



paragon GmbH & Co. KGaA
Investor/Analyst Presentation

FY 2018 / Bankhaus Lampe German Conference | Apr. 5, 2019

Agenda

— Highlights

— Business Overview

— Financials

— Appendix

Highlights

paragon – Tier1 to the automotive industry

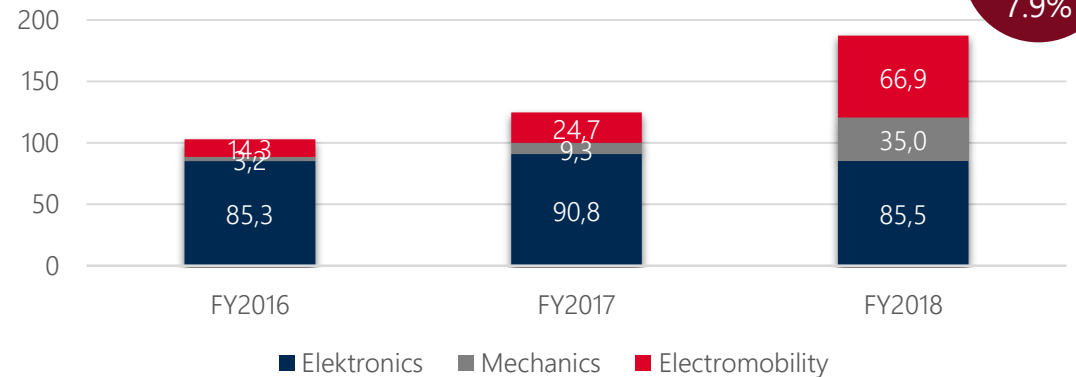
- 1988 – Established in Delbrück by Klaus Dieter Frers
- 2000 – Nov. 29: IPO at Frankfurt Stock Exchange (market cap: € 26.4m)
- 2017 – Oct. 13: IPO of Voltabox AG (Electromobility); (market cap: € 506.4m) / 60 % shareholder paragon
- Today – 10 locations (Germany, USA, China)
– >> 1.000 employees
– 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



Financial highlights from FY 2018

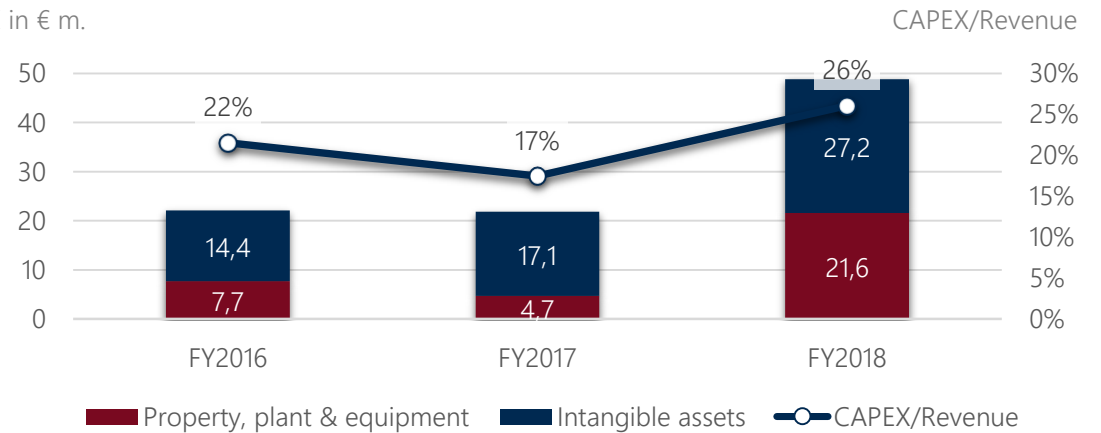
- Sustainable revenue growth +50.1% to € 187.4m
- Electromobility + 170.9%
- Body Kinematics + 274.9%
- No significant influence from current headwinds in automotive sector (Diesel issue, WLTP, Tariff war China <> USA, ...)
- Premium customers with above average sales (Records of Audi & Porsche, ...)
- Group EBIT up 173.9%; EBIT margin at 7.9%
- CAPEX* € 48.8m / free liquidity € 48.9m
- Continued company growth expected for FY 2019: Revenue from € 230-240m; EBIT margin at 8%)

Revenue in € m.



EBIT margin: 7.9%

CAPEX in € m.



* Including M&A effects.

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

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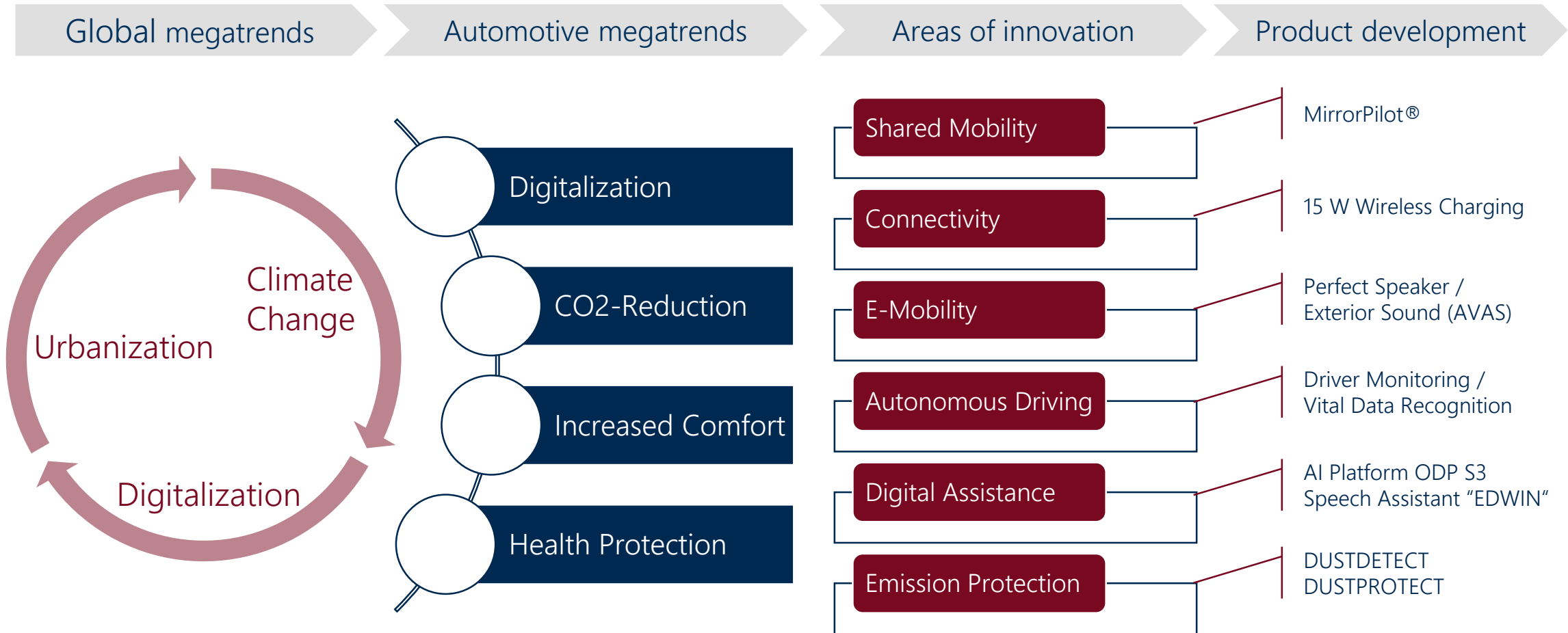
The paragon principle – growth strategy

Mission Statement

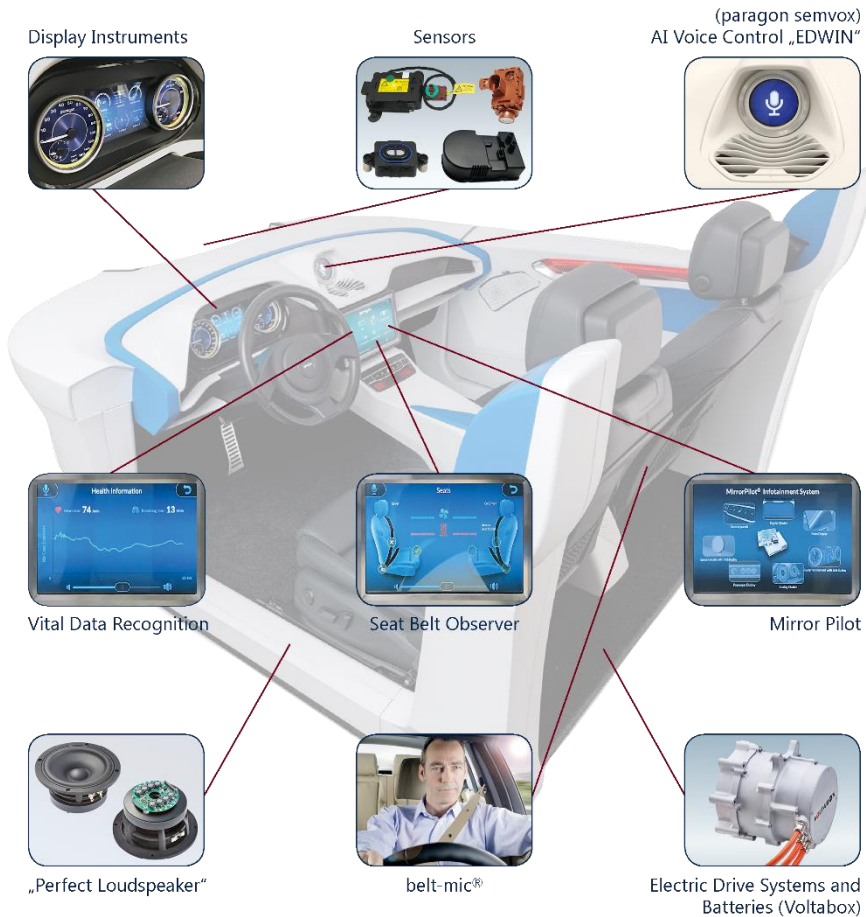
Early occupation of
high-margin fast growing
niches in
premium market segments
with
enabling technology
for existing **megatrends!**

- 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

Innovations made by paragon



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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paragon Group at a glance (as of Dec. 31, 2018)

	Revenues: € 187.4m	EBITDA: € 30.3m	EBITDA margin: 16.2%	EBIT: € 14.8m	EBIT margin: 7.9%	Market cap: € 79.1m
	Employees:* 1,032	Global footprint: 12 sites, 3 countries, 3 continents				
	Foundation: 1988	Founder & CEO: Klaus Dieter Frers				
	<ul style="list-style-type: none"> - 50% + 1 limited share held by Klaus Dieter Frers - 50% - 1 limited share free float 					

* Excluding 107 temporary employees.

Key data I

Material input ratio*

56,5%

(2017: 57,1%)

- > Higher revenue share of Voltabox and paragon movasys

Personnel expense ratio

27,8%

(2017: 28,2%)

EBITDA margin

16.2%

(2017: 11.9%)*

EBIT margin

7.9%

(2017: 4.3%)*

- > Reduced ramp up costs in body kinematics

Further profitable growth expected
in FY 2019!

** As retrospectively amended in FY 2018 consolidated financials statements.*

Key data II

Equity Ratio

49.1%

(Dec. 31, 2017: 57.1%)**

Operating Cashflow

Reduced to -€ 53.3m

(FY 2017: € -10.0m)**

Free liquidity*

€ 48.9m

(Dec. 31, 2017: € 166.8m)

Sales support of largest Voltabox customer in 2H2018 burdened net working capital

Increase in inventories for production ramp up in 1H2019

M&A and Net Working Capital as one-time effects

* Defined as cash and cash equivalents + unused credit lines.

** As retrospectively amended in FY 2018 consolidated financials statements.

Key data III

- Strong increase in trade receivables due to the strong business development in the Electromobility segment and the support of the sales financing of the most important Voltabox partner (limited until 2018).
- Inventory build-up enables rapid delivery to the intralogistics market in the Electromobility segment
- One-time increase in cash flow from investing activities through M&A (Concurrent Design, Accurate, SemVox and LPG)

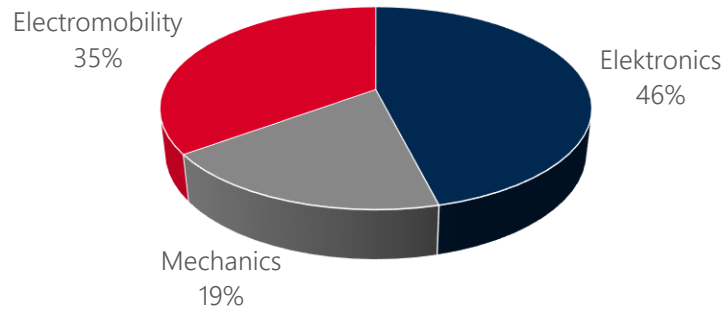


* net of M&A-effects.

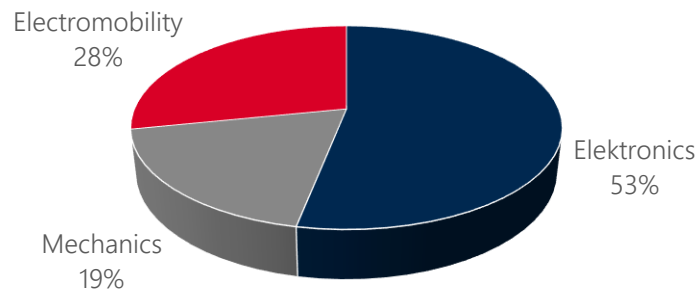
** As retrospectively amended in FY 2018 consolidated financials statements.

Broadening of portfolio and customer base

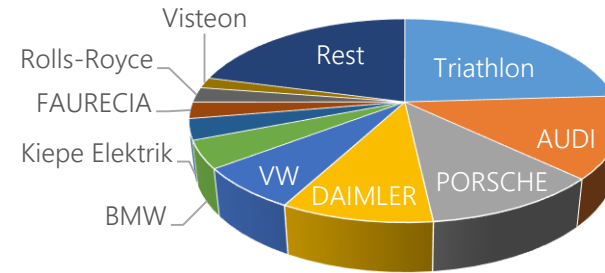
FY 2018



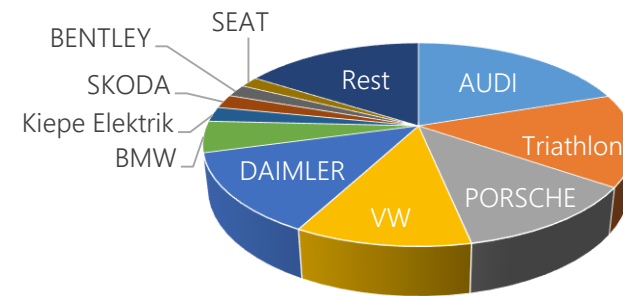
FY 2017



FY 2018



FY 2017



Key facts for revenues 2019e

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

Key facts for revenues 2019e

paragon Electromobility

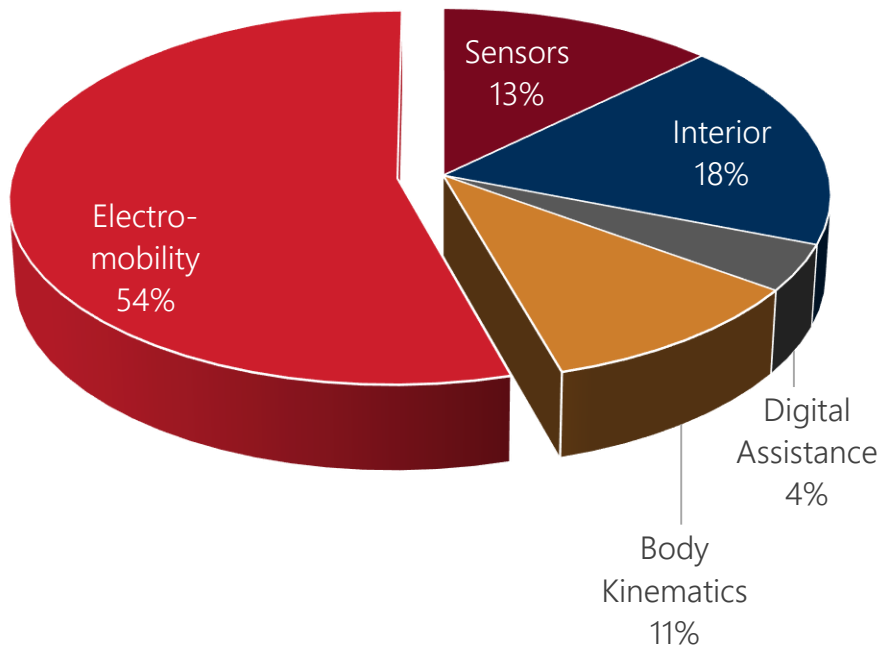
V+LTABOX Megatrend Electrification:

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

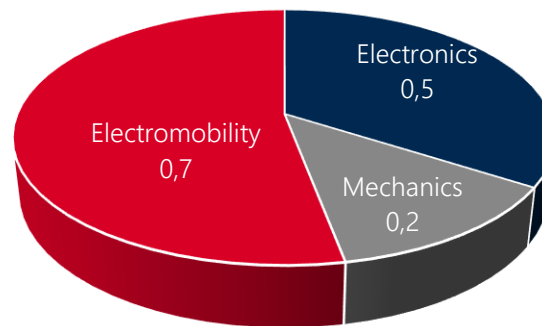
Financials

60-months cumulative order backlog*

60-months cumulative order backlog*
 (€2.1bn) as of Dec. 31, 2018
 by segments/units



60-months cumulative order backlog* weighted 100%
 as of Dec. 31, 2018 (in €bn)



- Approx. €2.1bn total 60-months cumulative order backlog* (Dec. 31, 2017: €2.0bn)
 - 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. € 1.1bn attributable to Voltabox (Dec. 31, 2017: € 1.0bn)

* As defined by the company.

Current forecast

PGN	Results	Forecast
	FY 2018	FY 2019
Group revenue	€ 187.4m	€ 230 – 240m
EBIT margin	7.9%	8%
Investments	€ 48.8m	€ 40.0m
<i>thereof: IAS 38</i>	<i>€ 15.1m</i>	<i>€ 18m</i>

VBX	Results	Forecast
	FY 2018	FY 2019
Group revenue	€ 66.9m	€ 105 – 115m
EBIT margin	2.1%	8 – 9%
Investments	€ 13.6m	€ 14m
<i>thereof: IAS 38</i>	<i>€ 2.9m</i>	<i>€ 8m</i>

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
– 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.*

Agenda

_ Highlights

_ Business Overview

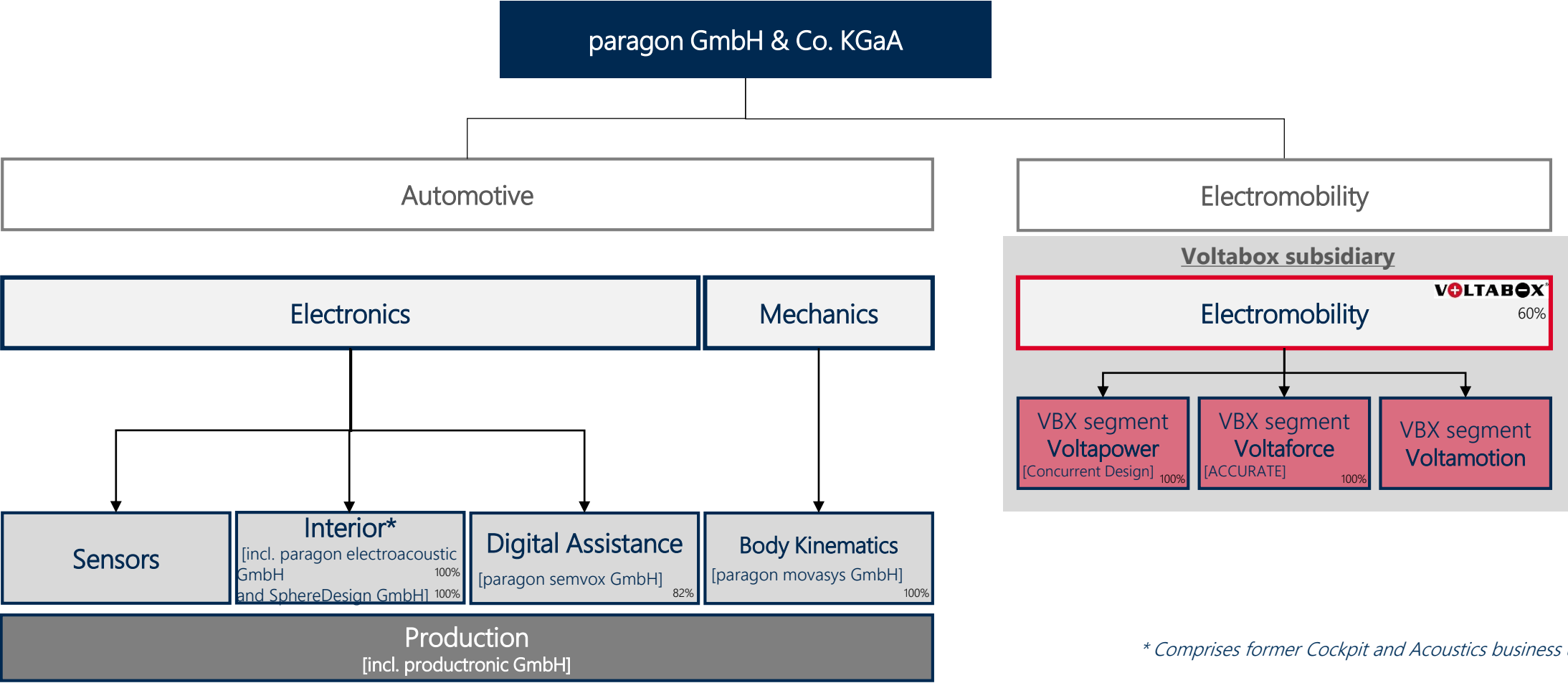
_ Financials

_ Appendix

Appendix – Business Overview

Current Group structure

Markets
Segments
Business Units



* Comprises former Cockpit and Acoustics business units.

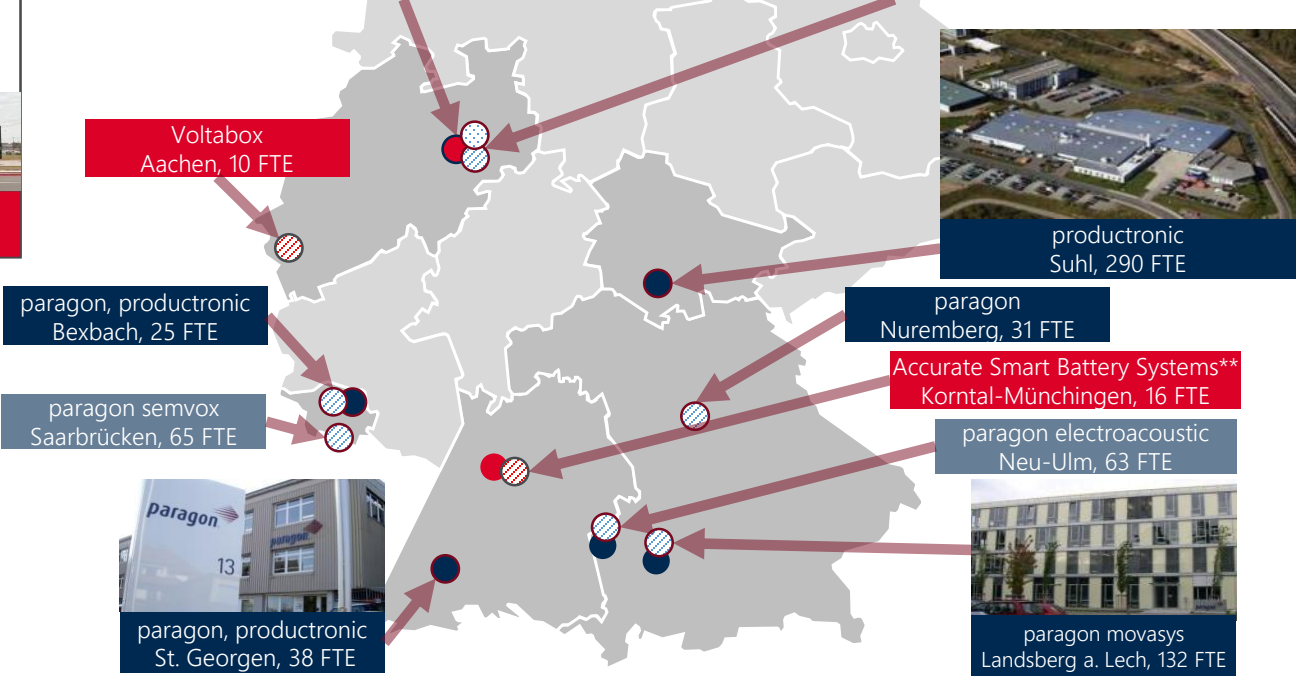
Appendix – Business Overview

Group locations

- 1,139 Group employees* (as of Dec. 31, 2018)
- Thereof 273 FTE in R&D (24% of total staff)



paragon GmbH & Co. KGaA



- Administration and sales
- Production
- R&D

* Incl. 107 temporary workers.
** In the process of merger with Voltabox AG.

Segment overview FY 2018

In € '000s	Electronics	Mechanics	Electromobility*	Eliminations	Group
Third party revenues	85,518	34,977	66,888	0	187,383
Intersegment revenues	8,272	45,503	19	-53,794	0
Segment revenues	93,790	80,480	66,907	-53,794	187,383
Changes in inventories, other operating expenses & capitalized development costs	18,027	9,009	12,711	-7,663	32,084
Expenses from intersegment offsetting	-45,520	-11,982	-3,379	60,881	0
Cost of materials, personnel expenses and other operating expenses	-46,305	-76,224	-66,648	0	-189,177
Segment EBITDA	19,992	1,283	9,591	-576	30,290
Depreciation/Amortization	-9,445	-2,031	-3,982	0	-15,458
Segment EBIT	10,547	-748	5.609	-576	14,832
Assets	226,953	37,307	209,301	-111,268	362,293
Investments (CAPEX)	29,092	6,150	13,563	0	48,805
Financial liabilities	-168,861	-33,962	-57,612	75,941	-184,494

* The Electromobility segment includes 39.97 % minority interests.

Corrections to the Consolidated Financial Statements 2017

- paragon GmbH & Co. KGaA made adjustments from the previous year in the 2018 consolidated financial statements, which mainly relate to the recognition of deferred taxes in connection with an intragroup transfer of assets and expenses from the IPO of Voltabox AG, which were allocated to other operating expenses and offset against the profit carried forward.
- The resulting corrections for fiscal year 2017 are explained in the notes to the consolidated financial statements for fiscal year 2018.

Appendix – Financials in Detail

Key Earnings data (IAS)

In € million / as indicated	FY 2018	FY 2017*	Change
Revenue	187.4	124.8	50.1%
EBITDA	30.3	14.8	104.5%
EBITDA margin (in %)	16.2	11.9	n/a
EBIT	14.8	5.4	173.9%
EBIT margin (in %)	7.9	4.3	n/a
Group result	3.4	-4.0	n/a
Earnings per share (€)	0.52	-0.30	n/a

* As amended in the Consolidated Financial Statements 2018.

Key data Net Assets and Financial Position (IAS)

In € million / as indicated	FY 2018	FY 2017*	Change
Total assets	362.3	308.0	17.6%
Equity	177.8	176.0	1.0%
Equity ratio (in %)	49.1	57.1	n/a
Free liquidity	48.9	166.8	-70.7%
Interest bearing liabilities	110.6	86.3	28.1%
Net Debt**	61.7	-80.5	n/a
Operating cashflow	-53.5	-10.0	436.5%

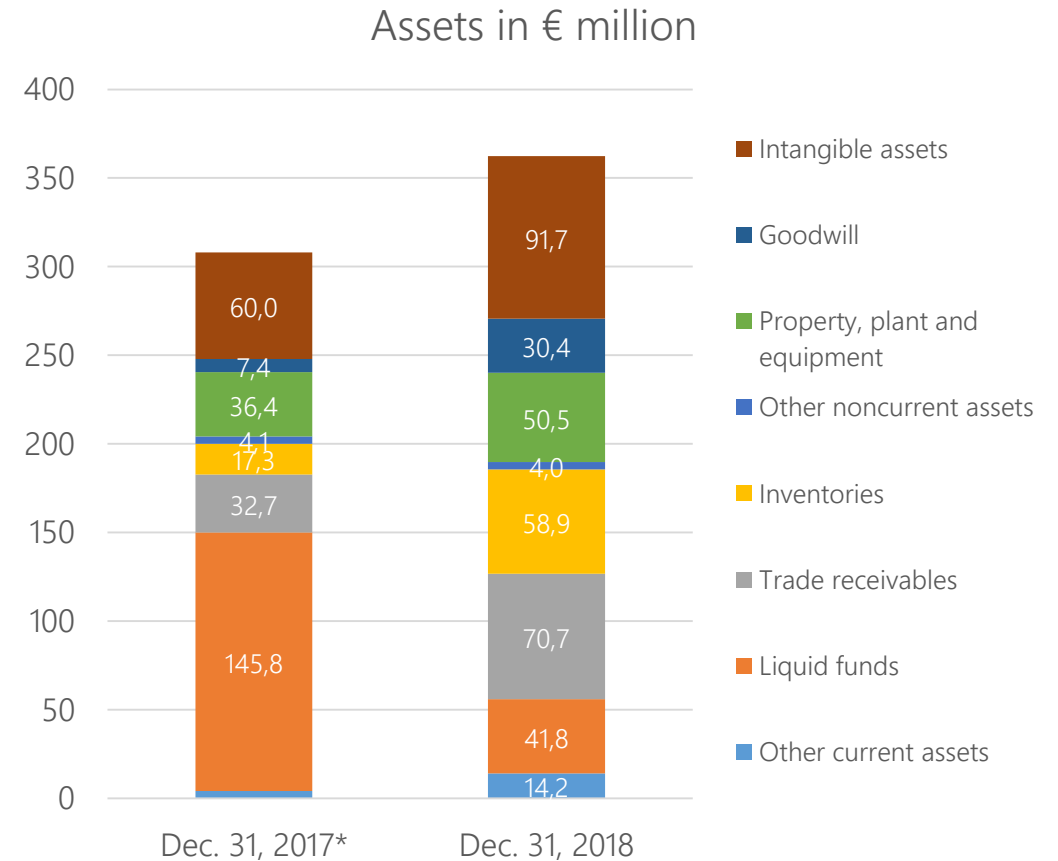
* As amended in the Consolidated Financial Statements 2018.

** Defined as: interest bearing liabilities – free liquidity.

Appendix – Financials in Detail

Key developments of Assets

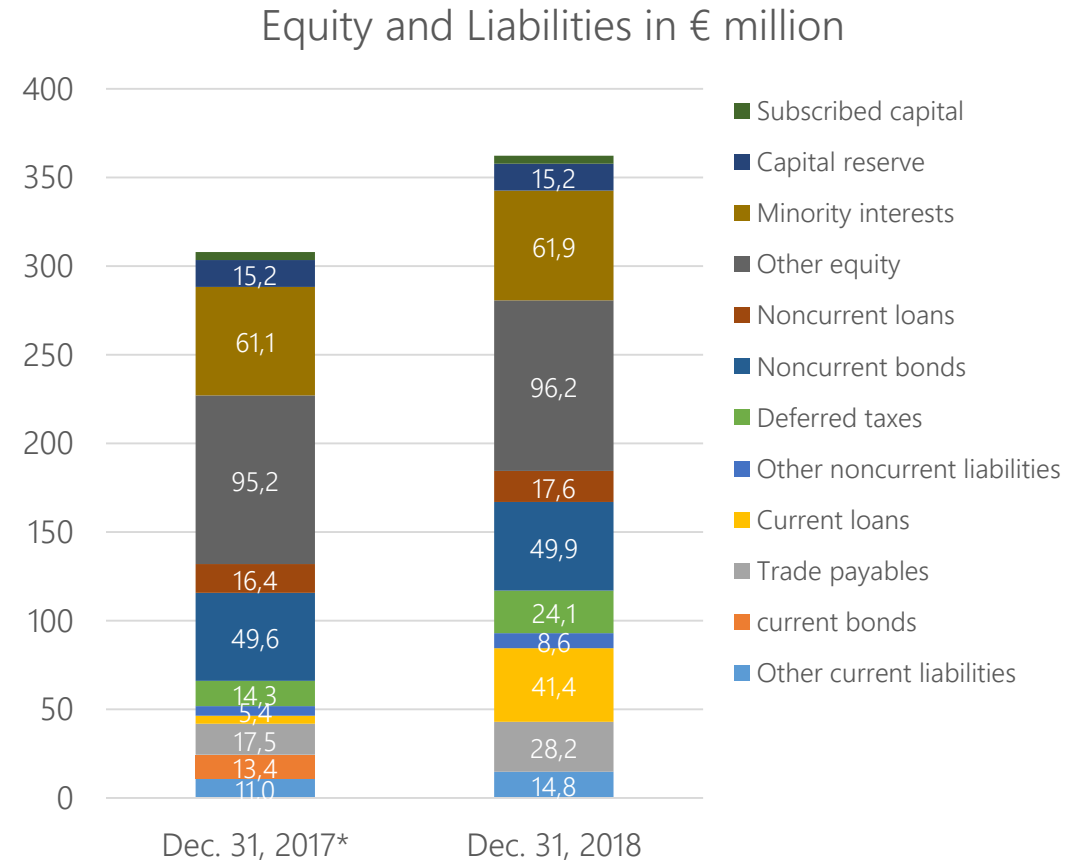
- **Increase of noncurrent assets by € 68.8m**
 - Intangible assets € +31.7m – capitalized development expenses and extended scope of consolidation
 - Goodwill € +23.0m – Acquisition of SemVox and LPG by paragon and of Concurrent Design and ACCURATE Smart Battery Systems by Voltabox
 - Property, plant and equipment € +14.2m – extended scope of consolidation
- **Decrease of current assets by € 14.4m**
 - Inventories € +41.6m – mainly Voltabox and extended scope of consolidation
 - Trade receivables € +38.1m – mainly sales financing support of Voltabox customer Triathlon in 2H2018
 - Other assets € +9.9m – mainly Voltabox effect
 - Liquid funds € -104.0m – mainly M&A and Voltabox extension of payment terms with largest customer in 2H2018



* As amended in the Consolidated Financial Statements 2018.

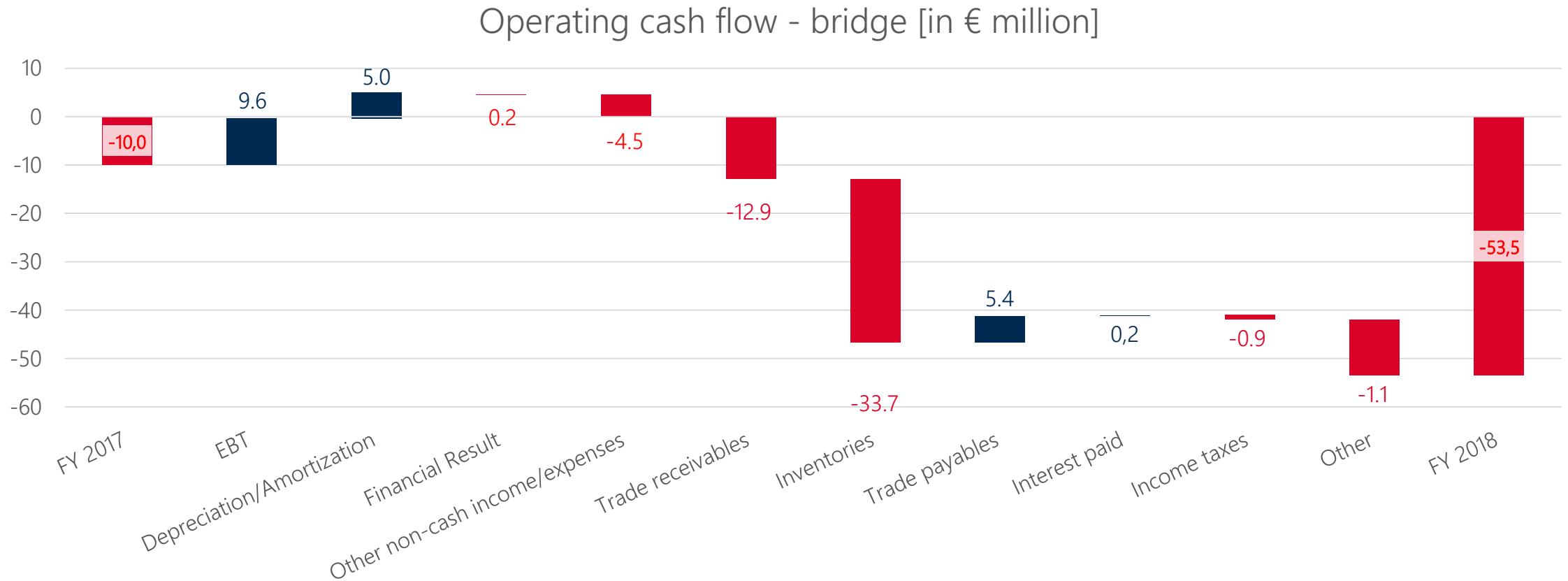
Key developments of Equity and Liabilities

- Increase of noncurrent provisions and liabilities by € 14.5m
 - Increase of deferred taxes by € 9.8m
- Increase of current provisions and liabilities by € 38.0m
 - Increase of current loans by € 36.8m
 - Increase of trade payables by € 10.8m
 - Decrease of current bonds by € 13.4m
- Increase of equity by € 1.8m
 - Equity ratio at 49.1% (Dec. 31, 2017: 57.1%)*
(against the backdrop of increased balance sheet total)

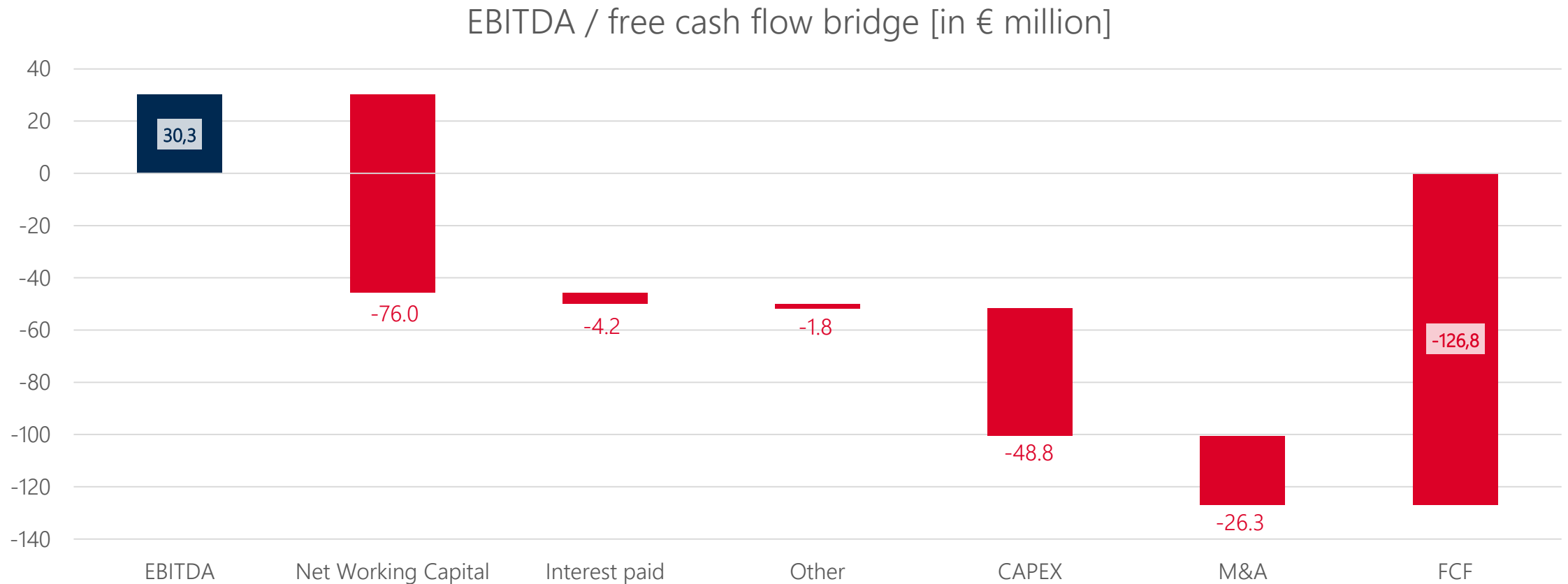


* As amended in the Consolidated Financial Statements 2018.

Development of operating cash flow (y-o-y)



Key cash flow developments in FY 2018

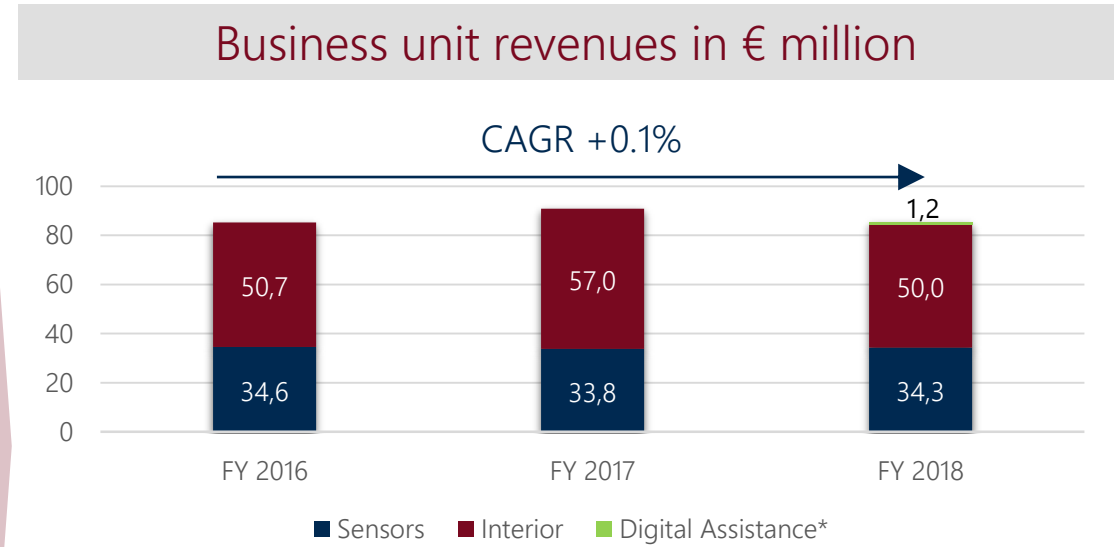


Current portfolio positioning

Segments	Electronics			Mechanics	E-Mobility
Business Units	Sensors	Interior <small>Cockpit Acoustics</small>	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	Quality & OEM relations	Modularity & specialization
Main markets	Automotive				Public transportation Industrial

Electronics: high growth potentials

		Products ahead of market launch
Sensors	<p>Air quality</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>Connectivity</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 (incl. ANC) - Perfect speaker 	<ul style="list-style-type: none"> 3D+ sound system Active road noise cancelling
Digital Assistance	<p>Speech assistants</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 	<ul style="list-style-type: none"> High-end in-car voice control (AI software) Cloud-based smart assistance speaker



* Initial consolidation 4Q2018.

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

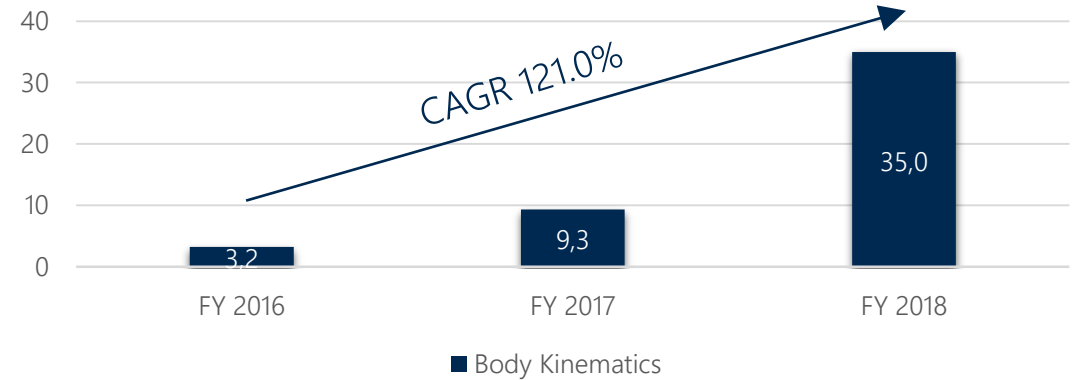
Plug and play spoiler systems

Organic winglet

Sound design of spoiler drives

Innovative door and trunk components

3rd party business unit revenues in € million



TOP customers (as of Dec. 31, 2018)



E-Mobility: leading market positions in fast growing niches

- 

Public transportation
_ Trolley buses
- 

Intralogistics
_ Forklifts & Automated Guided Vehicles (AGVs)
- 

Underground mining
_ Battery Hauler & Big Bertha
- 

Agriculture & construction
_ Schäffer front wheel loader
- 

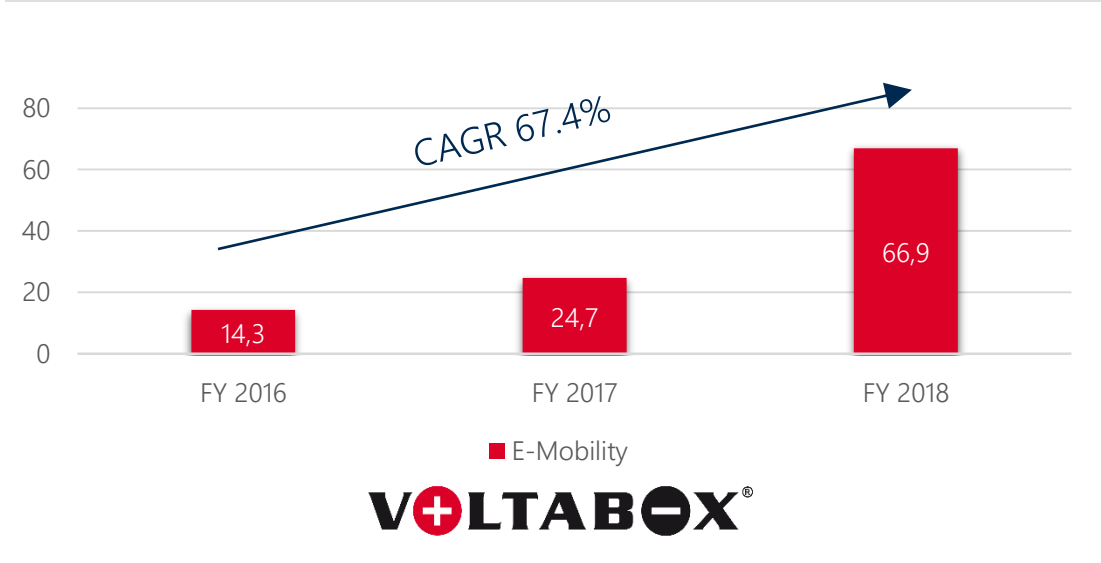
Starter batteries
_ BMW motorcycles (HP4)
- 

Selected mass markets
_ Pedelecs & E-bikes

Products ahead of market launch

- Onboard charger
- DC/DC converter
- Inverters
- E-Machines

3rd party business unit revenues in € million



TOP customers (as of Dec. 31, 2018)

Overview M&A activities



HS Genion GmbH (Landsberg am Lech) / purchase price € 15.2m (paid in Q4 2017) / initial consolidation Dec. 2017

- Previously largest competitor > rise to world market leader in body kinematics – facilitates shift to a system provider



Concurrent Design, Inc. (Austin, TX, USA) / purchase price € 2.6m (paid in Q1) / initial consolidation Apr. 2018

- Engineering service provider with highly-skilled staff – facilitates development of complex battery systems



ACCURATE SMART BATTERY SYSTEMS GmbH (Korntal-Münchingen) / purchase price € 6.2m (paid in Q3) / initial consolidation Sep. 2018

- Manufacturer of Li-Ion battery packs for several mass market applications (i.e. pedelecs) – facilitates horizontal diversification



SemVox GmbH (Limbach) (82%) / purchase price € 16.4m* (paid in Q3) / initial consolidation Oct. 2018

- Leading B2B supplier of technologies for intelligent and e.g. voice-operated digital assistance solutions on basis of Artificial Intelligence and Machine Learning esp. for Automotive applications – enables OEMs to develop their own digital assistants

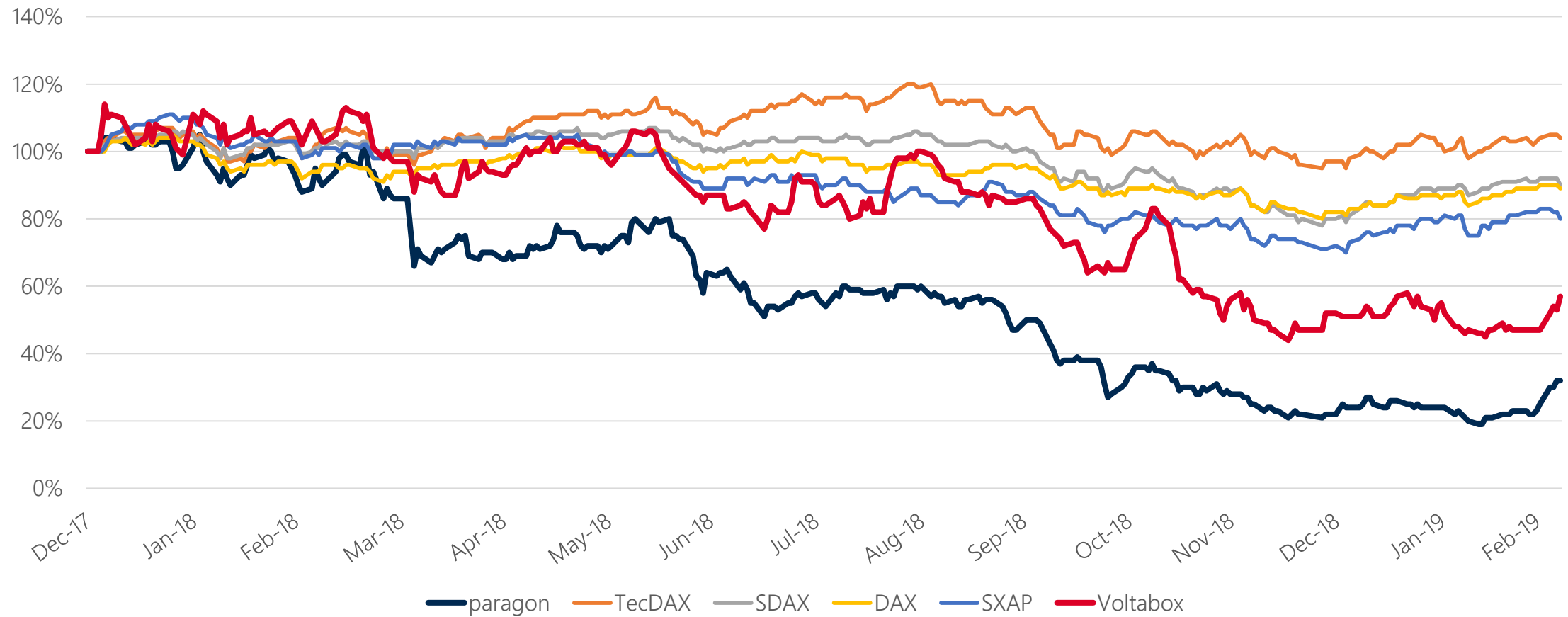


LPG Lautsprecher-Produktions-Gesellschaft mbH (Neu-Ulm) / purchase price € 3.0m (paid in Q4) / initial consolidation Nov. 2018

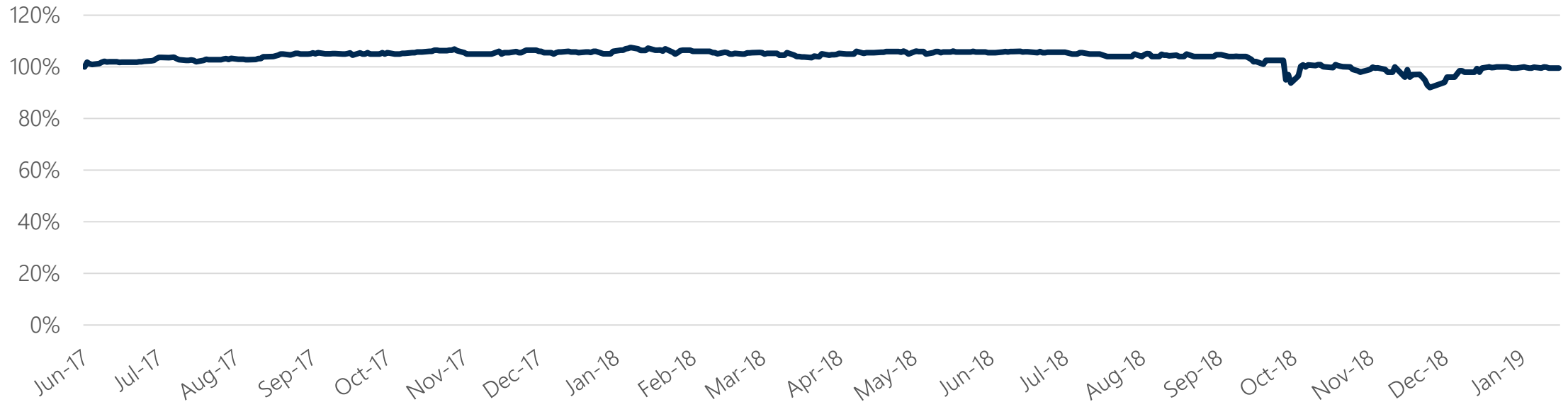
- Manufacturer of high end speaker systems – facilitates Interior business unit expansion for comprehensive acoustics solutions and digital sound systems (incl. external sound speakers)

* Excl. dormant equity holding of € 3.5m.

Share performance in 2018



Corporate bond 17/22



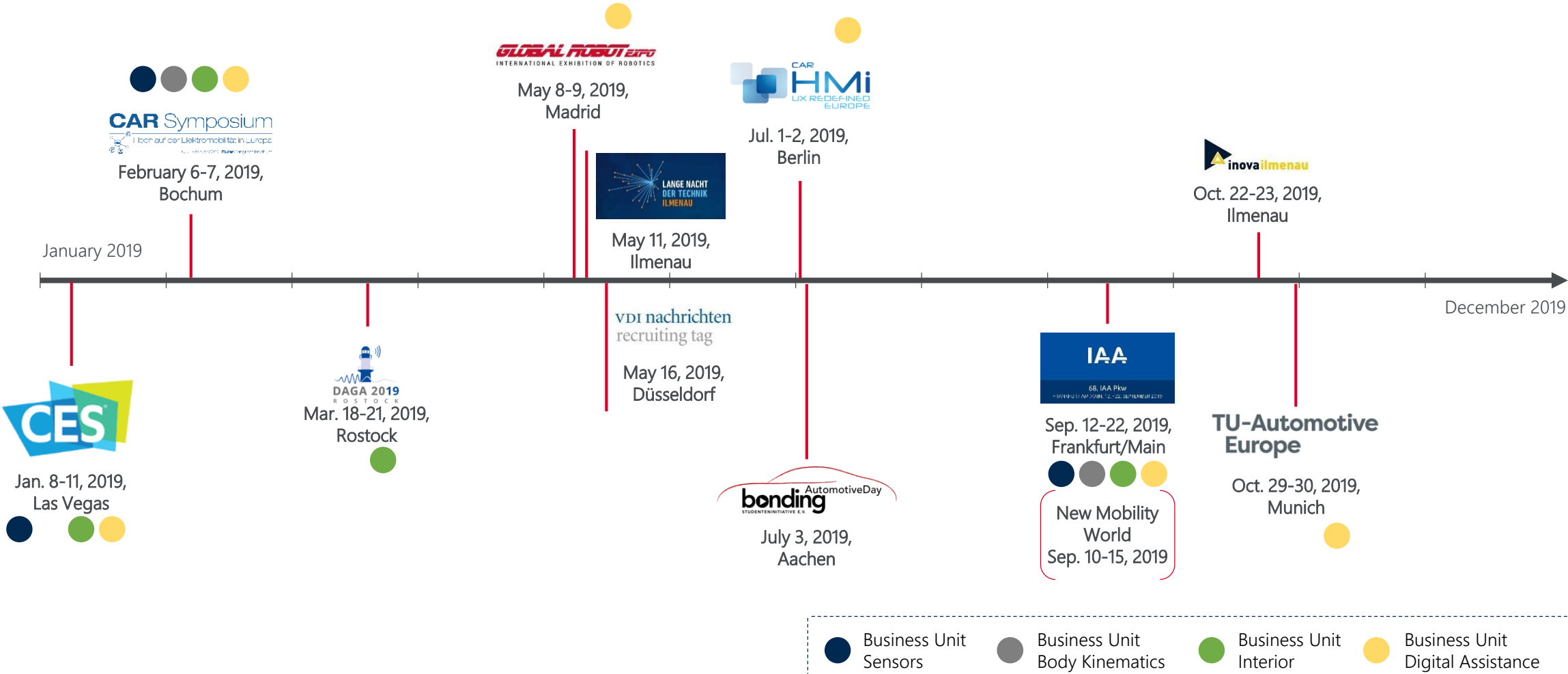
- Transaction volume: EUR 50m
- Coupon: 4.50 % p.a.
- Status: Senior, pari passu, unsubordinated, unsecured
- Duration: 5 years (until 5 July exclusive); callable after 3 years
- Paying Agent: KAS BANK N.V. – German Branch

Selected KPIs*	FY 2017	FY 2018
Equity Ratio	56.8%	49.1%
EBITDA Interest Coverage Ratio	3.87	7.36
Total Net Debt / EBITDA	-3.49	2.24

** in accordance with the DVFA Standards for Bond Communication.*

Appendix – Business Overview

paragon at fairs and conferences in 2019



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