

A nighttime photograph of a city skyline with a complex, multi-level highway interchange in the foreground. The lights from the buildings and the traffic on the highway create a vibrant, illuminated scene. The Paragon logo is visible in the upper right corner.

paragon®
seit 1988

Analyst/Investor Presentation

Financial Year 2017 | March 2018

Agenda

 **Who we are**

 **Push 2018**

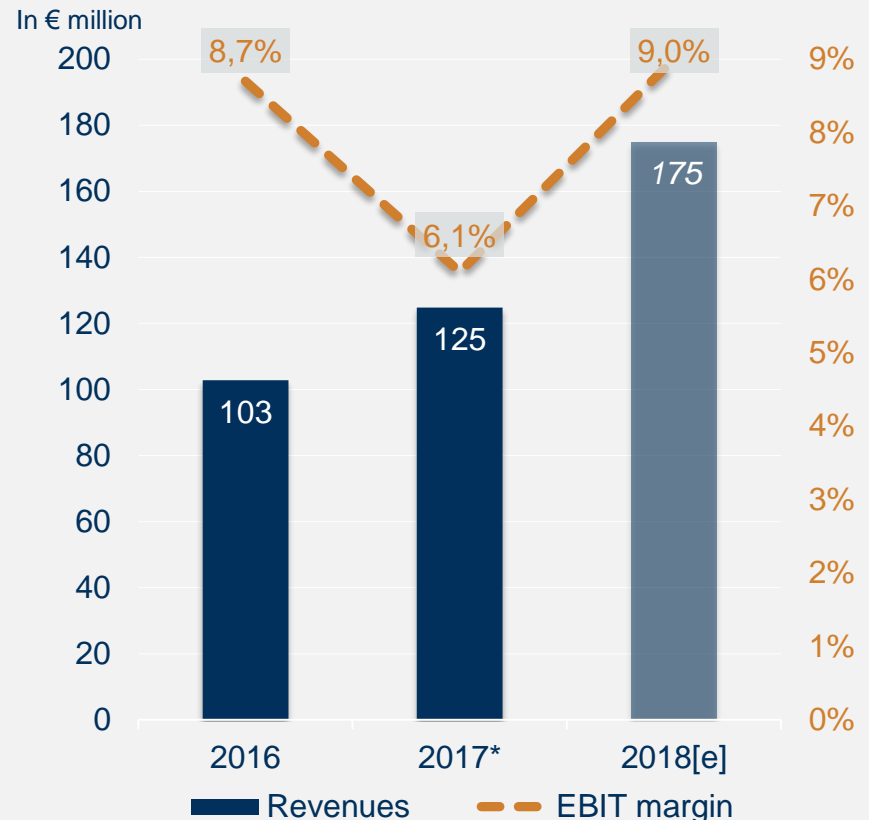
 **Segments**

 **Financials**

Highlights of Financial Year 2017

- Group sales increase 21.4% to € 124.8m (prior year: € 102.8m), which reflects the upper end of the forecast
- EBITDA up 5.8% to € 17.0m (prior year: € 16.1m)
- EBIT* down 14.5% to € 7.6m (prior year: € 8.9m), adjusted EBIT up 25.3% (adjusted EBIT margin at 9.0% due to forecast)
- Free liquidity up 863% to € 166.8m (prior year: € 17.3m)
- Investments up 61.6%, development work capitalized increased 7.0%
- Equity ratio at 56.8% (prior year: 30.1%)

➤ **Revenue growth to € 175m expected for 2018 with an EBIT margin of around 9%**



* Excluding € 3.553m extraordinary items in FY 2017 (adjusted EBIT margin 9.0%).

Who we are



paragon – 30 years of corporate development

- Established 1988 as an electronics manufacturer in Delbrück by Klaus Dieter Frers
- Development into an automotive Tier-1-supplier of microelectronic components
- IPO in 2000, currently 4,526,266 shares outstanding with 50 % plus 1 share owned by CEO & founder Klaus Dieter Frers
- Current market cap* of € 356 million
- Several value-enhancing acquisitions and establishment of three operating segments
- Carve out of Electromobility segment and very successful (oversubscribed ten times) IPO of Voltabox AG in 2017 with current market cap* of € 371 million
- Acquisition of HS Genion GmbH and transfer of Body Kinematics unit into paragon movasys GmbH

Selected Tier-1-partners:



* As of Dec. 31, 2017.

Tier-1 supplier of automotive OEMs

- Very early entry into high margin/fast growing market segments
- Key technologies for and geared to megatrends
- Interdisciplinary team of experts (Electronics, Mechanics, Chemistry, production technology)
- Anticipatory product development
- Excellence in mass production (high degree of automation)
- Outstanding and prestigious market position

Mission Statement

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

Portfolio positioning at a glance

	Sensors	Acoustics	Cockpit	Body Kinematics	Electro-mobility
Main products	AQS®, AQI®, DUSTDETECT	Speech control & hands-free microphones, belt-mic®, ICC, (3D+ In-car-audio)	Analog luxury displays, MirrorPilot®	Adaptive rear spoilers, aerodynamic systems	High performance battery systems, battery modules, starter batteries
Main customers	Audi, BMW, VW	Audi, VW	Porsche, Daimler, VW	Daimler, Audi, Porsche	Triathlon Batterien, Kiepe Electric, (Komatsu Mining, BMW)
Growth potential	++	++	++	+	+++
Competitive strength	+++	++	+++	+++	+++
Market entry barriers	Technology				
	Patents & mass production	Know-how & mass production	Quality & OEM relations	Quality & OEM relations	Modularity & specialization

➡ Increase of the average price each per product up 16.2% compared to 2016 (+25% compared to 2015)

Who we are

Management



Klaus Dieter Frers

- Founder and major shareholder* of paragon AG
- CEO of paragon AG – responsible for Corporate Development, Quality, Finance (Accounting, Controlling & IT), Investor Relations, Human Resources
- Head of Electromobility operating segment (Chairman Supervisory Board of Voltabox AG)
- Head of Mechanics operating segment



Dr.-Ing. Stefan Schwehr

- CTO of paragon AG since April 1, 2014
- Head of Electronics operating segment (Business Units Sensors, Cockpit and Acoustics; SphereDesign GmbH as well as paragon Automotive Kunshan Co., Ltd.)
- Previous function: Head of series development controls and displays at Daimler AG

** 50% plus one share; Incl. attribution acc. to section 22 securities trading act.*

Agenda

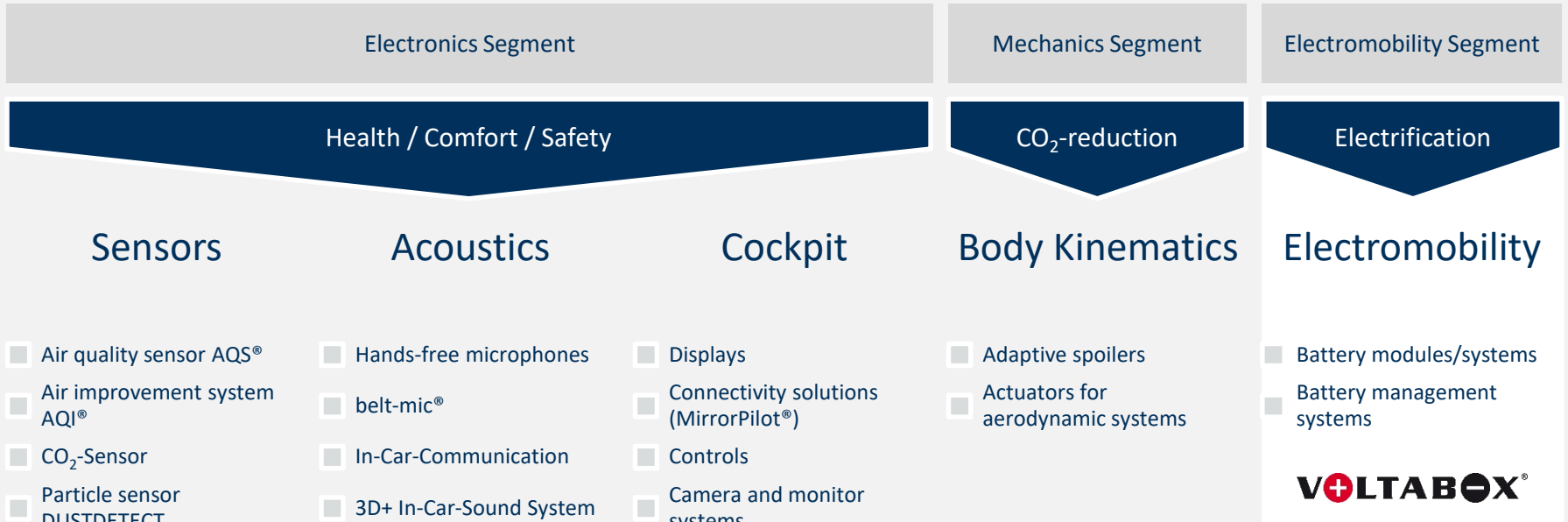
 Who we are

 **Push 2018**

 Segments

 Financials

Innovations by megatrends



Areas under development

- Easy & safe car access*
- Infotainment in robo-taxis*
- Wireless vital data collection*
- Augmented audio*
- Road-Noise Cancellation*
- Active mobile aerodynamics*
- Touch & gesture control*
- New mobility services*
- Cloud-based data fusion*
- Full electric drivetrain*

PUSH 2018: to usher into a new era



Push 2018: paragon is shaping the mobility



Carbon reduction

- ✓ Less aerodynamic drag
- ✓ Sustainable mobility (Electrification)



Urbanization

- ✓ Increasing air pollution
- ✓ Shared mobility

Value-added by proprietary ecosystems



i.e. cloud-based data fusion, AI for infotainment, new mobility services



Digitization

- ✓ Autonomous driving
- ✓ "Always on"
- ✓ Modern connectivity
- ✓ Value added by ecosystems



Increasing comfort

- ✓ Convenient interaction

System level in electronics segment: Urbanization



- Strong boost of inquiries for DUSTDETECT[®] particle sensors
- Increasing market penetration of the single channel DUSTDETECT[®]
- Series release of the car sharing module by customer

wip

Increasing air pollution

- Premium OEM as pilot customer for particle sensor DUSTDETECT (2.5 μm) (SOP: Q2/2018),

Shared mobility

- Easy & safe vehicle access
- Seat individual Infotainment in robo-taxis

System level in electronics segment: Digitization



- Start of sensor technology by paragon for contactless recording of vital data
- Active-Road-Noise-Cancelling, ARNC, as further feature in the sound system
- Presentation of a streaming service for multi-channel music

WIP

Autonomous driving

- Driver monitoring is mandatory*

“Always on”

- Wireless charging
- Scalable platform
- User-friendly control systems

Modern connectivity

- High-performance microphones
- In-Car-Communication
- Scalable 3D+ sound systems
- Road-Noise-Cancellation

* Article 1b Road Traffic Act (STVG).

System level in electronics segment: Carbon reduction



Less aerodynamic drag

- Adaptive spoilers
- Actuators for aerodynamic systems
- Integration by mechatronics

Sustainable mobility

- Lithium-Ion battery systems
- Full electric drivetrain
- Motor sound synthesis

- Development order for a traction battery for surface mining trucks
- Organic winglet: inspection and testing of serial use for customer application
- 2nd generation of bow wave element – for use in M-AMG R 232) in advance development

wip

System level in electronics segment: Increasing comfort



Convenient interaction

- Touch and gesture control
- Analog displays
- Controls and panels
- Table mechanics

✓ *best ergonomics, precise information*

- Feasibility analysis of a purely cloud-based infotainment system
- Upgrading of Mirror Pilot© for handling the radio tuner via a 3rd party app

wip

Agenda

 Who we are

 Push 2018

 **Segments**

 Financials

Segments

Electronics segment



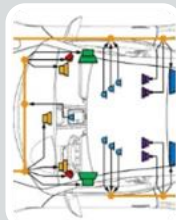
Business Unit Sensors

- Air quality sensor AQS®
- Air improvement system AQI®
- CO₂ sensor
- Particle sensor DUSTDETECT®



Business Unit Cockpit

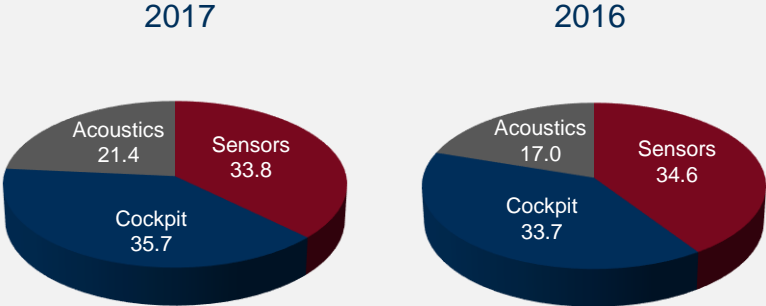
- Displays
- Camera and monitor systems
- Connectivity solutions
- Controls



Business Unit Acoustics

- Hands-free microphones (speech control)
- In-Car-Communication
- belt-mic® seat belt microphone
- 3D+ In-Car-Audio

Unit revenues* in € million



⇒ FY17 yoy growth rate: 6.5% (FY16: 3.2%)

⇒ FY17 revenue share: 72.7% (FY16: 83.0%)

TOP customers



* 3rd party revenues.

Electromobility segment



Public transportation

- Trolley buses
- Full electric buses
- Plug-in-hybrid electric buses



Intralogistics

- Forklifts
- Automated Guided Vehicles (AGVs)



Mining

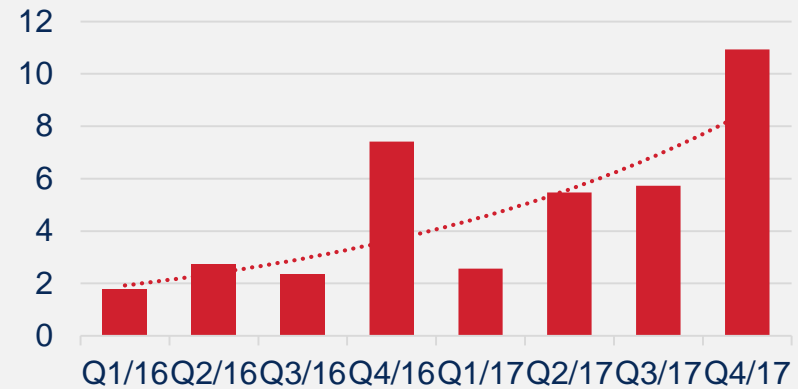
- Underground mining (e.g. Battery Hauler)



Agriculture & Construction

- Farm equipment (e.g. Wheel Loaders)

Development of revenues* in € million



➤ FY17 yoy growth rate: 73.0% (FY16: 92.7%)

➤ FY17 revenue share: 19.8% (FY16: 13.9%)

TOP customers



* 3rd party revenues.

Voltabox IPO (Oct. 13, 2017)

- Enormous interest from the capital market in Voltabox shares
- Placement at € 24 per share (extraordinary success: order book 10 times covered)
- Net proceeds for Voltabox AG: € 133.5 million
- Net proceeds for paragon AG: € 11.5 million (plus € 15 million repayment of shareholder loan)
- Current market capitalization*: € 370.6 million
- paragon AG holds 60 % of Voltabox's shares



* As of Dec. 31, 2017.

Mechanics segment



Active aerodynamic components

- Actuators for aerodynamic systems



New spoiler generation

- Adaptive spoilers

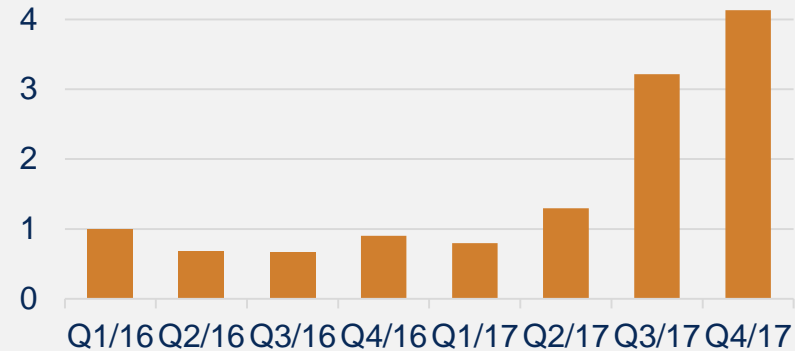
productronic
GmbH - Ein paragon Unternehmen



Acquisition of HS Genion GmbH (Dec. 2017)

- About 100 highly skilled employees
- € 25.3 million revenue in FY 17 / strong order back log
- Complimentary technologies / Fast integration
- Revenue contribution as of Dec. 2017
- Rebranding as paragon movasys GmbH in Dec. 2017

Development of revenues* in € million



➤ FY17 yoy growth rate: 188.0% (FY 16: -34.7%)

➤ Revenue share FY17: 7.5% (FY 16: 3.1%)

TOP customers



BENTLEY

Mercedes-Benz

PORSCHE

* 3rd party revenues.

Acquisition of HS Genion GmbH

- HS Genion GmbH was acquired at November 24, 2017
- Purchase price of € 15.2 million
- 100 highly skilled employees
- Strong order backlog
- Complimentary technologies
- Fast integration into Group structure
- Rebranding as paragon movasys GmbH in Dec. 2017
- € 1.7 million revenue contribution as of Dec. 2017



** As of Dec. 31, 2017.*

USPs: paradigm shift to system provider

Electronics

- Culture of innovative strength (R&D as control parameter)
- Filled product pipeline according to automotive megatrends
- Long-standing OEM relations as a TIER 1 supplier

E-Mobility

- Modular concept: short time to market at minimum development costs
- Application specialist: Tailored systems are maximizing customer benefits
- Business development: one-stop solution provider for full electrification

Mechanics

- Full service provider for complete active aerodynamic systems
- High-class base of development resources for future innovations
- Dominant world market position due to HS Genion acquisition

Agenda

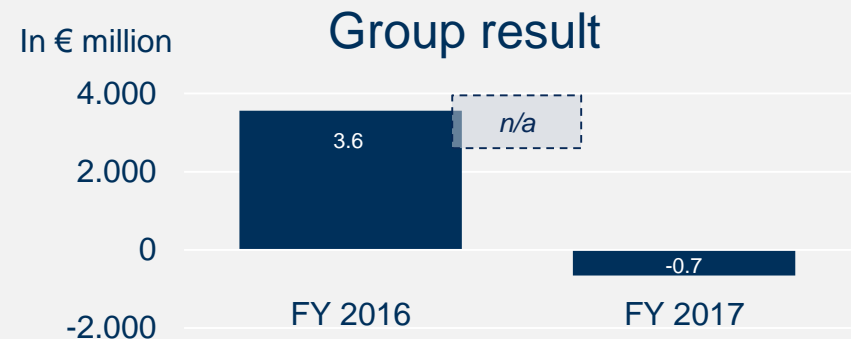
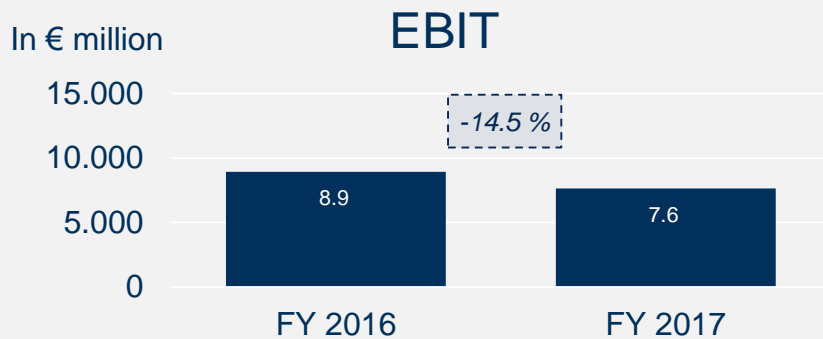
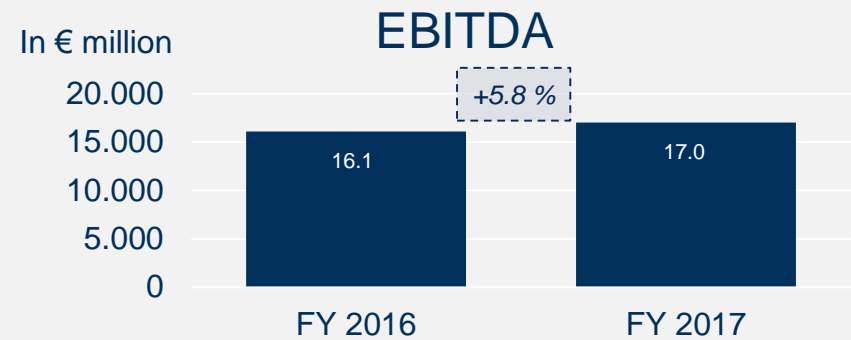
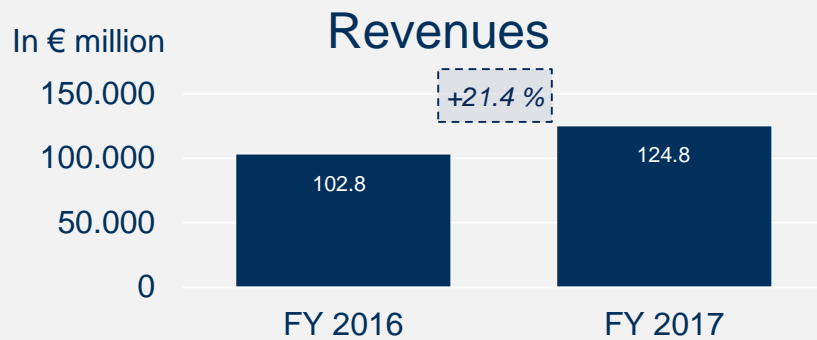
 Who we are

 Push 2018

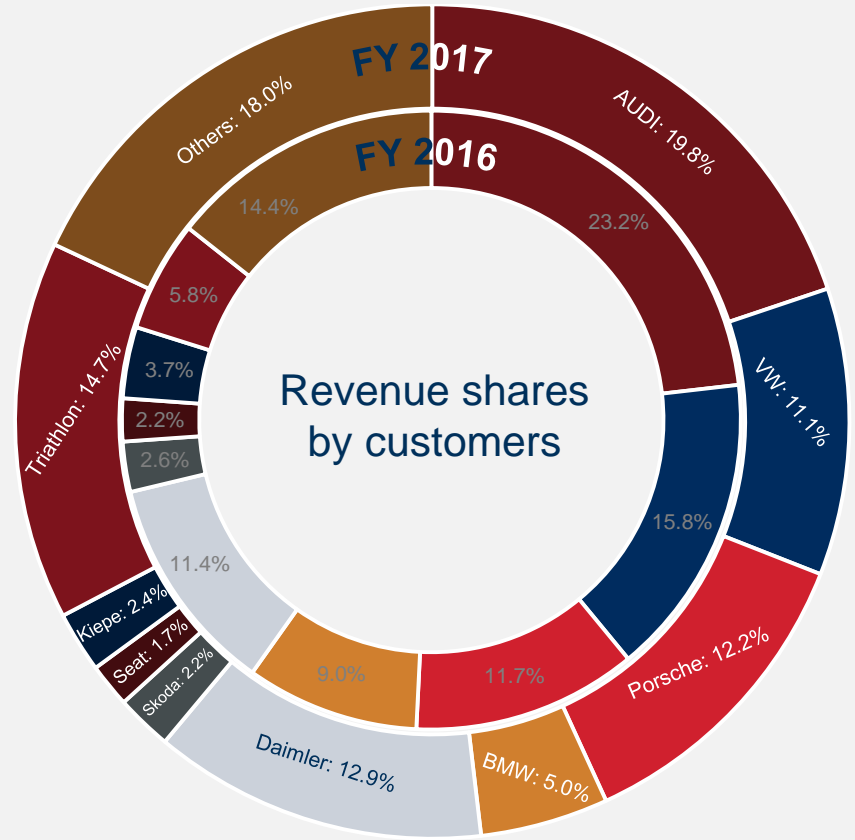
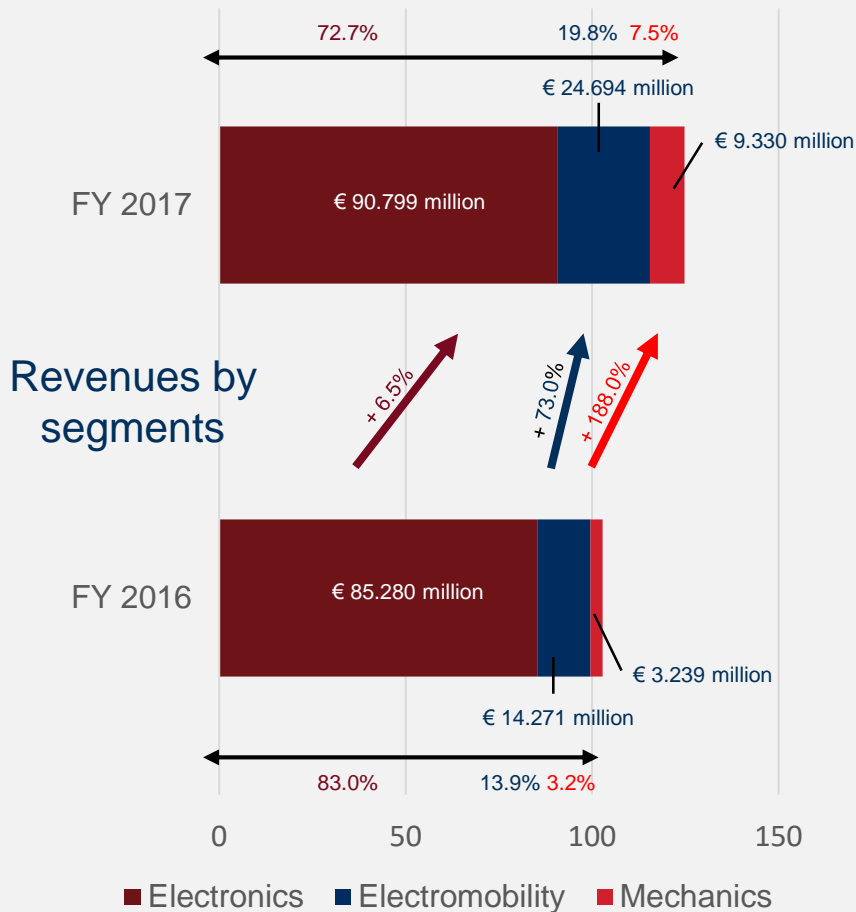
 Segments

 **Financials**

Key Figures Revenue / Earnings

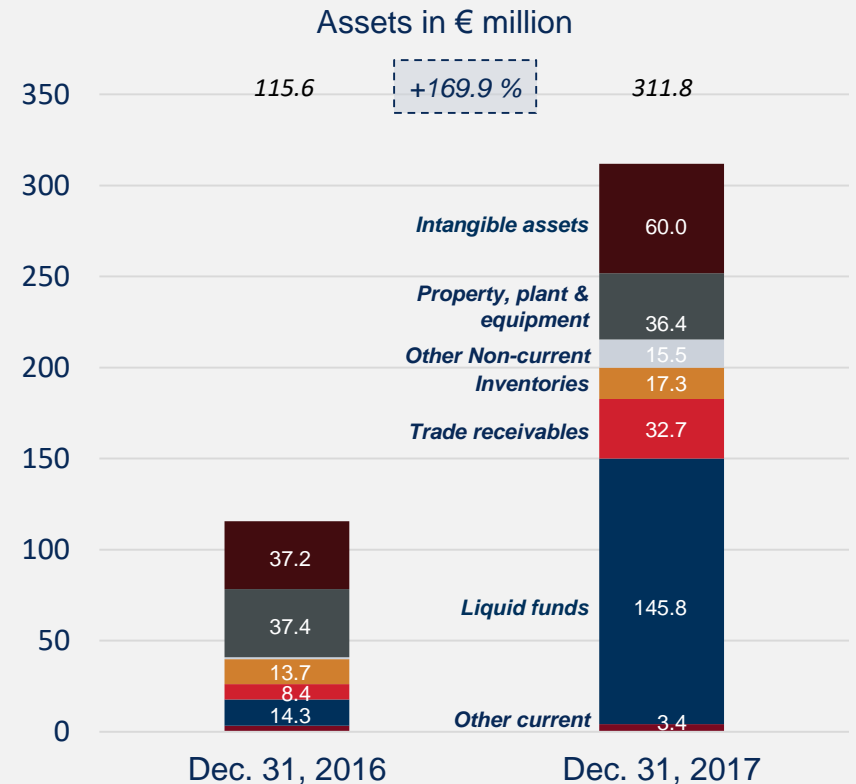


Key Figures Share of Segments / Clients



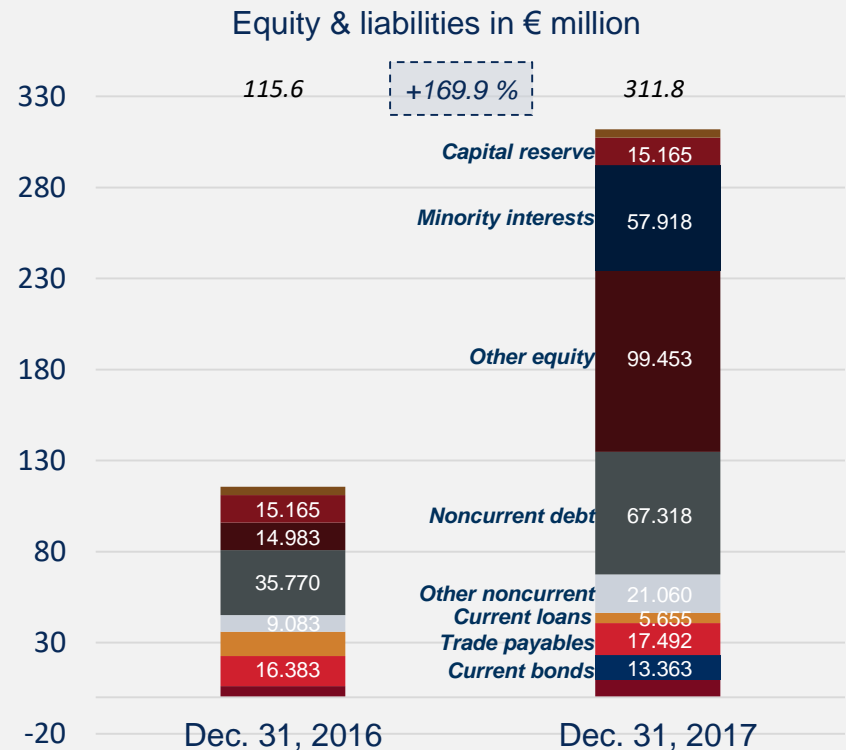
Key Figures Assets

- The assets of paragon AG increased significantly mainly as a result of
 - (i.) the increased capitalization of development costs,
 - (ii.) the issue of the 2017/2022 bond with a volume of € 50 million at the end of the first half of 2017,
 - (iii.) the IPO of the subsidiary Voltabox AG in the fourth quarter,
 - (iv.) the acquisition of HS Genion GmbH (now paragon movasys GmbH),
 - (v.) increased inventories and a changed product mix as well as
 - (vi.) the increase in receivables in the Electromobility operating segment due to the extraordinary strong Q4/17



Key Figures Equity & Liabilities

- paragon AG's equity increased substantially by € 142.4 million to € 177.1 million (December 31, 2016: € 34.7 million), mainly due to the IPO of Voltabox AG.
- Noncurrent provisions and liabilities increased to € 88.4 million (Dec. 31, 2016: € 44.9 million), which was mainly due to higher deferred taxes and the increase in noncurrent bonds related to the issue of the 2017/22 bond with a volume of € 50 million.
- Current provisions and liabilities increased to € 46.4 million (Dec. 31, 2016: € 36.0 million), which is particularly attributable to the 2013/18 corporate bond maturing in 2018.

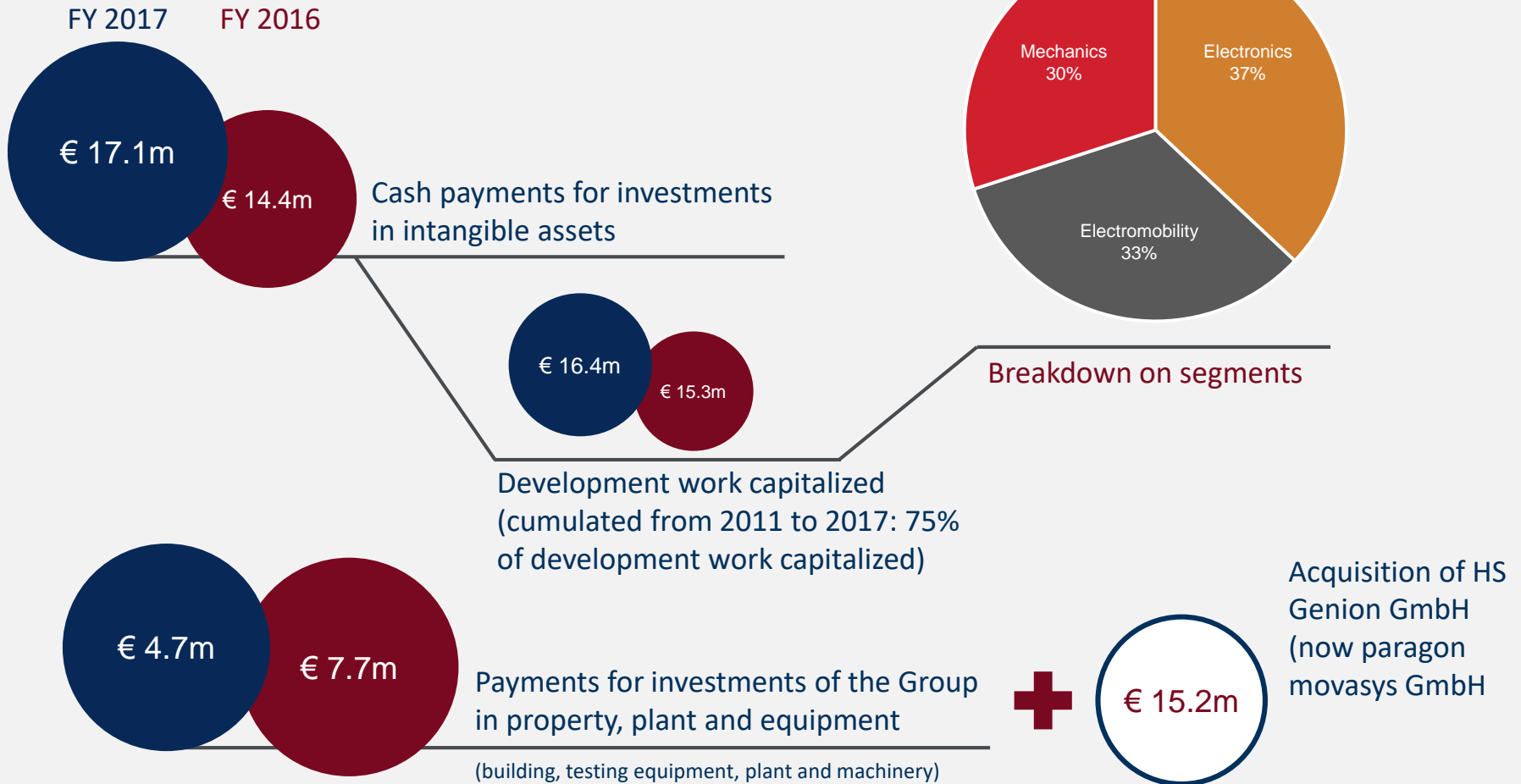


Key Figures Cash Flow

- Cash flow from operating activities decreased to € -8.4 million (prior year: € 16.8 million). In addition to the lower EBT, this is primarily due to a significant increase (prior year: decrease) in trade receivables, mainly because of strategically extended payment targets, and an increase in inventories.
- Adjusted for transaction investments, cash flow from investment activity decreased by 3.2% to € -37.2 million. This is the result of the decrease of 39.0% in payments for investments in property, plant and equipment to € 4.7 million, while payments for investments in intangibles were up 18.8% to € 17.1 million.

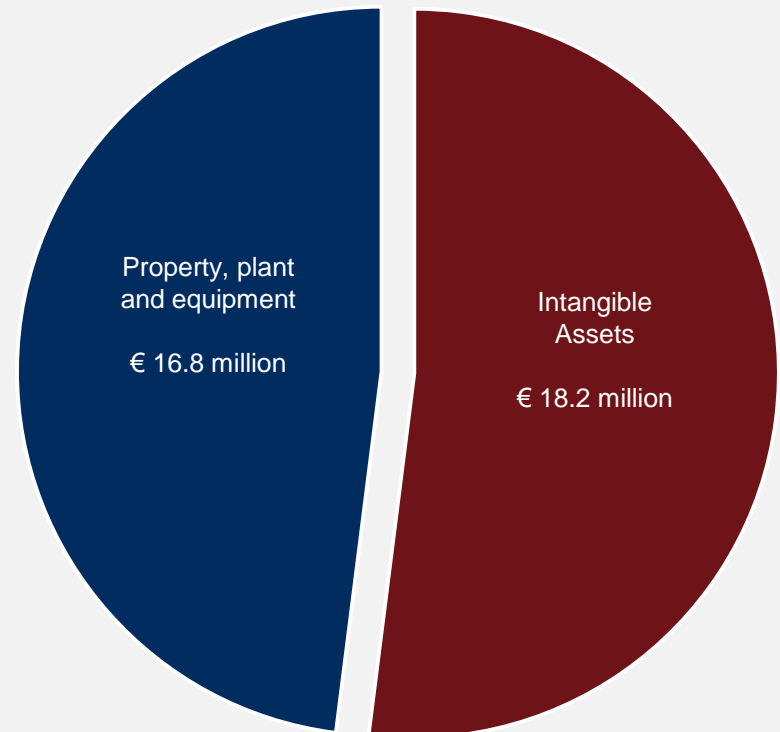
In € million	FY 2017	FY 2016
Earnings before taxes (EBT)	3.3	5.8
Depreciation of noncurrent fixed assets	- 9.4	7.1
Financial result	4.4	3.2
Increase (+) / decrease (-) in other provisions and pension provisions	1.5	0.2
Increase (+) / decrease (-) in trade receivables	- 26.3	1.4
Increase (-) / decrease (+) in inventories	- 3.6	- 2.5
Increase (+) / decrease (-) in trade payables	4.8	6.2
Interest paid	- 4.4	- 3.2
...
Cash flow from operating activities	- 8.4	16.8
Cash flow from investment activities	- 37.2	- 23.2
Cash flow from financing activities	177.2	12.2
	Dec. 31, 2017	Dec. 31, 2016
Liquid funds	145.8	17.3

Key Figures Investments



Investment Plan 2018

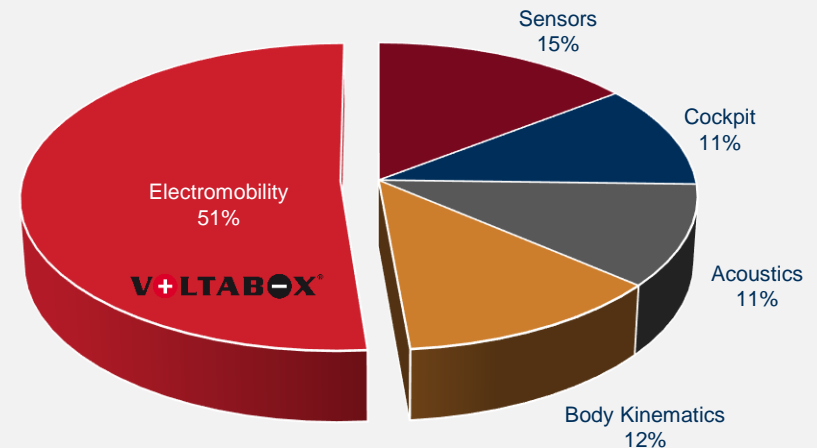
- For paragon, investments are a key factor for managing the dynamic growth strategy as part of medium-term planning. In the past fiscal year, paragon once again invested heavily in the further expansion of its business activities.
- Capitalized development costs expected to increase by 11.0%.
- Total investment volume of € 35.0 million in 2018 in order to back the dynamic growth and sustained success story of paragon.



Lifetime order backlog*

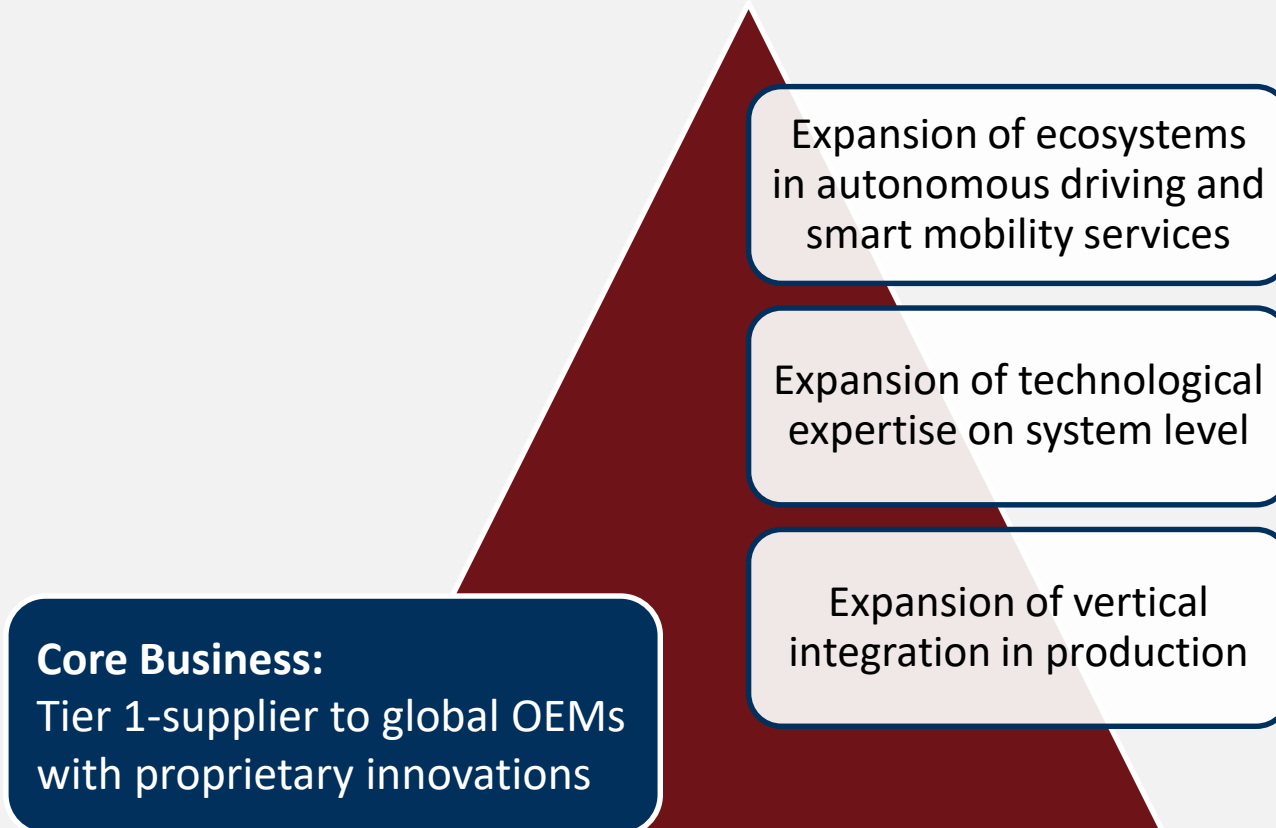
- Estimated order backlog is weighted according to the expected lifetime and the probability of occurrence.
- Consistent evaluation system in place since IPO in FY 2000.
- Lifetime order backlog* amounts to impressive € 1.96 billion (thereof 68% signed orders/framework contracts).
- +26% growth compared to June 30, 2017 (€ 1.55 billion)

Lifetime order backlog
by segments/units



* As of: Dec. 31, 2017, incl. paragon movasys GmbH.

M&A Strategy



A Look Ahead

- Based on the good order situation for 2018, the Management Board expects to **grow significantly faster than the automotive sector** once again.
- paragon forecasts a **further jump in Group sales of more than 40 percent to around € 175 million.**
- The **consolidated EBIT margin** will be **around 9 percent** due to the forecast.

Electromobility	Body Kinematics	Electronics
<p>The Electromobility operating segment is expected to more than double its revenues to around € 60 million and make a sustained contribution to the Group’s profitability with an EBIT margin of around 10 percent.</p>	<p>The Body Kinematics unit is also expected to make an above-average contribution to the increase in revenue. However, it cannot be excluded that the integration of the renamed paragon movasys GmbH will necessitate additional effort. The Management Board of paragon has taken this into account when forecasting the fiscal year 2018, especially the EBIT.</p>	<p>The Electronics unit is expected to confirm its strong results in terms of revenue in financial year 2018. However, the margins are most likely expected to increase due to lifecycle and substitution effects. From the fiscal year 2019 onwards, the Electronics operating segment is expected to increasingly contribute to the Group’s growth through new products.</p>

Currently paragon AG as well as Voltabox AG are working at high pressure on **realizing value-enhancing acquisitions** in order to benefit from additional employees and production facilities.

Forecast and consensus

Financial performance indicators of paragon AG	2017		2018
[in € million / as indicated]	Forecast	Results	Forecast
Group revenue	120 - 125	125	Approx. 175
EBIT margin	9.0 – 9.5%	<i>adjusted</i> 9.0%	Approx. 9%

<i>Analyst estimates</i>	2017	2018
<i>Group revenue</i>	124.4	154.8
<i>EBIT margin</i>	9.3%	10.4%

Financial performance indicators of Voltabox AG	2017		2018
[in € million / as indicated]	Forecast	Results	Forecast
Group revenue	25	27*	Approx. 60
EBIT margin	Slightly positive	2.1%	Approx. 10%

<i>Analyst estimates</i>	2017	2018
<i>Group revenue</i>	25.5	58.2
<i>EBIT margin</i>	0.8%	10.1%

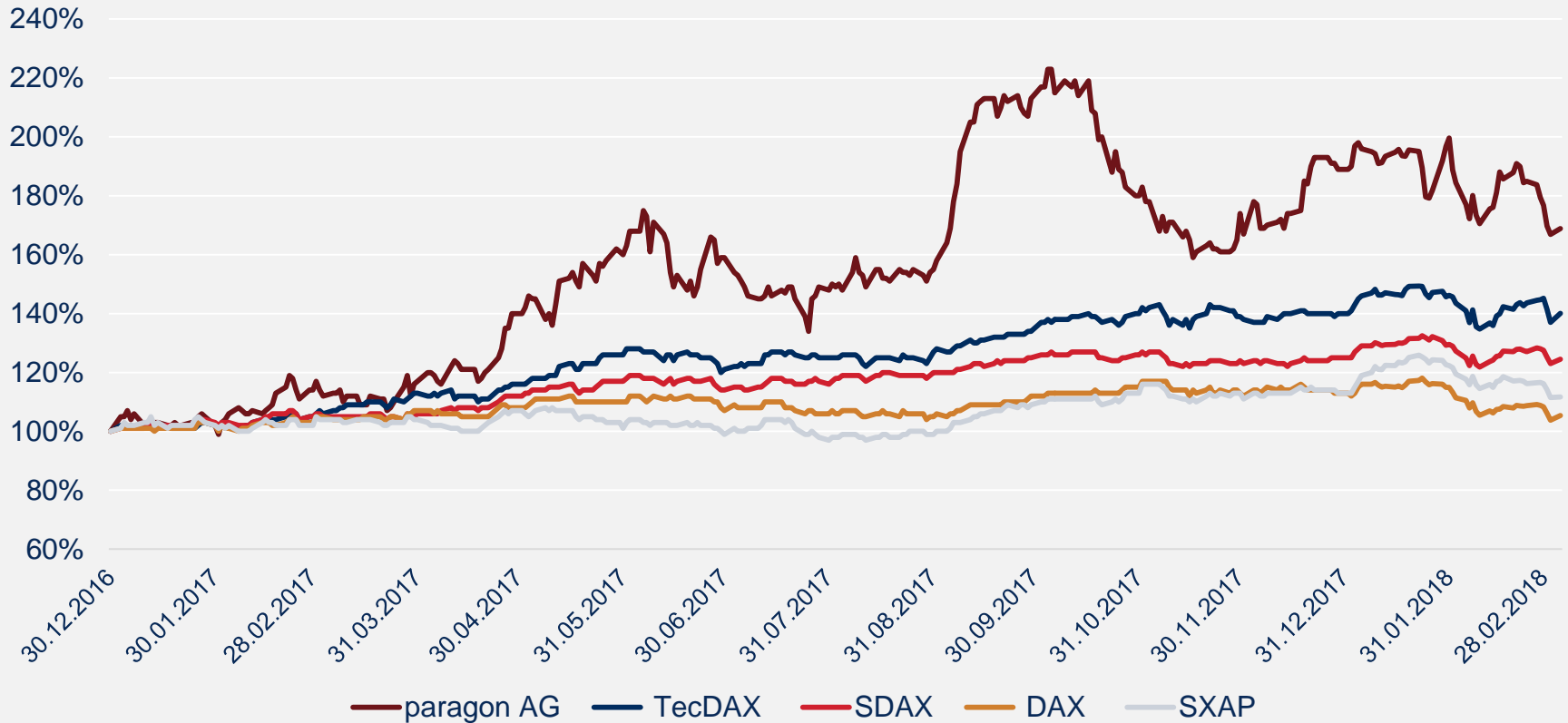
* Thereof around € 2 million with parent company paragon AG.

Analyst coverage

Analyst	Date	Target	Comment
Christian Ludwig, Bankhaus Lampe	Jan. 31, 2018	€ 105.00	Betting on the four “ACES“
Thomas J. Schießle, EquiTS	Feb. 5, 2018	€ 103.50	About 40% growth in 2018 - Guidance on EQUI.TS prognosis - Acquisitions in the work
Christian Glowa, Hauck & Aufhäuser	Jan. 30, 2018	€ 100.00	All geared towards profitable growth – PT up to € 100
Dr. Norbert Kalliwoda, Kalliwoda Research	Oct. 9, 2017	€ 105.00	Well positioned for further expansion
Ralf Marinoni, Quirin Privatbank	Jan. 29, 2018	€ 72.00	FY 2018 outlook not convincing
Current Consensus		€ 97.10	
Upside*		23.4%	

* Share price as of Dec. 29: € 78.68.

Performance of paragon share 2017



Financial calendar*

- Jan. 11/12, Oddo Forum, Lyon
- Feb. 1 Bankhaus Lampe German Corporate Conference, London
- Feb. 21/22, 12. Oddo-BHF German Corporate Conference, Frankfurt am Main
- Mar. 13, Annual report 2017
- Apr. 18-20, Bankhaus Lampe Deutschlandkonferenz, Baden-Baden
- May 8, Interim release as of March 31 – 3 months
- May 8, Annual general meeting paragon AG, Delbrück
- May 9, Annual general meeting Voltabox AG, Delbrück
- May 14-15, Equity Forum Frühjahrskonferenz, Frankfurt am Main
- May 16, Berenberg Investor Forum at The Battery Show, Hannover
- Jun. 7, quirin Champions 2018, Frankfurt am Main
- Aug. 21, Interim release as of June 30 – 6 months
- Sep. 3/4 Equity Forum Herbstkonferenz, Frankfurt am Main
- Nov. 13, Interim release as of September 30 – 9 months
- Nov. 26-28, Deutsches Eigenkapitalforum 2018, Frankfurt am Main

* *Expected dates for paragon AG and Voltabox AG.*

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