



Investor Presentation
Schaltbau Holding AG

September 2019



SMART SOLUTIONS
FOR POWER AND MOBILITY

Experienced management team bringing Schaltbau back to historical profitability



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)

**Our
common
objectives**

- Return to profit
- Secure financing capabilities
- Manage sustainable growth



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 such as new energy, electromobility, DC industry and autonomous driving
- 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 - problem solving and stabilisation

- Liquidity measures (capital increase, **sale of Pintsch Bubenzler**)
- **Bridge financing** and deferred loan redemptions **paid back**
- **Risks at Pintsch** (platform screen doors project, level crossings for Egypt and Denmark) **under control**, **site restructuring programme** agreed, will be terminated in December 2019
- **Key risk items eliminated from the balance sheet** (platform screen doors project, goodwill, capitalised development expenses), remaining risk items restructured, strong performance so far in 2019
- **Performance programme for Bode Group** (Kassel / Rawicz) set up in June 2018 (Fit for Future I), **already contributing** significantly to sales and earnings improvements
- **Refinancing finalised** successfully
- Pintsch and Bode business units each have a new managing director in place
- **Elimination or mitigation of loss-making deals resulting from “ruinous” existing contracts**
- Planned **Alte and Sepsa exit strategies implemented successfully**

Schaltbau Group – Investment case

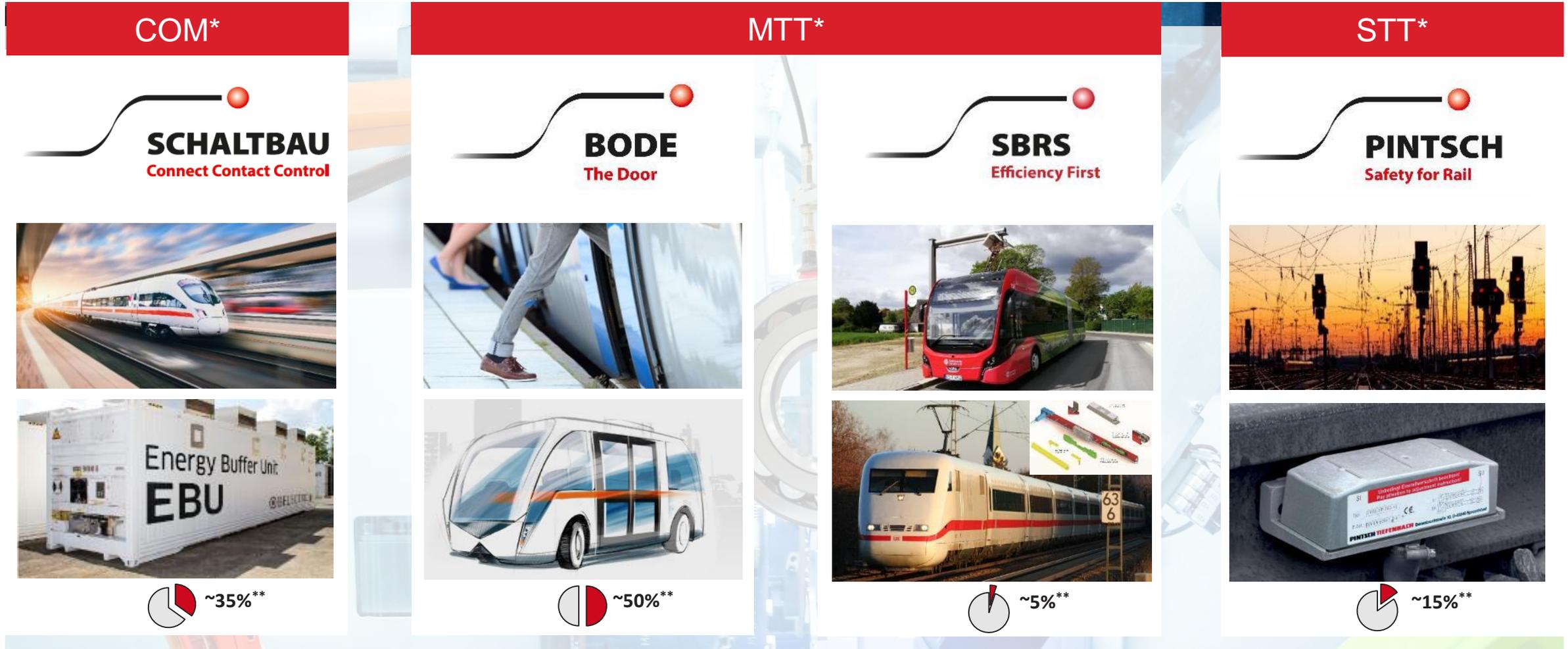
- **Attractive market environment**
 - **Urbanisation** and **digitisation megatrends** are driving demand for new rail vehicles; metro trains with a large number of doors are gaining in importance
 - **Megatrend in energy supply and use towards direct current technology** is driving demand for DC switching and charging technology established in the railway sector with increasing use of decentralised energy concepts, energy storage systems and smart network control
 - **Positioning as innovation driver and essential technology partner** in current and future markets such as rolling stock, new energy, electromobility, DC industry, smart home and autonomous driving
- **Stable customer relationships**, especially in the rail sector with often lengthy listing procedures and high repurchase rates
- **Significant increase in profitability** through process improvements, reorganisation and modular development
- **Inherited risks** have been removed from the balance sheet



Where Schaltbau will be heading

- **Strategic re-orientation** process of Schaltbau Group is **supported by a renowned management consultant**
- **Major opportunities** in Schaltbau Connect Contact Control product portfolio **for tackling new markets**
- **Technological advancement in the Stationary Transportation Technology segment** has been kicked off, coordination started with Deutsche Bahn on Executive Board level
- Solutions for strategic misallocations in sight
- **Entry into a new market segments for Bode in cooperation with Brose**
(contract signed at the IAA International Car Show on 11 September, promoted with a joint press release)
- **Site structure / strategy programme** elaborated at **Bode Group** which **now is being implemented** (Fit for Future II) and already incorporated in 2019-2021 planning

Schaltbau Group – Business overview



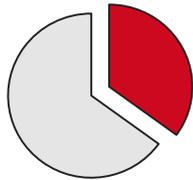
* COM = Components, MTT = Mobile Transportation Technology, STT = Stationary Transportation Technology ** Segmental sales split based on FY 2019 plan numbers, pre consolidation, rounded to the nearest 5% multiple



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

* FY 2019E, pre consolidation, rounded to the nearest 5% multiple

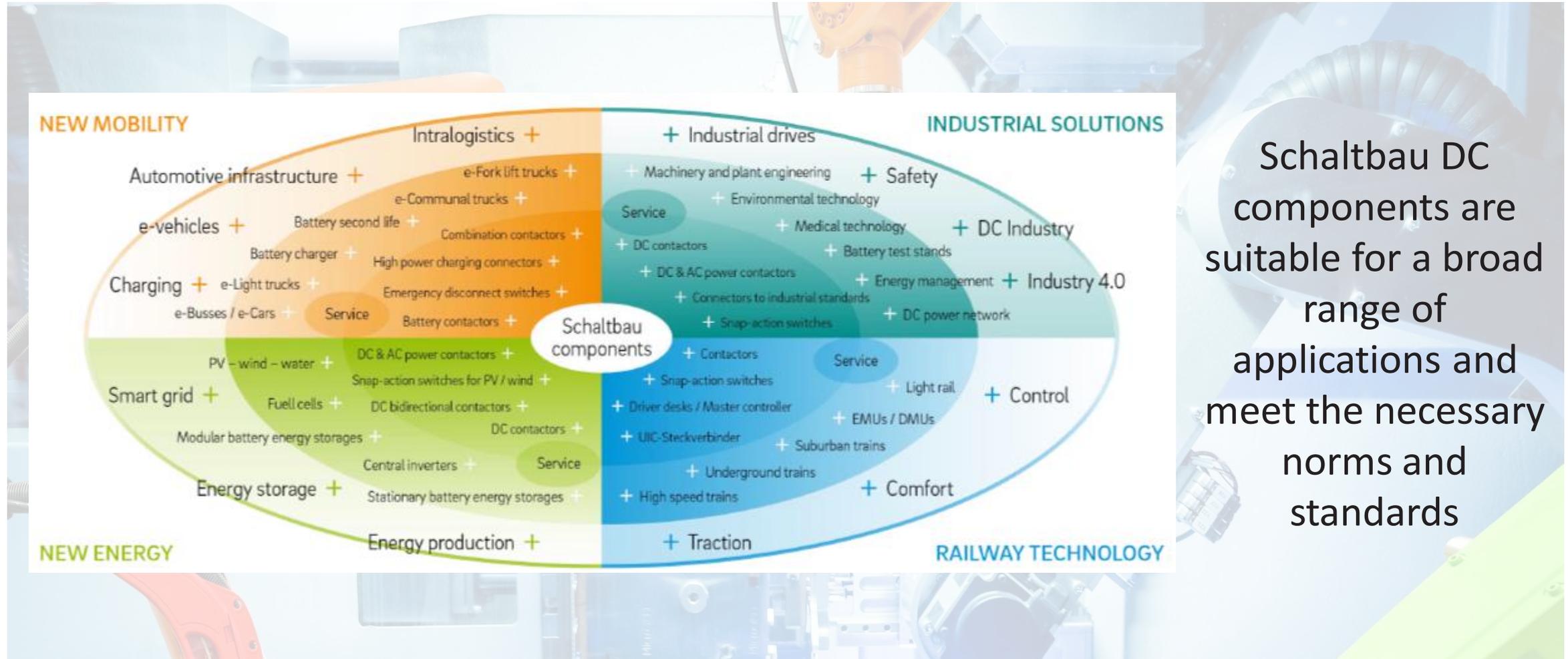
DC switching technology from Schaltbau (1/6)

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



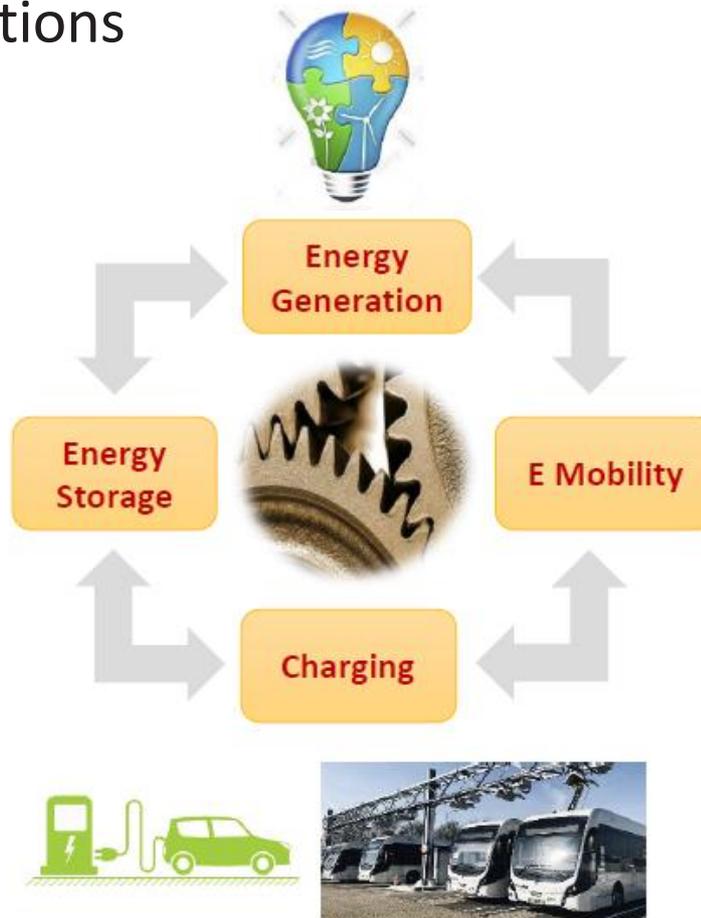
DC switching technology from Schaltbau (2/6)



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

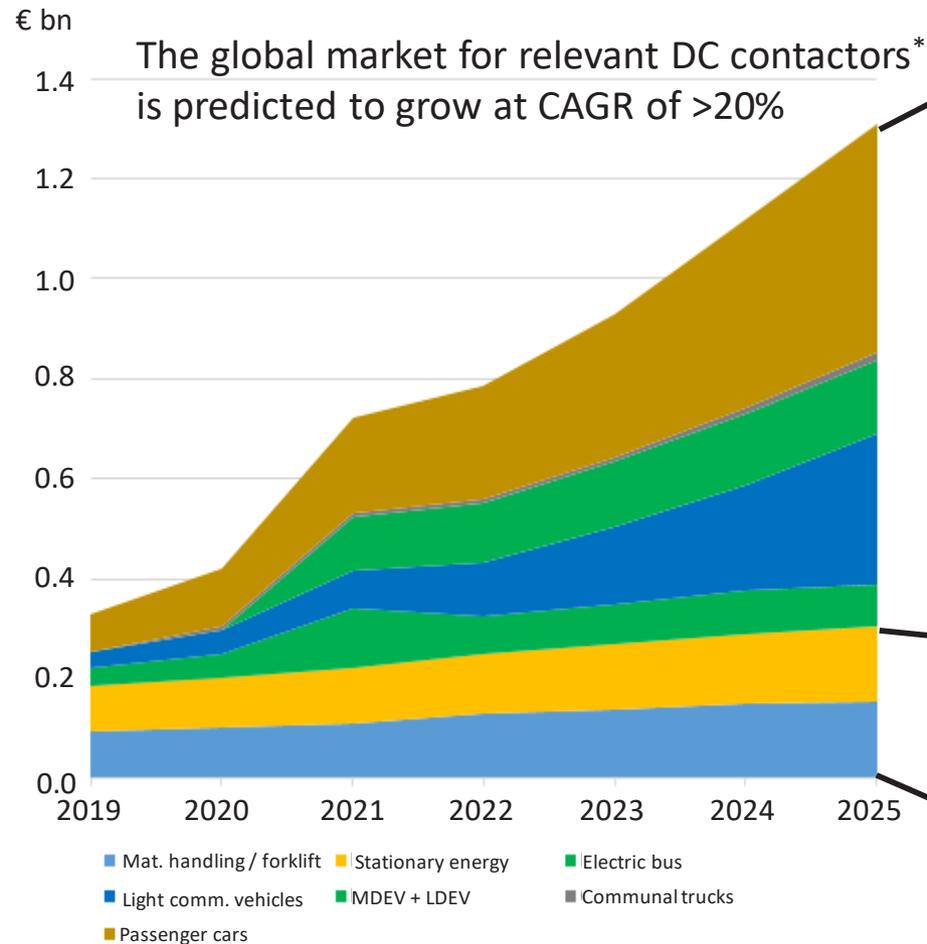
DER, ROOFTOP

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 The Door

Snapshot of Bode Subgroup



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

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



Sliding door technology for the VW MOIA made by Bode

Proven sliding door technology for innovative shared taxi concept

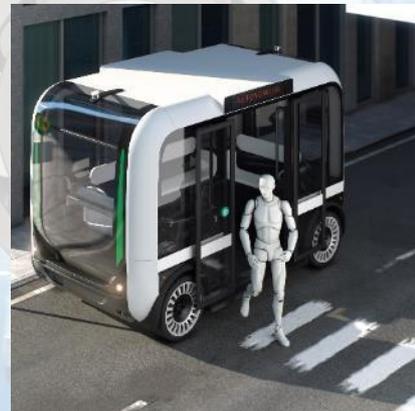
- Bode has manufactured sliding door components for VW for many years
- Awarded contract to supply sliding door fittings, roller guides and electric linear drives now also for the VW MOIA
- MOIA already introduced as ride-sharing service in Hanover and Hamburg, further cities are planned



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

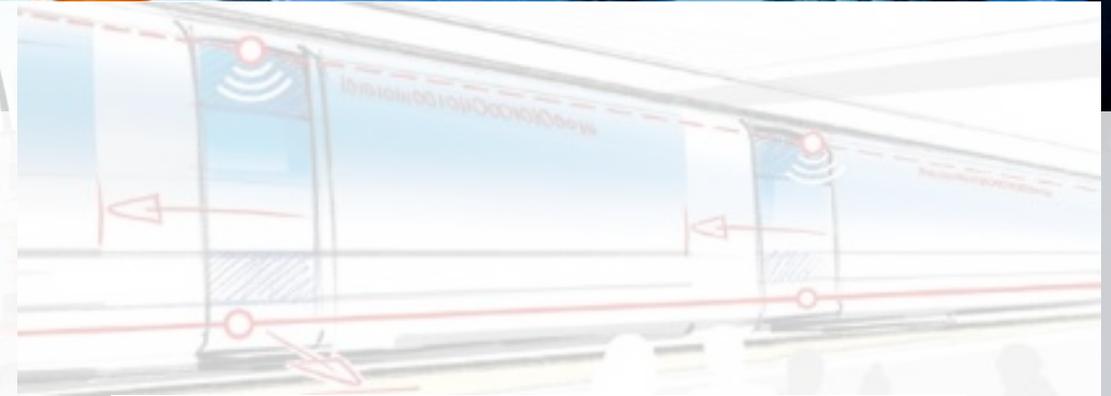
- Cooperation with major automotive supplier Brose signed
- Compact design and digital additional functions are main focus
- Market for people movers is highly promising



Bode entry systems for rolling stock

Boarding systems with additional digital functions driving profitable growth

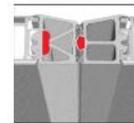
- Positive market outlook with growth rates of 10–15 % per year
- Growing demand for digital boarding systems, passenger counting and/or ticketing
- As market leader in Europe, excellent opportunity to benefit strongly from this growth



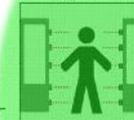
Passenger Counting



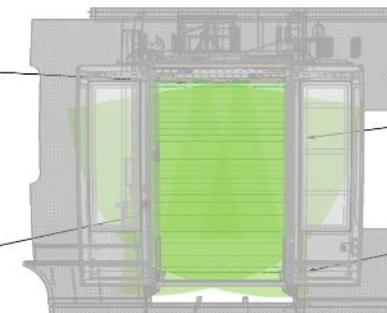
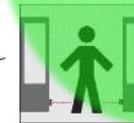
Sensitive Edge



Light Curtain



Light Barrier



Bode markets for entry systems show strong growth perspective

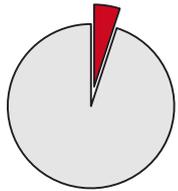


- Bode is a core Schaltbau Group brand and a specialist in the development and manufacture of electric and pneumatic vehicle door systems for trains, buses and commercial vehicles
- All three areas have high development potential within the growth markets of public transport and e-mobility (e.g. entry 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



SBRS Efficiency First

Snapshot of SBRS



~5% of
Group sal



Refurbishment of rolling stock and
fast-charging systems for busses

COM	MTT	STT
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- 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

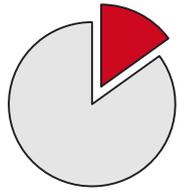
- Growing market segment
- SBRS uses products from the Schaltbau Group and other suppliers
- Example: More compact interior door drives for the ICE1 in car type 803





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

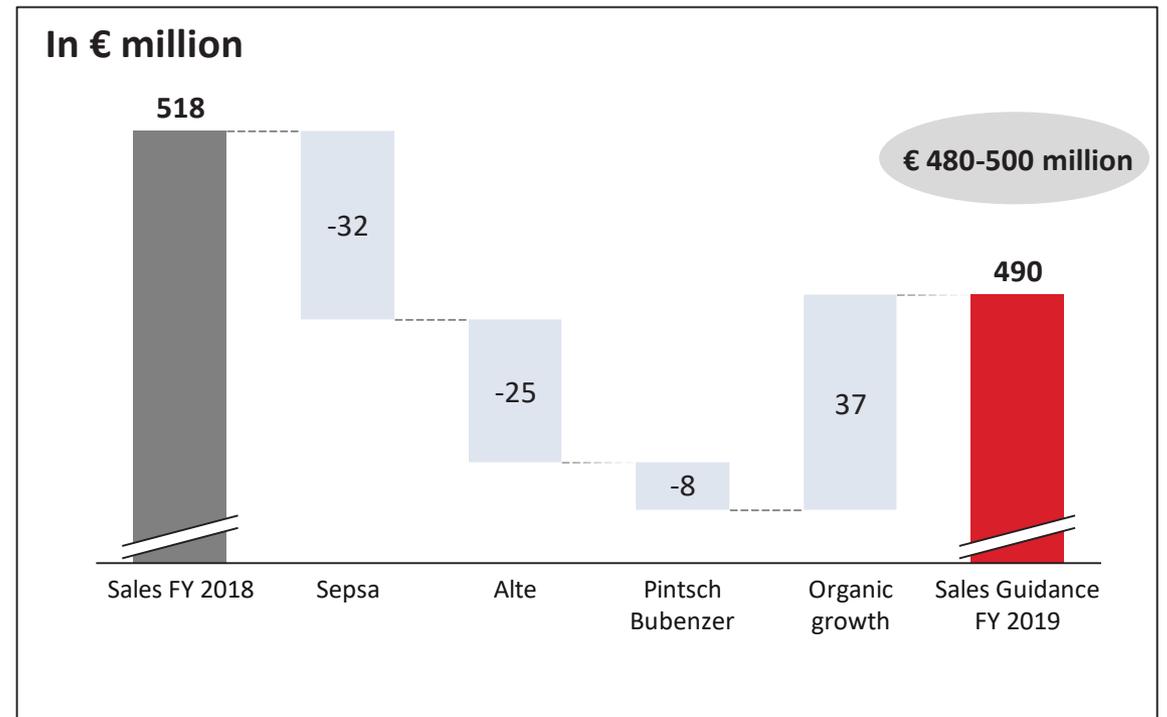




Guidance

Outlook - Sales guidance 2019 with strong organic growth

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



Guidance FY 2019 confirmed

- Strong 2018 and solid H1 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

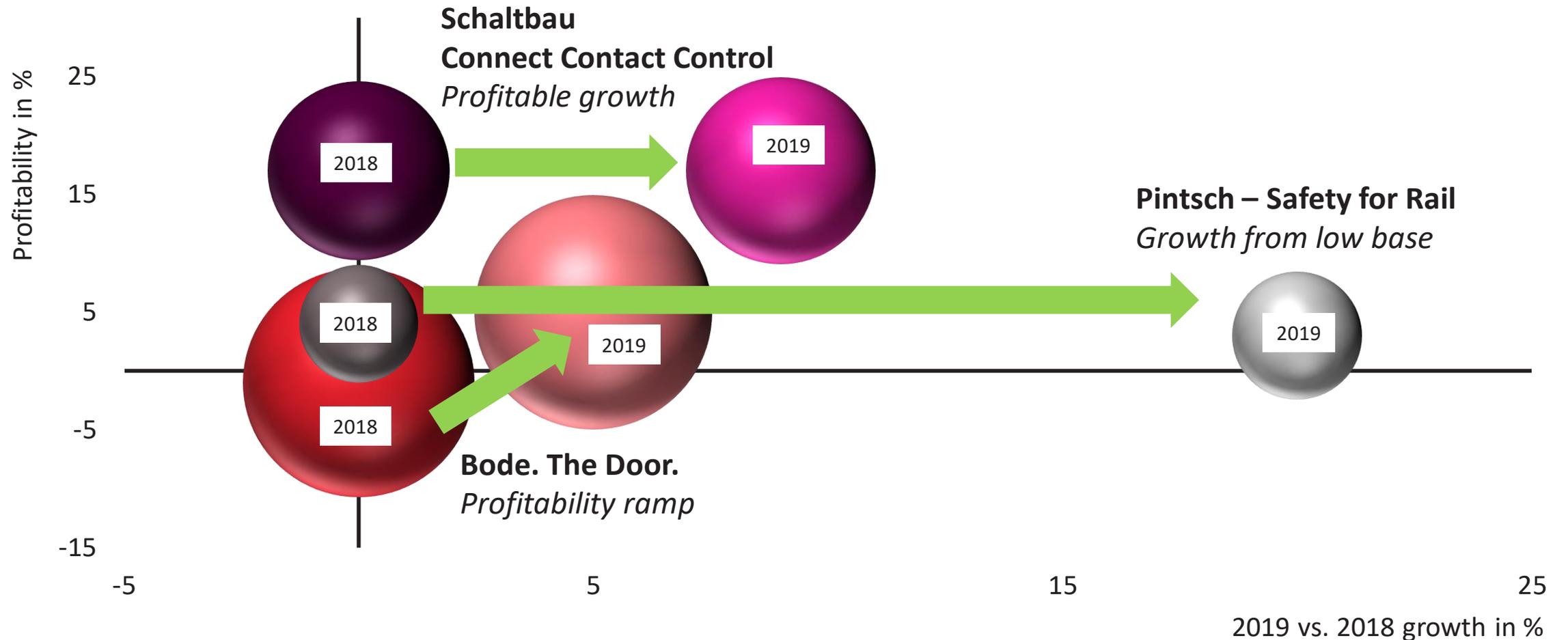
Outlook (in € million)	Guidance FY 2019
Order intake	480-500**
Sales	480-500**
<i>Mobile Transportation Technology</i>	<i>Increase*</i>
<i>Stationary Transportation Technology</i>	<i>Slight increase*</i>
<i>Components</i>	<i>Increase*</i>
EBIT margin	Around 5-6%**

c. 60% Schaltbau
c. 30% Bode
c. 5% Pintsch
c. 5% SBRS

* Compared to FY 2018

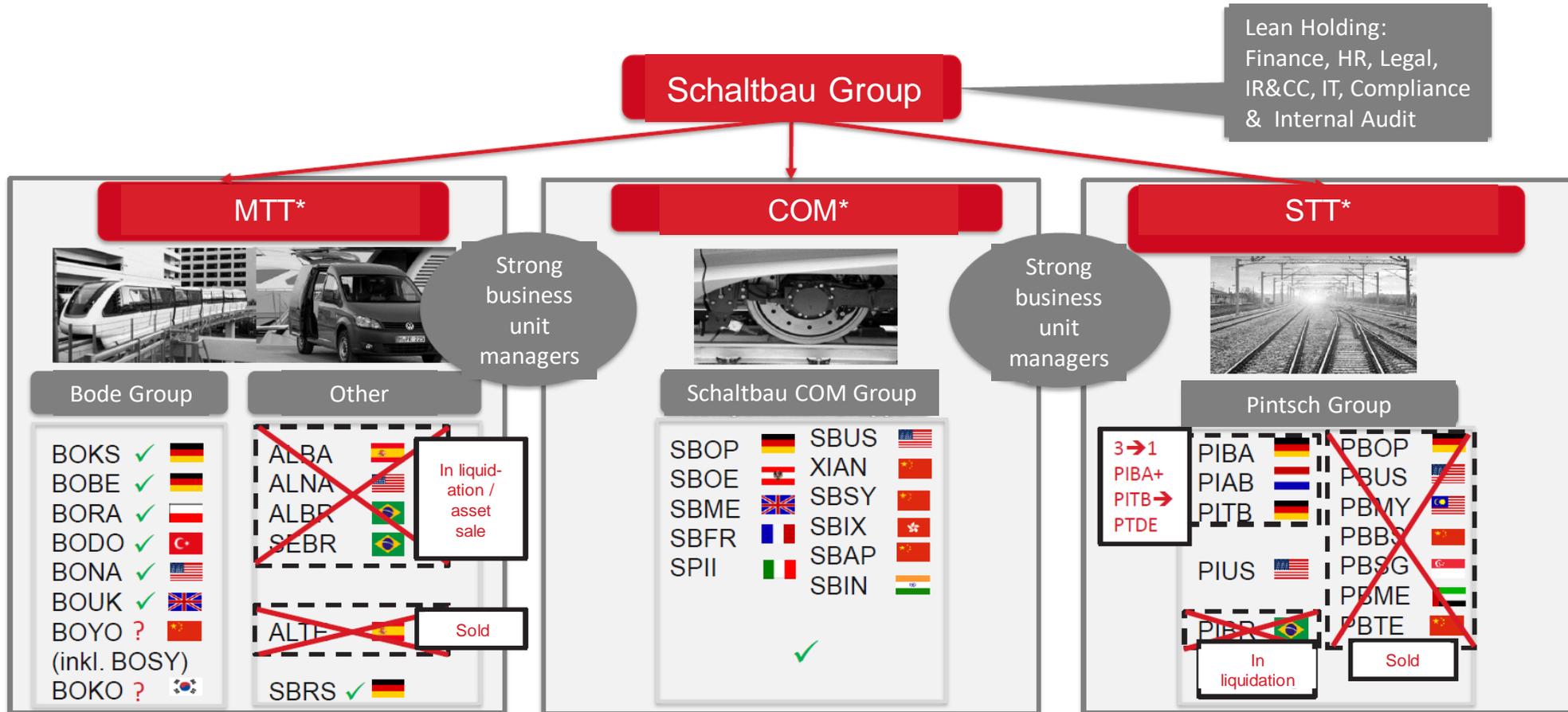
** Excluding Sepsa, Alte, Pintsch Bubenzer and exceptional items

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 business units with a lean holding company and little complexity



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



H1 2019

H1 2019 at a glance

Key figures (in € million, unless stated otherwise)	H1 2019	H1 2018	Δ
Order intake	289.4	301.9	-12.5
Order intake like-for-like*	276.4	277.3	-0.9
Sales	255.0	251.5	+3.5
Sales like-for-like*	233.2	217.0	+16.2
EBIT	8.5	9.4	-0.9
EBIT margin (in %)	3.3	3.8	-0.5
EBIT like-for-like before exceptional items*	16.5	9.4	+7.1
EBIT margin (in %) like-for-like before exceptional items*	7.1	4.3	+2.8
Group net profit	4.6	3.5	+1.1
Earnings per share (in €)	0.29	0.20	+0.09
Free cash flow	-15.4	10.5	-25.9
Employees at period-end (count)	2,752	3,125	-373
	30/06/2019	31/12/2018	
Net financial debt**	-117.3	-100.1	-17.2
Equity	93.3	93.8	-0.5

* Excluding Pintsch Bubenzer, Sepsa and Alte contributions

** Lease liabilities are not included



Overall assessment of H1 2019 (1/2)

Restructuring achievements in H1 2019

Financial restructuring – further stabilisation of financial position

- Sepsa Group deconsolidated on 7 May 2019 after loss of control as a result of the liquidation process
- Alte sold and deconsolidated on 29 May 2019
- Schaltbau Group refinancing process close to completion: New syndicate loan signed, part of promissory notes (Schuldscheindarlehen) rearranged, securitisation of receivables (ABS, reverse factoring) close to signing

Operative restructuring – measures to increase efficiency and optimise processes

- Operational excellence programmes on track
 - “Fit for future” programme at Bode and Rawag ongoing
- Successful completion of restructuring activities confirmed on 29 July 2019



Overall assessment of H1 2019 (2/2)

Positive operating performance in H1 2019

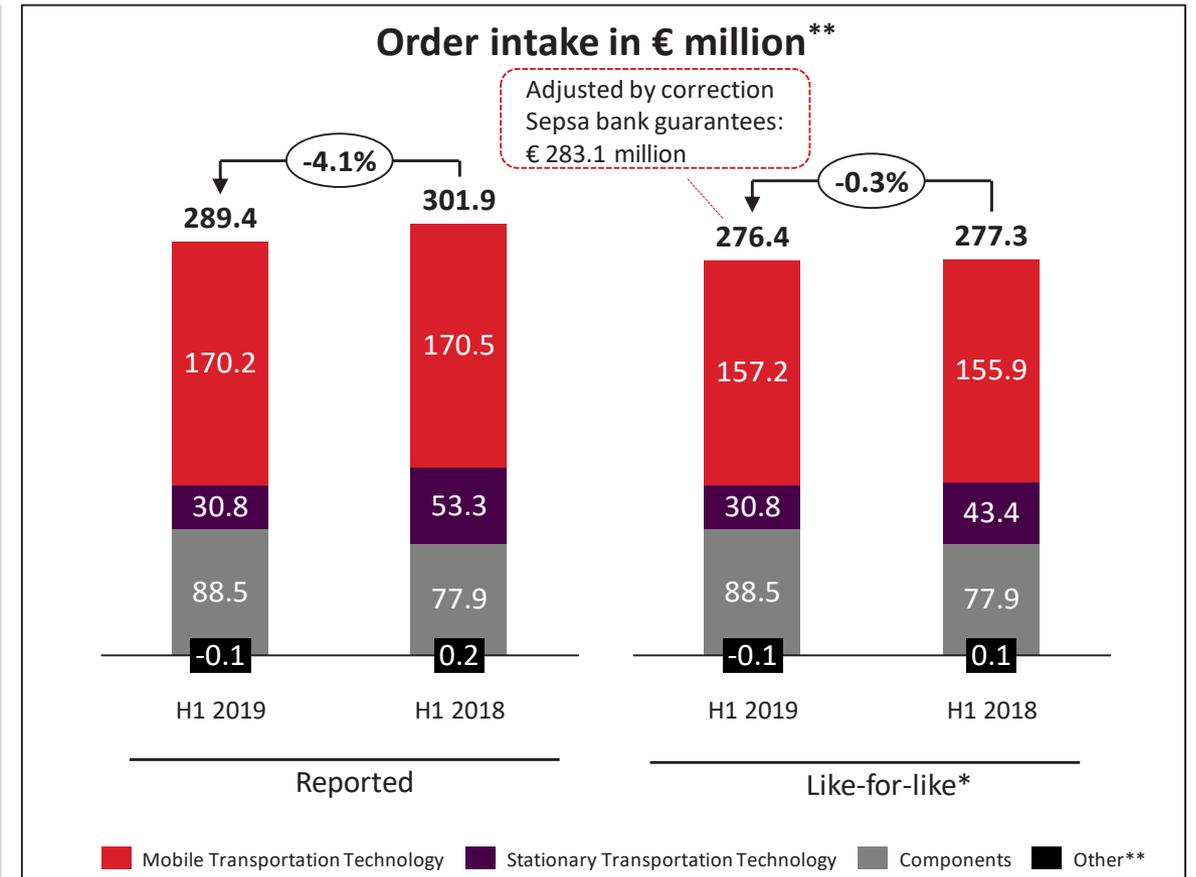
- Components and Mobile Transportation Technology in line with expectations
- Stationary Transportation Technology with strong development, partly driven by one-off effects
- Like-for-like order intake of € 276.4 million; book-to-bill ratio at 1.19; order book end of June 2019 at € 492.2 million
- Like-for-like sales volume at € 233.2 million, up by € 16.2 million or 7.5% vs. H1 2018
- Reported EBIT at € 8.5 million, like-for-like EBIT before exceptional items at € 16.5 million vs. € 9.4 million in H1 2018

→ Operating guidance for FY 2019 confirmed



Order intake remains at a very high level

- Solid order intake of € 289.4 million in H1 2019
 - Strong development in Components; up by 13.6% vs. prior year, primarily driven by strong demand for rolling stock electrics and contactors
 - Stationary Transportation Technology like-for-like* down by nearly 30% vs. prior year; however H1 2018 was impacted by a significant order for a train formation unit
- Order intake without Alte and Sepsa and correction of Sepsa bank guarantees at € 283.1 million, which equals a strong book-to-bill ratio of 1.18
- Order book at end of June 2019 at € 492.2 million, down 15.6% vs. € 583.0 million at end of December 2018 due to the deconsolidation of Alte and Sepsa; order book like-for-like* at € 492.2 million, up 10.6% vs. prior year



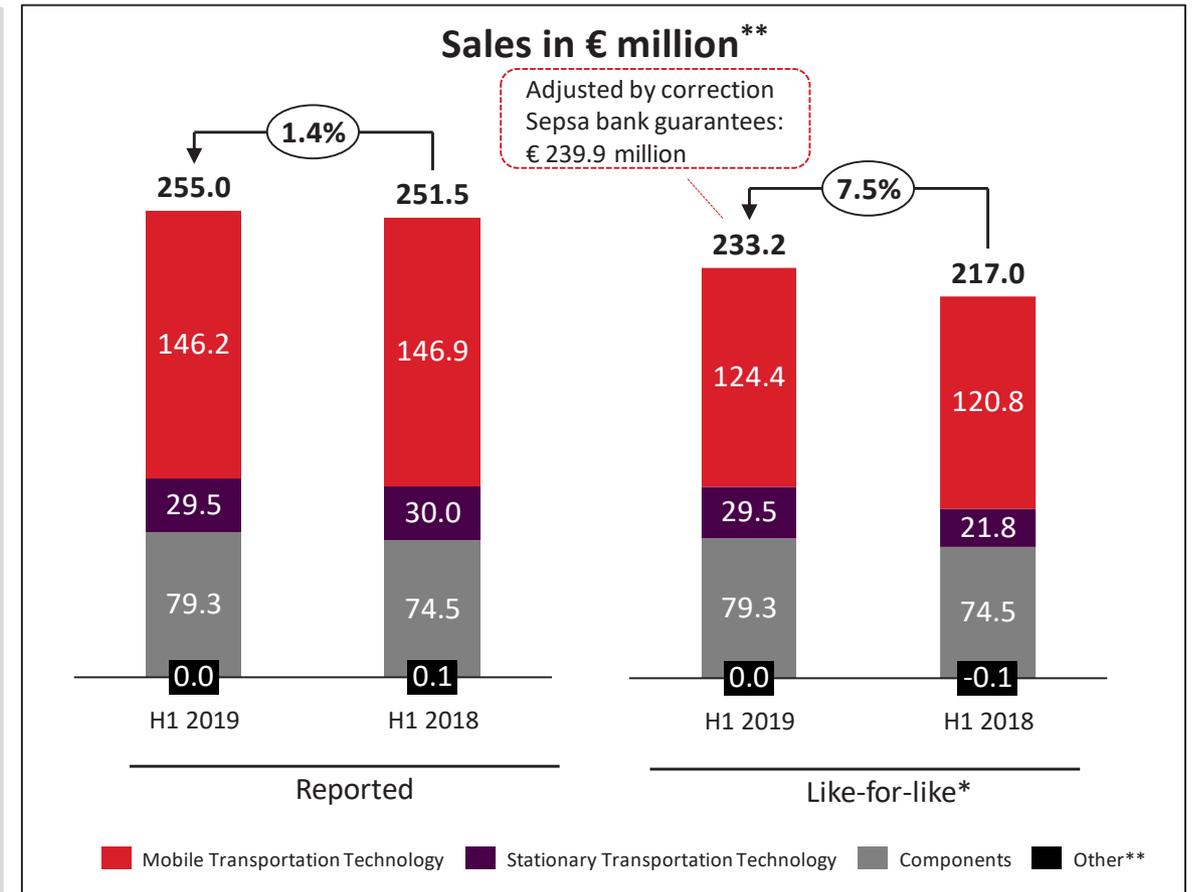
* Excluding Pintsch Bubenzer, Sepsa and Alte contributions

** Including consolidation effects



Organic sales growth of 7.5% like-for-like vs. prior year with all segments contributing

- Sales grow by 1.4% vs. H1 2018, an increase of € 3.5 million
 - Significant volume increase in Mobile Transportation Technology mainly driven by Rawag and Bode North America due to the ramp-up of several rail OEM projects
 - Sales in Stationary Transportation Technology below H1 2018 due to sale of Pintsch Bubenzer in H1 2018; like-for-like up by € 7.7 million mainly resulting from platform screen doors sales in Brazil and the realisation of two significant change orders
 - Components up by € 4.8 million and reflecting continuing strong demand across product groups
- Adjusted by the deconsolidation of Pintsch Bubenzer, Sepsa & Alte, and by exceptional items (adjustments for bank guarantees), sales growth of 10.5% vs. H1 2018
- Sales split:
 - Germany 36%
 - Europe ex Germany 37%
 - Rest of world 27%

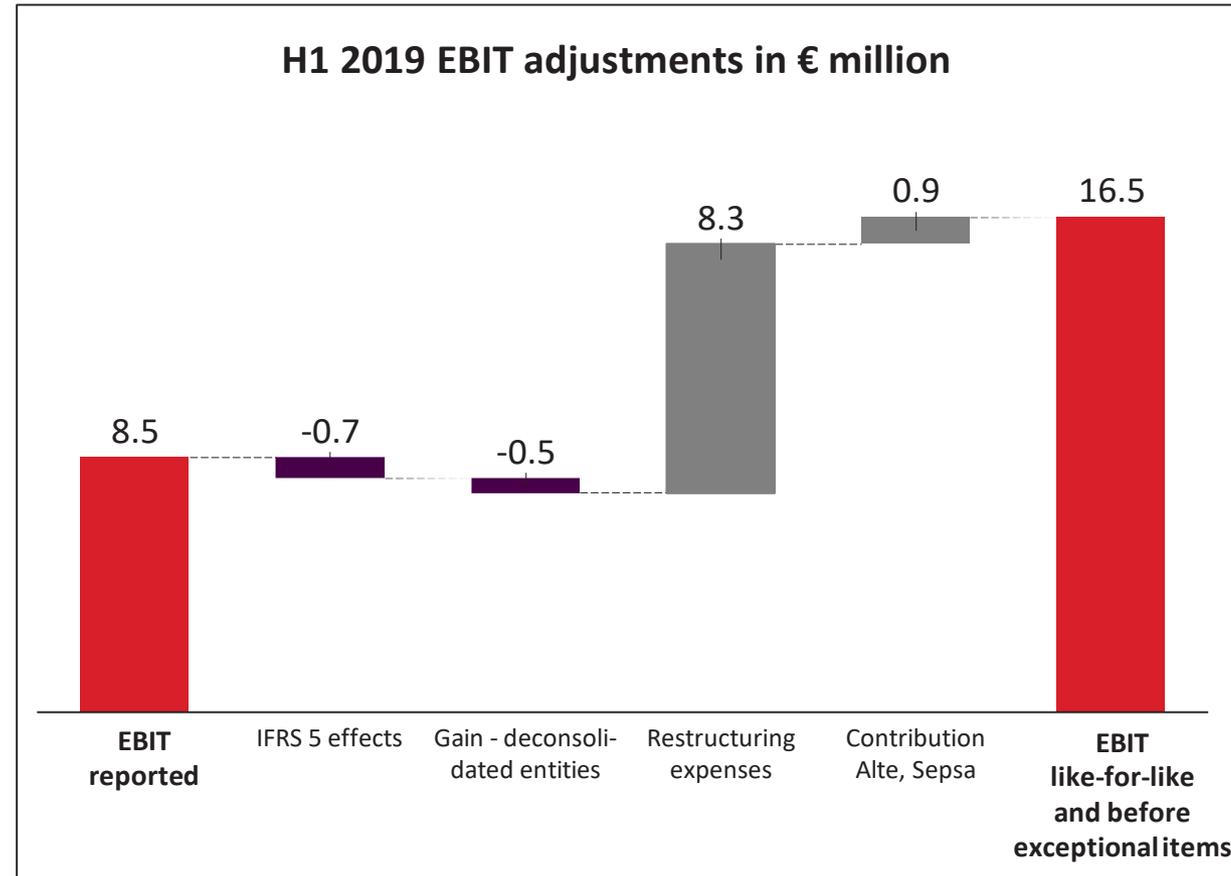


* Excluding Pintsch Bubenzer, Sepsa and Alte contributions

** Including consolidation effects

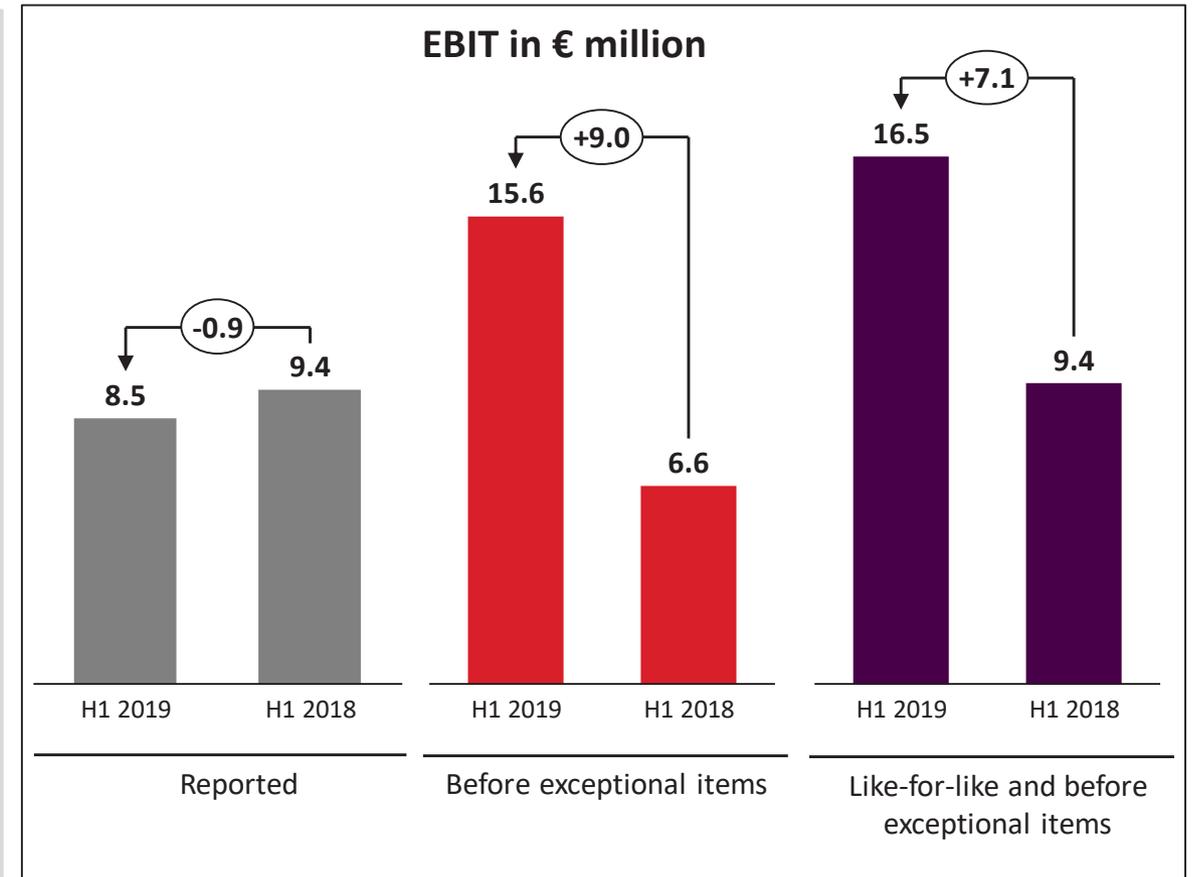
H1 2019 EBIT impacted by restructuring expenses of € 8.3 million

- Reported H1 2019 EBIT at € 8.5 million; like-for-like and adjusted by restructuring expenses, IFRS 5 effects and gains from deconsolidation at € 16.5 million (€ 9.4 million in H1 2018)
- Restructuring expenses include provisions for bank guarantees, expenses for external consultants and CRO activities



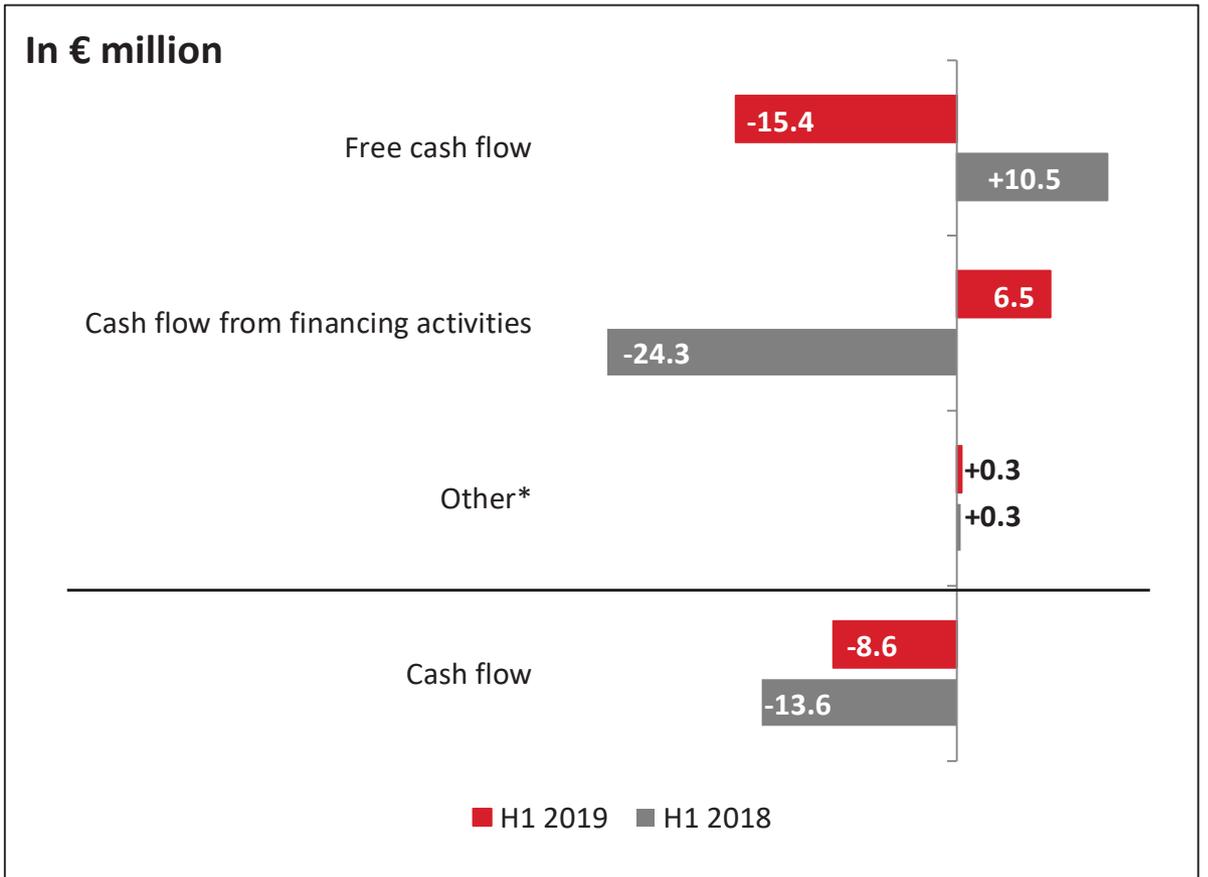
Significant EBIT improvement vs. H1 2018 before exceptional items

- Reported EBIT down by € 0.9 million vs. H1 2018
- EBIT like-for-like and before exceptional items at € 16.5 million (+€ 7.1 million vs. H1 2018); improvement mainly caused by
 - Strong EBIT performance in Stationary Transportation Technology
 - Significant EBIT improvements at Rawag, Bode North America and Bode UK
 - Productivity improvements, direct and indirect material savings throughout all segments



Cash flow in H1 2019 affected by higher working capital

- Negative free cash flow in H1 2019
 - Positive EBIT contribution was overcompensated by negative effects mainly driven by higher working capital; 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 H1 2019 mainly reflects
 - Positive changes of utilisation of syndicated credit line
 - Lower interest payments vs. prior year
 - Negative € 3.2 million cash outflow due to dividends paid to minorities
 - Negative € 1.5 million cash outflow due to deconsolidation of Alte and Sepsa
- Financing cash flow in H1 2018 impacted by cash-in from capital increase and significant loan repayments



Current IFRS standards applied for both H1 2019 and H1 2018

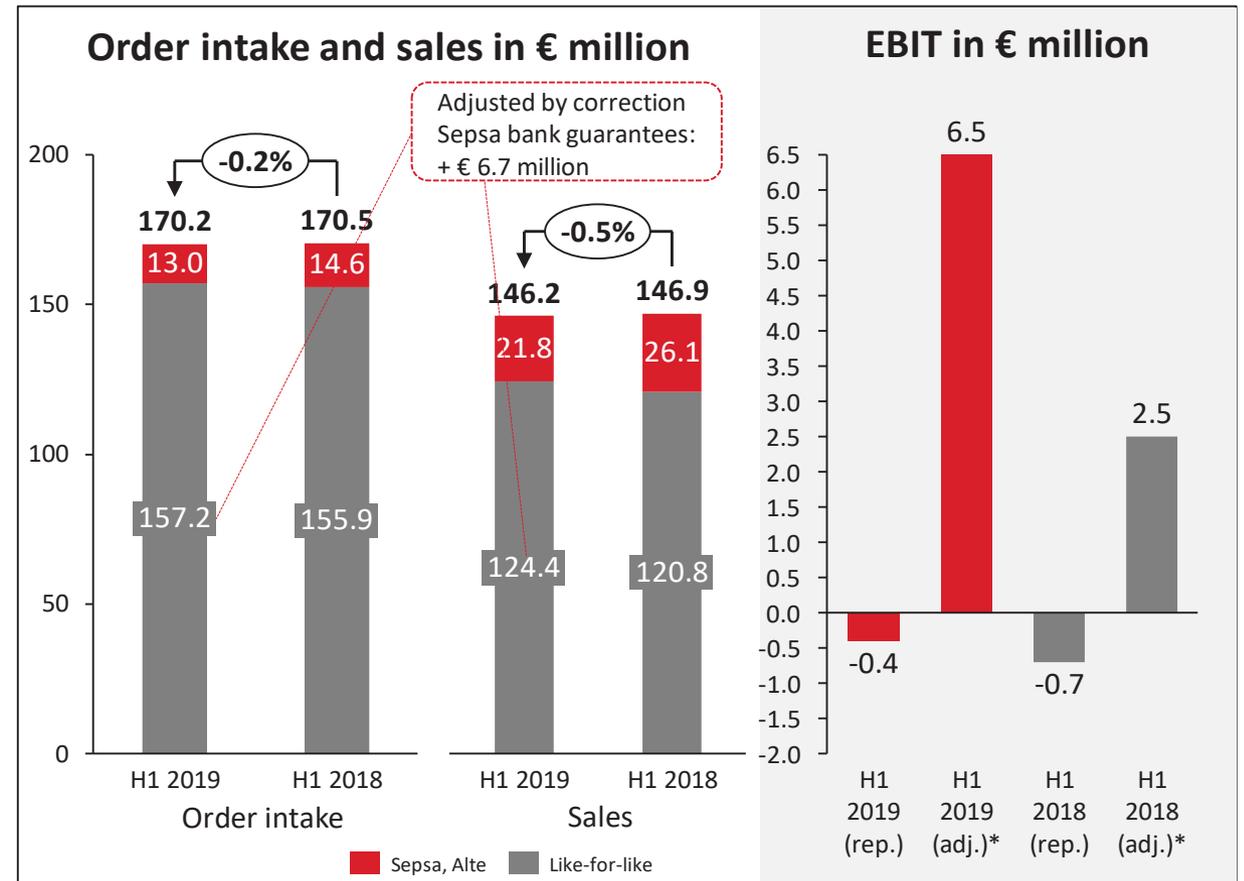
* Includes change in cash funds due to exchange rate fluctuations



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 € 8.0 million, primarily driven by Rawag
- Sales growth without Alte and Sepsa and adjusted by effects from bank guarantees Sepsa up by € 10.3 million, reflecting strong growth at Rawag and Bode North America due to the ramp-up of several rail OEM projects
- EBIT like-for-like before exceptional items at € 6.5 million, but reported EBIT at negative € -0.4 million due to
 - Provision for guarantees of € 6.7 million (= exceptional item), reported as an adjustment in sales and order intake
 - Rawag, Bode North America and Bode UK each with positive EBIT development mainly driven by higher sales and a better project mix
 - Improvements in productivity, direct and indirect material savings



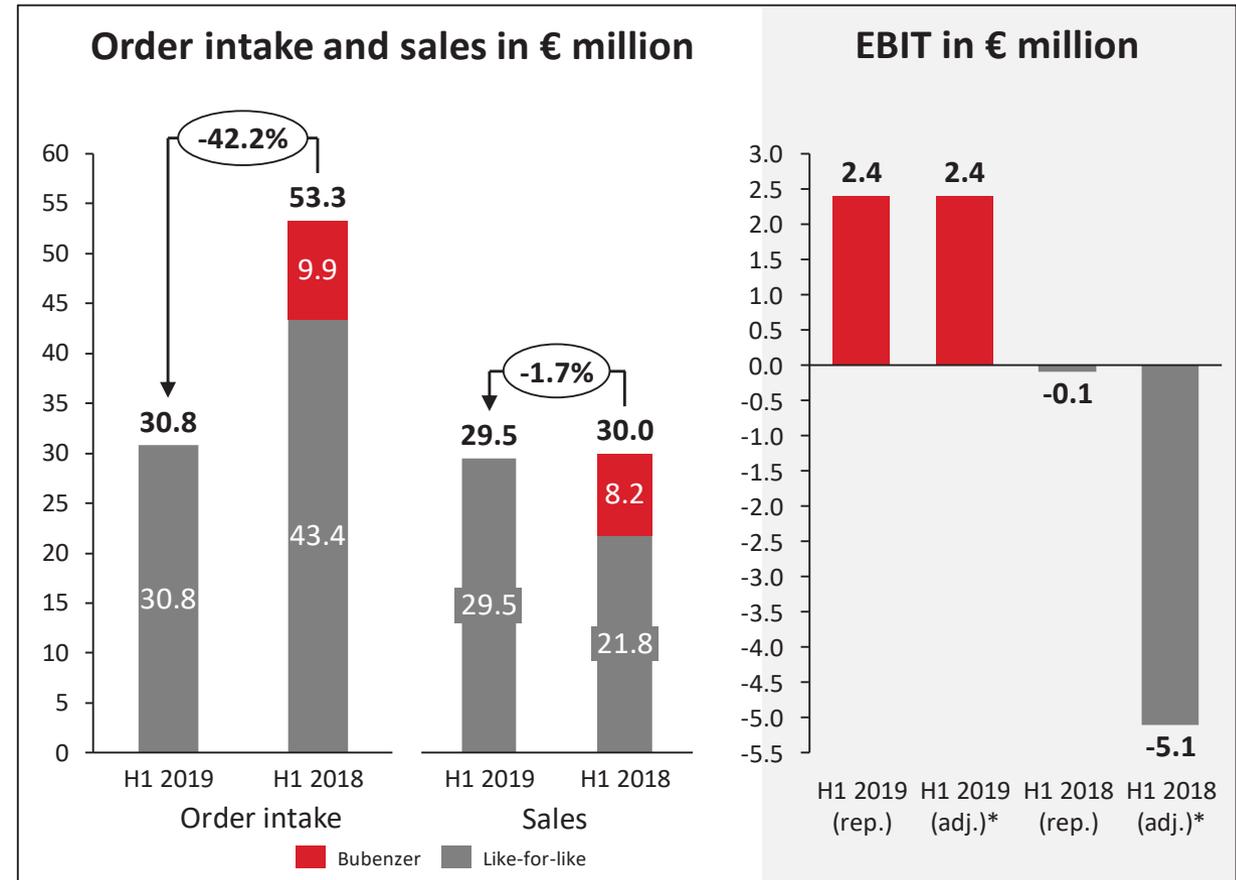
* without Sepsa/Alte and before extraordinary effects



Stationary Transportation Technology

Strong sales and EBIT performance in H1 2019

- Order intake down € 12.6 million below prior year like-for-like
 - H1 2018 was impacted by a significant order for a train formation unit
 - Several delays of project awardings by Deutsche Bahn
- Significant sales increase of € 7.7 million like-for-like
 - Sale of PSD material (Sao Paulo) in H1 2019 as a result of the contract renegotiation
 - Push-outs from Q4 2018 into Q1 2019
 - Additional sales from change orders for two projects
- EBIT at € 2.4 million
 - Positive EBIT effects resulting from higher sales volume
 - Positive project mix
 - Cost reduction measures are continuing to impact bottom-line

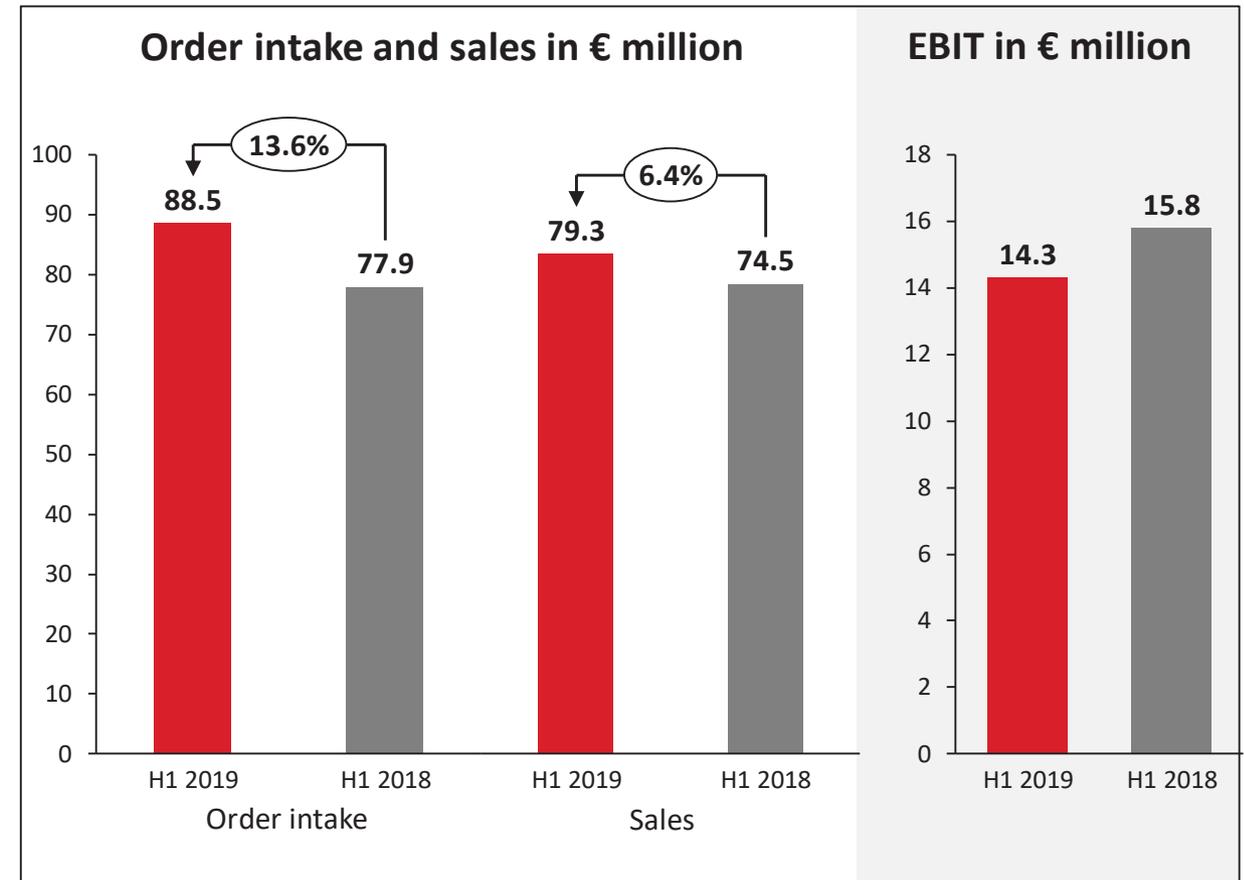


* without PBOP and before extraordinary effects

Components

Solid performance in H1 2019

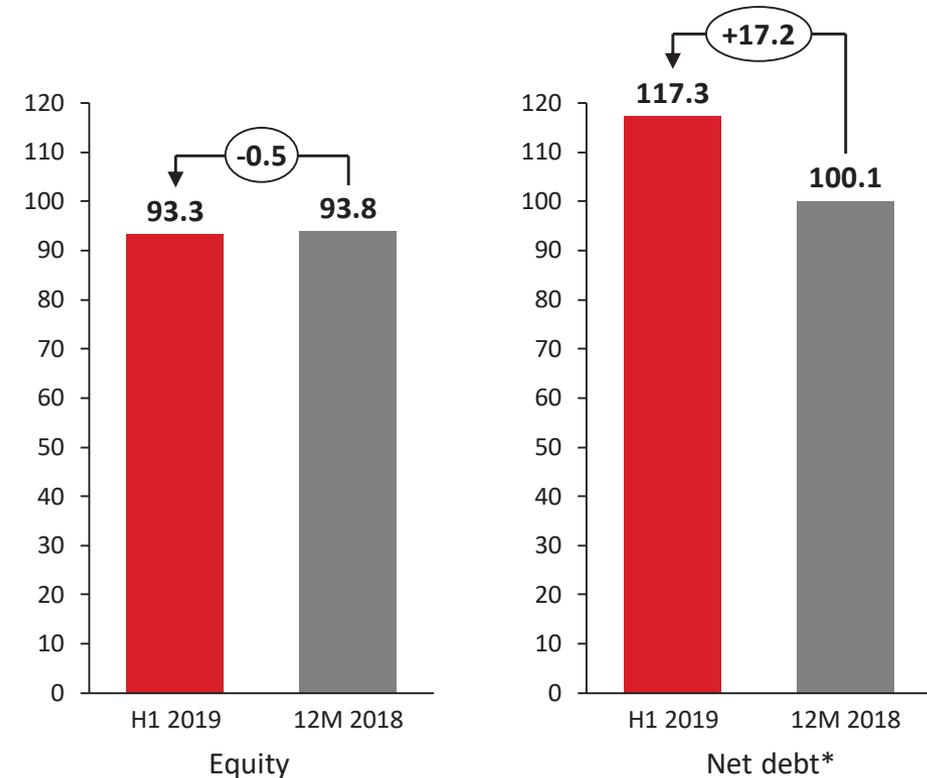
- Strong order intake in H1 2019 primarily driven by a strong demand for rolling stock electrics and contactors
- Sales improved by € 4.8 million, reflecting a continuing strong demand across product groups; business with rolling stock electronics with the highest growth vs. prior year
- EBIT still at a high level, impacted by organisational measures to secure future growth



Equity slightly lower, net debt increased

- Equity decreases by € 0.5 million vs. year-end 2018
- Increase of net debt by € 17.2 million in H1 2019
 - Mainly driven by working capital increase in H1 2019 due to higher inventories and accounts receivables as well as lower accounts payables

Equity and net debt in € million, period-end



* Lease liabilities are not included



Update on refinancing activities

- Signing of a new syndicated credit facility on 17 June 2019
 - Commerzbank AG and UniCredit Bank AG as Lead Arrangers, four further lending syndicate banks
 - The initial credit line is € 103 million with a commitment of 3 years and embedded extension options, an increase to € 109 million is in discussion
- Rearrangement of promissory notes (Schuldscheindarlehen)
 - Terms and conditions for promissory notes in the amount of € 13.5 million have been adjusted
 - Liquidity remains available for at least 3 further years
- Programmes for the securitisation of receivables (ABS, reverse factoring)
 - The contracts are signed
 - Proceeds from the sale of receivables are expected to reach at least € 29 million permanently

→ The facilities of > € 150 million provide sufficient liquidity leeway mid-term

Financial calendar and contact details

2019

- **31 October 2019** 9M 2019 Interim Statement



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