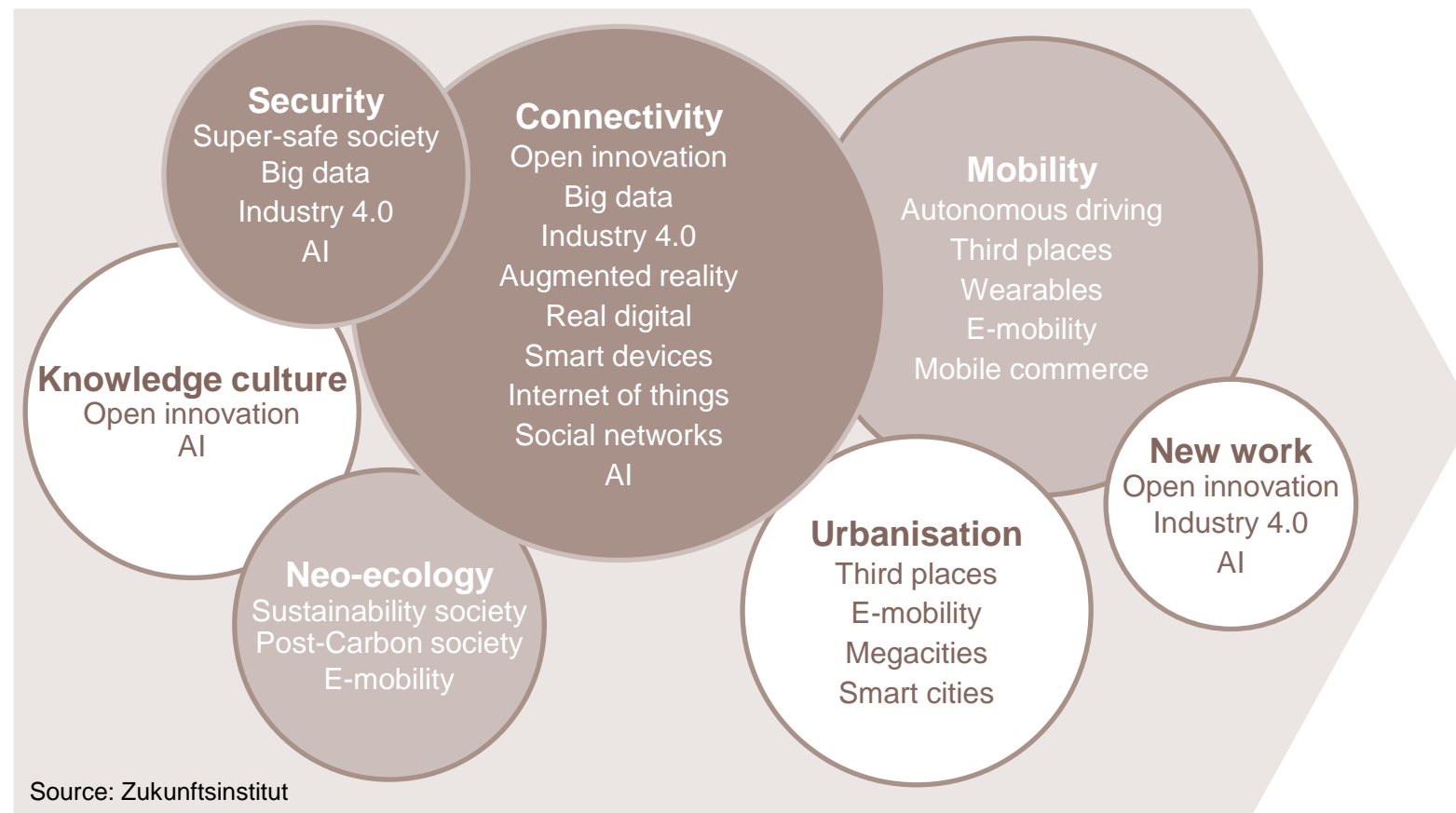
Market segment growth opportunities

Financial considerations

Strategic attractive growth initiatives

Aligned with megatrends

Megatrends



Strategic growth initiatives

- Aerospace & Defense
- Data Center
- Rail Communications
- Advanced Driver Assistance System (ADAS)
- Electric Vehicle

Industry

High tech applications allow for high differentiation/high margin

Core market

Test & Measurement



T&M business is suffering from the slump in the communications and electronics market

Opportunities identified in lab automation to compensate for weaker markets

Growth initiative

Aerospace & Defense



Rising defense budgets and commercial satellite programmes

Investments in communications solutions for A&D applications and near space applications

Other markets

High Power Charging



Fast charging a pre-condition to increase acceptance of EV

Significant densification of fast charging networks globally to reduce range anxiety and waiting times

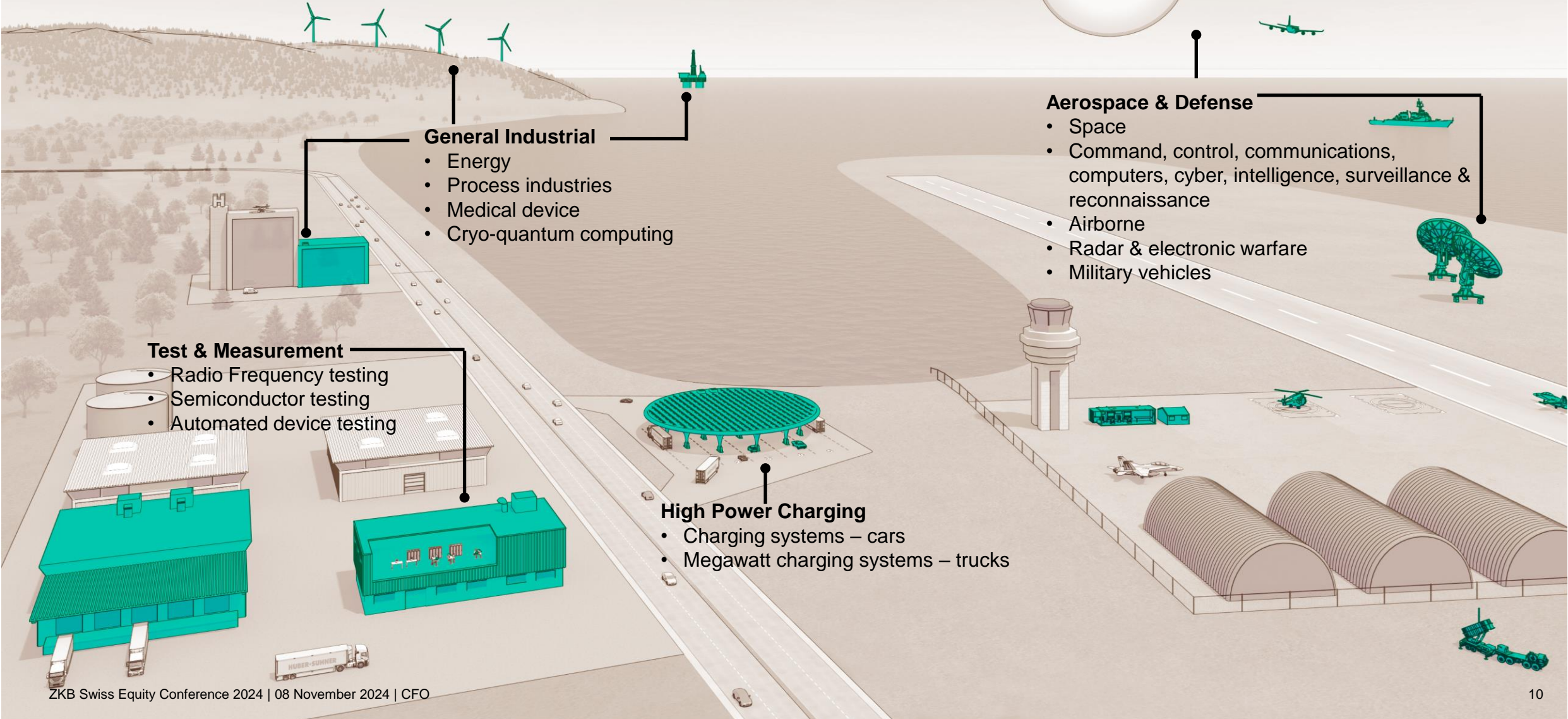
General Industrial

Energy
Medical Device
Process Ind.

High-tech niches such as energy, medical, and quantum computing offering high degree of differentiation

HUBER+SUHNER has the technologies, solutions, and access to key customers

Our solutions for the Industry market



- General Industrial**
- Energy
 - Process industries
 - Medical device
 - Cryo-quantum computing

- Test & Measurement**
- Radio Frequency testing
 - Semiconductor testing
 - Automated device testing

- High Power Charging**
- Charging systems – cars
 - Megawatt charging systems – trucks

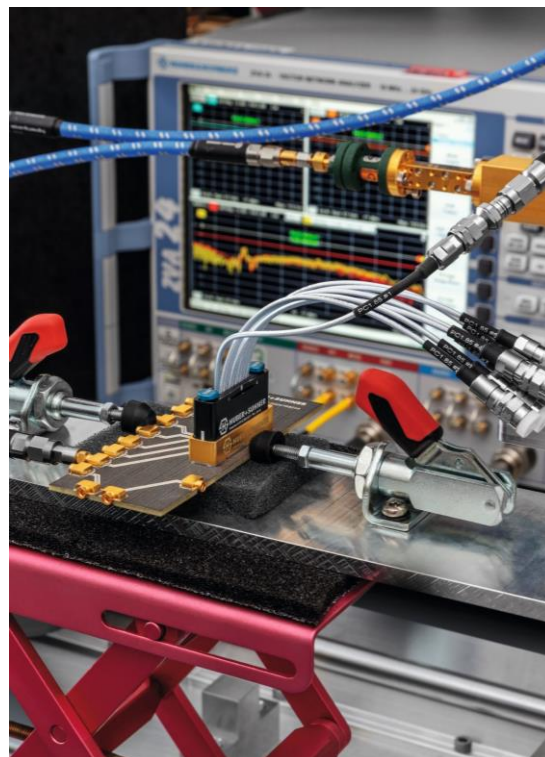
- Aerospace & Defense**
- Space
 - Command, control, communications, computers, cyber, intelligence, surveillance & reconnaissance
 - Airborne
 - Radar & electronic warfare
 - Military vehicles

Serving a wide range of customers with different approaches to industry market

Focus on US and EU Aerospace & Defense, leveraging all three technologies



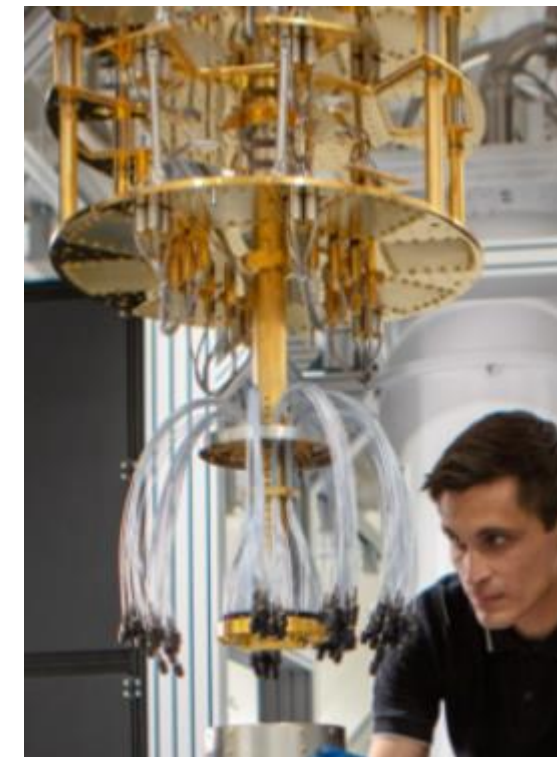
Cover Test & Measurement OEMs and broad end-users Opportunities identified in lab automation




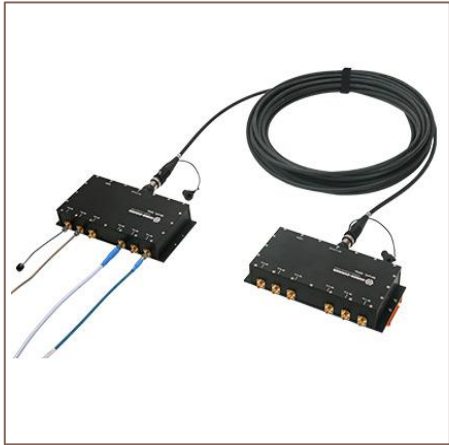



Focused account base in High Power Charging Market will come back after the pitstop



Developing emerging opportunities in promising new applications such as quantum computing



Technology trends and strong value propositions for the different applications

Higher density	Higher data rates lower signal loss	Signal integrity	Higher electrical power	Weight saving
				
<p>Compact multiport connectivity combined with “bend-to-the-end” → miniaturisation and design flexibility</p>	<p>Modulating RF signals onto light → higher data rates over longer distances</p>	<p>Compact, highly shielded, multiport connectors → accurate, repeatable product verification</p>	<p>DC charging with cooled cable technology → faster & continuous vehicle charging</p>	<p>Robust, lighter cable design with thin wall insulation → total cost and CO₂ reduction</p>

Communication

Technologies to cope with increasing data traffic and AI

Core markets

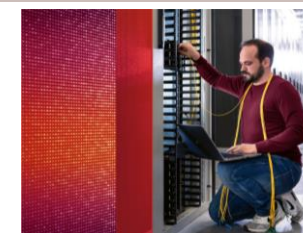
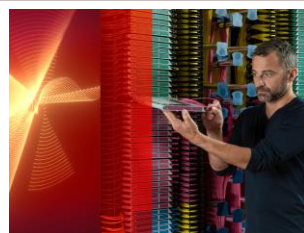
Growth initiative

CEM Components

Fixed Access Network

Mobile Network

Data Center



Trend to faster network components from 200 → 400 → 800Gbit unbroken

Data traffic doubling every three years

Evolution of 5G infrastructure towards higher data rates

Investments in data centers driven by continuous data traffic growth

WCM technology enables the cost-effective development of ever faster electronics/transceivers

Expandability of fiber networks at low costs and with high efficacy to master complexity

Market leaders, including HUBER+SUHNER, already work on 6G for 2030 and beyond

AI poses unique challenges for data centers and opens up opportunities for high-tech products

HUBER+SUHNER has the technologies, solutions, and access to key customers

Our solutions for the Communication market

Data Center

- Structured cabling
- Bandwidth expansion and transceivers
- Optical circuit switching
- Timing synchronisation

CEM Components

- Radio frequency components
- Fiber optic components
- Optical coupling modules for transceivers

Mobile Network

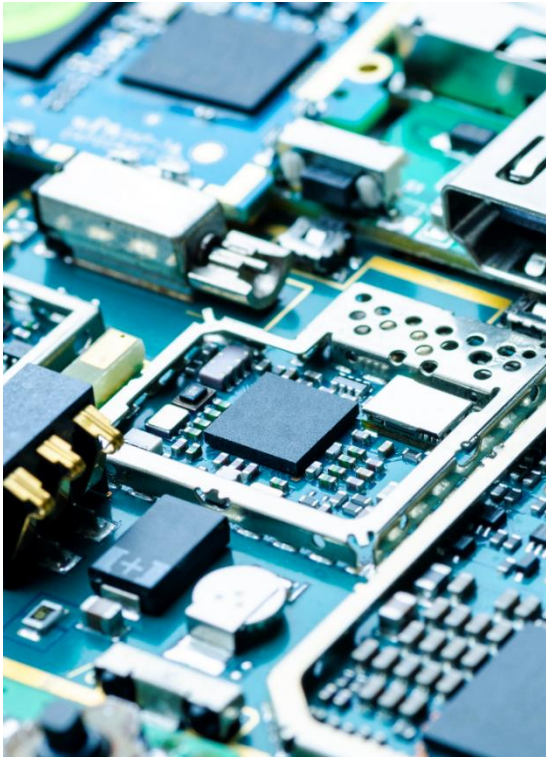
- Timing synchronisation
- Optical circuit switching
- Harsh environment cabling
- Antenna solutions
- Bandwidth expansion and transceivers

Fixed Access Network

- Outdoor connectivity
- Indoor connectivity
- Bandwidth expansion and transceivers
- Optical circuit switching
- RF video overlay
- Hybrid Fiber Coax solutions

Serving different communication customer groups with their different business models

**Communication
Equipment
Manufacturer (CEM)**



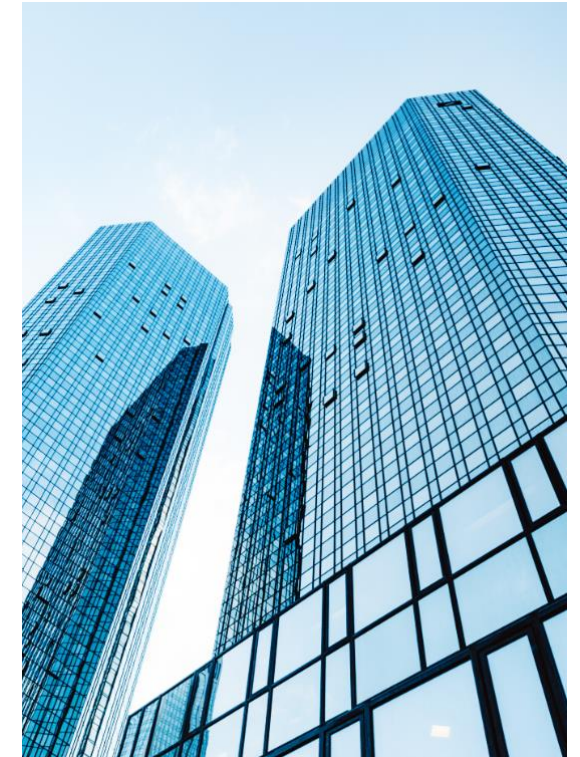
**Telecoms Service
Provider**



Neutral host



Enterprise



Strong value propositions for the different applications

Antenna solutions



Compact and customisable macro and small cell antenna solutions

Harsh environment connectivity – Fiber optic components, connectors and cable systems



Rugged and integrated connector offering, high variability and reliability



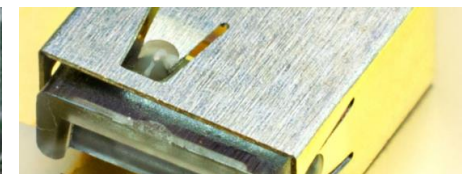
Fast, scalable and modular installation solutions for mobile (F/P/HTTA) and fixed access networks

Radio frequency components



Reliable, miniaturised printed circuit board (PCB) connectivity

Optical coupling modules for transceivers



High-performance optical engines assemblies for chip on board and co-packaged optics transceivers

Bandwidth expansion and transceivers



Customised solutions for increased transmission bandwidth from network to cell site

Hybrid Fiber Coax solutions



Strengths in RF and analogue / digital optics - form factor and outdoor fit for low power consumption

Structured cabling



Highly dense, efficient and scalable cable systems and fiber management systems, tailored to customer needs

Optical circuit switching



Automated, remote and secure switching of fiber connections with full signal integrity

Timing synchronisation



Guaranteed time data transmission powered over fiber

Transportation

Environmentally friendly mobility offers high growth potential

Core market

Rolling Stock



Ecological mobility in urban areas = substantial investments in rail infrastructure

Market solid again after the dip following Covid

Growth initiatives

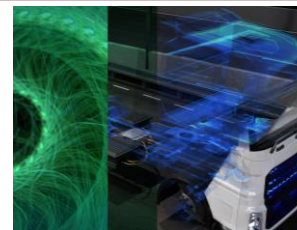
Advanced Driver Assistance System



Level 3 automated driving becoming the standard

High resolution radar systems are key in reaching level 3; however, adoption rate slower than anticipated

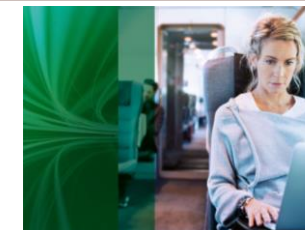
Electric Vehicle



Electrification adopted by commercial vehicles, Gen 2 platforms on the market

Increasing voltages for Gen 3; growth rate for E-trucks slower than anticipated

Rail Communications



On-board and train-to-ground communication need substantial improvements

Strong demand for high performance systems; H+S climbing up in the food chain from antennas to systems

HUBER+SUHNER has the technologies, solutions, and access to key customers

Our solutions for the Transportation market

Rolling Stock

- In-carriage wiring solutions
- Inter-carriage wiring solutions

Rail Communications

- Train-to-ground communication
- Ground communication
- Communication-based train control (CBTC)

Advanced driver assistance system (ADAS)

- Wireless communication between vehicles
- V2X (vehicle to X)

Electric Vehicle

- On-board network wiring
- High-voltage power distribution

Railway customers

Global supplier to all leading OEMs, operators and system integrators

Rolling Stock & Rail Communications

System integrators

Operators

OEMs



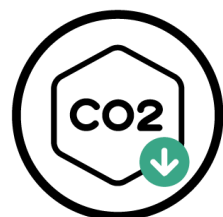
Automotive customers

Global supplier to leading Automotive Tier 1 and manufacturers

ADAS			EV			
 <p>The Future in Motion</p>		 <p>주식회사 에이치엘클레무브</p>			 <p>Daimler Buses</p>	
						
Distance radar antenna	Distance radar antenna	Distance radar antenna	High Voltage Cable System	High Voltage Cables	High Voltage Cable System	High Voltage Charging Systems
						

Trends & drivers

The world of mobility is changing!



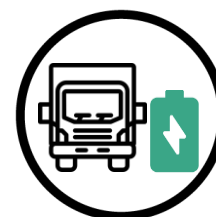
Decarbonisation:
increased investments into public transportation and infrastructure

Eco-friendliness:
reduce, reuse and recycle



Urbanisation
fuels build-out of public transportation

Cities as forerunners for clean vehicles



Electrification (BEV/FCEV)
adopted by all types of vehicles

Increasing voltages: 400V – 800V – 1000V with high lifetime expectation



Ubiquitous wireless train-to-ground communication

Means secure communication between products, systems, equipment and electricity networks



ADAS pushed by regulatory framework

V2X: Future vehicles are fully connected and always online; software to become key for OEM

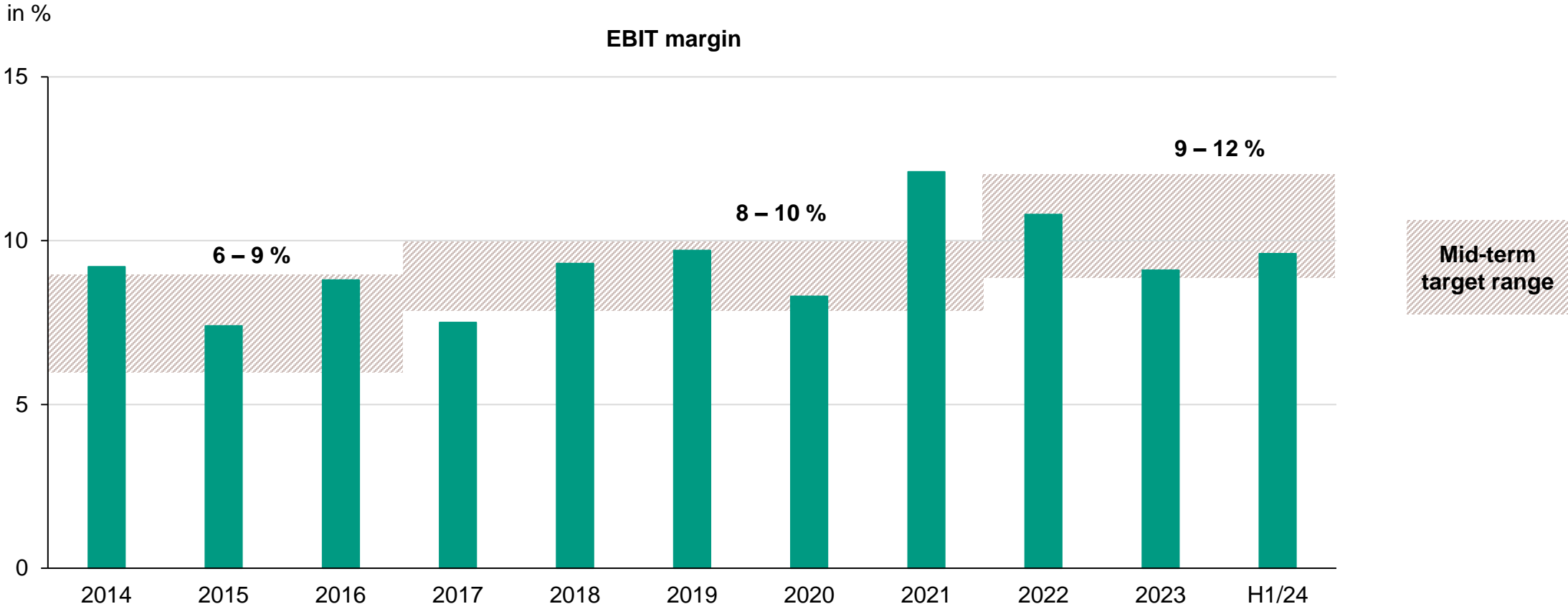
Agenda

Company overview

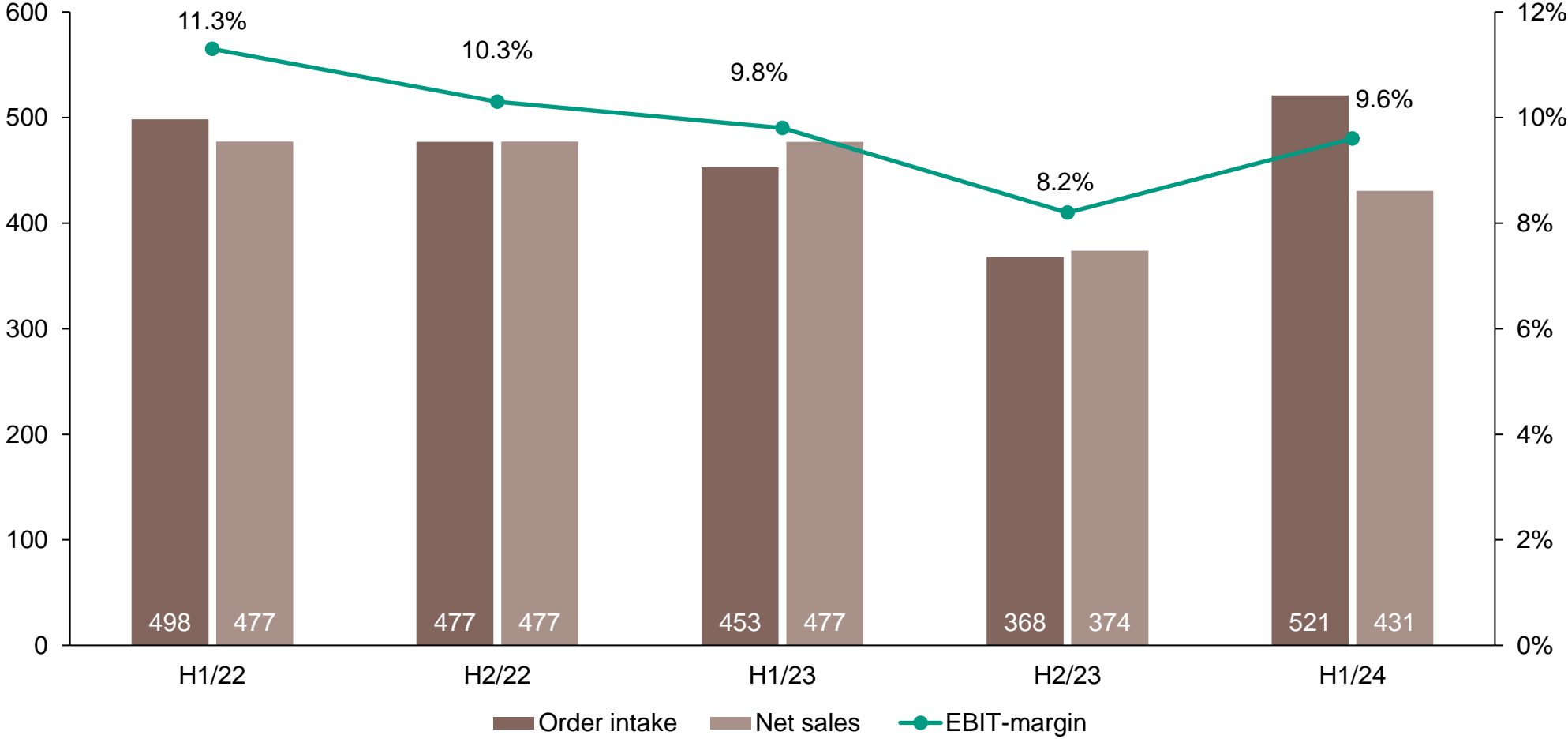
Market segment growth opportunities

Financial considerations

Lifting the operational profitability over the last decade



H1/2024 turnaround compared to second half of 2023



Higher order intake and stable sales after 9 months 2024

	2024	2023	Change in %
In CHF million			
Order intake Group	712.8	639.2	11.5
Industry	231.3	204.5	13.1
Communication	281.0	206.9	35.9
Transportation	200.5	227.9	(12.0)
Net sales Group	665.2	666.3	(0.2)
Industry	205.5	223.0	(7.8)
Communication	256.0	224.3	14.1
Transportation	203.8	219.0	(7.0)

Guidance 2024 and mid-term target

	2024	Mid-term target
Net sales	Organic growth	> CHF 1 billion
EBIT margin	9 – 10.5 %	9 – 12 %

Working towards a low-carbon future

Our climate transition plan 2030 and beyond



Significant cash returns to shareholders

Dividend policy

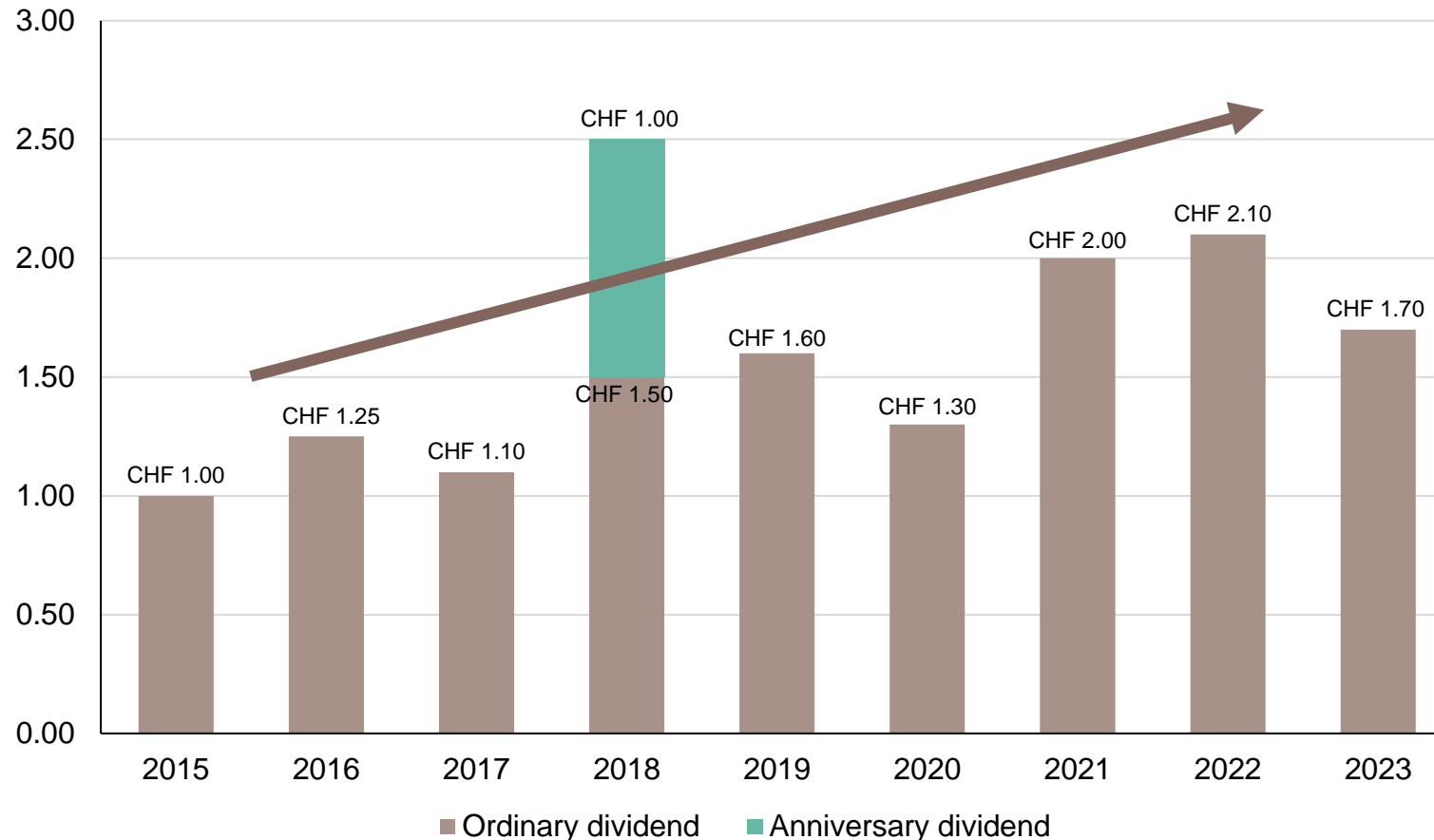
- Profit-oriented: Target pay-out ratio of 40-50 % of net income

Completed share buy back programme

- 5 % of shares (CHF 81 million during 2021-2023)

Excess cash and debt capacity

- Strong (debt free) balance sheet with high equity ratio



The background of the image is a dark blue gradient. It features a complex network of glowing blue nodes, each represented by a small, bright, circular light. These nodes are interconnected by a dense web of thin, light blue lines that crisscross the entire frame, creating a sense of connectivity and data flow. The overall aesthetic is futuristic and technological.

Connecting – today and beyond