



Investor Presentation
Schaltbau Holding AG

November 2019



SMART SOLUTIONS
FOR POWER AND MOBILITY

Experienced Schaltbau management team on track for profitable growth



Dr Albrecht Köhler

**Chief Executive Officer
(since May 2018)**

- Freelance interim CEO / COO (2016-18)
- Deputy CEO GAZ Group (2014-16)
- Managing Director Knorr Bremse rolling stock bus. unit (2000-14)
- Leading general management and operations roles at Dt. / Daimler Benz Aerospace (1989-1999)



Volker Kregelin

**Chief Officer for Mobile & Stationary
Transp. Technology (since Dec 2018)**

- Leading sales and general management roles in MTT & STT at Bombardier Trnspt. (2007-18)
- Reg. head / COO at Dematic (2004-07)
- Senior roles in projects, operations and sales at Siemens and Adtranz / Bombardier Trnspt. (1993-2003)



Thomas Dippold

**Chief Financial Officer
(since Jan 2017)**

- CFO Faber-Castell AG (2014-16)
- CFO Semikron International (2008-14)
- Head of Controlling Schott AG (2002-08)

A large, solid red arrow pointing from the left towards the text on the right.

We are a pioneer and key technology partner in the field of safe, sustainable energy and mobility solutions!



Business Overview

Schaltbau Group – Key facts

- Leading supplier of technology for rolling stock, rail infrastructure, automotive and other industrial applications
- World market leader in direct current switching technology
- Global innovation driver and key technology partner for future markets New Energy, New Mobility, DC industry
- Founded in 1929
- Employees: c. 3,000
- Turnover: c. € 500m, of which 70% rail, regional split 35% D, 45% rest of Europe, 20% rest of world¹
- Listed at Frankfurt Stock Exchange, Prime Standard segment, IPO 1994
- 30 subsidiaries in 15 countries worldwide



¹ FY 2018, rounded to full 5%

Recent achievements and next steps

- Schaltbau Group delivered on further **improving operational excellence**
- **Refinancing of EUR 151.5 million** successfully secured
- **Key risk items eliminated from the balance sheet**
(platform screen doors project, goodwill, capitalised development expenses)
- **Alte and Sepsa exit strategies** successfully executed as planned
- **Management Team** broadened by seasoned experts (Pintsch and Bode)
- **Elimination or mitigation of loss-making deals**

- 
- Ongoing **strategic re-orientation** process of Schaltbau Group
 - Several **Technological advancements** under development at Pintsch
 - Development of **innovative boarding systems for new mobility concepts**
 - Penetration of **“new Energy markets”** (Contactor, charging stations)
 - **Site structure programme** implemented at Bode Group (Fit for Future II)



SMART SOLUTIONS
FOR POWER AND MOBILITY



Schaltbau Group – Investment case

- Attractive market environment based on **megatrends**
 - **Climate change, urbanisation** and **digitisation** are driving demand for new rail vehicles & infrastructure
 - Increasing use of **direct current technology** with high voltages driven by **New Energy** and **New Mobility** applications
 - increasing number of **DC-Industry** applications evolving in industrial power grids, especially in energy-intensive sectors such as automotive production
- Schaltbau Group has occupied **leading market positions** with well established brands **Schaltbau, Bode, Pintsch** and **SBRS**
- Schaltbau Group is acting as an **innovation driver** by leveraging core expertise
- **Long-standing** and **stable customer relationships**, especially in the rail business
- Significant increase in **profitability** via process improvements, reorganisation and modular development
- **Restructuring completed** and **risk-items removed** from balance sheet



SMART SOLUTIONS
FOR POWER AND MOBILITY



Where Schaltbau will be heading



Increase profitability
and cash flow

Improve cost position

Expand business in
growing market niches

- Improve **Comfort, Safety and Reliability** for passengers **on rail and on road** as an **innovation driver** with **key technology**
- Enable **resource-saving DC energy use** in industrial applications such as **smart grids, production plants and solar power systems**

Schaltbau Group – Business overview

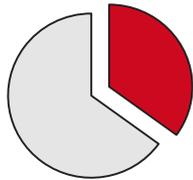
COM*	MTT*	STT*	

* COM = Components, MTT = Mobile Transportation Technology, STT = Stationary Transportation Technology ** Segmental sales split based on FY 2019 plan numbers, pre consolidation, rounded to the nearest 5% multiple



Schaltbau · Connect Contact Control

Snapshot of Schaltbau



~35% of
Group sales*



DC technology for trains, new energy and
electromobility, driver desk equipment

COM	MTT	STT
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- Broad range of best-in-class connectors, snap-action switches and contactors for a broad range of applications in the rail sector and other industries
- State-of-the-art train driver desk equipment
- Development activities focus on high-performance DC contactor technology in applications beyond rail, such as new energy, electromobility and DC industry
- High share of international sales, broad customer distribution
- Has developed from a pure component supplier to an application specialist providing components, assembly and service
- Highly efficient operations
- High order intake with strong and sustainable margins

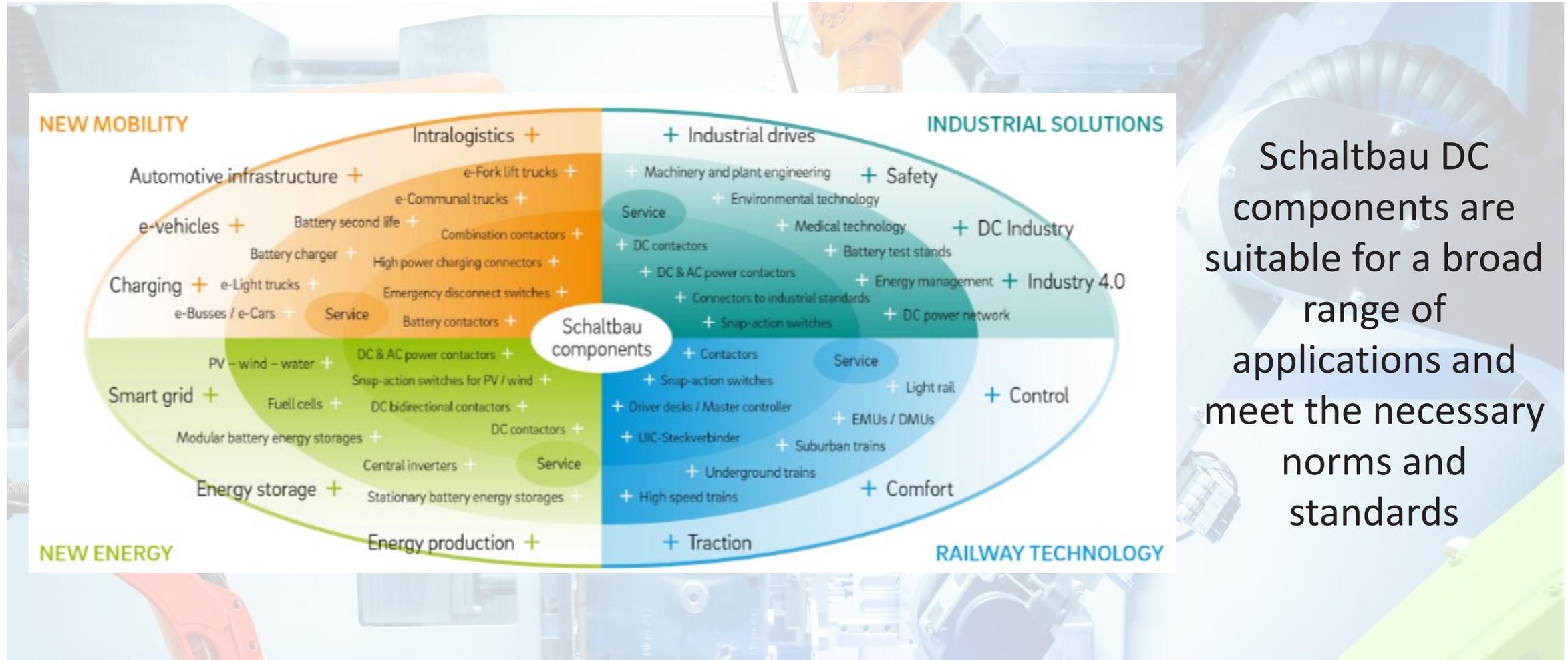
DC switching technology from Schaltbau (1/6)

DC contactors for rolling stock

- Used with a whole range of current collectors
- Depending on the application, these contactors can be large and heavy
- Example: CP1130/20



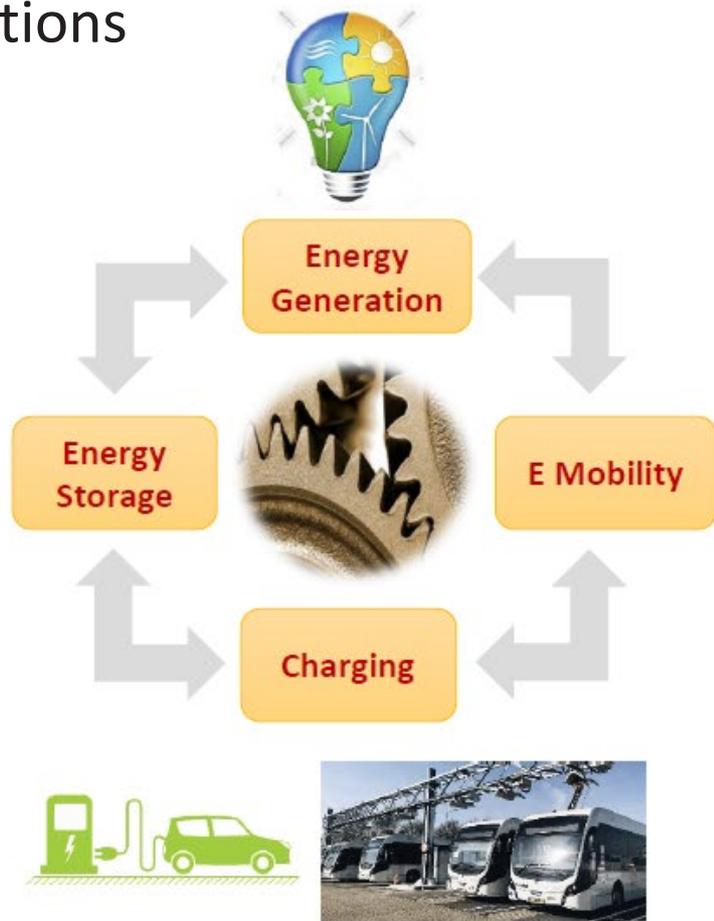
DC switching technology from Schaltbau (2/6)



Schaltbau DC components are suitable for a broad range of applications and meet the necessary norms and standards

DC switching technology from Schaltbau (3/6)

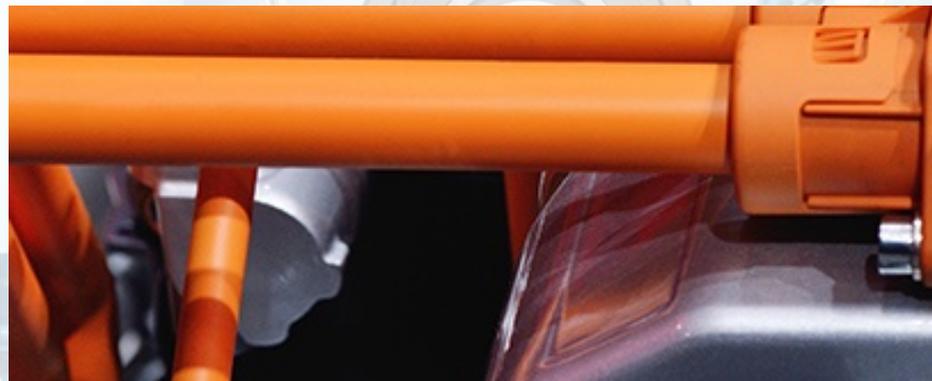
New energy applications drive each other



DC switching technology from Schaltbau (4/6)

DC contactors for new applications

- Positioning in attractive growth markets
- Often far more compact than conventional rail contactors
- Examples: C310, C294



DC switching technology from Schaltbau (5/6)

Not deploying safety technology is a major risk

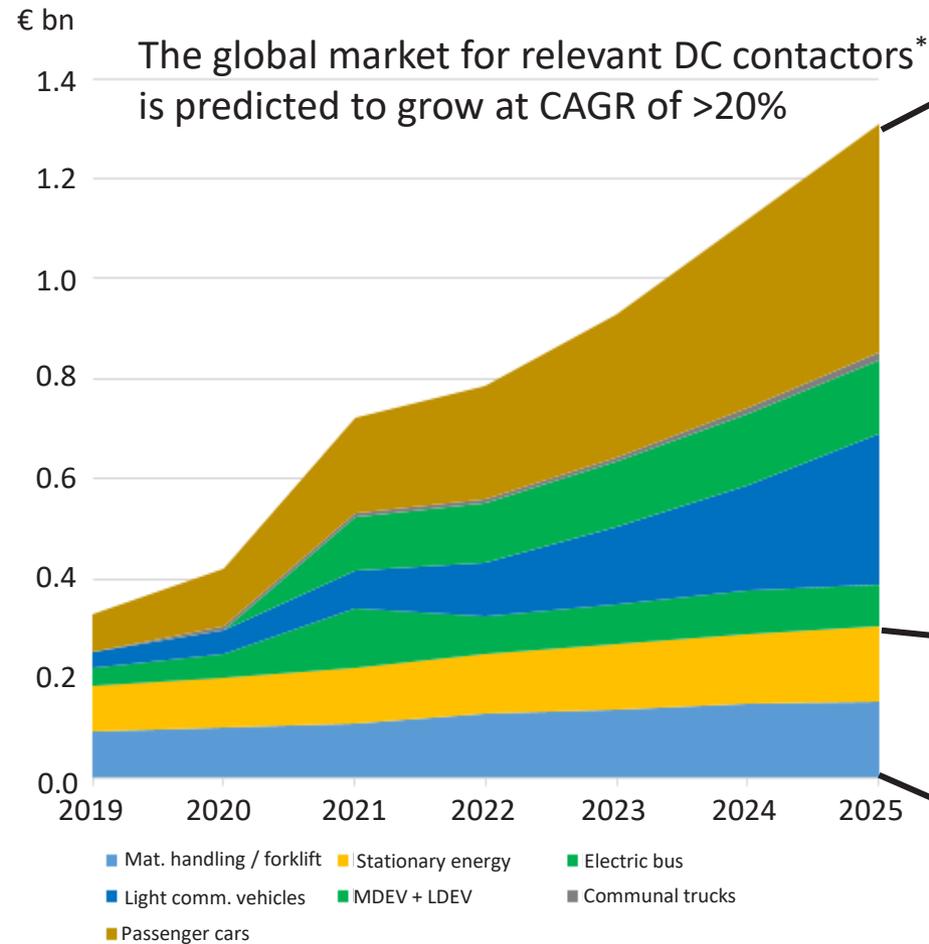
DER, ROOFTOP

More Tesla solar-panel fire incidents emerge in wake of Walmart suit

By [Bloomberg News Editors](#) | 8.29.19



DC switching technology from Schaltbau (6/6)



- 1. Electric passenger cars**



Boom expected, depending on infrastructure
- 2. Electric communal trucks**



Niche business
- 3. Electric light duty (≤6t) + medium duty (≤16t) commercial vehicles**



Stable yearly demand, based on existing figures
- 4. Electric light commercial vehicles**



Extraordinary growing due to increasing short-distance deliveries and suitable charging infrastructure in depots
- 5. Electric bus family (6, 8, 12 metres)**



Stable yearly demand, based on existing figures
- 6. Stationary energy**



Moderate/stable growth due to market saturation and long usage times
- 7. Material handling**



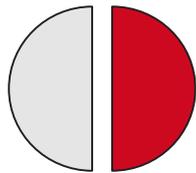
Stable growth due to logistics increase

* Estimates include Europe, USA, China and Russia for all listed DC energy storage applications; Schaltbau analysis based on various third party market research, e. g. from International Organisation of Motor Vehicle Manufacturers OICA, German Association of the Automotive Industry VDA, McKinsey and German Centre of Automotive Management CAM, as well as own estimates

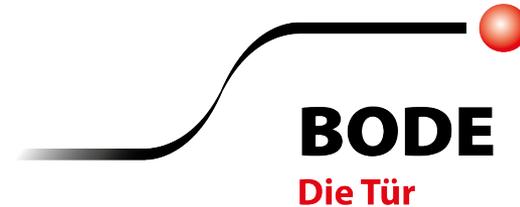


Bode · Die Tür

Snapshot of Bode Subgroup



~50% of
Group sales*



COM	MTT	STT
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Door systems for
trains, buses and automotive

- #1 market leader in Europe and #2 player worldwide in oligopolistic market, strong train entry systems quality track record
- Customer range has been expanded by leveraging train door system experience into bus and automotive applications such as Deutsche Post DHL's electromobility vehicle StreetScooter
- Use of sensor technology in entry systems adds digital functionality such as ticketing, passenger counting and enhanced squeeze protection, for use also in future applications such as autonomously driven group transportation units ("people mover")
- Service organisation with high flexibility
- Polish subsidiary Rawag contributes best-in-class train windows & interiors and provides additional low-cost production capacity
- Reorganisation of production processes well underway, with significant efficiency gains in sight
- Good order intake and high sales growth, opportunities to grow in Asia

Bode markets for entry systems show strong growth perspective



- Bode is a core Schaltbau Group brand and a specialist in the development and manufacture of electric and pneumatic vehicle door systems for trains, buses and commercial vehicles
- All three areas have high development potential within the growth markets of public transport and e-mobility (e.g. entry systems for e-shuttle buses and autonomously-driven people mover)
- The best-in-class mechanical quality – Bode door systems are known to be safe, durable and reliable – in combination with intelligent software offers remarkable growth opportunities
- **World market door systems:**
 - c. \$700m in 2018 for rolling stock alone, is likely to grow to at CAGR of c. 10-15% in the next couple of years, strongly driven by ramp in digital door system functionality
 - Schaltbau at current has a market share of 30-35% in Europe and 18-20% globally

Sliding door technology for the VW MOIA made by Bode

Proven sliding door technology for innovative shared taxi concept

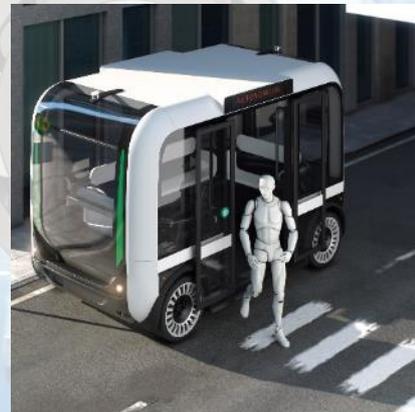
- Bode has manufactured sliding door components for VW for many years
- Awarded contract to supply sliding door fittings, roller guides and electric linear drives now also for the VW MOIA
- MOIA already introduced as ride-sharing service in Hanover and Hamburg, further cities are planned



Bode signed a cooperation agreement with Brose for the swinging and sliding door technology for innovative minibuses

Planned development partnership for boarding systems with additional digital functions

- Cooperation with major automotive supplier Brose signed
- Compact design and digital additional functions are main focus
- Market for people movers is highly promising



Box bodies for the StreetScooter made by Bode

Small truck bodies with reliable and durable sliding door technology

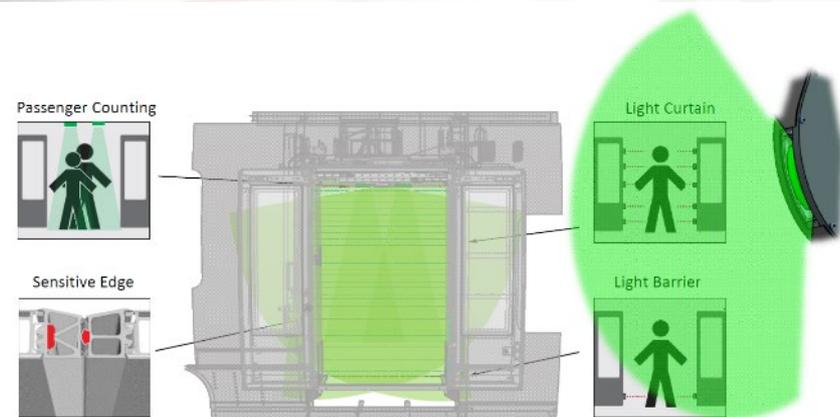
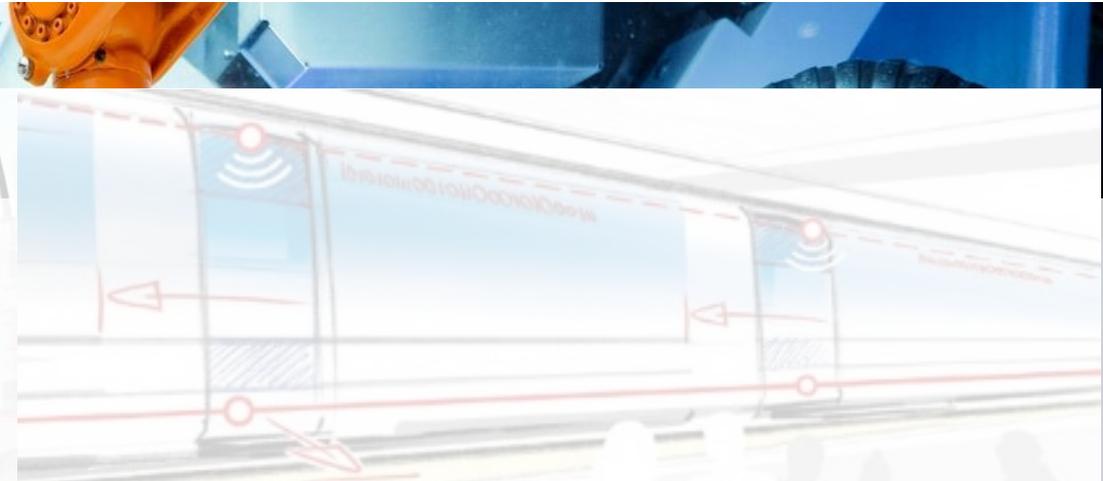
- Electrically or mechanically linearly guided sliding doors
- Extensively tried and tested, easy to integrate and retrofittable
- Strong growth, low-emission parcel delivery becoming far more important



Bode entry systems for rolling stock

Boarding systems with additional digital functions driving profitable growth

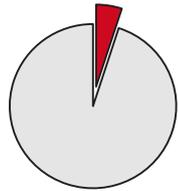
- Positive market outlook with growth rates of 10–15 % per year
- Growing demand for digital boarding systems, passenger counting and/or ticketing
- As market leader in Europe, excellent opportunity to benefit strongly from this growth





SBRS · Efficiency First

Snapshot of SBRS



~5% of
Group sal



COM	MTT	STT
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Refurbishment of rolling stock and
fast-charging systems for busses

- Acting in two dynamic markets
 - Partial and complete refurbishment of rolling stock, using products from the Schaltbau Group and other suppliers
 - High-speed charging systems for electric busses
 - Outstanding safety and efficiency, more and more in use for local public transport
 - Infrastructure already laid out in Osnabrück and Brussels in cooperation with bus manufacturers VDL and Solaris, projects running in several other cities
 - Market share of > 30% in DACH region
- Decently profitable although revenues are still small

Charging systems for electric buses from SBRS

SBRS fast charging systems for outstanding safety and efficiency

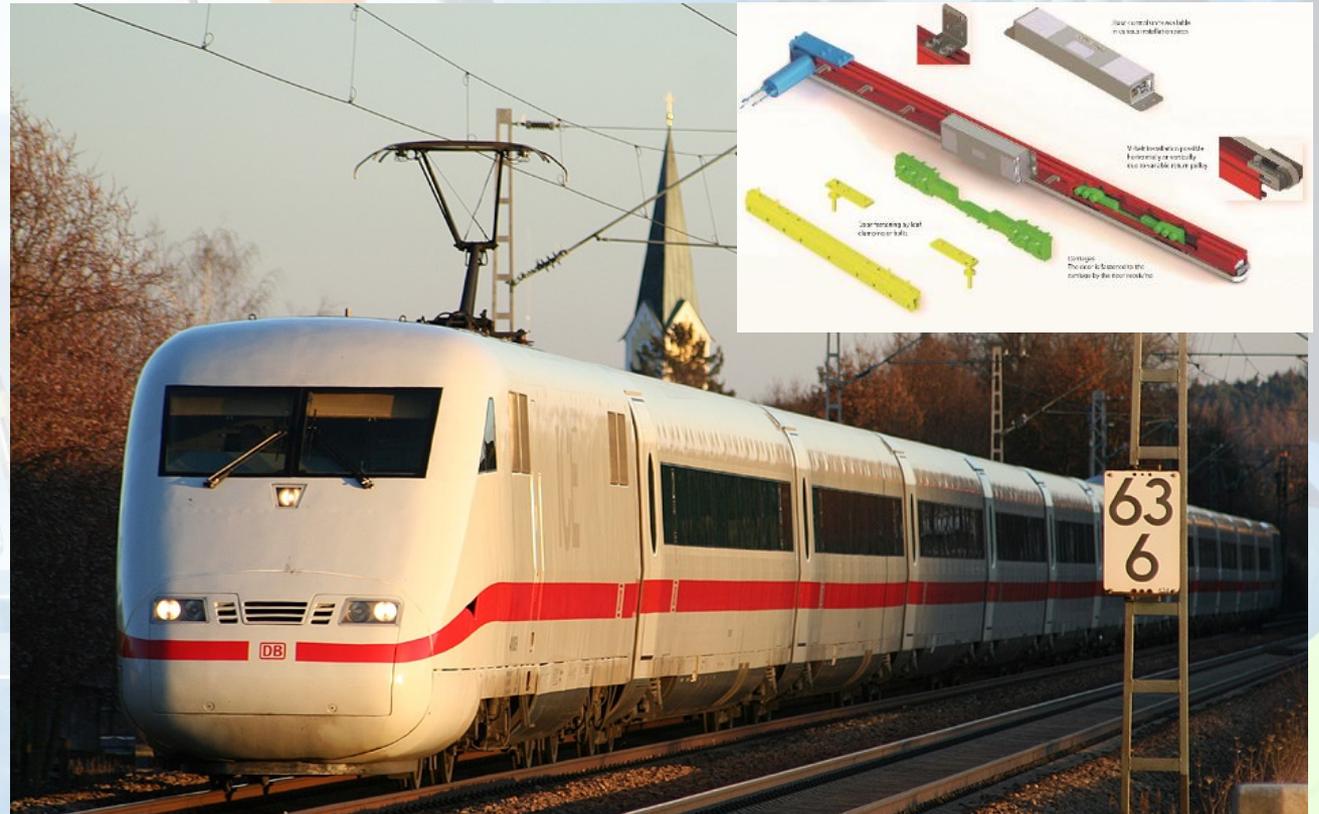
- More and more local authorities using electric buses for public transport
- Already in use in Osnabrück and Brussels in cooperation with bus manufacturers VDL and Solaris
- Charging infrastructure projects in several other cities



Deutsche Bahn ICE1 interior door modernisation from SBRS

Extending the life cycle of rolling stock by partial and complete refurbishment

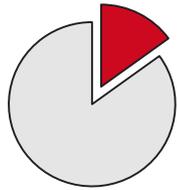
- Growing market segment
- SBRS uses products from the Schaltbau Group and other suppliers
- Example: More compact interior door drives for the ICE1 in car type 803





Pintsch · Safety for Rail

Snapshot of Pintsch



~15% of
Group sales*



Level crossing systems,
point heating systems, shunting equipment

COM	MTT	STT
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- Established #3 player in various oligopolistic submarkets such as level crossings, shunting equipment and point heating systems
- Rail infrastructure market offers significant growth potential and major innovation opportunities related to digitalisation and interconnection of field elements and systems (e. g., point diagnostics)
- Improvement of terms & conditions with large customers ongoing
- Stronger focus on key product portfolio
- Consolidation of 3 sites into one major operations centre with roadmap established
- Performance improved significantly, order intake shows volatility
- Benefits from the enormous infrastructure investments recently announced by Deutsche Bahn

Digitisation of rail infrastructure by Pintsch

Reliable safety technology with digital connectivity

- New level crossing technology will interact with digital signal systems via Ethernet
- Internet platform provides Deutsche Bahn with vendor-independent diagnostics data for infrastructure components
- New axle counting technology delivers digital control information; successful marketing also internationally

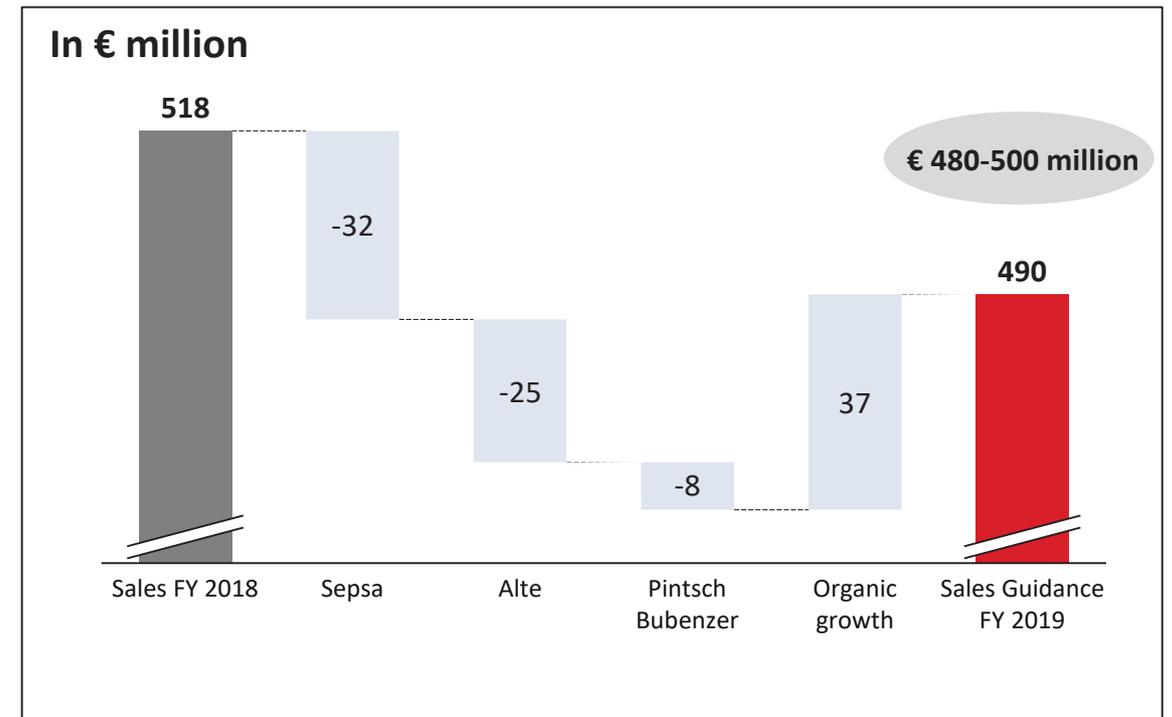




Guidance

Outlook - Sales guidance 2019 with strong organic growth

- Sales guidance for 2019 in range of € 480-500 million (like-for-like/without Sepsa and Alte, which have been divested)
- Organic growth expected for FY 2019
 - All business segments contribute
 - Bode Group is main growth driver



Guidance FY 2019 confirmed

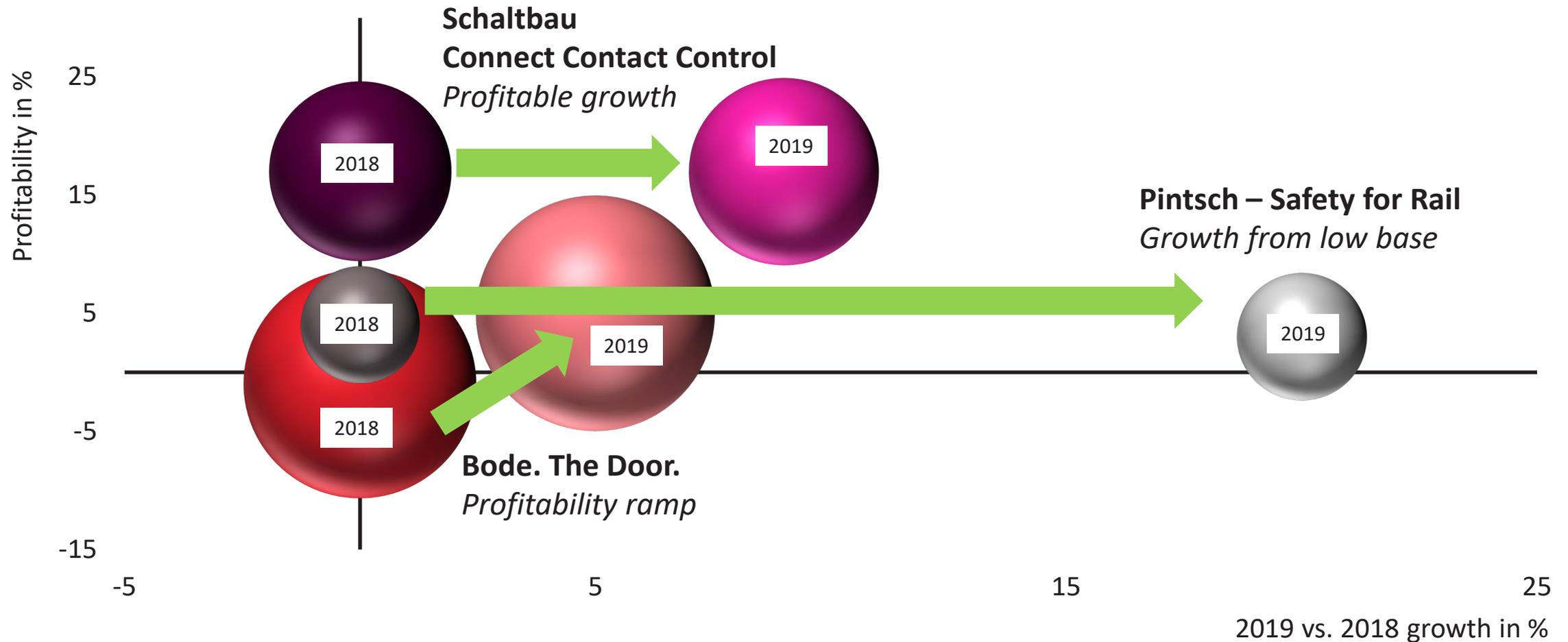
- Strong 2018 and solid 9M 2019 order intake as one of the drivers to secure growth in 2019
- Positive effects from restructuring measures and reduction of risk exposure (PSD)
- Stronger focus on continuing business
- Measures relating to the optimisation of production and logistic processes, the realisation of material savings and the renegotiation of customer contracts are on track and show positive impacts
- EBIT margin expected at the upper end of guidance

Outlook (in € million)	Guidance FY 2019
Order intake	480-500**
Sales	480-500**
<i>Mobile Transportation Technology</i>	<i>Increase*</i>
<i>Stationary Transportation Technology</i>	<i>Slight increase*</i>
<i>Components</i>	<i>Increase*</i>
EBIT margin	Around 5-6%**

* Compared to FY 2018

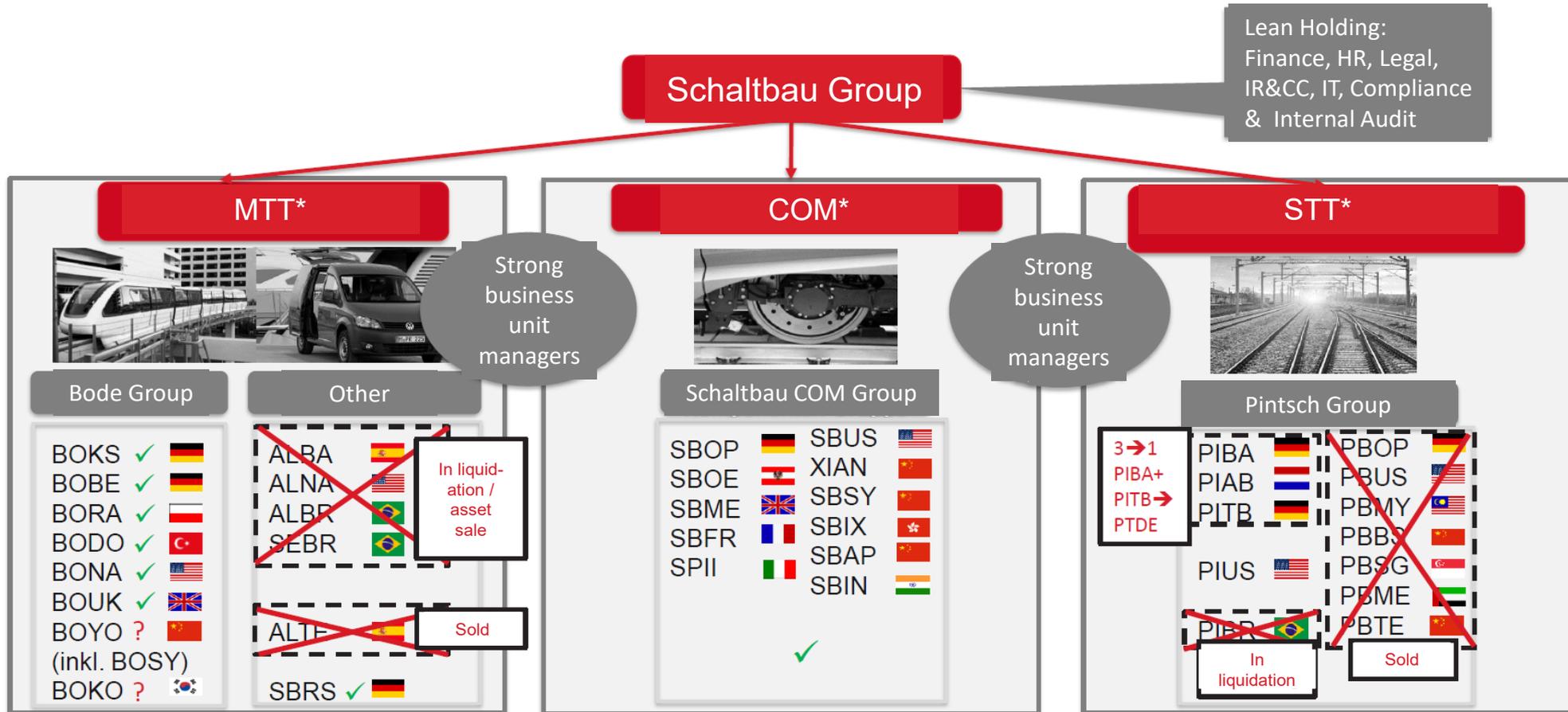
** Excluding Sepsa, Alte, Pintsch Bubenzer and exceptional items

Portfolio development 2019 vs. 2018

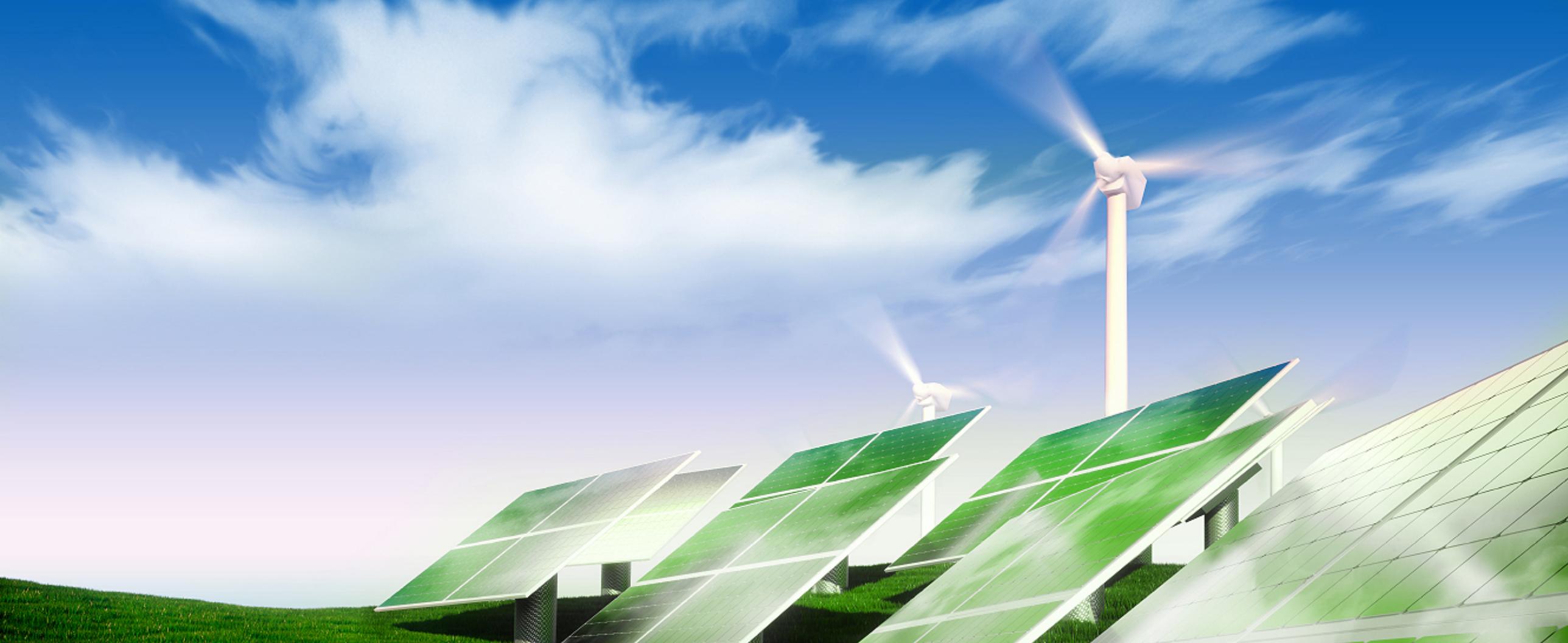


Bubbles show 2018/2019 E profitability and 2019E/2018 year-on-year revenue growth. Bubble size represents significance for Schaltbau, based on revenue share. Green arrows represent expected development trend 2019 vs. 2018.

Strong management companies with a lean holding and reduced complexity



* COM = Components, MTT = Mobile Transportation Technology, STT = Stationary Transportation Technology



9M 2019

9M 2019 at a glance

Key figures (in € million, unless stated otherwise)	9M 2019	9M 2018	Δ
Order intake	426.5	420.0	+6.5
Order intake like-for-like*	413.4	380.0	+33.4
Sales	376.3	376.1	+0.2
Sales like-for-like*	354.6	329.3	+25.3
EBIT	14.9	-1.5	+16.4
EBIT margin (in %)	3.9	-0.4	+4.3
EBIT like-for-like before exceptional items*	22.6	15.8	+6.8
EBIT margin (in %) like-for-like before exceptional items*	6.3	4.8	+1.5
Group net profit	8.1	-9.2	+17.3
Earnings per share (in €)	0,60	-1.39	2,0
Free cash flow	-1.6	8.5	-10.1
Employees at period-end (count)	2,800	3,161	-361
	30/09/2019	31/12/2018	
Net financial debt**	-107.0	-100.1	-6.9
Equity	94,4	93.8	0,6

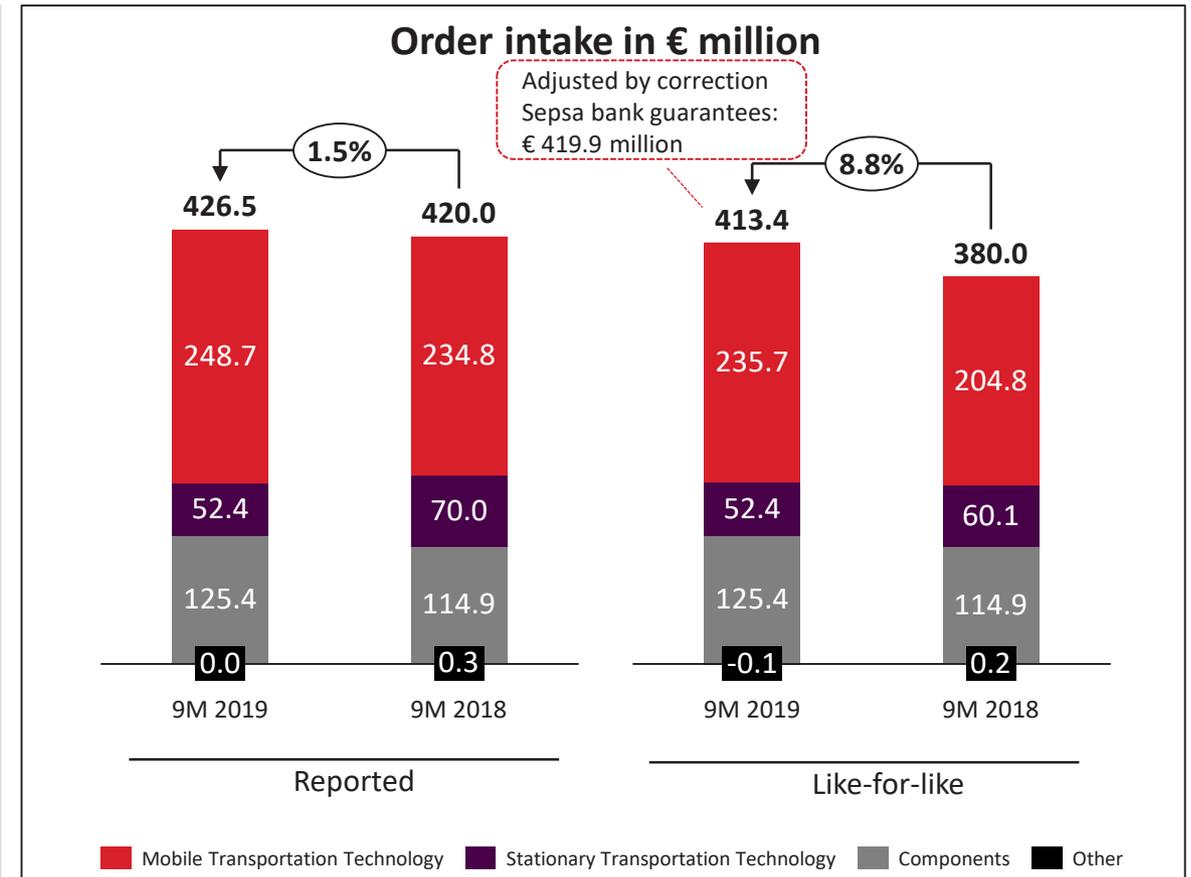
* Excluding Pintsch Bubenzer, Sepsa and Alte contributions

** Lease liabilities are not included



Order intake remains at a very high level

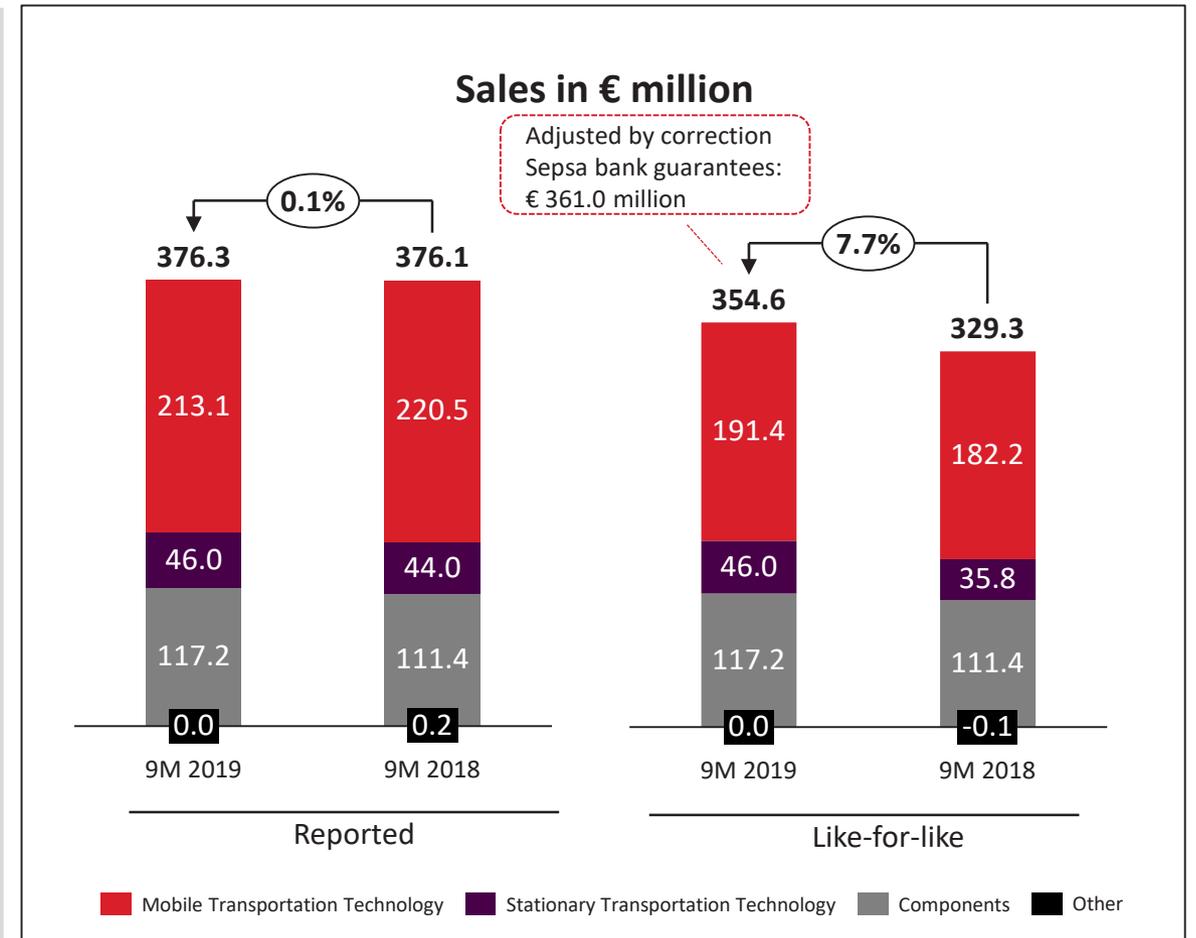
- Strong order intake of € 426.5 million in 9M 2019
 - Continuous strong order intake performance in Mobile Transportation Technology driven by Bode Group; like-for-like up by 15.1% vs. prior year
 - Components up by 9.1% vs. prior year, primarily driven by strong demand for rolling stock electrics and contactors
 - Stationary Transportation Technology like-for-like down by nearly 13% vs. prior year, but in line with expectations
- Order intake without Alte and Sepsa and correction of Sepsa bank guarantees at € 419.9 million, which equals a solid book-to-bill ratio of 1.13
- Order book at end of September 2019 at € 508.0 million, down 12.8% vs. € 583.0 million at end of December 2018 due to the deconsolidation of Alte and Sepsa; order book like-for-like* at € 413.4 million, up 8.8% vs. prior year





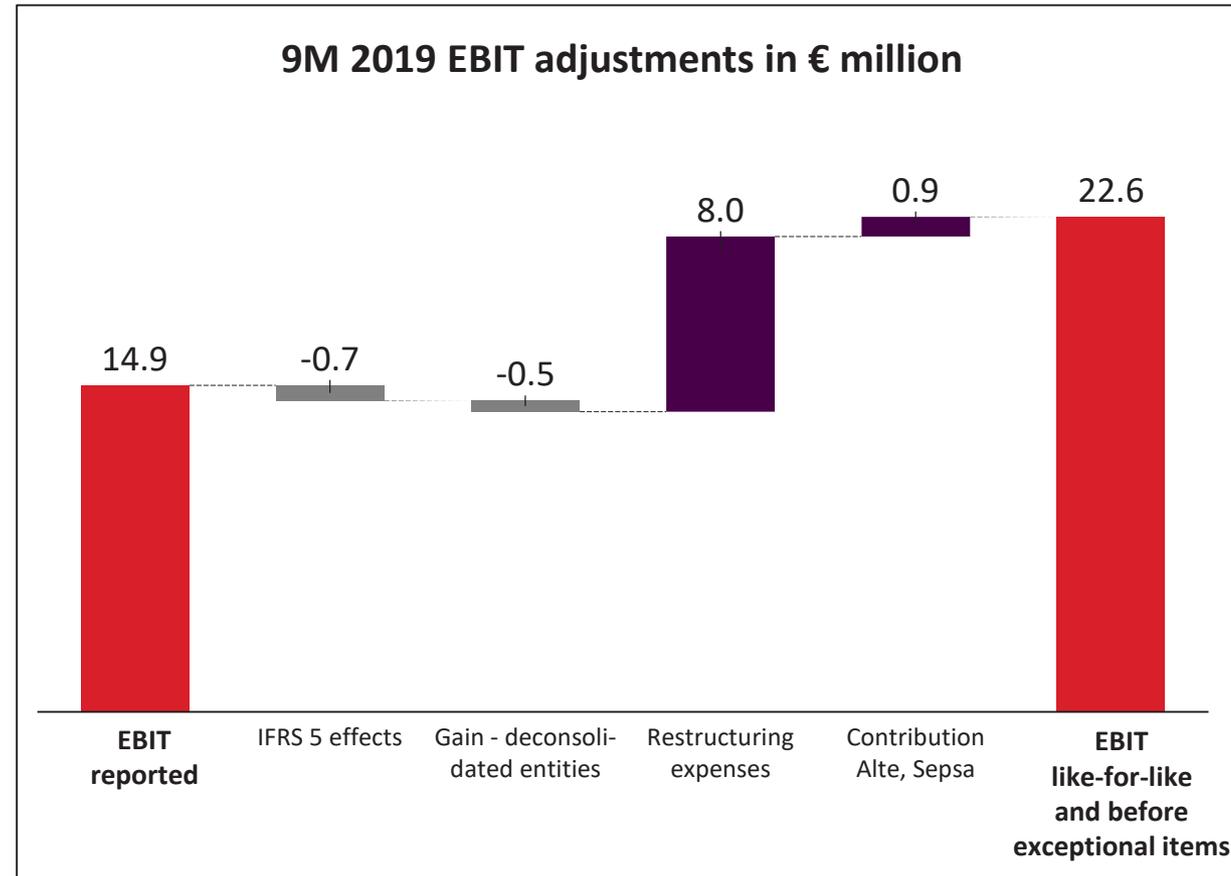
Organic sales growth of 7.7% like-for-like vs. prior year with all segments contributing

- Reported sales grow by 0.1% vs. 9M 2018, an increase of € 0.2 million
- Significant volume increase in Mobile Transportation Technology mainly driven by Bode Germany, Rawag and Bode North America due to the ramp-up of several rail OEM projects
- Sales in Stationary Transportation Technology increased by € 2.0 million vs. 9M 2018 despite the sale of Pintsch Bubenzer in February 2018; like-for-like up by € 10.2 million mainly resulting from platform screen doors sales in Brazil and the realisation of two significant change orders
- Components up by € 5.8 million reflecting continuing strong demand across nearly all product groups
- Sales increase like for like before exceptional items of 9.7% vs. 9M 2018
- Sales split:
 - Germany 36%
 - Europe ex Germany 36%
 - Rest of world 28%



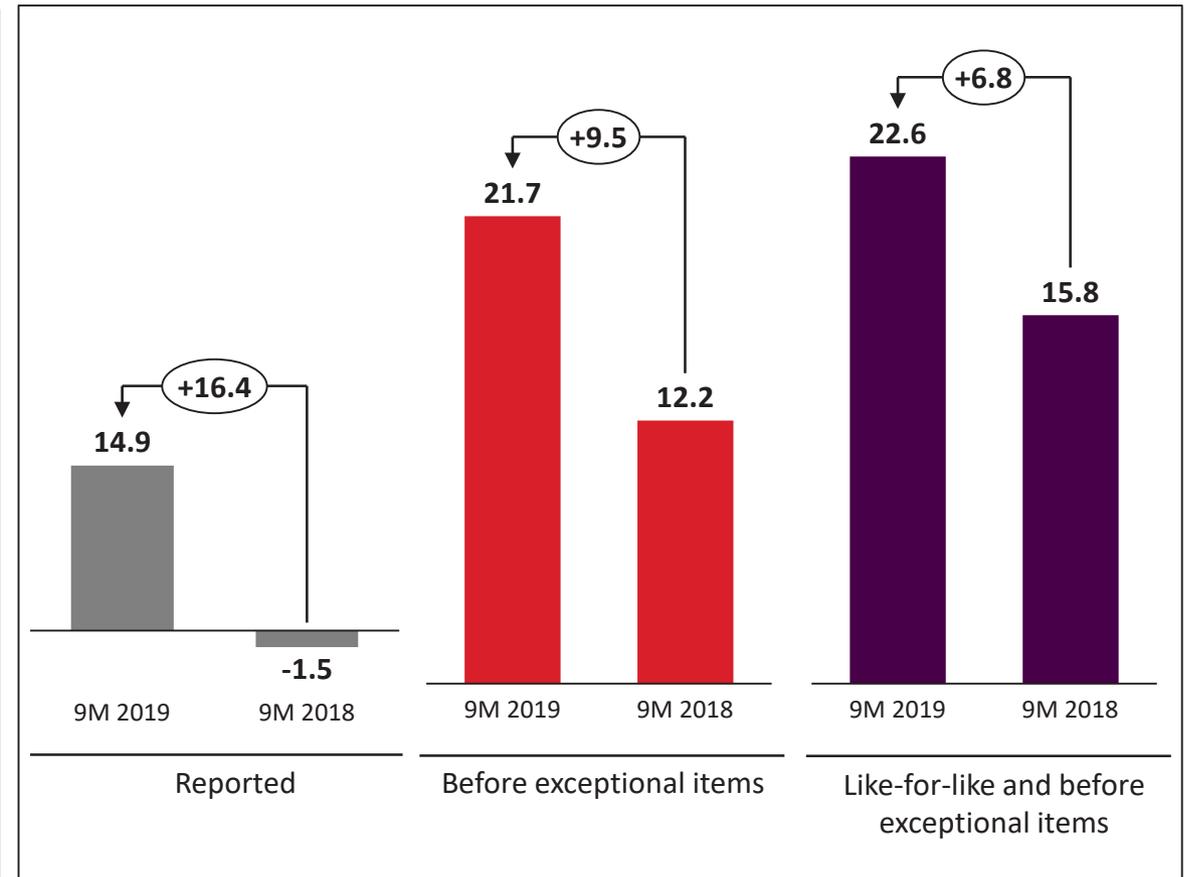
9M 2019 EBIT impacted by restructuring expenses of € 8.0 million

- Reported 9M 2019 EBIT at € 14.9 million; like-for-like and adjusted by restructuring expenses, IFRS 5 effects and gains from deconsolidation at € 22.6 million (€ 15.8 million in 9M 2018)
- Restructuring expenses include provisions for bank guarantees, expenses for external consultants and CRO activities



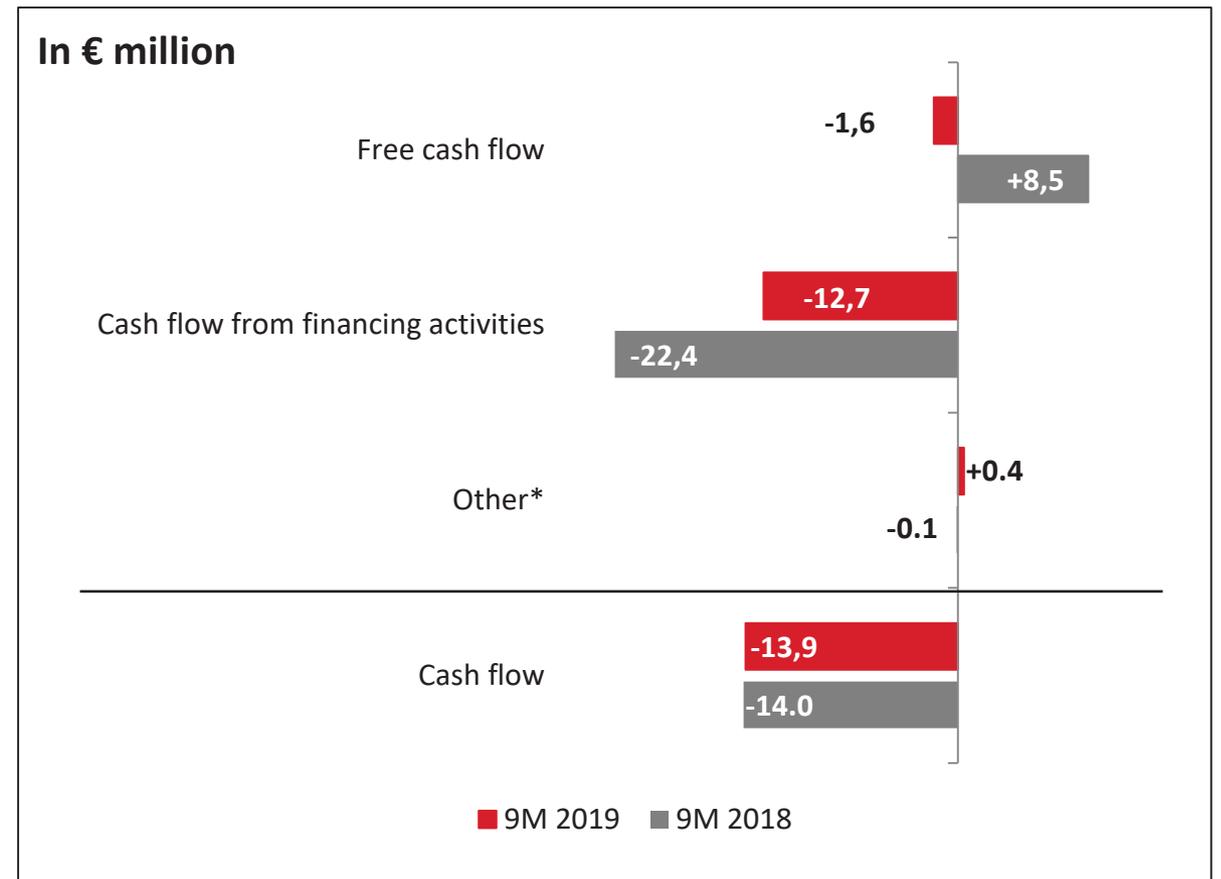
Significant EBIT improvement vs. 9M 2018 before exceptional items

- Reported EBIT increased by € 16.4 million vs. 9M 2018.
- EBIT like-for-like and before exceptional items at € 22.6 million (+€ 6.8 million vs. 9M 2018); improvement mainly caused by
 - Sales volume increase across all segments
 - Positive EBIT impacts in Mobile Transportation Technology and Stationary Transportation Technology due to a favorable sales mix
 - Significant performance improvements at Bode North America and Bode UK



Cash flow in 9M 2019 affected by positive business development and factoring program

- Slightly negative free cash flow in 9M 2019
 - Positive cash flow from operating activities mainly due to a positive EBIT contribution as well as the utilisation of the factoring program was overcompensated by negative effects from cash flow from investments; positive free cash flow in prior year significantly impacted by inflow from sale of Pintsch Bubenzer as well as the release of the funds from an escrow account
- Financing cash flow in 9M 2019 mainly reflects
 - Positive changes of utilisation syndicated credit line
 - Higher interest payments vs. prior year
 - Payment of promissory note loans € 9.5 million
 - Negative € 1.5 million cash outflow due to deconsolidation of Alte and Sepsa
- Financing cash flow in 9M 2018 impacted by cash-in from capital increase and significant loan repayments



Current IFRS standards applied for both 9M 2019 and 9M 2018

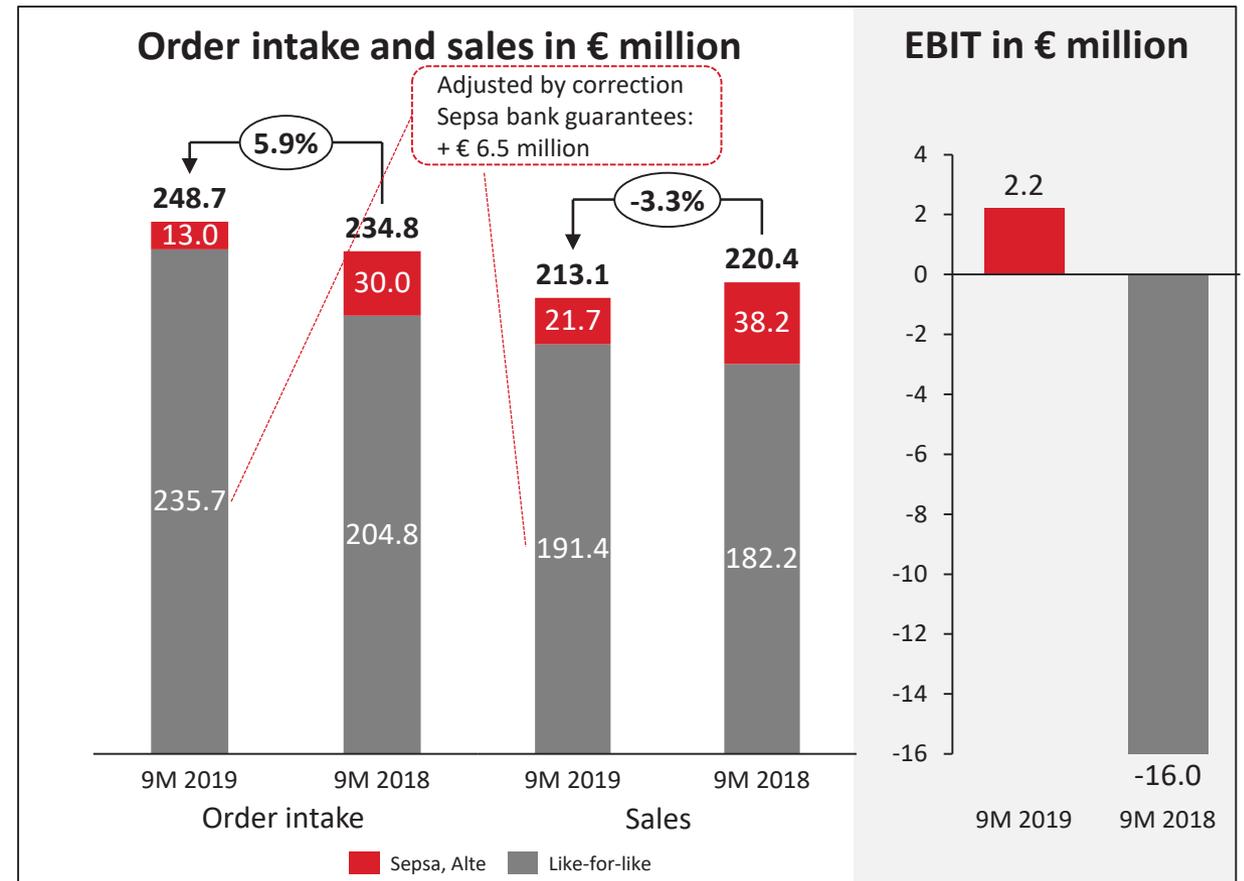
* Includes change in cash funds due to exchange rate fluctuations



Mobile Transportation Technology

Order intake, sales and EBIT all with positive trend vs. prior year

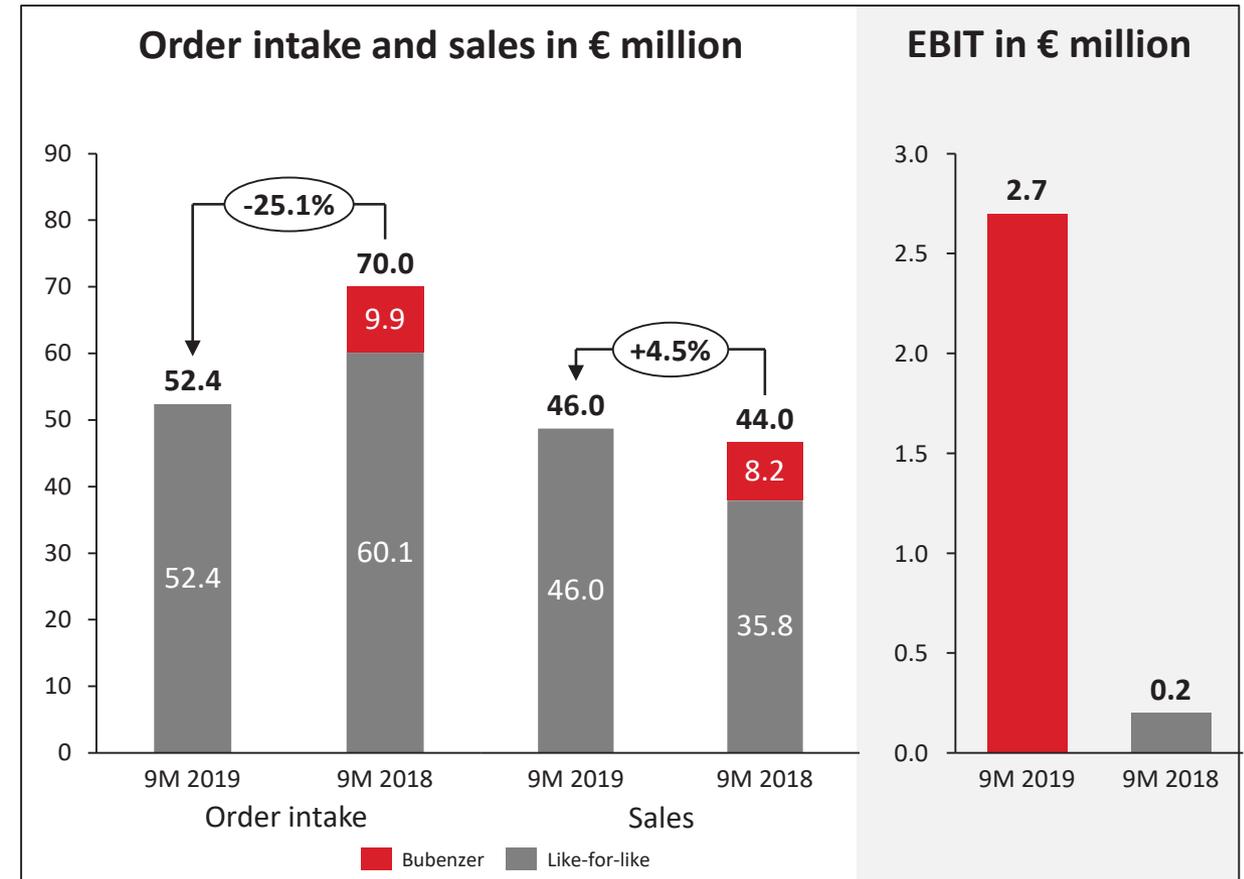
- Order intake without Alte and Sepsa and adjusted by effects from bank guarantees Sepsa up by € 37.3 million, primarily driven by Rawag and Bode Germany
- Sales growth without Alte and Sepsa and adjusted by effects from bank guarantees Sepsa up by € 15.7 million, reflecting strong growth at Rawag, Bode Germany and Bode North America
- Reported EBIT increased by € 18.2 million to positive € 2.2 million. EBIT like-for-like before exceptional items at € 8.8 million (Sepsa bank guarantees as exceptional item). Strong EBIT improvements due to
 - Rawag, Bode Germany, Bode North America and Bode UK each with positive EBIT development mainly driven by higher sales and better project mix
 - Improvements in productivity, direct and indirect material savings



Stationary Transportation Technology

Strong sales and EBIT performance in 9M 2019

- Order intake down € 7.7 million below prior year like-for-like
 - 9M 2018 was impacted by a significant order for a train formation unit
 - Several delays of project awardings, in particular by Deutsche Bahn
- Significant sales increase of € 10.2 million like-for-like
 - Sale of PSD material (Sao Paulo) in 9M 2019 as a result of the contract renegotiation
 - Push-outs from Q4 2018 into Q1 2019
 - Additional sales from change orders
- EBIT at € 2.7 million
 - Positive EBIT effects resulting from higher sales volume
 - Positive project mix
 - Cost reduction measures are continuing to impact bottom-line

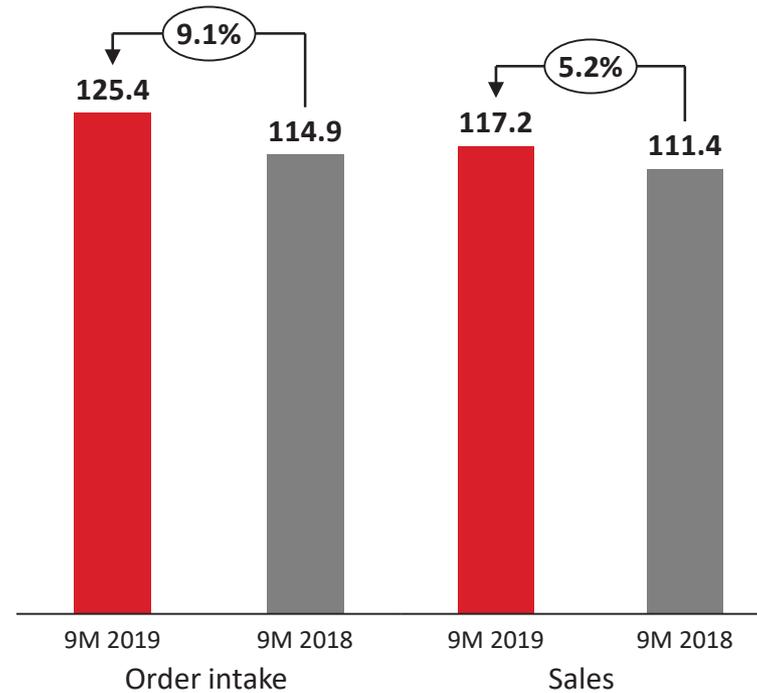


Components

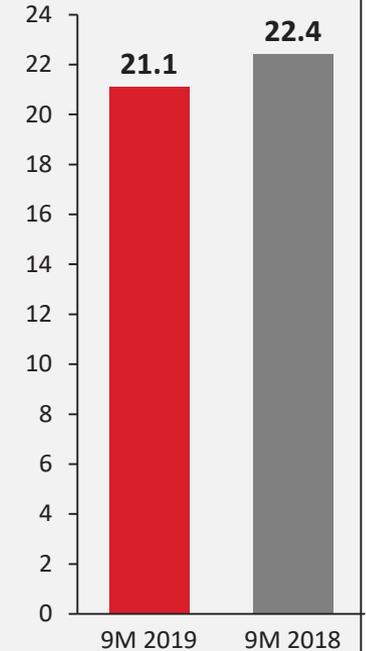
Solid performance in 9M 2019

- Strong order intake in 9M 2019 primarily driven by a strong demand for rolling stock electrics and contactors
- Sales improved by € 5.8 million, reflecting a continuing strong demand across nearly all product groups; business with rolling stock electronics with the highest growth vs. prior year
- EBIT still at a high level, impacted by organisational measures to secure future growth

Order intake and sales in € million



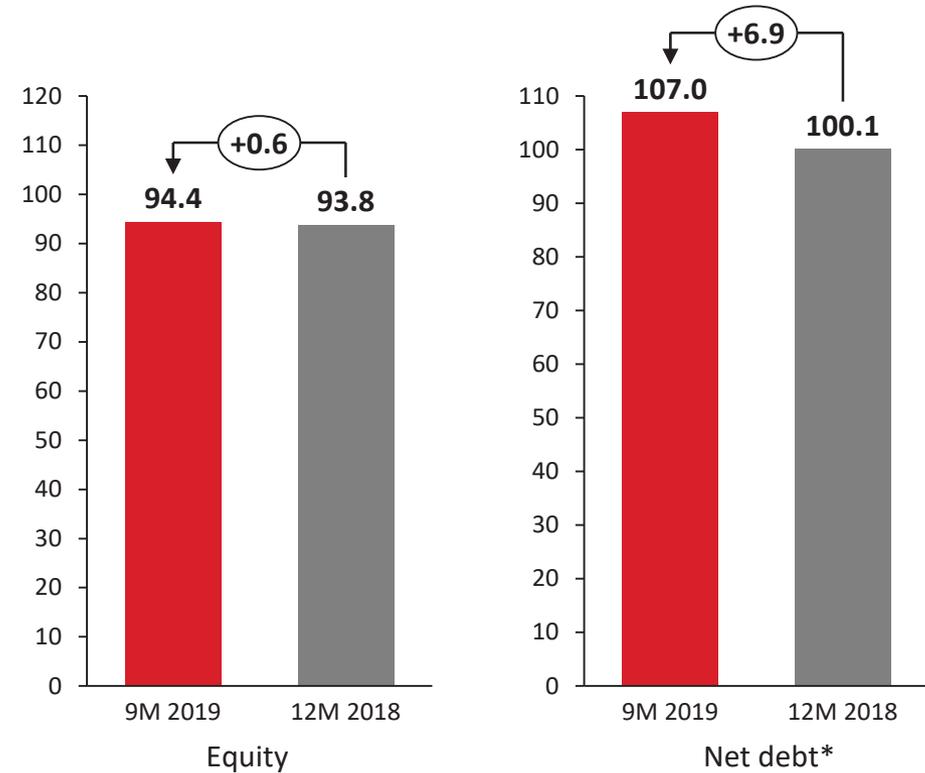
EBIT in € million



Equity slightly lower, net debt increased

- Equity increase by € 0.6 million vs. year-end 2018
- Increase of net debt by € 6.9 million in 9M 2019
 - Mainly driven by working capital increase in 9M 2019 due to higher inventories and lower accounts payables

Equity and net debt in € million, period-end



* Lease liabilities are not included

Refinancing of € 151.5 million successfully completed

- New syndicated credit facility (€ 109 million)
 - Signed on 12 August 2019, closed on 31 August 2019
 - Commerzbank AG and UniCredit Bank AG as Lead Arrangers, four further lending syndicate banks
 - Commitment of 3 years and embedded extension options
- Rearrangement of promissory notes (€ 13.5 million)
 - Terms and conditions for promissory notes have been adjusted
 - Liquidity remains available for at least 3 further years
- Receivables securitisation programme (€ 29 million)
 - Signed on 1 August 2019
 - First sales of receivables have taken place on 04 September 2019





Share price reflects positive developments in FY 2019



Disclaimer

This presentation contains forward-looking statements. These statements are based on the current views, expectations and assumptions of the management of Schaltbau Holding AG and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. Actual results, performance or events may differ materially from those described herein due to factors affecting Schaltbau Holding AG such as, among other things, changes in the general economic and competitive environment, capital market risks, currency exchange rate fluctuations and competition from other companies, and changes in international and national laws and regulations, in particular with respect to tax laws and regulations. Schaltbau Holding AG does not assume any obligation to update any forward-looking statements.

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Financial calendar and contact details

Upcoming events:

- **25-27 Nov.** Eigenkapitalforum
- **9-10 Jan.** ODDO BHF Forum
- **31 Mar.** Annual Report 2019

Schaltbau Holding AG
Hollerithstrasse 5
81829 München
Germany

IR contact
Dr. Kai Holtmann
Head of IR & CC
investor@schaltbau.de
T +49 89 93005-209

