

PARAGON®



paragon GmbH & Co. KGaA
Investor / Analyst Presentation

ODDO BHF - German Conference, Feb. 19/20, 2019

Agenda

— Highlights

— Business Overview

— Financials

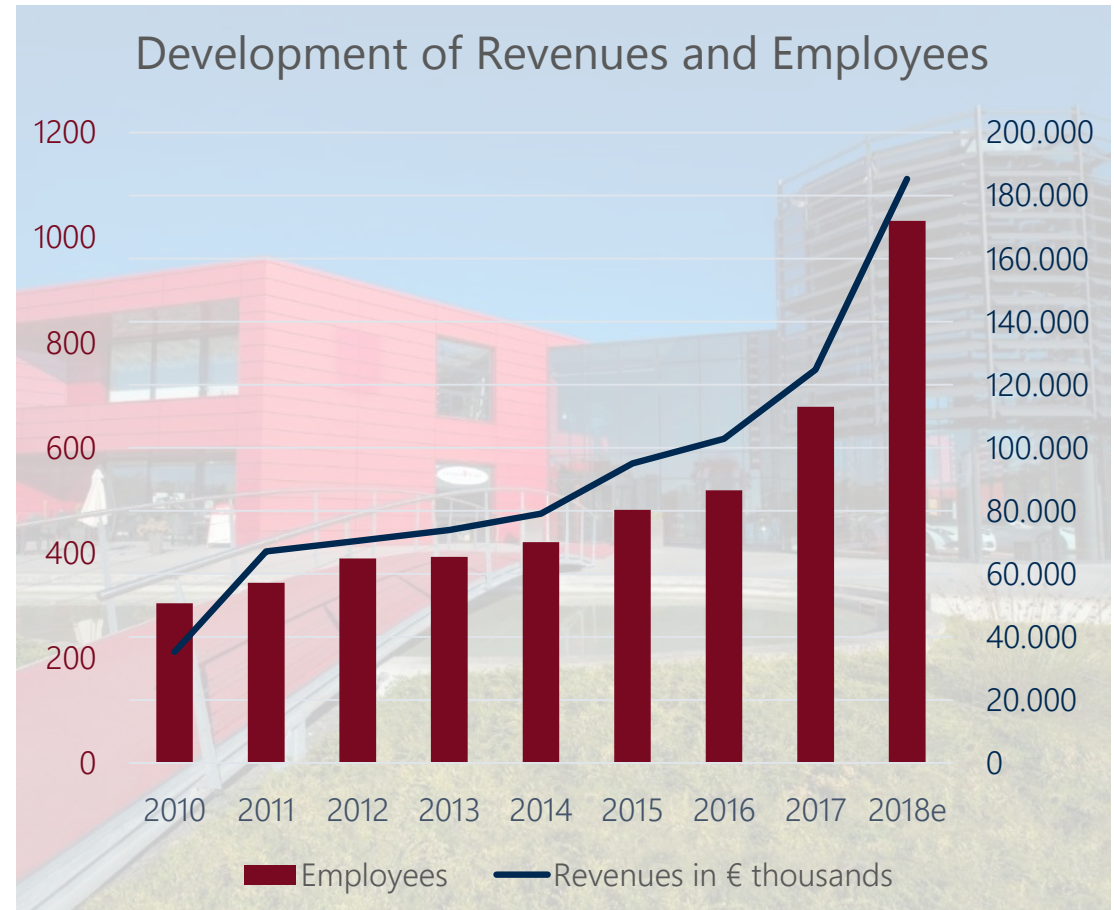
— Appendix

— Segments

Highlights

paragon – Tier1 to the Automotive Industry

- 1988 – Established in Delbrück by Klaus Dieter Frers
- 2000 – IPO at Frankfurt Stock Exchange
- 2017 – IPO of Voltabox AG (Electromobility); 60 % shareholder paragon
- Today – 10 locations (Germany, USA, China)
- >> 1.000 employees
- Market leader with > 300 different electronic and electromechanical products + systems
- Serving more than 30 customers, thereof more than 25 automotive OEMs incl. blue chips like Audi, Porsche, Daimler, VW and BMW and 5 e-mobility customers
- Fast growing / Highly profitable / Highly visible



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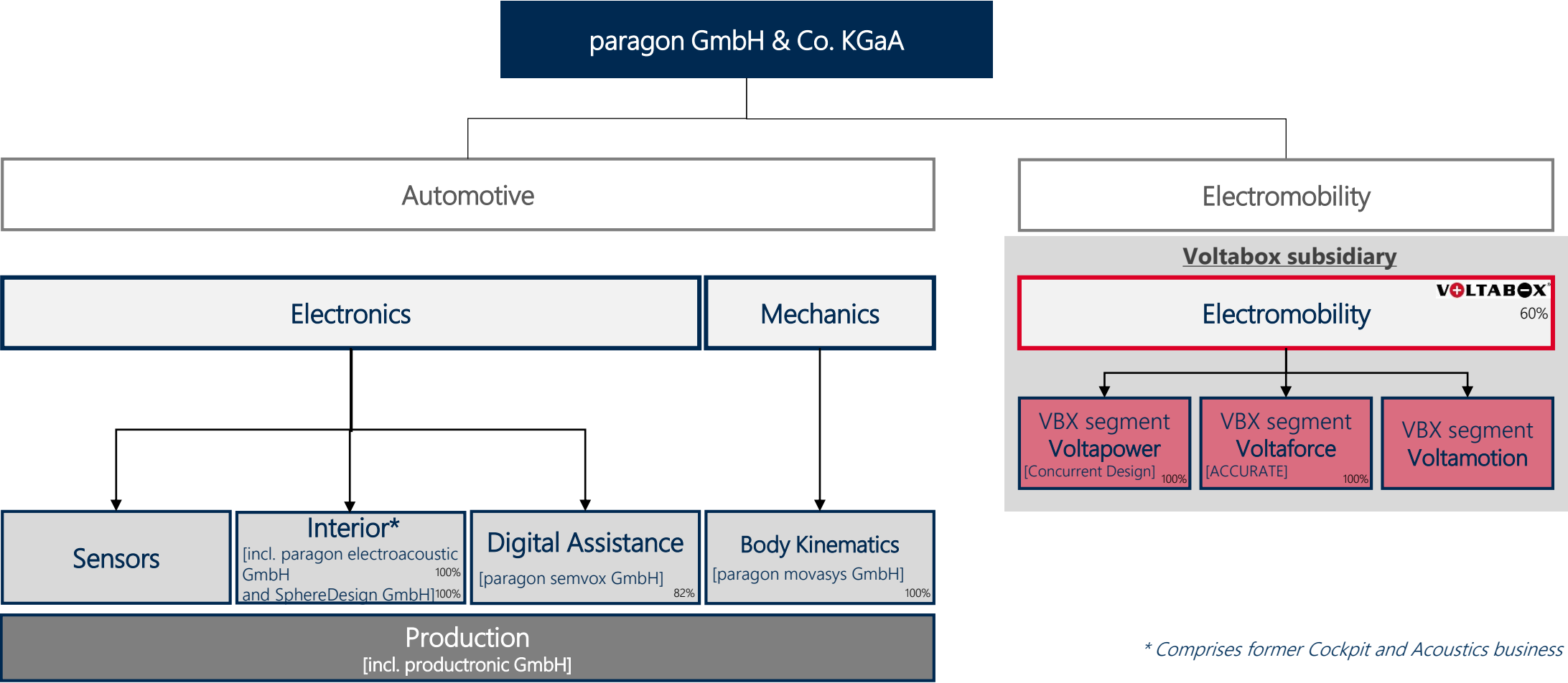
— Appendix

— Segments

Business overview

Current Group Structure

Markets
Segments
Business Units



* Comprises former Cockpit and Acoustics business units.

The paragon Principle – Growth Strategy

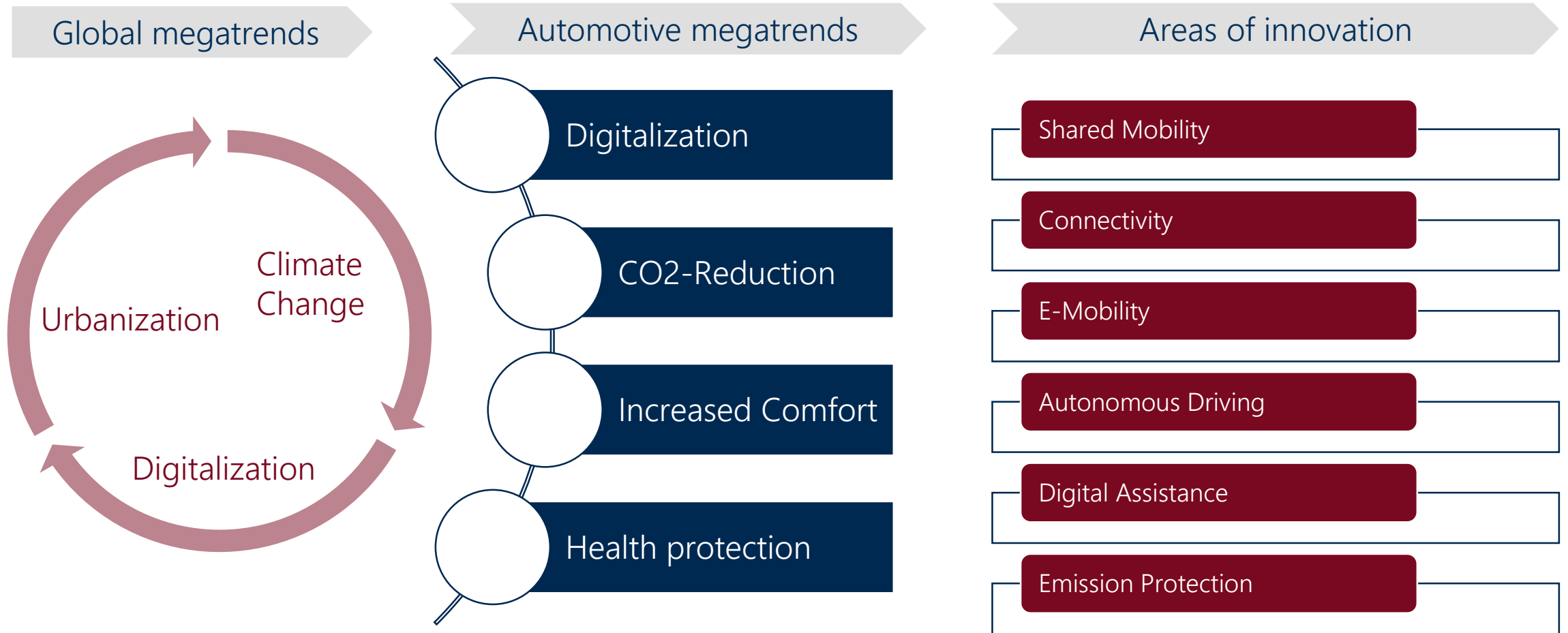
Mission Statement

Early occupation of
high-margin fast growing
niches in
premium market segments
with
enabling technology
for existing **megatrends!**

- Active product development
- Interdisciplinary team of experts (electronics, mechanics, chemistry, production technology)
- Excellence in mass production (high degree of automation)
- Unique product portfolio and market position

Business overview

Innovations made by paragon



New Business Unit “Digital Assistance” – USPs of semvox

Proven expertise

Spin-off of largest KI R&D center in Europe 10 years ago

Competitiveness

Cutting-edge platform for new generation of speech assistants; development edge believed to be 3+ years

Marketable

Product already available; more than 13 million cars from German OEMs will be equipped with semvox' technology

Distinguishing

Speech assistance characterized by...

- true and fluent dialogue in 25 languages!
- using Artificial Intelligence and Machine Learning
- using all possible interfaces [speech, touch (screen), gesture control]
- being a differentiator for OEMs: enables them to customize their platforms
- highest data security / no use of data through third parties

Perfect match

Synergy potential with paragon's interior business unit > first product “Edwin” launched at CES in January 2019

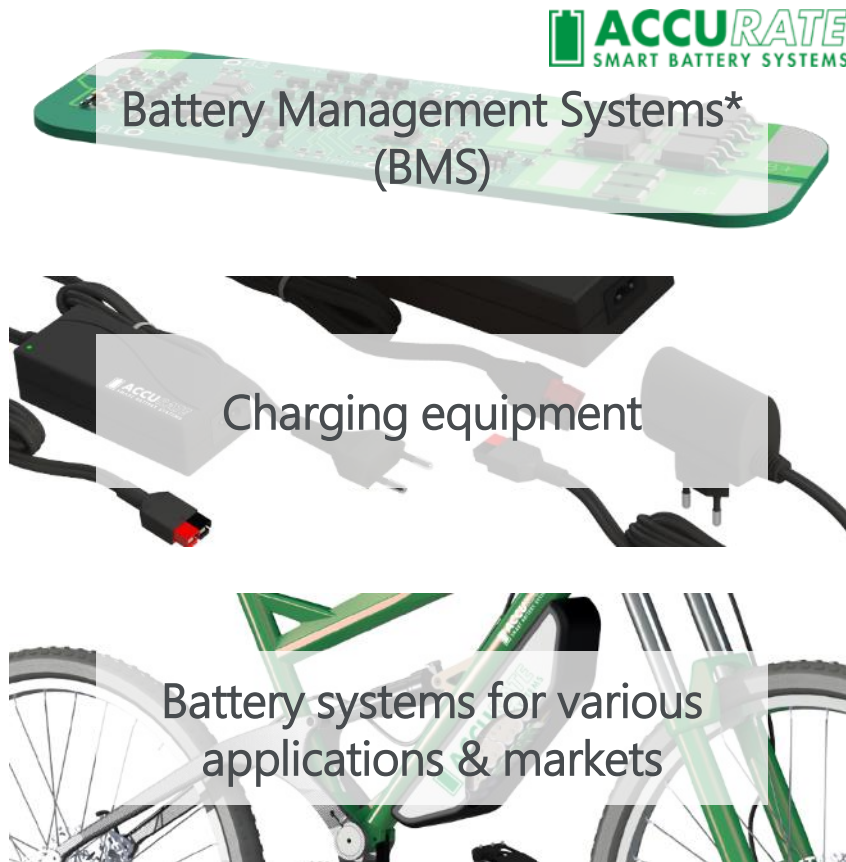
Various end markets

Now beginning non-automotive business



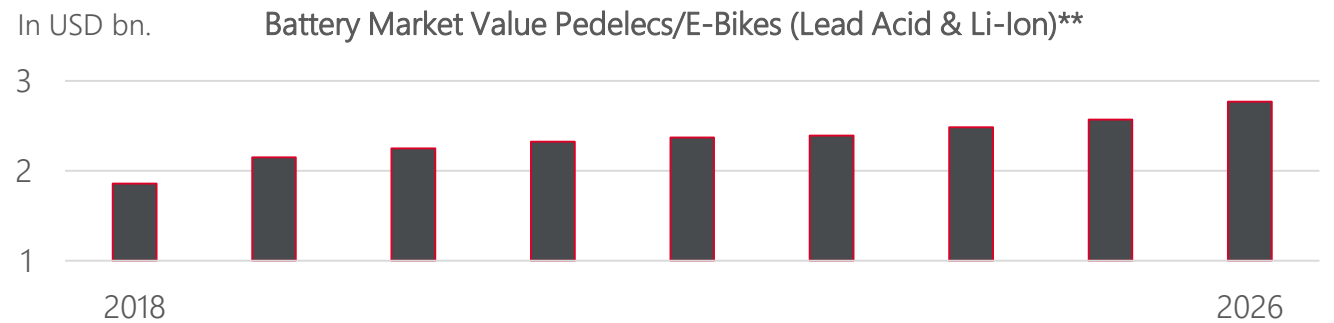
PARAGON SEMVOX

Strengthening VBX Product Segment Voltaforce by ACCURATE



Voltabox acquired **ACCURATE – SMART BATTERY SYSTEMS – GmbH** in August 2018. The company and its portfolio will be a **cornerstone** for the expansion of the **product segment Voltaforce** with focus on **high-margin mass market applications** such as pedelecs, E-scooters, gardening, medical technology etc.

Latest M&A activities

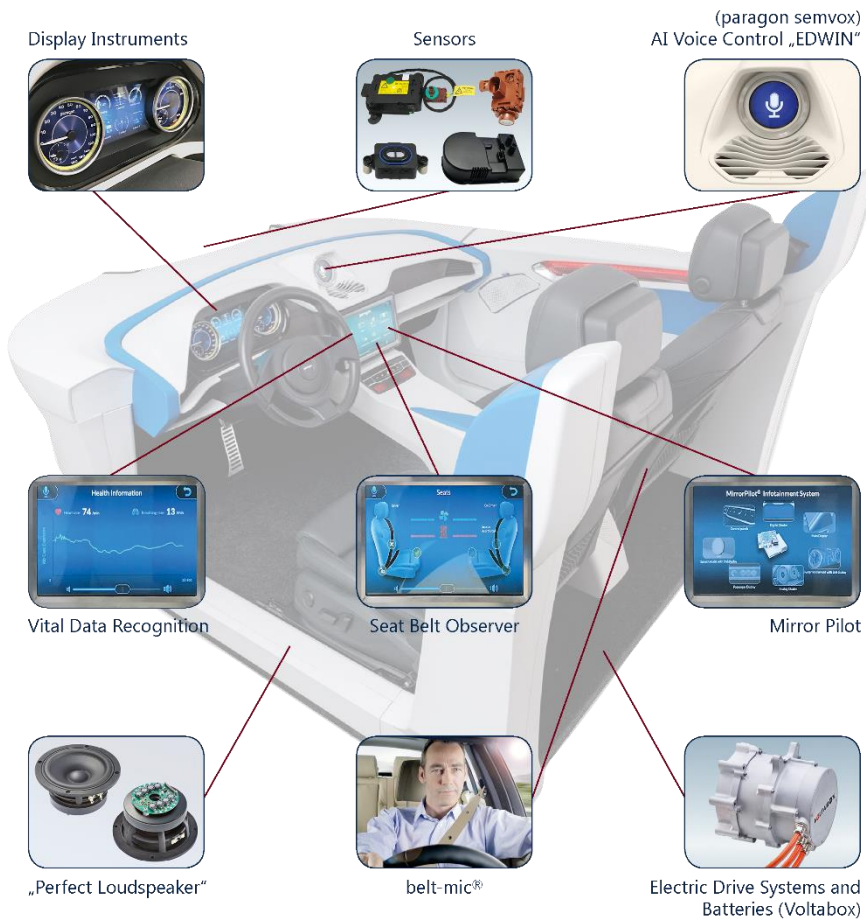


* Only available as an integrated system component, not to be sold separately.
** Source: IDTechEx.

Current Portfolio Positioning

Segments	Electronics			Mechanics	E-Mobility
Business Units	Sensors	Interior	Digital Assistance	Body Kinematics	V+LTABOX
Key products	AQS®, AQI®, DUSTDETECT	Analog luxury instruments, MirrorPilot®, Speech control & hands-free microphones, belt-mic®, ICC, (3D+ In-car-audio)	semvox.AI technology (ODP S3)	Active mobile aerodynamic systems	High performance battery systems, battery modules, starter batteries
Key customers	Audi, BMW, VW	Porsche, Daimler, Audi, VW	Porsche, Audi	Daimler, Audi, Porsche, Rolls Royce	Triathlon Batterien, Kiepe Electric, Komatsu Mining, BMW Motorcycles
Growth potential					
Competitive strength					
Market entry barriers	Patents & mass production	Quality, OEM relations, Know-how, mass production	Know-how, cutting-edge technology	Quality & OEM relations	Modularity & specialization
Main markets	Automotive				Public transportation Industrial

Premiere at the CES – Most Recent Innovations...



Extract from R&D activities

Sensors Business Unit: (paragon)

- DUSTPROTECT
- DUSTDETECT
- Vital Data Recognition / Seat Belt Observer

Interior Business Unit: (paragon)

- Outside Sound (AVAS)
- Perfect loudspeaker
- Active Noise Cancellation – „ANC“

Digital Assistance Business Unit: (paragon)

- ODP S3 AI-Platform / Virtual assistant “Edwin”

Body Kinematics Business Unit: (paragon)

- Compact Modular Spoiler Drive with Double Worm Gear Unit

Electromobility Business Unit: (Voltabox)

- Modular standard containers for use in buses & trucks (incl. LTO)
- New generation of battery system for forklifts
- New modular kit for mass applications
- Software-as-a-service (recurring revenues)

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— **Financials**

— Appendix

— Segments

Current Forecast

Lastly confirmed on November 14, 2018

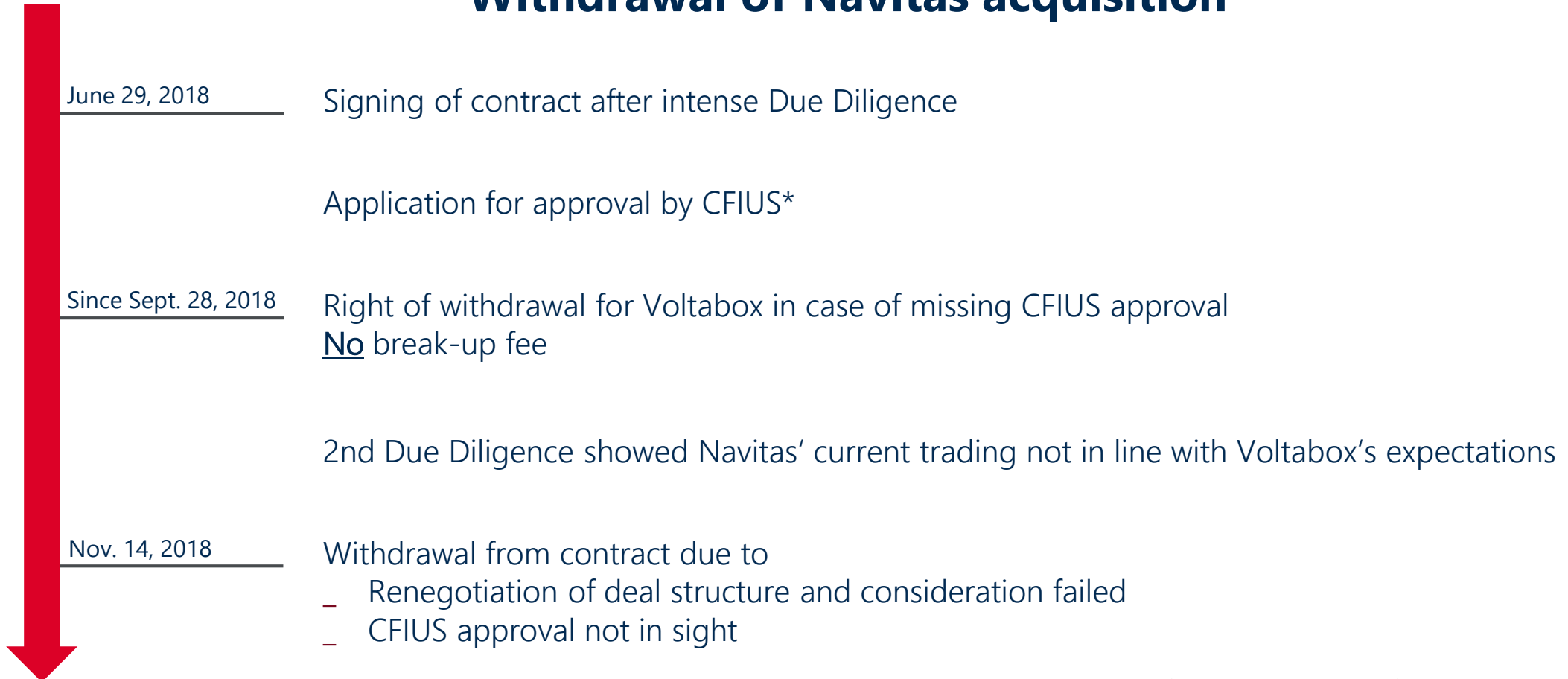
PGN	Result 2017	Year-to-date/	Forecast 2018	
	12 Months	H1/2018	As of Mar. 9, 2018	As of Aug. 21, 2018
Group revenue	€ 124.8m	€ 78.6m	Approx. € 175m	€ 180 – 185m
EBIT margin (unadjusted)	6.1%	6.1%	Approx. 9%	Approx. 8%*
Investments	€ 37.7m	€ 15.9m	Approx. € 35m	Approx. € 35m

VBX	Result 2017	Year-to-date/	Forecast 2018	
	12 Months	H1/2018	As of Mar. 9, 2018	As of Aug. 21, 2018
Group revenue	€ 27.3m	€ 18.1m	Approx. € 60m	€ 65m – € 70m
EBIT margin	2.1%	0.6%	Approx. 10%	Approx. 7%*
Investments	€ 6.3m	€ 3.5m	Approx. € 13.4m	Approx. € 13.4m

* Considering € 2m add. expenses from rearrangement of intralogistics partner agreement.

Voltabox' Forecast confirmed despite...

Withdrawal of Navitas acquisition



* Committee of the US government to regulate foreign investments into the United States.

New Growth Strategy for Voltabox in North America

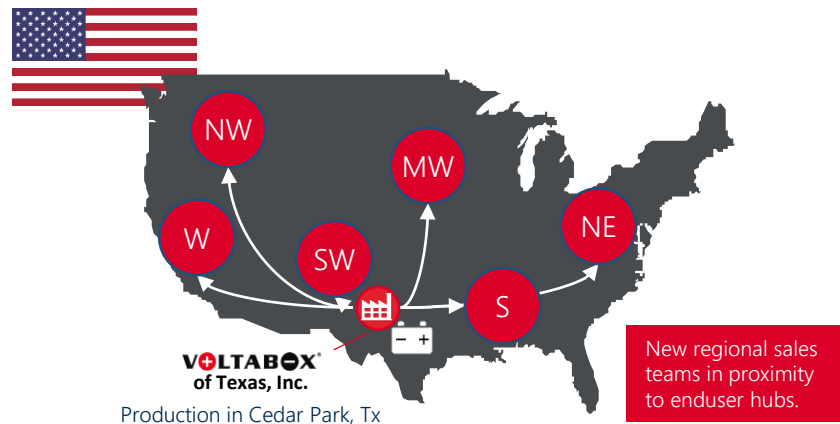
Withdrawal based on entrepreneurial responsibility

Focus now on management of growth (order backlog about € 1bn)



New battery system for US applications available in few months

- Immediate access to brand new prismatic LFP cells (Lithium Iron Phosphate) thanks to our close relationships to cell manufacturers
- Use of these cells for the development of a system tailormade for the North American market (combination of already existing technologies).



Use of available production capacity and build-up of an own US sales network

- Using Voltabox's available production capacity for prismatic cells (yet: NMC) < USD 1m investment
- Formation of a US nationwide sales network for the intralogistics market within the next 6 months

2018/2019 – Voltabox Expectations Unchanged

2018e

Voltabox' business running better than expected.

Voltabox is able to use its funds (incl. potential debt financing) for distinct growth

2019e

Sales in US intralogistics market expected for H2/2019

Upcoming (additional) big orders in Europe expected for 2019

New Agreement between Voltabox and Triathlon

The Intralogistics market accepts more and more Lithium-Ion technology over lead-acid.

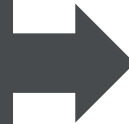
OEMs and big customers don't want a vendor as additional trade level.

June 2018 **New agreement was signed!**

- Direct access of Voltabox to the intralogistics market
- Triathlon remains customer for Lithium-Ion modules
- Europe: Triathlon builds Voltabox's systems (CAPEX saved)
- Voltabox got rights for Triathlon's know-how (R&D expenses saved)

In return...

- Investment grant to Triathlon to increase capacity
- License for intellectual property
- Extended payment terms for H2/2018



Consequences

- P&L 2018 burdened by € 2m (2019e: € 1.5m)
- Increase of inventory at Triathlon (ca. € 5m - € 10m)
- Increase in inventory of finished goods and work in progress at Voltabox (ca. € 7.2 in Q3/18) to ensure fast delivery times

More Information about Triathlon

Deutsche Bundesbank on Nov. 21, 2018: Granting of „**Investment Grade**“ for Triathlon

Payment terms H2/2018 only: 360 days net

Payment terms now: **30 days net**

Triathlon **pays on time** (Q4: € 5.7m paid earlier due to forward-looking cash planning)

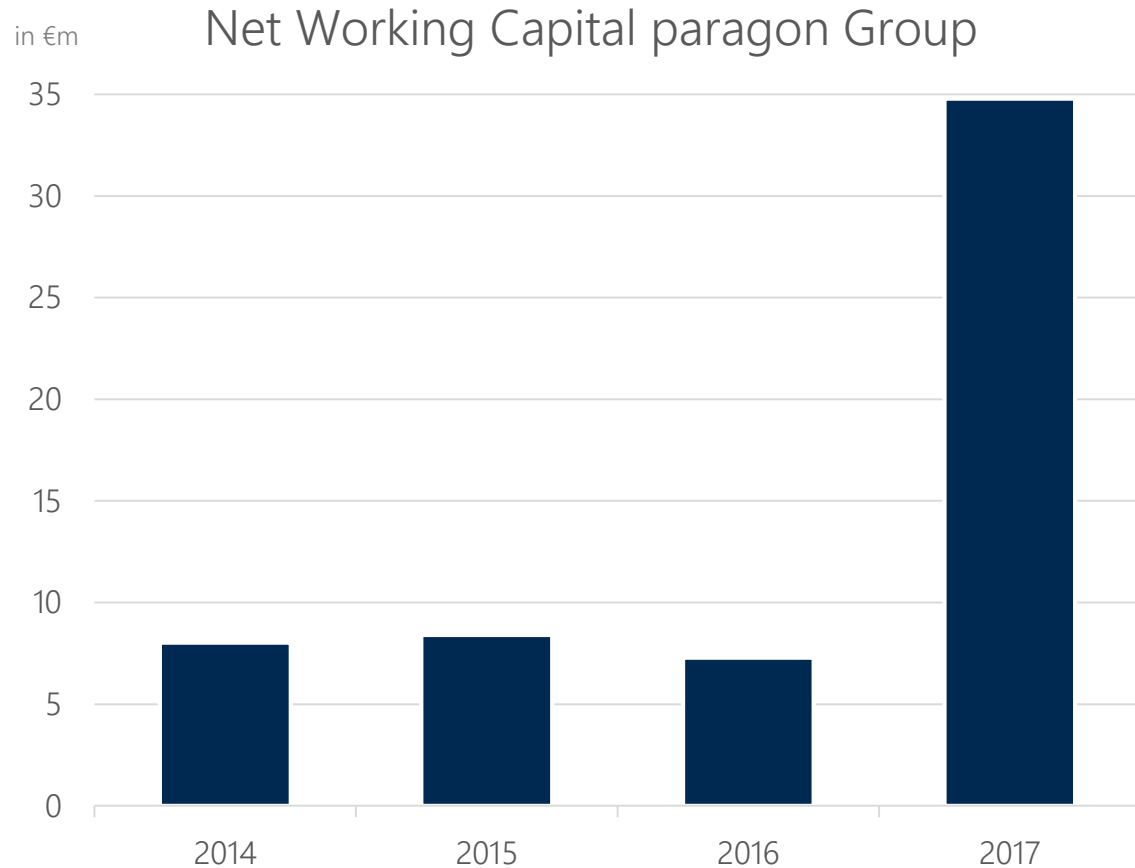
Triathlon's share of Voltabox' sales in 2018e remains **on 2017 level**

(2019e: **share reduction by 2/3!**)

Financial Status after Postponing of Bond

Intended bond	Current financing	Status
Refinancing of SemVox acquisition	Other sources	✓
Financing of growth in automotive	Expanded credit lines / leasing	✓
Planned construction of buildings in Delbrück	Conventional real estate financing (H2/2019)	tbd.
Refinancing of investment in real estate (Landsberg am Lech, Limbach-Kirkel)	Conventional real estate financing	✓
Further improvement of current financing structures	Not critical, but promising projects with banks and leasing companies	tbd.
General corporate financing	Not critical	✓

Working Capital



Trends Voltabox AG	Dec. 31, 2018	Dec. 31, 2019
Inventories	↗	→
Trade Receivables	↗	→
Trade Payables	↗	→

Working capital in H2/2018 burdened by ramp up (increased inventories & trade receivables) > but: **less than planned**

Liquidity position remains comfortable!

Outlook on Consolidated Financial Statements

IFRS 15

No substantial effects on revenues

2018e

Capitalized R&D reduced at Voltabox, unchanged at paragon

IFRS 16

Moderate influence on equity ratio at Voltabox, low at paragon

















Keyfacts for Revenues 2019e

paragon Automotive		
Automotive Industry Megatrends	paragon Solutions	Sales Trend
Digitalization	Digital Assistance	↑ ↑
Urbanization / CO2-Reduction	Air Quality, External Sound, Body-Kinematics	↗
Comfort	Acoustics, Instrumentation, Connectivity	↗

Keyfacts for Revenues 2019e

paragon Electromobility

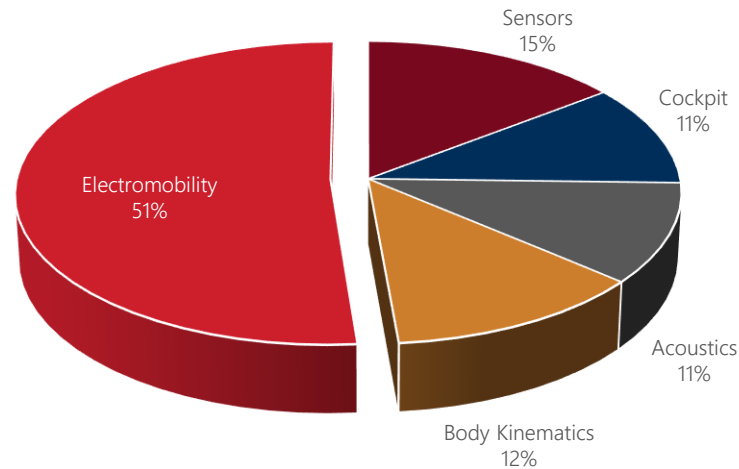
V+LTABOX® Megatrend Electrification: 

	Intralogistics			Agriculture / Construction	
-	Direct sales			Mining	
-	Triathlon share			Port / Rail	
	Bus industry			Electric Vehicles	
	Mass markets (Starter batteries, Pedelecs, ...)				

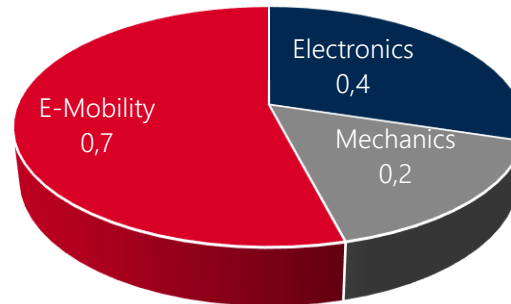
Financials

60-months Order Backlog (as of June 30, 2018)

60-months order backlog (€ 2bn) as of June 30, 2018 by segments/units



60-months order backlog with 100% weighting as of June 30, 2018 [in €bn]



- Approx. € 2bn total 60-month order backlog (H1/2017: € 1.6bn)
 - Estimated order backlog is weighted according to the expected lifetime and the probability of occurrence
 - Serves as base for planning
 - Evaluation system in place since IPO in FY 2000
- Thereof approx. € 1bn attributable to Voltabox (H1/2017: € 0.8bn)

2018e: Order backlog increases despite substantial growth of revenues in 2018

Main Goals for 2019

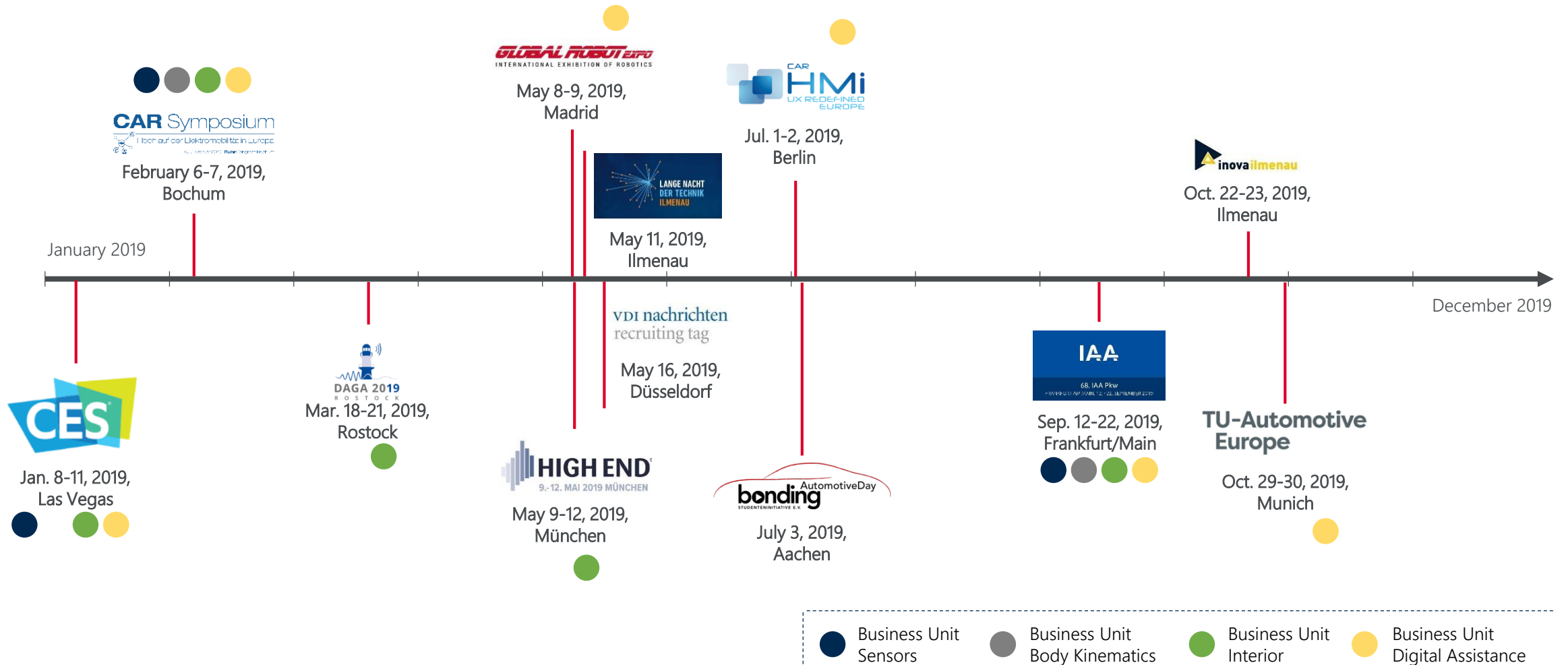
- Another substantial jump in revenues and profit (paragon and Voltabox)
- Integration/consolidation of acquired companies – no further material acquisition planned
- Finalize reshaping of group structure for better transparency and visibility
- Further steps developing into a system provider (rather than component provider)
- Further strengthening/broadening of management basis

Financial Calendar* 2019

– Jan. 10/11,	ODDO BHF FORUM, Lyon
– Jan. 31,	Bankhaus Lampe German Corporate Conference, London
– Feb. 19/20,	ODDO BHF German Conference, Frankfurt am Main
<i>March: Preliminary results FY2018 and Forecast 2019</i>	
– Apr. 1,	Annual report 2018
– Apr. 3-5,	Bankhaus Lampe German Conference, Baden-Baden
– Apr. 11,	Solventis Aktienforum, Frankfurt am Main
– May 13,	Interim release as of March 31 – First quarter
– May 13/14,	Equity Forum Spring Conference, Frankfurt am Main
– May 15,	Annual general meeting paragon GmbH & Co. KGaA, Delbrück
– May 16,	Annual general meeting Voltabox AG, Delbrück
– Aug. 22,	Interim report as of June 30 – Half year
– Sep. 2/3,	Equity Forum Fall Conference, Frankfurt am Main
– Nov. 14,	Interim release as of September 30 – 9 months
– Nov. 25-27	Eigenkapitalforum, Frankfurt am Main
– Dec. 10/11	Münchner Kapitalmarktkonferenz, Munich

** Expected dates for paragon GmbH & Co. KGaA and Voltabox AG.*

paragon at Fairs and Conferences in 2019

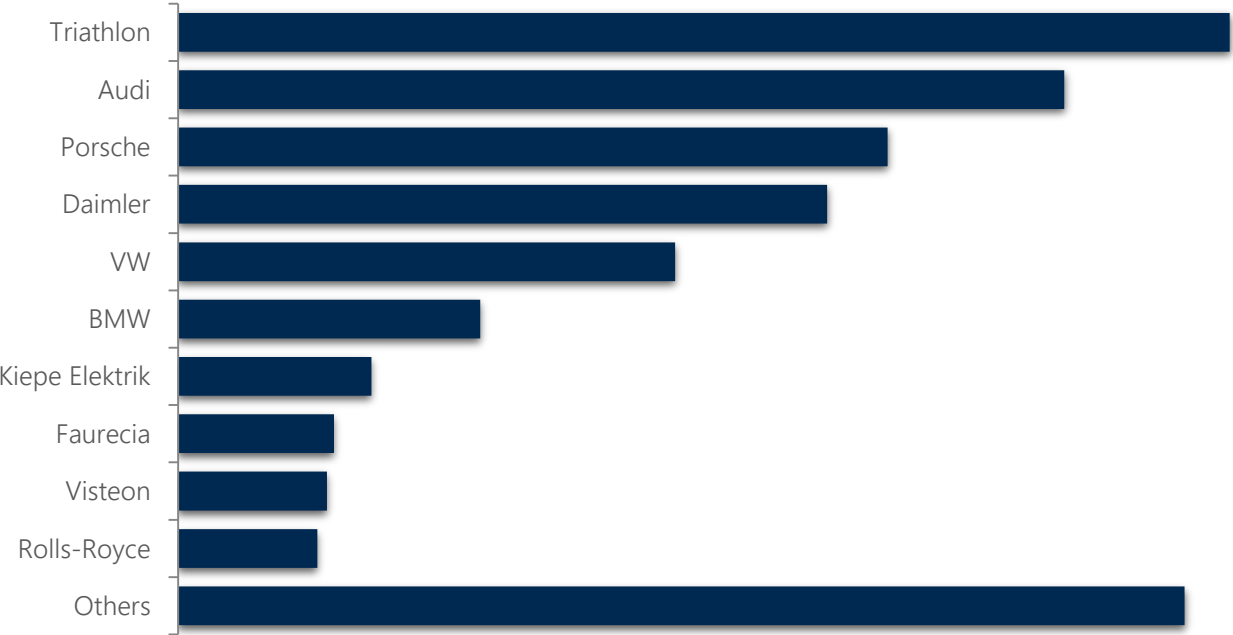


APPENDIX

Appendix – Business overview

Established Tier1 Partner

Breakdown of sales by customer (as of Sep. 30, 2018)







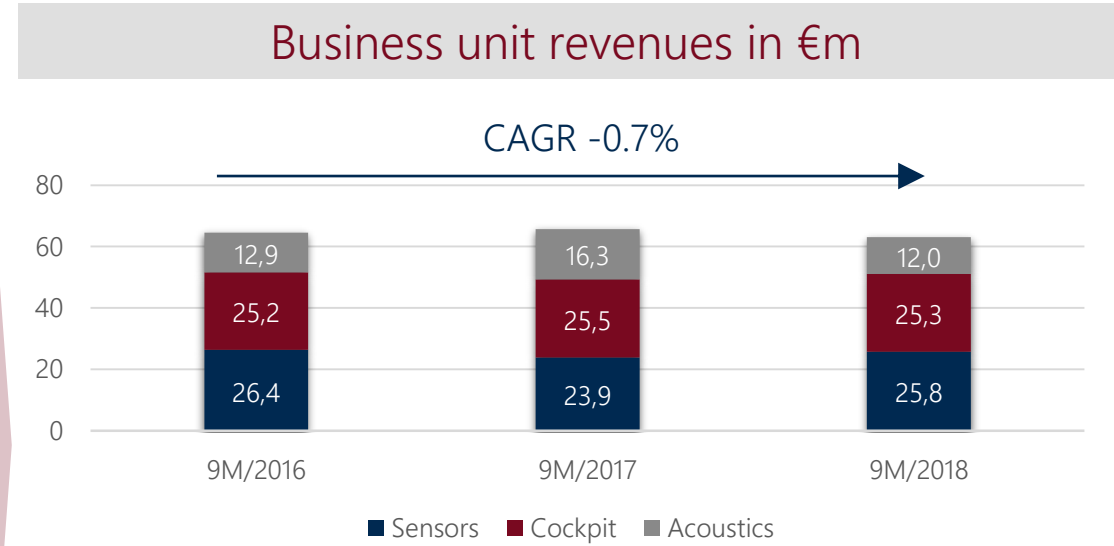
Selection of OEM customers:



— With the five largest automotive customers (Audi, Porsche, Daimler, VW and BMW) in 9M/2018, paragon generated more than half of Group revenue (approx. 53%).

Electronics: High Growth Potentials

		Products ahead of market launch			
Sensors	 <p>Sensors</p> <ul style="list-style-type: none"> - Air quality sensor AQS® - Air improvement system AQI®/IONAIR - A/C-purifier AQC© - CO₂ sensor - Particle sensor DUSTDETECT© 	<ul style="list-style-type: none"> Particle filter DUSTPROTECT Contactless capturing of vital data 			
		Interior	 <p>Cockpit</p> <ul style="list-style-type: none"> - Display instrumentation - Camera and monitor systems - Charging trays / Cradles - Connectivity solutions / Media interfaces - Controls and stepper motors 	<ul style="list-style-type: none"> Mirror Pilot Wireless charging 15W 	
				 <p>Acoustics</p> <ul style="list-style-type: none"> - Hands-free microphones - Noise measurement microphones - belt-mic® seat belt microphone - Vehicle sound systems 	<ul style="list-style-type: none"> 3D+ sound system Active road noise cancelling
					 <p>Software</p> <ul style="list-style-type: none"> - Technologies and solutions for voice control (proactive assistants) - Hard- and software in the field of virtual assistance systems



New

Mechanics: World Market Leader in Active Aerodynamics

Body Kinematics



Movable body components

- Active aerodynamics
- Actuators for rear spoilers



Movable interior comfort

- Rear folding tables for Mercedes S-Class et al.

Products ahead of market launch

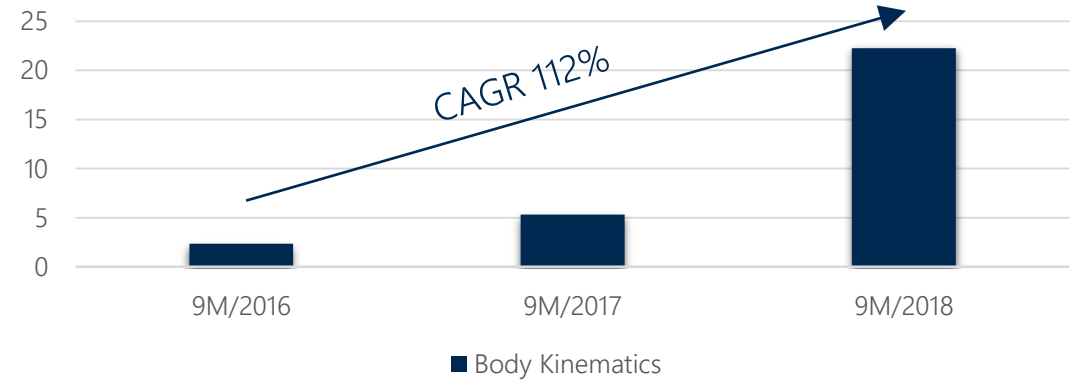
Plug and play spoiler systems

Organic winglet

Sound design of spoiler drives

Innovative door and trunk components

3rd party business unit revenues in €m



TOP customers (as of Sep. 30, 2018)



E-Mobility: Leading Positions in fast growing Markets



Public transportation
_ Trolley buses



Intralogistics
_ Forklifts & Automated Guided Vehicles (AGVs)



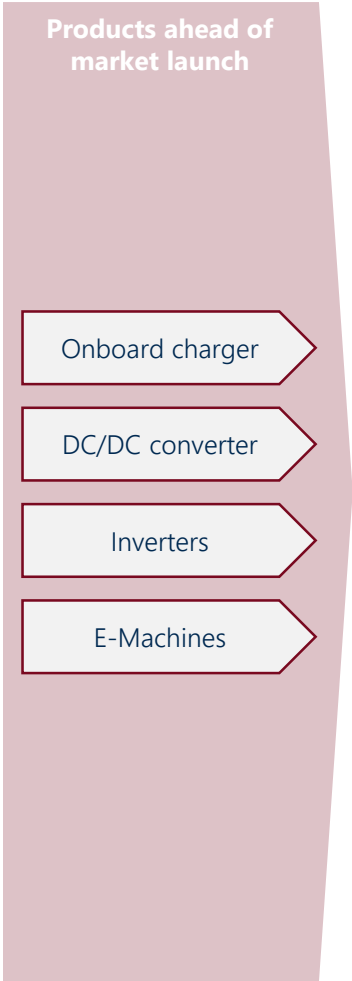
Underground mining
_ Battery Hauler & Big Bertha



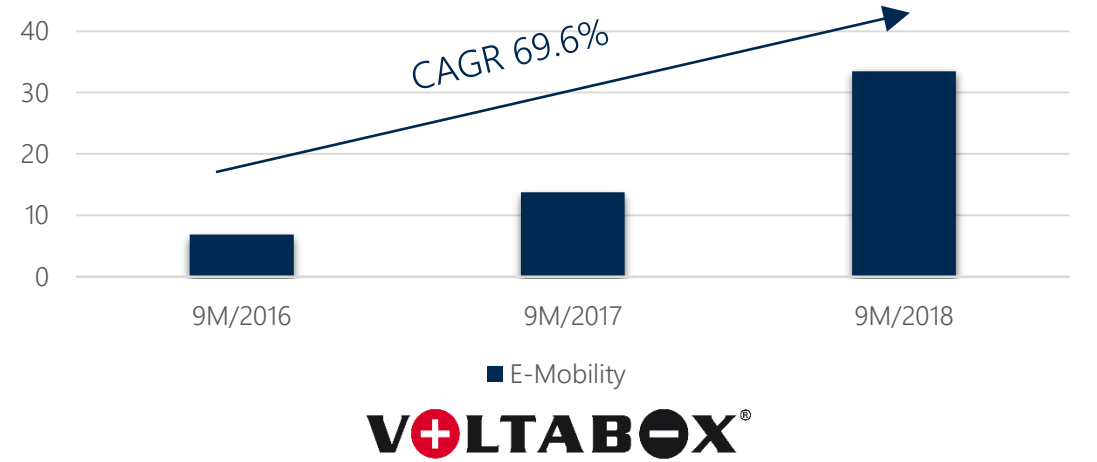
Agriculture & construction
_ Schäffer front wheel loader



Starter batteries
_ BMW motorcycles (HP4)



3rd party business unit revenues in €m



TOP customers (as of Sep. 30, 2018)



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