



**PARAGON**

**paragon GmbH & Co. KGaA**

**Earnings Call Q3**

November 17, 2022



“paragon’s revenue increases by 19.8%  
in the third quarter”

“Annual revenue forecast of  
EUR 170m confirmed”

# Agenda

1. paragon's Business Model
2. Financial Results
3. Bonds
4. Spotlight Business Unit Interior
5. Business Update

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# Over 30 Years of Automotive Experience

1988



Founded as electronics manufacturer in Delbrueck

1993

Launch of sensor development and production



2000s

paragon's IPO and various acquisitions



2011

Development of modular system for electromobility



2017

Voltabox IPO  
**VOLTABOX**



2019 -2021

Voltabox's losses burdened the consolidated report of paragon heavily

2021

Sale of all shares in **VOLTABOX**  
Focus on automotive

1991

Plant in Zella-Mehlis

1995

New production plant in Suhl



2012

New business unit: kinematics



2015

Opening of paragon Kunshan in China



2017

Acquisition of HS Genion

2018

Acquisition of SemVox and LPG



2021

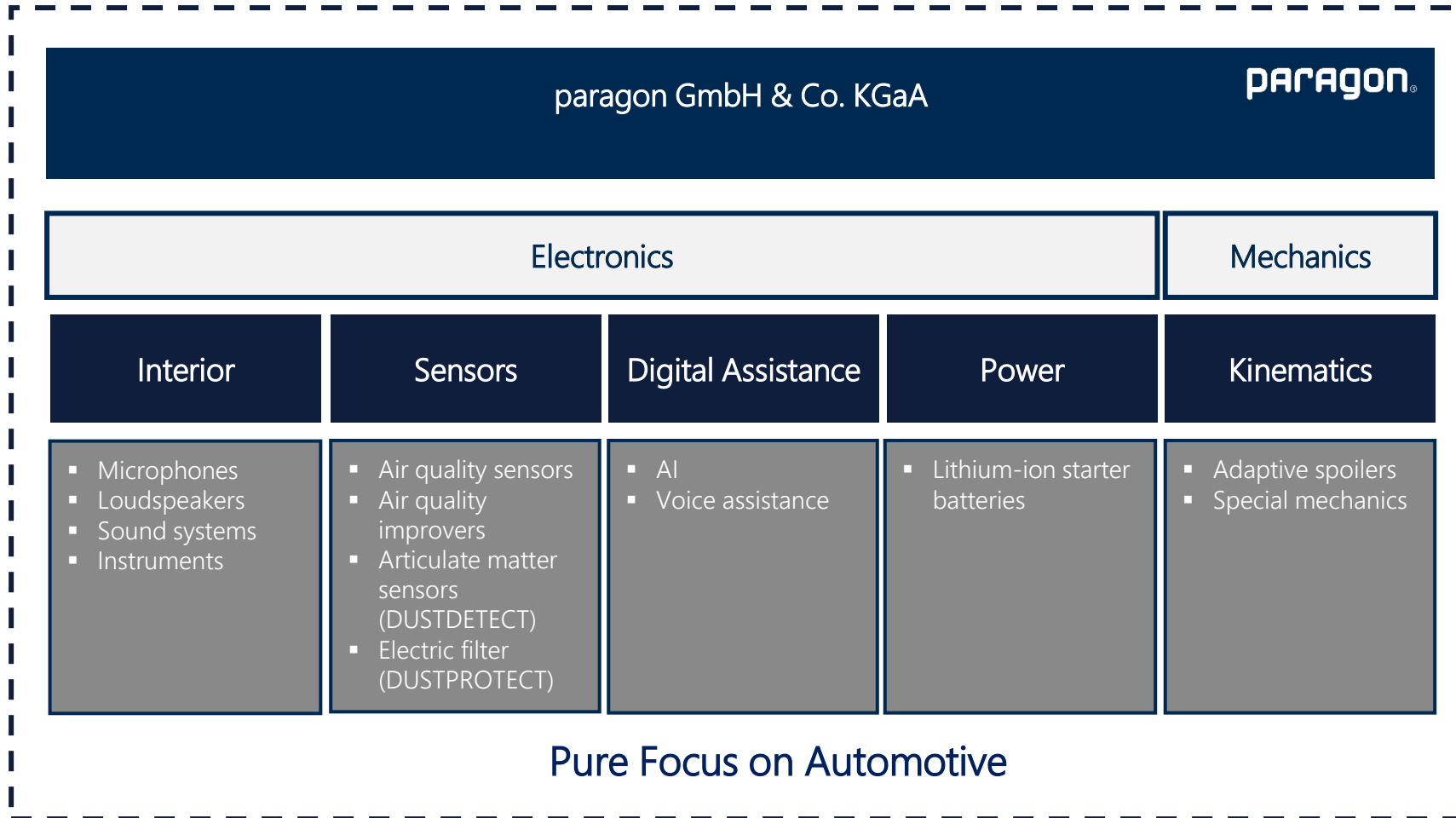
New Business Unit: Power



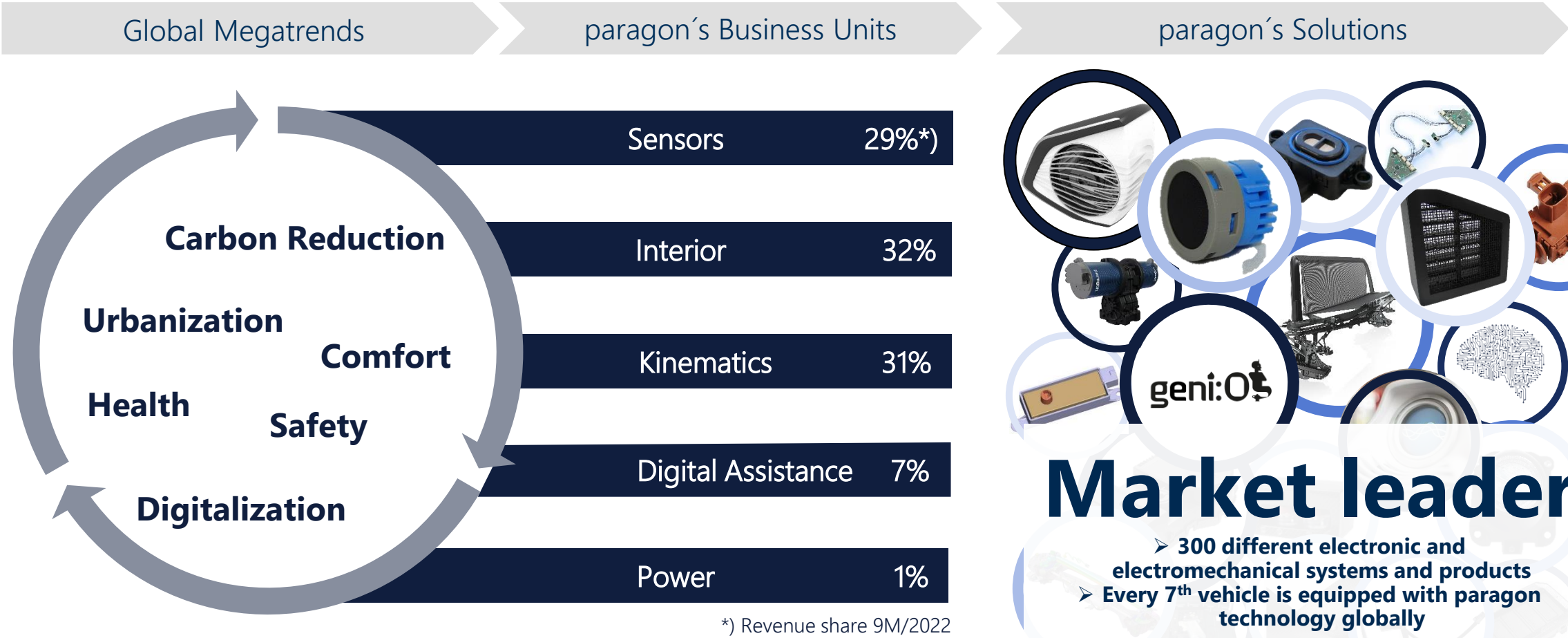
# Pure Automotive



# paragon Group at a Glance (since December 2021)

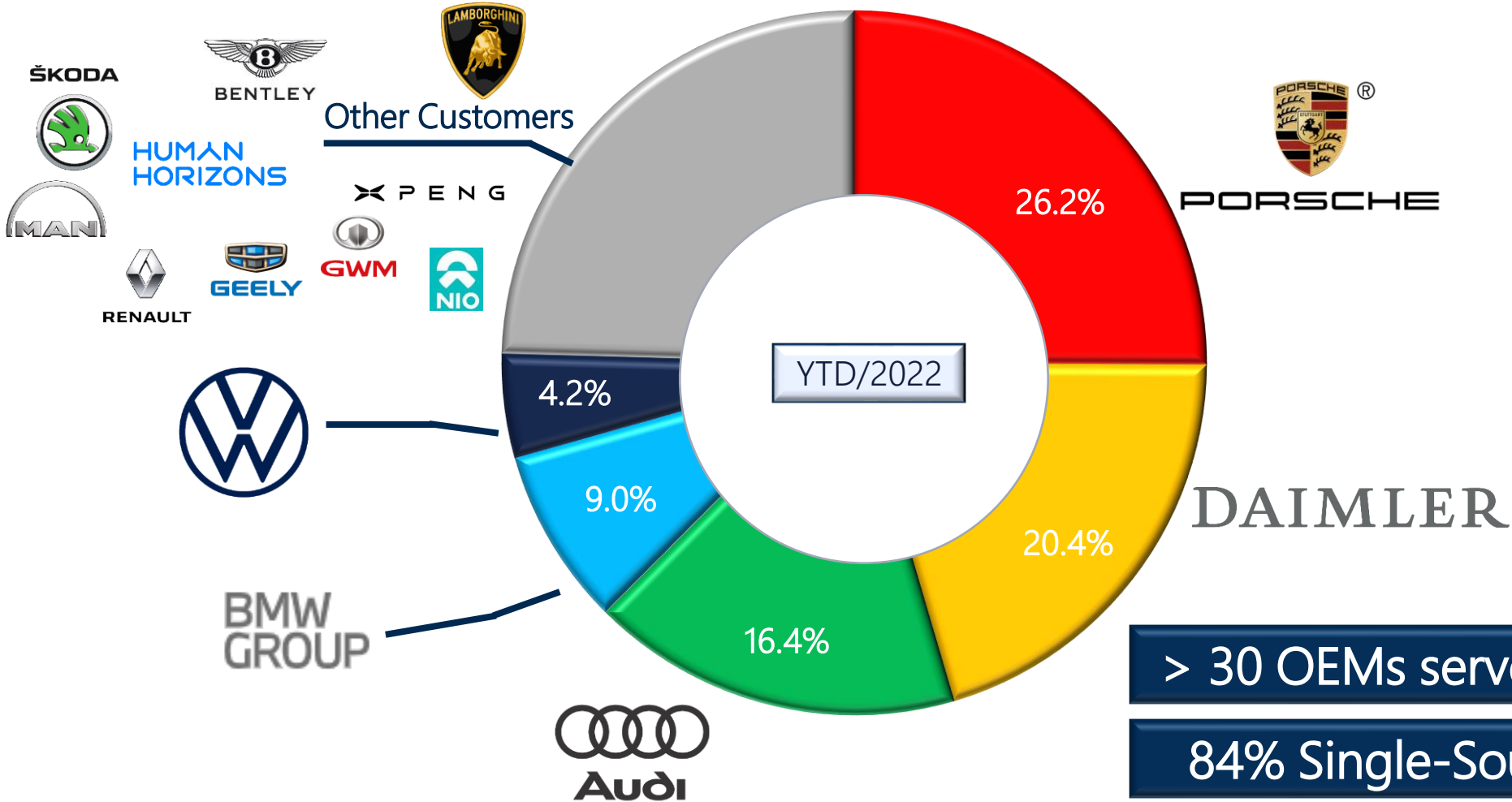


# paragon addresses Global Megatrends





# paragon's Premium Automotive Customers YTD 2022



> 30 OEMs served as Tier 1

84% Single-Source share

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# 9M/2022: Financial Highlights in a Nutshell



## P&L Development

<b>Income Statement in EURm</b>	<b>2021</b>	<b>9M 2022</b>
Revenues	146.9	127.1
Other own work capitalized	7.4	7.1
Change of finished goods	0.4	3.6
Other operating income	4.8	2.7
<b>Total operating performance</b>	<b>159.5</b>	<b>140.5</b>
Costs of materials	-72.9	-67.6
Personnel expenses	-44.6	-38.5
Other operating expenses	-22	-22.4
<b>EBITDA</b>	<b>20.0</b>	<b>12.0</b>
Depreciation & amortization	-19.2	-11.7
<b>EBIT</b>	<b>0.8</b>	<b>0.3</b>

Revenues increased by 15.9% to EUR 127.1m in the first nine months

EBITDA of EUR 12.0m despite noncash one-time effects:

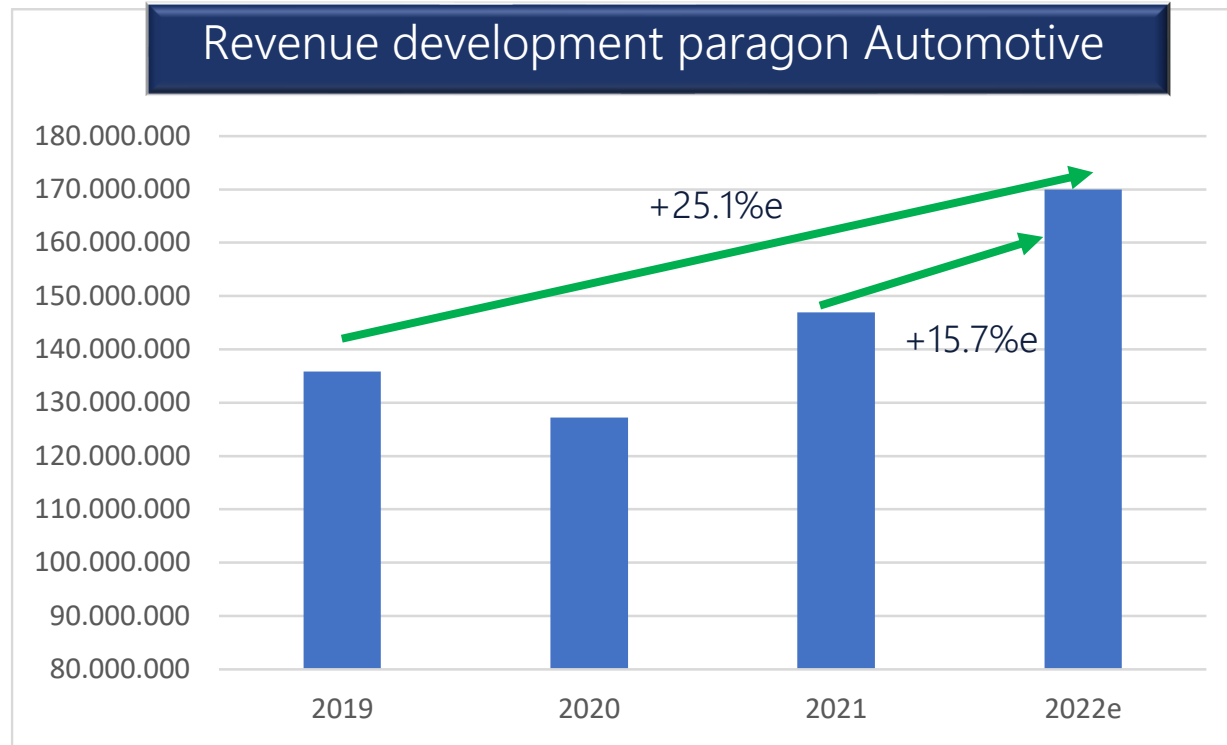
Sale of Aachen-activities in first quarter 2022 (book loss of EUR 0.45m)

Unrealized currency losses due to weaker EUR to CHF (book loss EUR 1.8m)

Sale of vacant production hall (book loss EUR 1.75m)

Operational EBITDA at EUR 16.0m (12.6%)

# Expected Revenue Increase of 25.1% compared to pre-Corona year 2019



Revenues increased to EUR 127.1m in the first nine months 2022

- ⇒ Increase of 15.9% compared to 9M2021
- ⇒ Increase in Q3/2022 of 19.8% compared to Q3/2021
- ⇒ Increase of 15.7% expected for complete year 2022

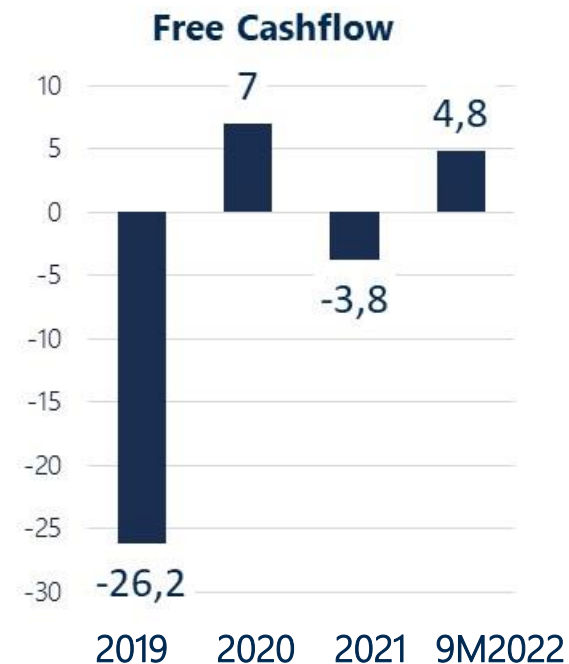
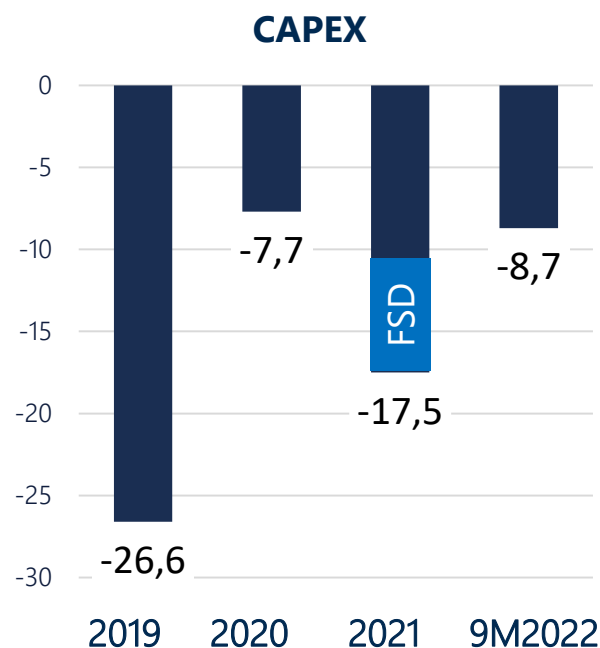
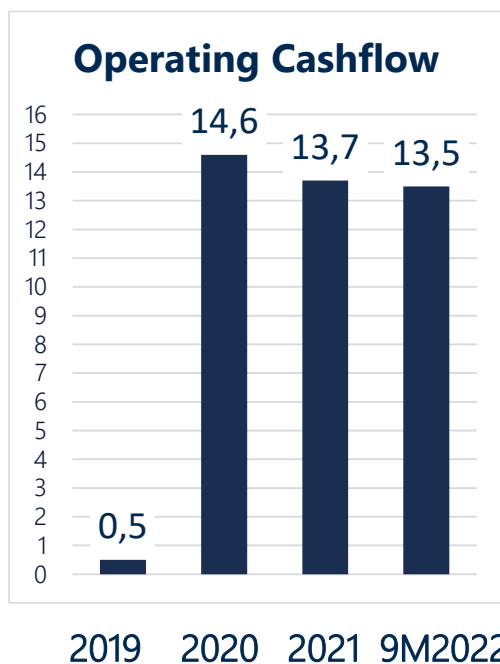
Organic growth in all business units despite challenging headwinds in the last 2 years

Robust business model due to innovative products and solid customer base



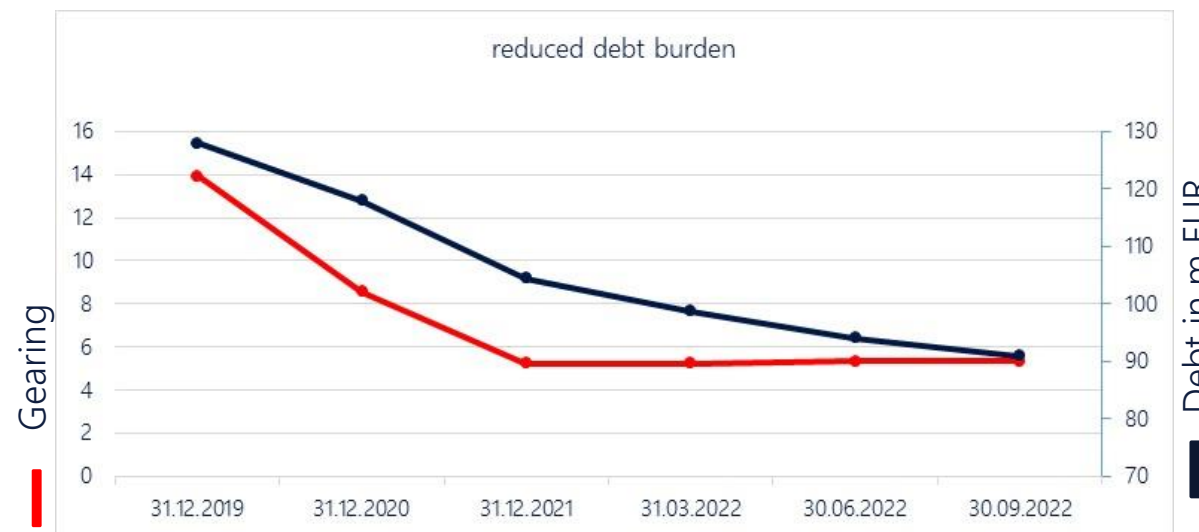
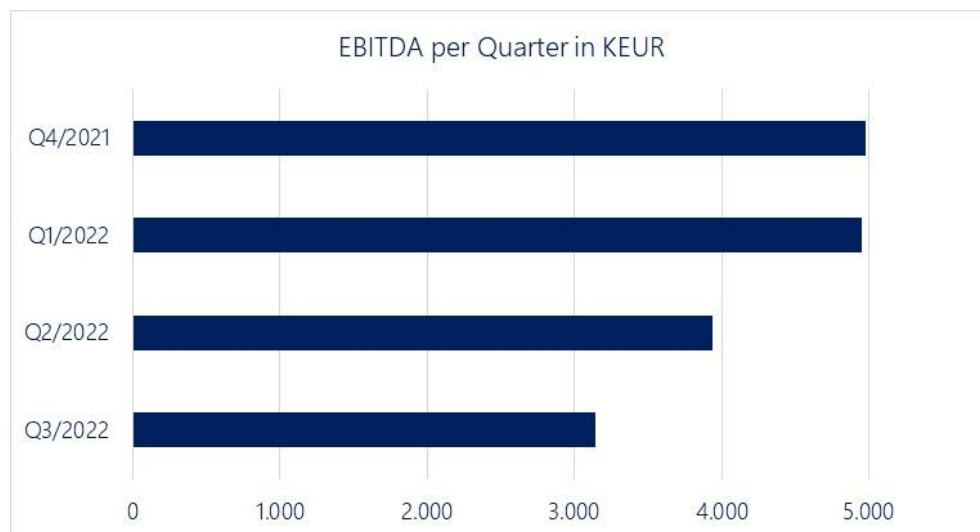
# 2022: Cost Reductions and Efficiency Increases show Effect

Free cashflow impacted by increase in inventories (EUR 3.7m)



Free Cash Flow not suffering from one-time effects

# Actual Gearing at 5.3



paragon-Automotive achieved EUR 17.0m EBITDA in the last 12 months

Total liabilities to banks and bondholders have been reduced from EUR 127.9 by EUR 37.0m to EUR 90.9m from Dec. 2019 to September 2022

Increased profitability and reduced debt improve **gearing** (debt to EBITDA) since December 2019 from 13.9 to 5.3 at the end of September 2022 - paragon is committed to further deleveraging step-by-step

# Headwinds in 9M/2022

## Wage and salary costs:



paragon adjusted wage and salaries in H1/2022 to reflect higher cost of living

On the other hand paragon was able to achieve efficiency increases in direct and indirect area next to higher revenues

As a result:  
Average headcount increased only by 6.5% (from 879 in 9M 2021 to 936 in 9M 2022) compared revenue increase of 15.9% => This enabled paragon to overcome this headwind

## Electricity and heating costs:



paragon's energy costs increased in accordance with the market by 75% in 9M 2022 compared to 9M 2021

Of course paragon initiated activities to reduce the energy consumption

However, more important is that paragon does not maintain an energy intensive production. Total energy costs increased therefore "only" from 0.7% to 1.1% of total revenues

## Supply chain issues:



paragon is also confronted with recent supply chain challenges. The purchasing department was able to get all necessary components (esp. chips) delivered on time to ensure deliveries to our automotive customers

paragon increased for various components the safety stock

Due to generally higher transportation costs logistic costs increased in 9M 2022 from 2.2% of total revenues to 2.7%

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# Bond Report

## Prolongation of EUR-bond

- Prolongation was alternative to sale of subsidiary
- 99.9% vote for prolongation until July 2027 reached
- Terms and conditions improved for the bondholders - Planning certainty achieved for paragon
- Repayment of EUR 5.0m due on April 23, 2023
- Technical process for the repayment will be a public offer

## CHF-bond already repaid by 40%

- Final repayment of CHF 21m due on April 23, 2023
- Alternative plans for repayment/refinancing are progressing
- Information to the market in the near future only as paragon is bound to MAR



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Today's focus

# paragon's Products are Independent of Drive Type

Business Unit

## Sensors

**AQS:** Rising production figures and new development based on artificial intelligence

**AQI:** Increasing sales through China business

**Electronic filters:** Great potential for worldwide roll-out - several major orders secured



Business Unit

## Kinematics

**Spoiler:** Growing premium segment business with new products and new customers in China

**Actuators:** Significant potential in the growth market of sunroof actuators/LIDAR

**Seating components:** Great opportunities for significant market share



Business Unit

## Interior

**Microphones:** New generations secure follow-up orders

**Loudspeakers and sound systems:** Sustainable growth through exterior loudspeakers for electric vehicles

**Instruments:** Robust sales driver for the business unit and new opportunities in the display sector

**Wireless charging:** New products



Business Unit

## Digital Assistance

**Geni:OS:** Next generation AI with proactivity and empathic interaction

Major order for infotainment platform

**Edwin:** Roll-out at various OEMs in Europe and USA



Business Unit

## Power

**Starter batteries:** Disruptive technology shift from lead-acid batteries to environmentally friendly, durable and lightweight Li-ion batteries offers significant market opportunities

**Buffer batteries:** 12-volt buffer batteries for electric cars as an attractive market opportunity

**Traction batteries:** Focus on motorcycles and scooters



# Microphones

Used for speech control, road and wind noise cancellation, digital assistance and hand free mobile communication

Clear differentiated directivity by combination of clever acoustical mechanics and the adaptive electronic filter design. Additional very low wind sensitivity by active and passive elements

Use of sensor know-how across paragon's divisions

Very high volumes / fully automated production and test



## USPs

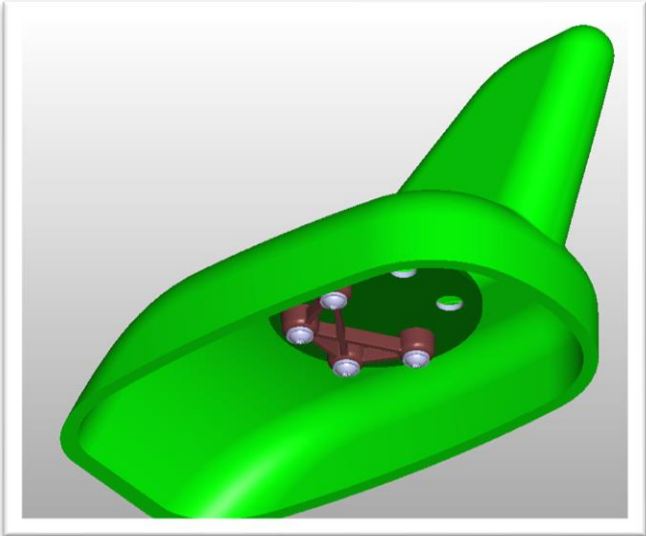
- + Up-to-date microphone technology
- + Complete acoustical and constructional expertise
- + Smallest footprints
- + Analog or digital interfaces

## History/Status/Timeline:

- |      |  |
|------|--|
| 2000 | First automotive SOP   |
| 2008 | >70 microphones variants in production   |
| 2022 | A2B microphones and microphone arrays. Samples can be produced on customer request |
| 2024 | New belt-mic generation  |

# Microphones: Exterior Microphones

- Environmental Sound Detection
  - 360° monitoring of the acoustic environment of the car
  - Acoustic event detection (e.g. police siren) and signal processing
  - Speech interaction with the car
- Flexible Integration of External Microphone Array, e.g. into an antenna or lidar housing
- Microphone capsules signals are collected via A<sup>2</sup>B to a sound interface (ie. USB)
- Robust against environmental conditions



**USPs**

- + paragon offers complete system architecture
- + Flexible platform

**History/Status/Timeline:**

Q4/2022    Availability of samples

## Loudspeakers: details on high-end sound systems

- \_ Highly sophisticated speakers in terms of selected materials, acoustic performance and optical design appearance
- \_ Full speaker sets including subwoofers, woofers, midranges, tweeters
- \_ Dedicated special solutions available such as exciters or shakers
- \_ Various brandings possible, e. g. B&O, Bespoke Audio, Eton, ...
- \_ DSP and mutli-channel class-D amplifier solutions to match every demand
- \_ paragon´s audio expertise utilizable for OEM sound system tunings



### USPs

- + Highly sophisticated material for superior acoustics
- + Customizable design including kinematics or lighting
- + Sophisticated sound system

### History/Status/Timeline:

2011	SOP Bang & Olufsen/BMW
2016	SOP Bespoke Audio System/ Rolls Royce
2023	SOP Bespoke/ Rolls Royce RR25



## Loudspeakers: Details of External Loudspeaker

- Active external speaker module with embedded software for eSound generation
- Mandatory requirement for pedestrian warning
- Software tool for sound design supports any sound designer in creating own external sounds
- Adaptive control - Sound rendition depending on driving parameters
- Easy integration by attaching eModule(s) to existing architectures (e.g. A<sup>2</sup>B or INICnet, even Ethernet)
- Very innovative technology, application for registration for the loudspeaker grille



### USPs

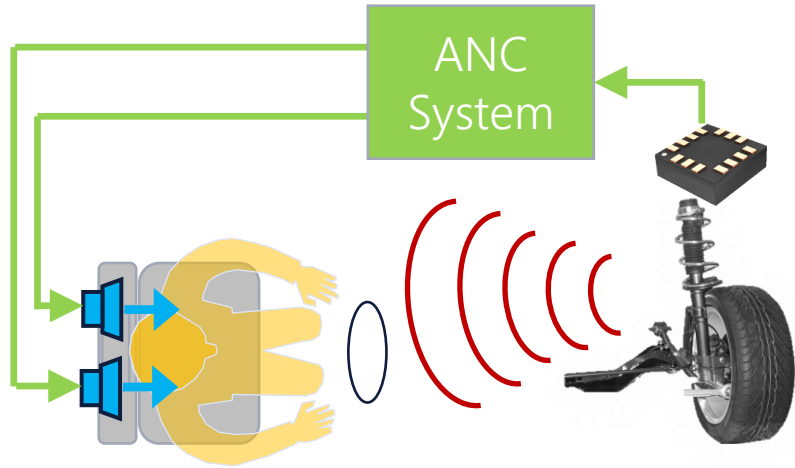
- + Highest robustness (from -40 to +105°C) in all environmental conditions (IP67/ IPx7/ IP69/ IPx6K/ IPx9K)
- + Modular concept for active or passive external speakers
- + Matches the EU 540/2014 AVAS Regulations

### History/Status/Timeline:

- |         |  |
|---------|--|
| Q3/2019 | First customer SOP                                   |
| Q2/2021 | Applied to more than 10 different car models already |
| Q2/2021 | Extension of production capacities                   |

# Loudspeakers: Sound System with Active Noise Cancellation

- paragon’s ANC platform inherently features high-speed processing with input-output latencies around 1 ms without extra cost impact on vehicle infotainment system architecture
- By utilizing headrest or other close-to-ear speakers ANC performance can be achieved up to 1.000 Hz
- paragon’s system is therefore very well suited for RNC (road noise cancellation) purposes
- Door woofers or subwoofers can optionally be integrated to support low-frequency ANC below 80 Hz
- Feed-through of music or other infotainment signals without degradation



USPs

- + Inherent high-speed signal processing without extra costs
- + ANC/RNC performance up to 1.000 Hz
- + ANC speakers simultaneously usable for other infotainment use cases

History/Status/Timeline:

Q4/2021    B-sample (showcar)

## Instruments

- paragon is the market leader in the automotive auxiliary instruments industry.
- Standard offering includes clock, chronometer, compass, pressure indicator functions and many more analog instruments.
- Displays can be single or double mix in analogue (ex. Chrono and Clock) or even triple by mixing an LED display with analogue display.
- Ability to meet any customer requirements thanks to paragon's design and manufacture know-how and inhouse stepper motor development and manufacturing
- Strong expertise in Backlighting and dissipation effects.
- Multiple visualization (Customer) options are possible thanks to the screen.



### USPs

- + Modular building block principle
- + Very fast development of new design
- + Inhouse stepper motors + internal light measurement laboratory
- + different types of interfaces possible: e.g., LIN or CAN Bus

### History/Status/Timeline:

- 1925 Instruments business established
- 2001 Direct supplier of VW Group  
Audi, Bentley, Porsche, VW
- Partner of Rolls Royce for over 15 years
- Partner of Porsche for over 40 years



# Wireless Charging

- Patented active cooling system
- High efficiency wireless charger based on Qi-Standard for automotive industry
- Integrated Near Field Communication (NFC) for FOD
- Self-diagnostic
- Free choice of vehicle interface, CAN/LIN/discrete interface
- Antenna coupler possible
- One-coil and multi-coil possible
- Member of Wireless Power Consortium (WPC) since 2013



### USPs

- + Series production for premium motorcycle
- + Flexible platform architecture
- + Demonstrated highly capable and patented cooling concepts
- + Inhouse expertise for advanced multimaterial mould assemblies

### History/Status/Timeline:

2008	First projects
2016	SOP of motorcycle charger 5W
2018	Start of Pre-Engineering of 15W
2021	Final release of Qi standard 15W

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## Recent Business Wins



### Kinematics

- Adaptive Spoiler for a Chinese EV company starting in summer 2024
- “Energy saving feature”
- Already 4<sup>th</sup> nomination in China for adaptive spoilers
- Booked business just for adaptive spoilers for our Kunshan plant increases to EUR 46m



## Recent Business Wins



### Interior

- Instruments for an European Premium OEM
- Used in new electric SUV
- Start of production in our Suhl-plant in Summer 2024
- Lifetime revenue > EUR 20m



## paragon increased Investment into paragon semvox

geni:O\$



### Digital Assistance

- paragon acquired 82% of the shares in paragon semvox in 2018
- In 2020 and 2021 paragon increased the share to 95.4%
- Now, paragon acquired the remaining shares
- paragon is the sole shareholder of paragon semvox

## paragon and Hengst Forge Strategic Partnership

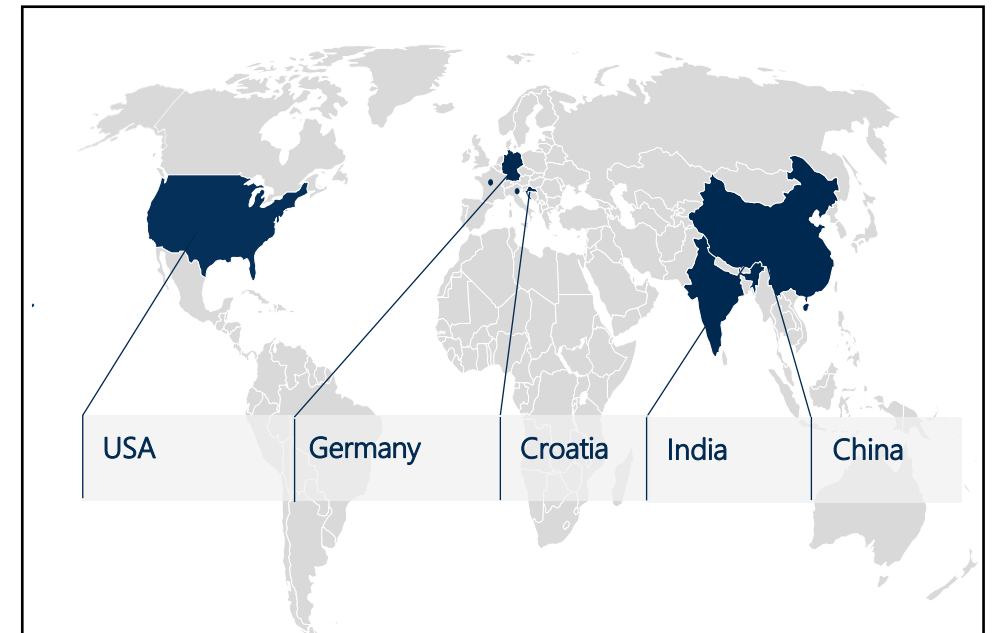


### Sensors

- Hengst SE is a well-known filtration specialist, located in Münster
- Goal is to combine the expertise in regard to filtration solutions that keep dust, bacteria, fungi and viruses out of the vehicle interior
- paragon's electric anti-virus filter DUSTPROTECT as part of a system solution

# Technology Provider for more than Three Decades

- Year of foundation: 1988
- Corporate form: GmbH & Co. KGaA (limited partnership)
- General Partner: paragon GmbH (unlimited liability)
- Management: Klaus Dieter Frers, founder and CEO  
Dr. Martin Esser, CFO
- Stock exchange: Listed in Frankfurt/Main since 2000  
ISIN DE0005558696
- Employees: ~950 worldwide  
(>25% in R&D)



## Publication of Inside Information on November 9, 2022

- paragon GmbH & Co. KGaA was informed by K. Frers on November 9, 2022, that a third party has appropriated the rights to realize the founder's complete paragon share package under dubious circumstances and against his will
- Mr. Frers has announced legal actions against this
- paragon regards these events as an attempt of a hostile takeover
- On November 11, 2022, a start-up called "ElectricBrands AG" was able to get 1,355,000 paragon-shares (=29.94%) out of Frers' paragon share package
- Mr. Frers holds 20.06% of the voting rights now
- ElectricBrands declared not to sell their stake actually or to plan to acquire more shares
- Mr. Frers will publish a personal statement later the day which explains details of the case

## **Publication of Inside Information on November 9, 2022**

- \_ Legal form of a GmbH & Co. KGaA acts as bastion against hostile takeovers
- \_ Sole management and control of a GmbH & Co. KGaA lies on the general partner (=paragon GmbH)
- \_ paragon GmbH is fully family owned and not affected by the actions of ElectricBrands
- \_ Mr. Frers remains Managing Director of paragon GmbH
- \_ No change in terms of operations and strategy of paragon GmbH & Co. KGaA

## **paragon's Business Model proves as Robust**

- **Revenues up by 15.9% in a challenging market**
- High level of order releases for Q4/2022 and 2023
- Revenue **Forecast 2022 confirmed: EUR 170m** (expected growth rate of 15.7% compared to 2021)
- **No dependency on type of drive** but beneficiary of transformation
- After the recent acquisition paragon is the sole shareholder in paragon semvox
- paragon outperforming the automotive sector since years
- Customer and product portfolio focussed on today's and tomorrow's sweet spots **Range extension, well-being in the cabin and battery solutions**
- **Communication to the capital market about the repayment of the CHF-bond in the near future**

# Financial Calendar

November 28-30, 2022

Equity Forum, Frankfurt a. M.



## **Thank you for your attention.**

Please do not hesitate to directly contact Dr. Martin Esser or Klaus Frers in case of further questions.

**Founder and CEO**

Klaus Dieter Frers

[klaus.frers@paragon.ag](mailto:klaus.frers@paragon.ag)

+49 5250 9762-100

**Chief Financial Officer**

Dr. Martin Esser

[martin.esser@paragon.ag](mailto:martin.esser@paragon.ag)

+49 5250 9762-200



PARAGON®

paragon GmbH & Co. KGaA  
Bösendamm 11  
33129 Delbrück  
Tel.: +49 (0) 5250 9762 - 0  
E-Mail: [info@paragon.ag](mailto:info@paragon.ag)