

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

June 2018

Agenda

 **Who we are**

 **Push 2018**

 **Segments**

 **Financials**

Highlights from the first 3 months of 2018

Sales

up
32.4 %

€ 34.2m

EBITDA

up
42.9 %

€ 4.8m

EBIT

up
19.6 %

€ 1.6m

EBIT margin

4.7 %

Total assets

€ 314.6m

Equity ratio

56.1 %

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 electronics and electro-mechanics
- 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 € 307 million
- Several value-enhancing acquisitions and establishment of three operating segments
- Carve out of Electromobility segment and very successful (covered ten times) IPO of Voltabox AG in 2017 with current market cap* of € 360 million
- Acquisition of HS Genion GmbH and transfer of Body Kinematics unit into paragon movasys GmbH

Selected Tier-1-partners:



* As of Mar. 31, 2018.


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)
- Pioneering and active 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

Segments	Electronics			Mechanics	E-Mobility
	Sensors	Acoustics	Cockpit	Body Kinematics	
Main products	AQS®, AQI®, DUSTDETECT	Speech control & hands-free microphones, belt-mic®, ICC, (3D+ In-car-audio)	Analog luxury instruments, MirrorPilot®	Active mobile 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 Elektrik, 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.*

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 Segments

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PUSH 2018: to usher into a new era



Urbanization



Current internal projects and relevant developments

- Premium OEM as pilot customer for particle sensor DUSTDETECT (2.5 μm) (SOP: Q2/2018) and increasing market penetration of the single channel DUSTDETECT
- Completed development of the particle filter DUSTPROTECT, which is six time more effective than regular modern HEPA air filters
- Series release of the car sharing module by customer

Increasing air pollution

- Particle and fine dust filtration
- Smog reduction
- Improvements for the quality of stay

Shared mobility

- Efficient and fail-safe user authentication
- Easy and safe vehicle access
- Seat individual infotainment in robo-taxis

Digitalization



Current internal projects and relevant developments

- Start of sensor technology for contactless recording of vital data
- Active-Road-Noise-Cancelling as further feature in the sound system
- Presentation of a streaming service for multi-channel music
- Strong interest of Italian sports car OEMs in the innovative belt microphone

Autonomous driving

- Driver monitoring is mandatory*
- Contactless evaluation of vital data

“Always on”

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

Modern connectivity

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

* Article 1b Road Traffic Act (STVG).

Carbon reduction



Current internal projects and relevant developments

- Organic winglet: inspection and testing of serial use for customer application
- 2nd generation of bow wave element (for use in Mercedes-AMG R 232) in advanced development
- Provision of Big Bertha system module prototype for final validation
- Provision of Schäffer system module prototype for final validation
- Monobloc – Battery system solution incl. onboard charger and charge cable

Efficient vehicles

- Less aerodynamic drag is more important for CO₂-reduction than less weight
- Flexible components for need-oriented usage when driving
- Integration by mechatronics

Sustainable mobility

- Lithium-Ion battery systems instead of combustion engines
- Fully electric drivetrains
- Motor sound synthesis

Increasing comfort



Current internal projects and relevant developments

- ⇒ Integration of voice assistant Chris into MirrorPilot©
- ⇒ Upgrading of Mirror Pilot© for handling the radio tuner via a 3rd party app

Convenient interaction

- ⇒ Touch and gesture control
- ⇒ Analog instrumentation, combined with digital displays
- ⇒ Controls and panels
- ⇒ Table mechanics

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 Push 2018

 **Segments**

 Financials

Segments

Electronics segment



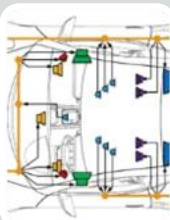
Sensors

- Air quality sensor AQS®
- Air improvement system AQI®/IONAIR
- A/C-Purifier AQCC®
- CO₂ sensor
- Particle sensor DUSTDETECT®



Cockpit

- Display instrumentation
- Camera and monitor systems
- Charging trays / Cradles
- Connectivity solutions / Media interfaces
- Controls
- Stepper motors



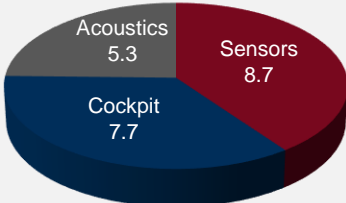
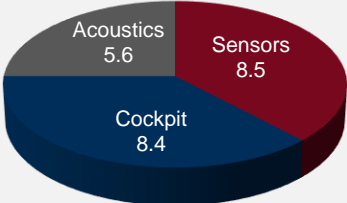
Acoustics

- Microphones (hands-free and noise measurement)
- belt-mic® seat belt microphone
- In-Car-Communication (ICC) system
- 3D+ In-Car-Audio sound system

Unit revenues* in € million

Q1/2017

Q1/2018



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

➤ Q1/18 revenue share: 63.2% (FY17: 72.7%)

TOP customers



* 3rd party revenues.

Electromobility segment



Public transportation

- Trolley buses
- Fully electric buses
- Plug-in-hybrid buses



Intralogistics

- Forklifts
- Automated Guided Vehicles (AGVs)



Mining

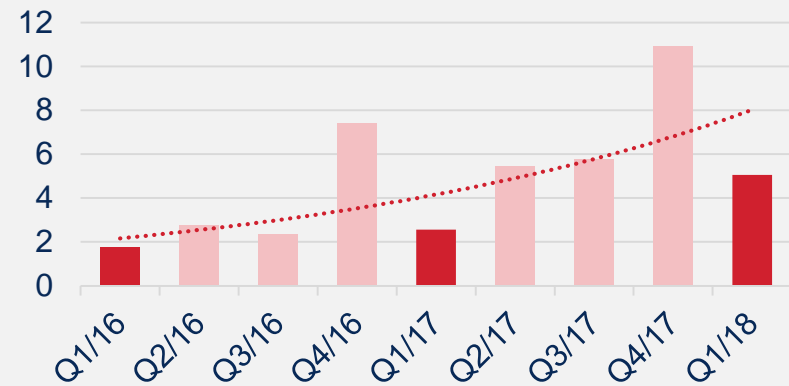
- Underground mining (e.g. Battery Hauler)



Agriculture & Construction

- Farm equipment (e.g. Wheel Loaders)

Development of revenues* in € million



➤ Q1/18 yoy growth rate: 97.5% (Q1/17: 45.5%)

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

TOP customers



* 3rd party revenues.

Mechanics segment



Streamlined aerodynamics

- Active mobile aerodynamic systems



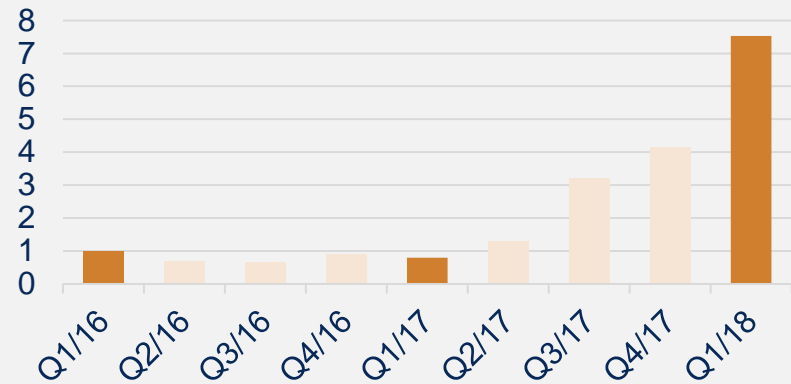
New spoiler generation

- Actuators for adaptive spoilers

productronic
GmbH - Ein paragon Unternehmen



Development of revenues* in € million



⇒ Q1/18 yoy growth rate: 860.4% (FY 17: 188.0%)

⇒ Q1/18 Revenue share: 22.0% (Q1/17: 3.1%)

TOP customers



BENTLEY

Mercedes-Benz

PORSCHE

* 3rd party revenues.

USPs: System provider to automotive industry

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 mobile aerodynamic systems
- High-class base of development resources for future innovations
- Dominant world market position due to HS Genion acquisition

Agenda

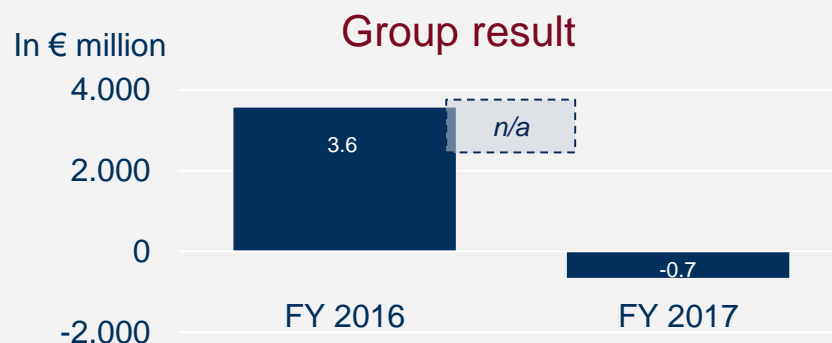
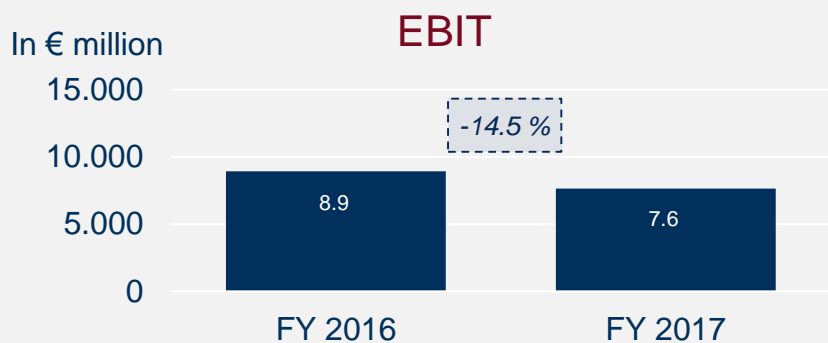
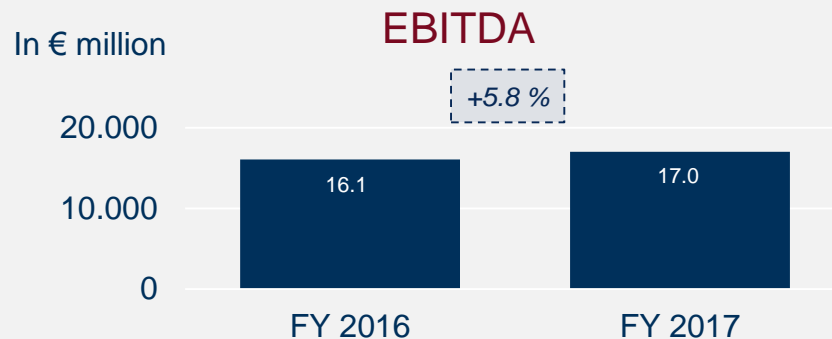
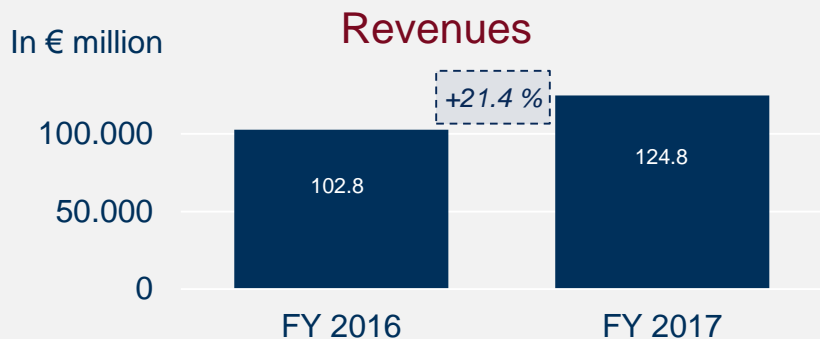
 Who we are

 Push 2018

 Segments

 **Financials**

Key Figures Revenue / Earnings (FY17)

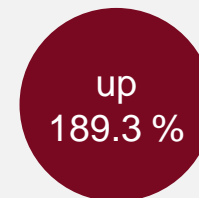


Free Liquidity



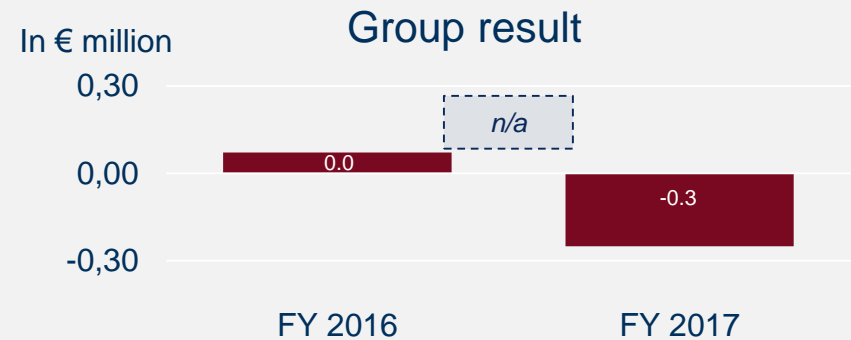
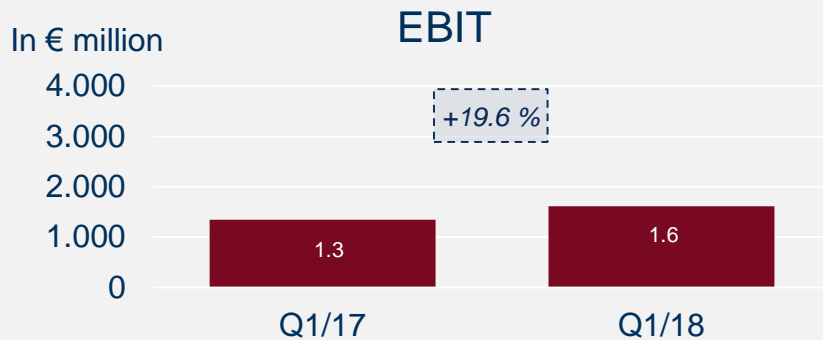
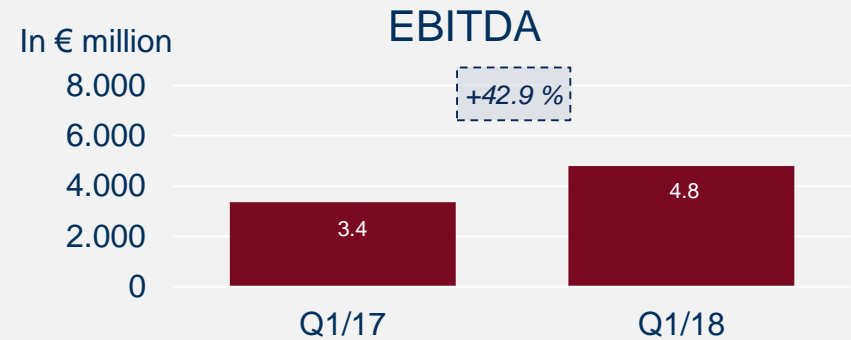
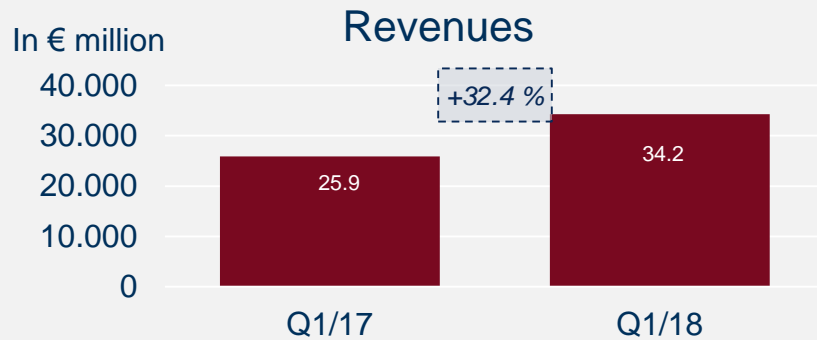
€ 166.8m

Equity ratio

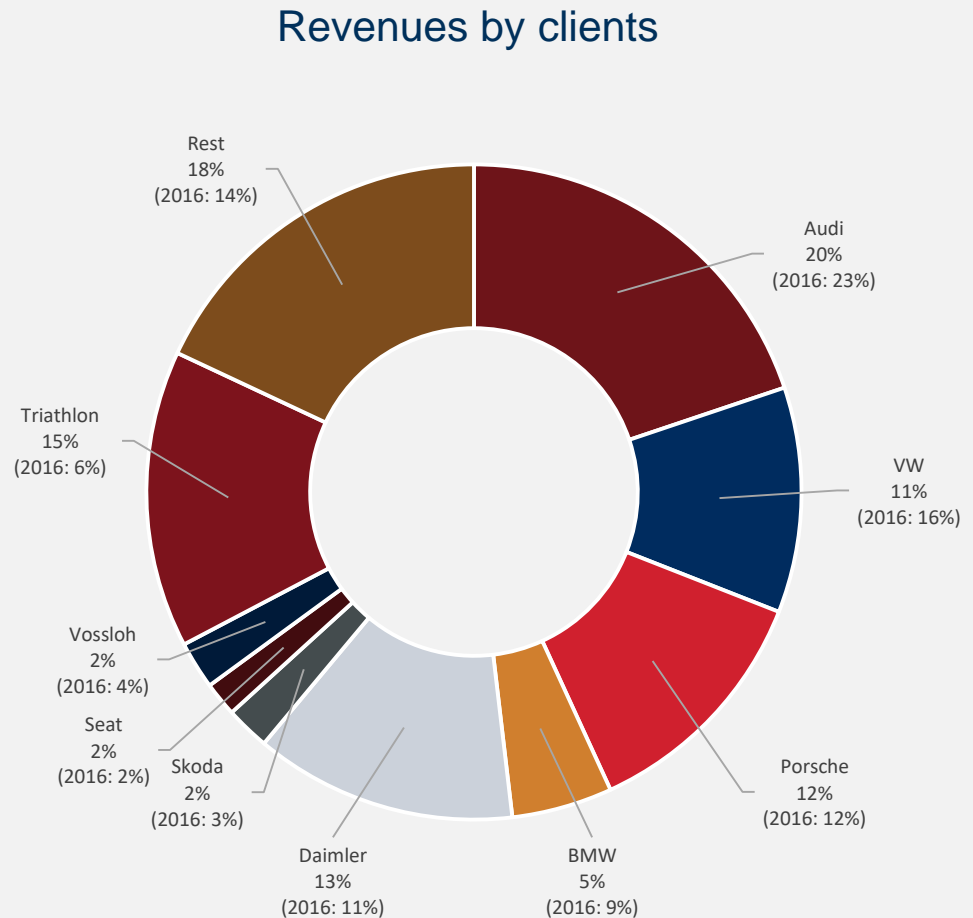
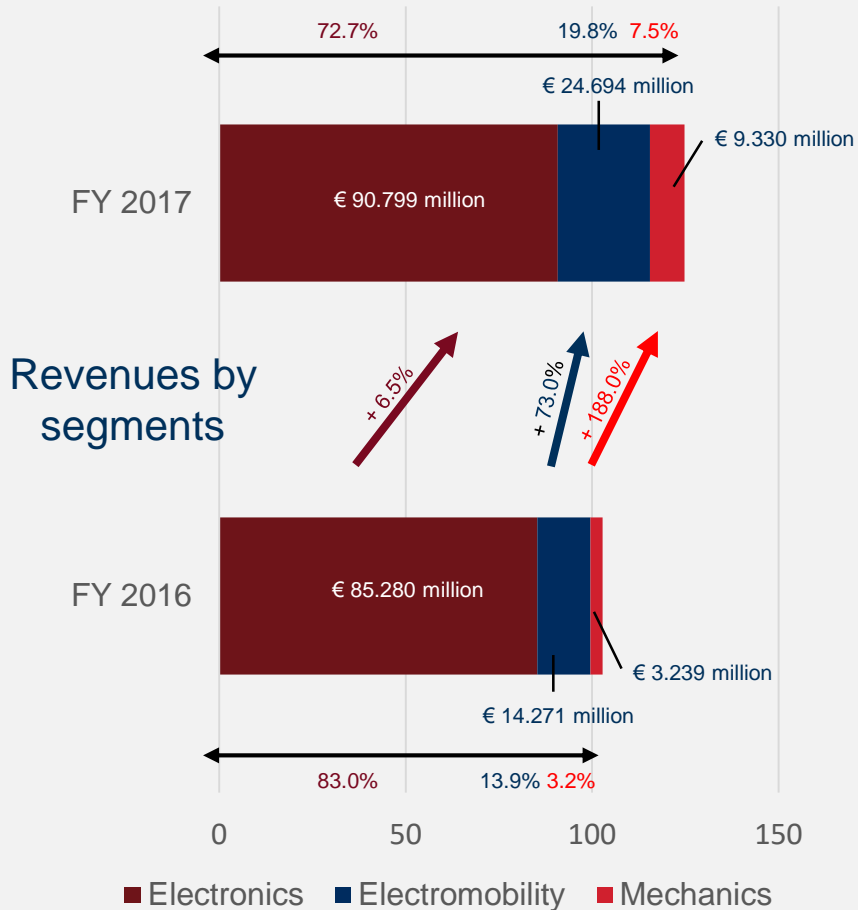


56.8 %

Key Figures Revenue / Earnings (Q1/18)

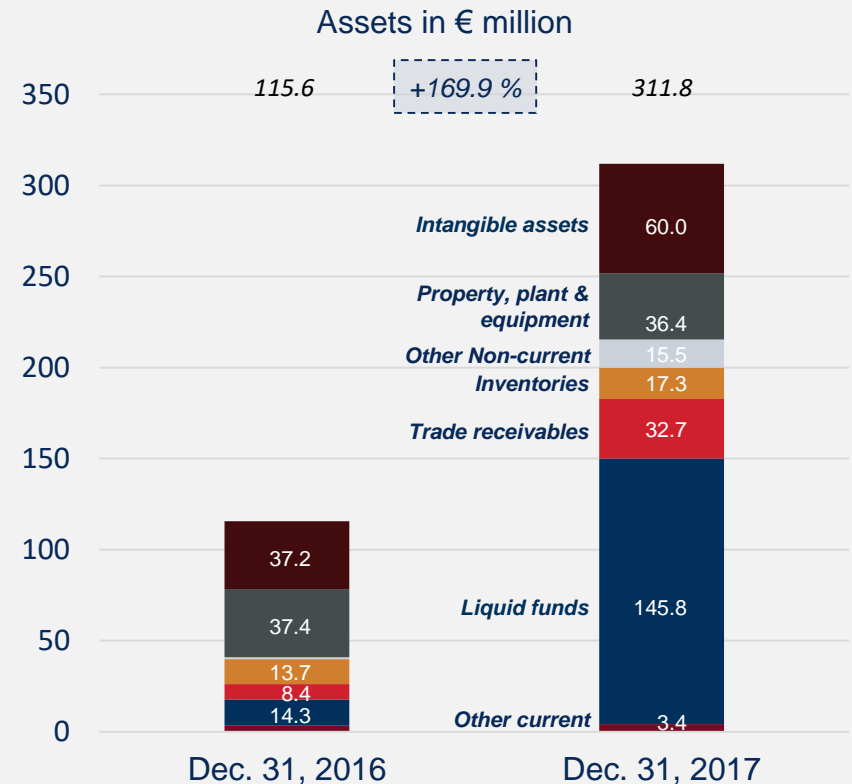


Key Figures Share of Segments / Clients



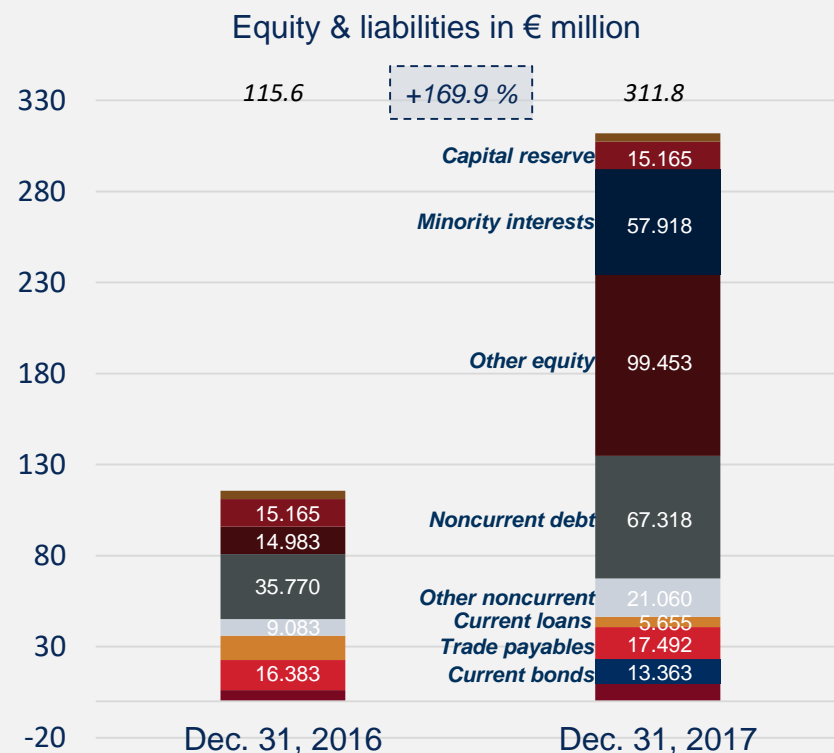
Key Figures Assets

- The costs of the IPO have caused a one-time tax burden (30 %) of € 2.8 million. Otherwise a consolidated net income would have been the result.
- In fiscal year 2017, paragon has had additional costs of € 3.6 Mio. (launching costs, and special charges not yet invoiced). The adjusted consolidated net income would total € 5.7 million (much higher than in the previous year).
- Due to the very successful Q4/17 trade receivables increased significantly. paragon expects to reduce receivables to a great extent in 2018.



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.

Main factors:

- lower EBT
- significant increase in trade receivables
- increase in inventories

➤ Cash flow from investment activity down by 3.2% to € -37.2 million*.

Main factors:

- decrease of 39.0% in payments for investments in property, plant and equipment to € 4.7 million

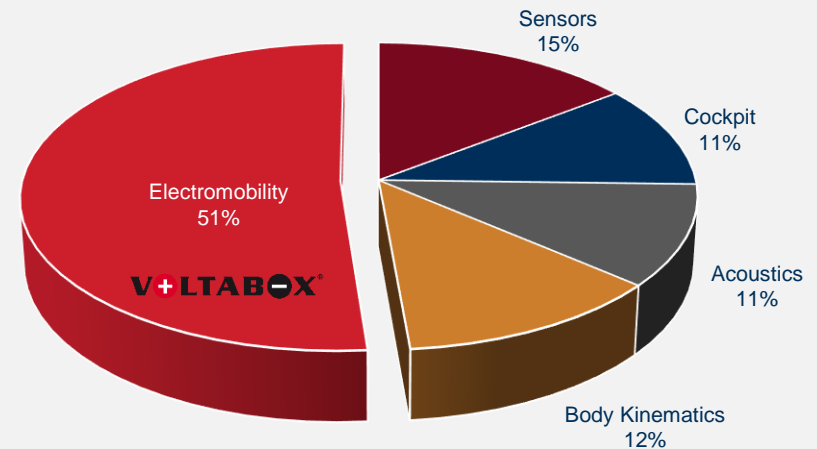
* Thereof ca. € 15 million as extraordinary investments in M&A.

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

Impressive lifetime order backlog*

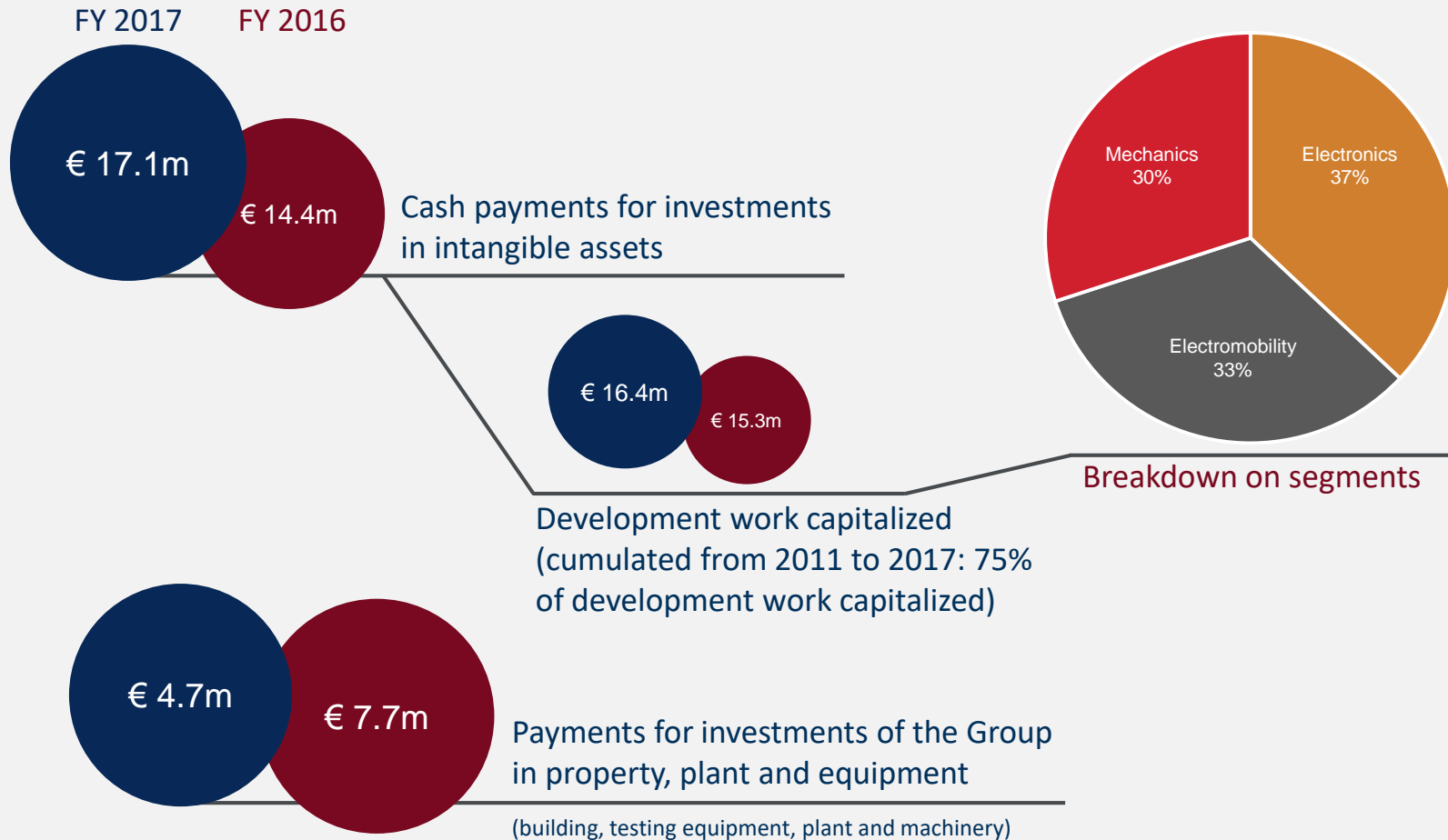
- Estimated order backlog is weighted according to the expected lifetime and the probability of occurrence.
- Consistent evaluation system in place since IPO in FY 2000.
- Lifetime order backlog* amounts to imposing € 1.96 billion (thereof 68% signed orders/framework contracts).
- +26% growth compared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

Lifetime order backlog by segments/units



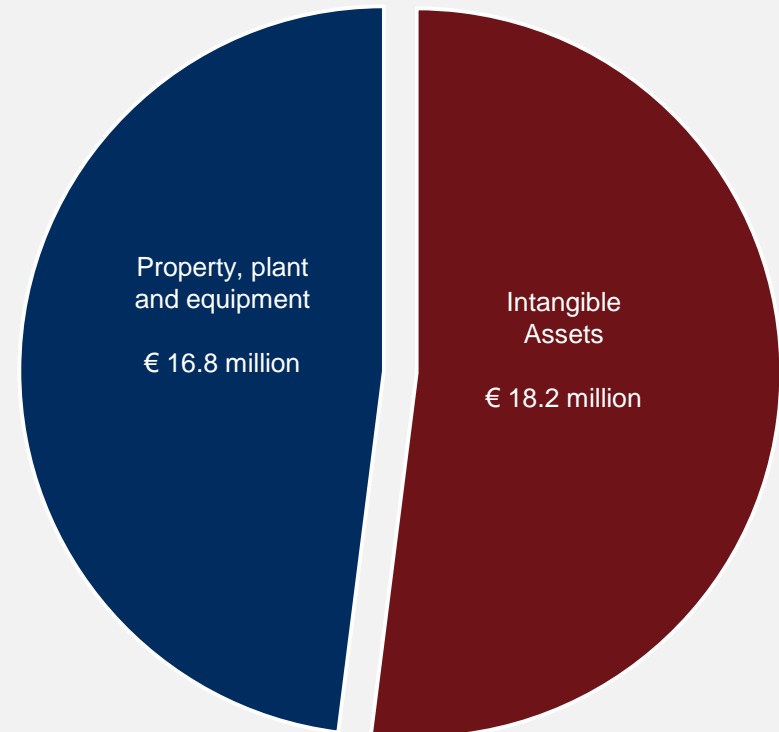
* As of: Mar. 31, 2018, incl. paragon movasys GmbH.

Investments to support the growth strategy

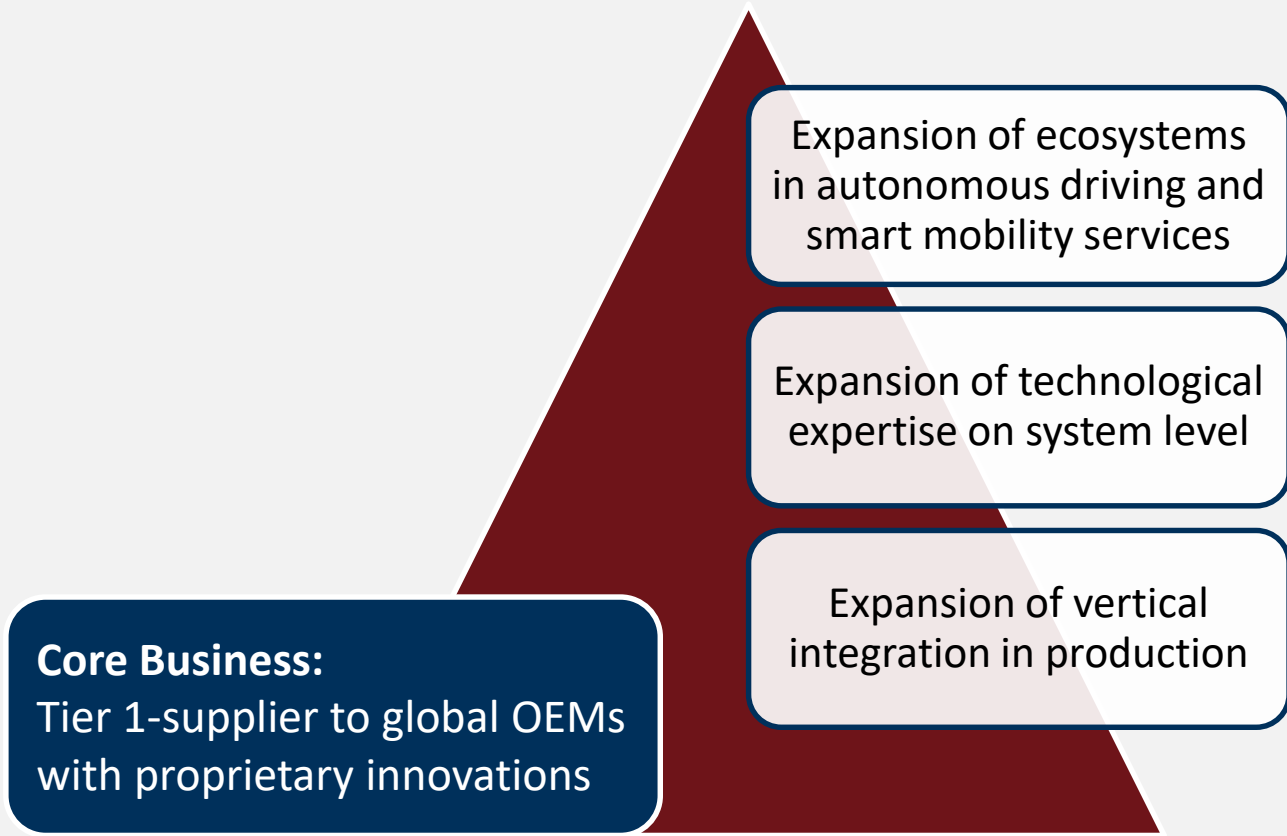


Investment Plan 2018

- For paragon, investments are both responsibility and consequence of its rapid growth. 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.



M&A Strategy



Latest steps in M&A growth strategy



Dec. 2017: Acquisition of HS Genion GmbH

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



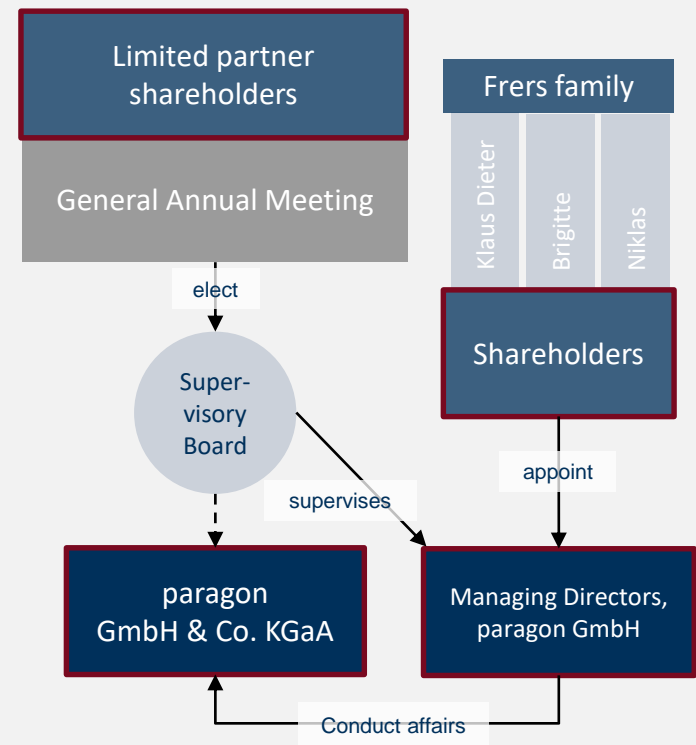
Apr. 2018: Acquisition of Concurrent Design, Inc.

- More than 20 highly skilled employees
- Technical expertise is perfect for Voltabox
- Expert knowledge from more than 1.700 successfully completed projects
- The acquisition significantly increases Voltabox's development capacities

AG → KGaA: Strengthening for further growth

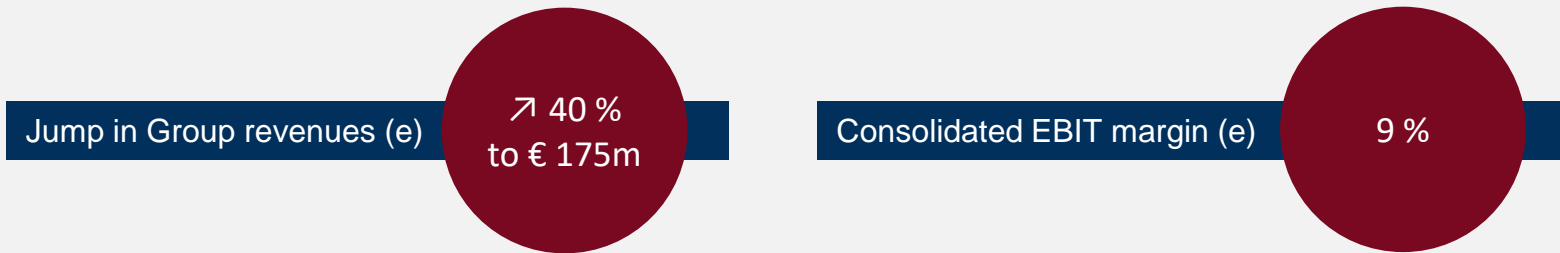
paragon AG intends to change its legal structure into a partnership limited by shares in order to...

- continue the company’s proven growth strategy while preserving its character as a family-owned company (no changes in practice)
- prevent any conflict of interests between the Frers family and the growth of the company, while having a future-oriented investor-friendly design of the legal structure
- be prepared to take full advantage of the € 1.96 billion lifetime order backlog
- ensure that Klaus Dieter Frers remains a long-term investor in paragon



A Look Ahead

➤ **Significant faster growth than the automotive sector once again** (based on the good order situation for 2018)



Electromobility	Body Kinematics	Electronics
<ul style="list-style-type: none"> ➤ Doubling of segment's revenues to around € 60 million ➤ EBIT margin of around 10 percent 	<ul style="list-style-type: none"> ➤ Above-average contribution to the increase in revenue ➤ Integration of paragon movasys GmbH may necessitate additional effort 	<ul style="list-style-type: none"> ➤ Margins are most likely expected to increase due to lifecycle and substitution effects ➤ From FY2019 onwards, increasing contribution to the Group's growth through new products

Currently paragon AG as well as its subsidiary Voltabox AG are working at high pressure on **realizing value-enhancing acquisitions.**

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.

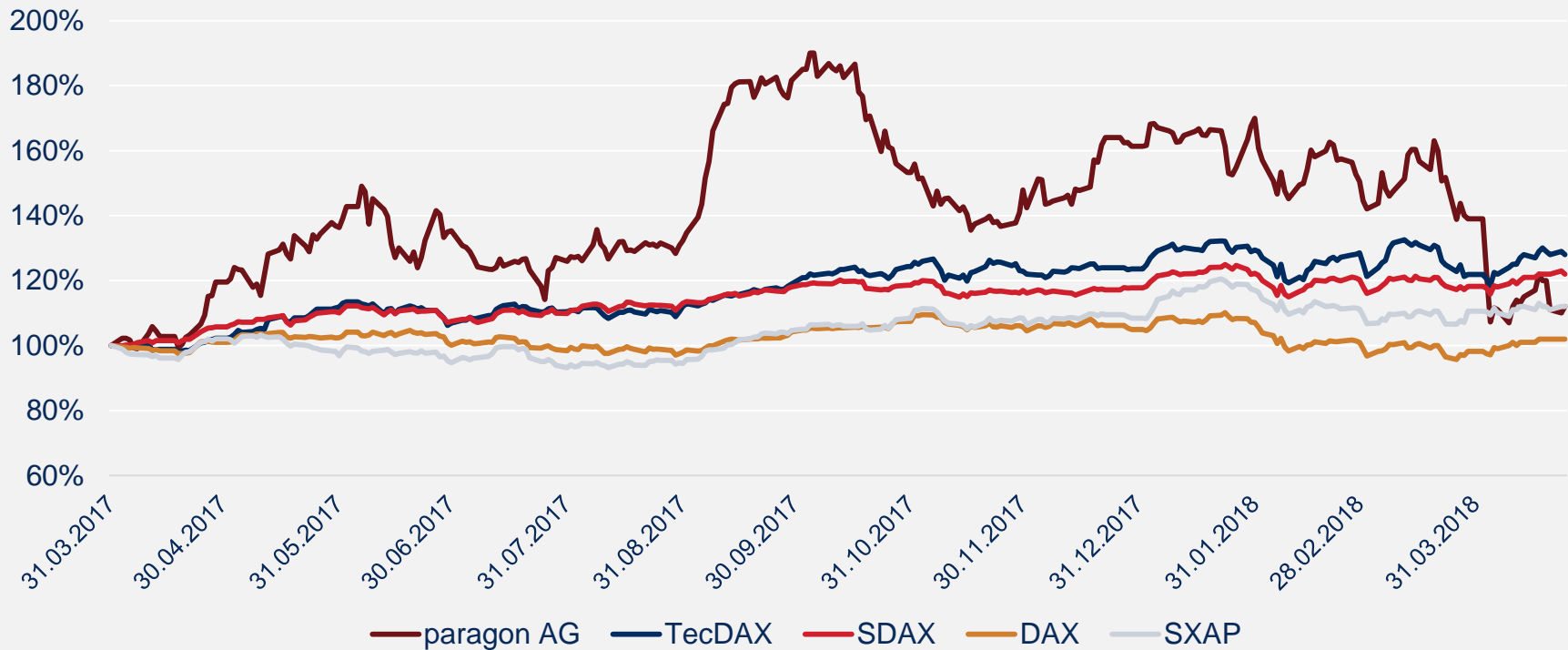
Analyst coverage

Analyst	Date	Target	Comment
Christian Ludwig, Bankhaus Lampe	Jun. 12, 2018	€ 105.00	Solid start to the year - Expect to see a continuation of the strong growth
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	May 7, 2018	€ 110.00	Serious acceleration in income growth will start from 2019 or mid 2018 onwards
Ralf Marinoni, Quirin Privatbank	Mar. 13, 2018	€ 72.00	FY 2018 outlook not convincing
Current Consensus		€ 97.10	
Upside*		23.4%	

* Share price as of Dec. 29: € 78.68.

12-months performance of paragon share

Diagrammtitel



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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