

The Paragon logo is displayed in a bold, white, sans-serif font in the upper right corner of the slide. The background of the entire slide is a dynamic, abstract blue and purple light tunnel effect with motion blur.

PARAGON

paragon GmbH & Co. KGaA
Earnings Call Q1

May 18, 2022

Agenda

1. Viable Business Model
2. Financial Results
3. Bonds
4. Recent Developments / Outlook

Agenda

1. Viable Business Model
2. Financial Results
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paragon is a TOP 20 “Digital Innovator 2022” amongst all OEMs and much larger Tier1s in Chip Magazine’s ranking

Die innovativsten deutschen Unternehmen 2022

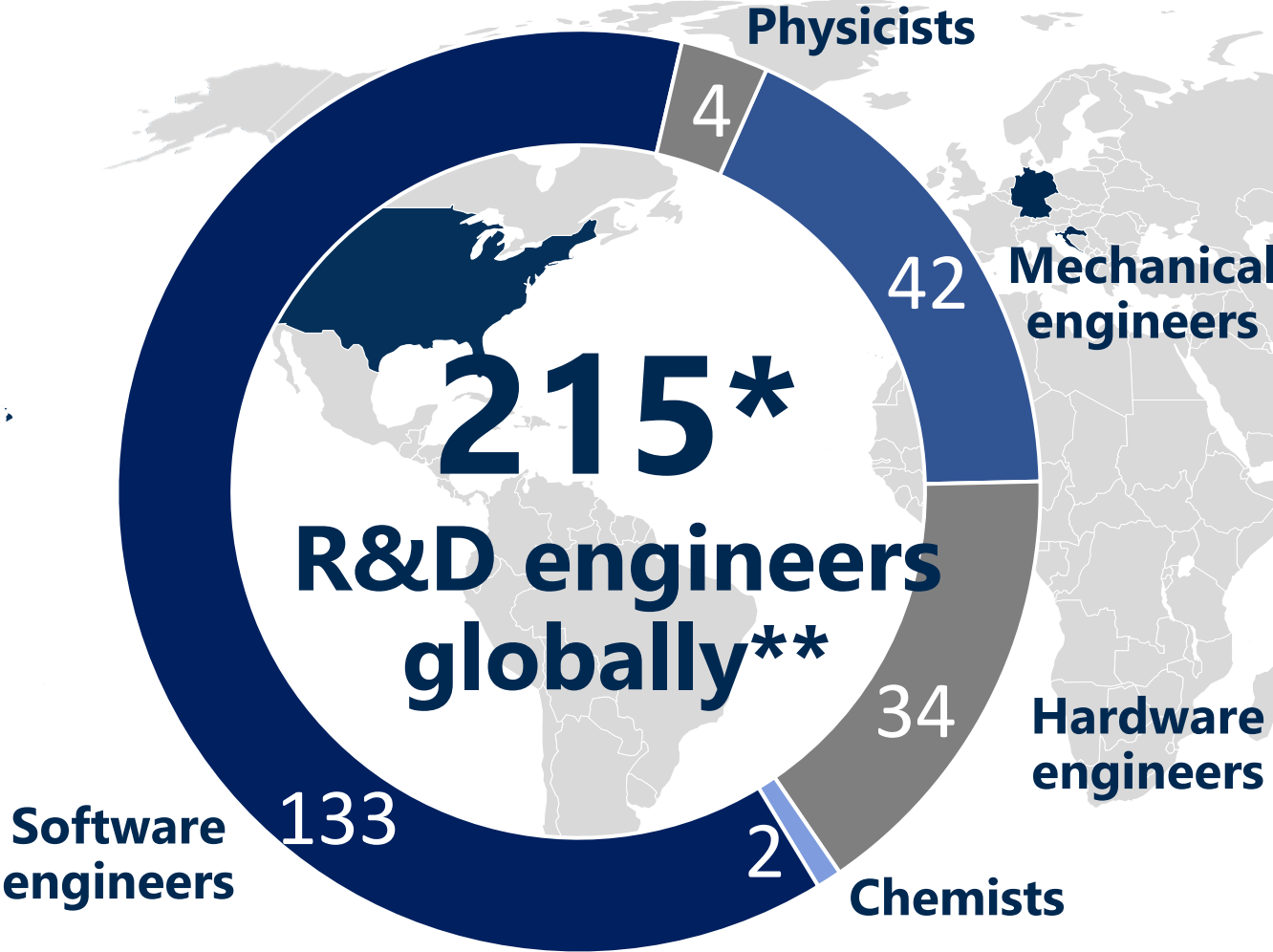
Innovatoren des Jahres – Treiber des digitalen Umbruchs

04.02.2022 08:00 | Von: PETER KRAJEWSKI



Name	Branche	Ergebnis
Robert Bosch GmbH	Automotive	94%
Bayerische <u>Motoren</u> Werke Aktiengesellschaft	Automotive	90%
Continental Gruppe	Automotive	89%
AUDI AG	Automotive	89%
Daimler AG	Automotive	88%
Volkswagen AG	Automotive	86%
ZF Gruppe	Automotive	86%
VALEO Deutschland	Automotive	85%
Preh GmbH	Automotive	80%
Dr. Ing. h.c. F. Porsche AG	Automotive	80%
HARMAN International	Automotive	78%
Brose Fahrzeugteile SE & Co.	Automotive	76%
Huf Hülsbeck & Fürst GmbH & Co. KG	Automotive	75%
HELLA GmbH & Co. KGaA	Automotive	70%
MAHLE GmbH	Automotive	69%
FEV GROUP GMBH	Automotive	69%
Leopold Kostal GmbH & Co. KG	Automotive	68%
Behr-Hella Thermocontrol GmbH	Automotive	65%
Dräxlmaier Gruppe	Automotive	63%
paragon GmbH & Co. KGaA	Automotive	61%
Dr. Schneider Holding GmbH	Automotive	60%

R&D Engineers at paragon

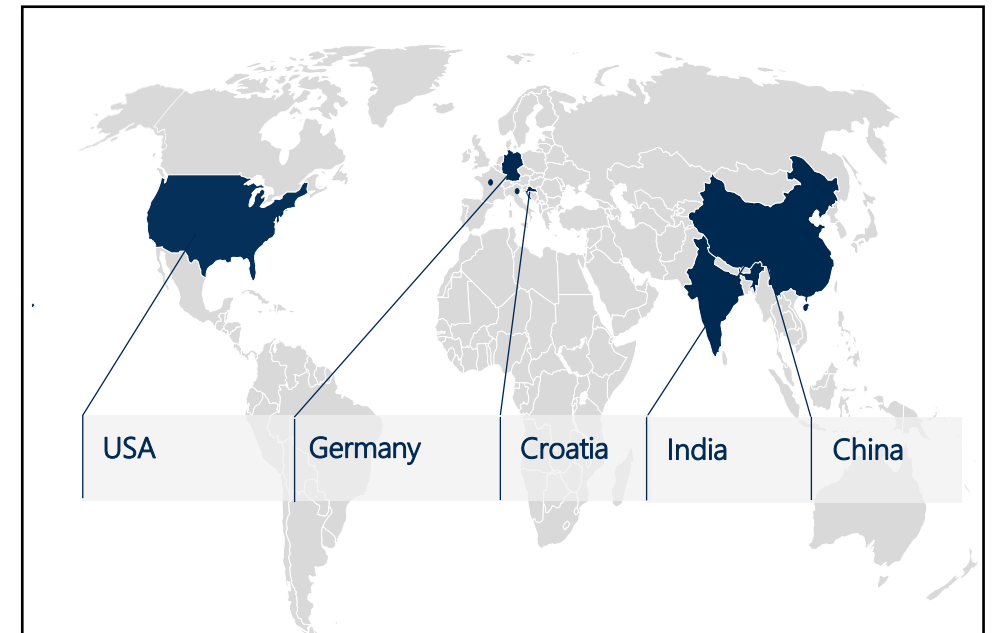


* Out of 855 in total
** 12 with PhD

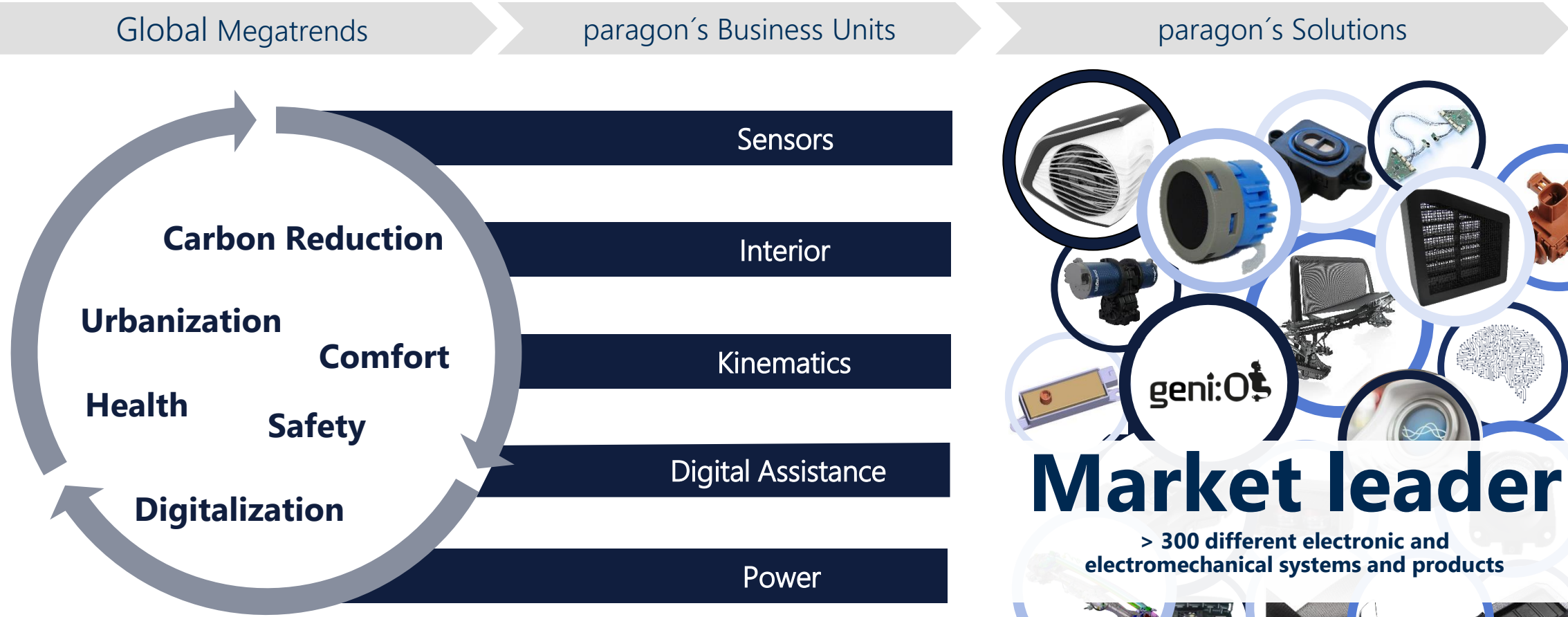
as of 03/31/22

Technology Provider for more than Three Decades

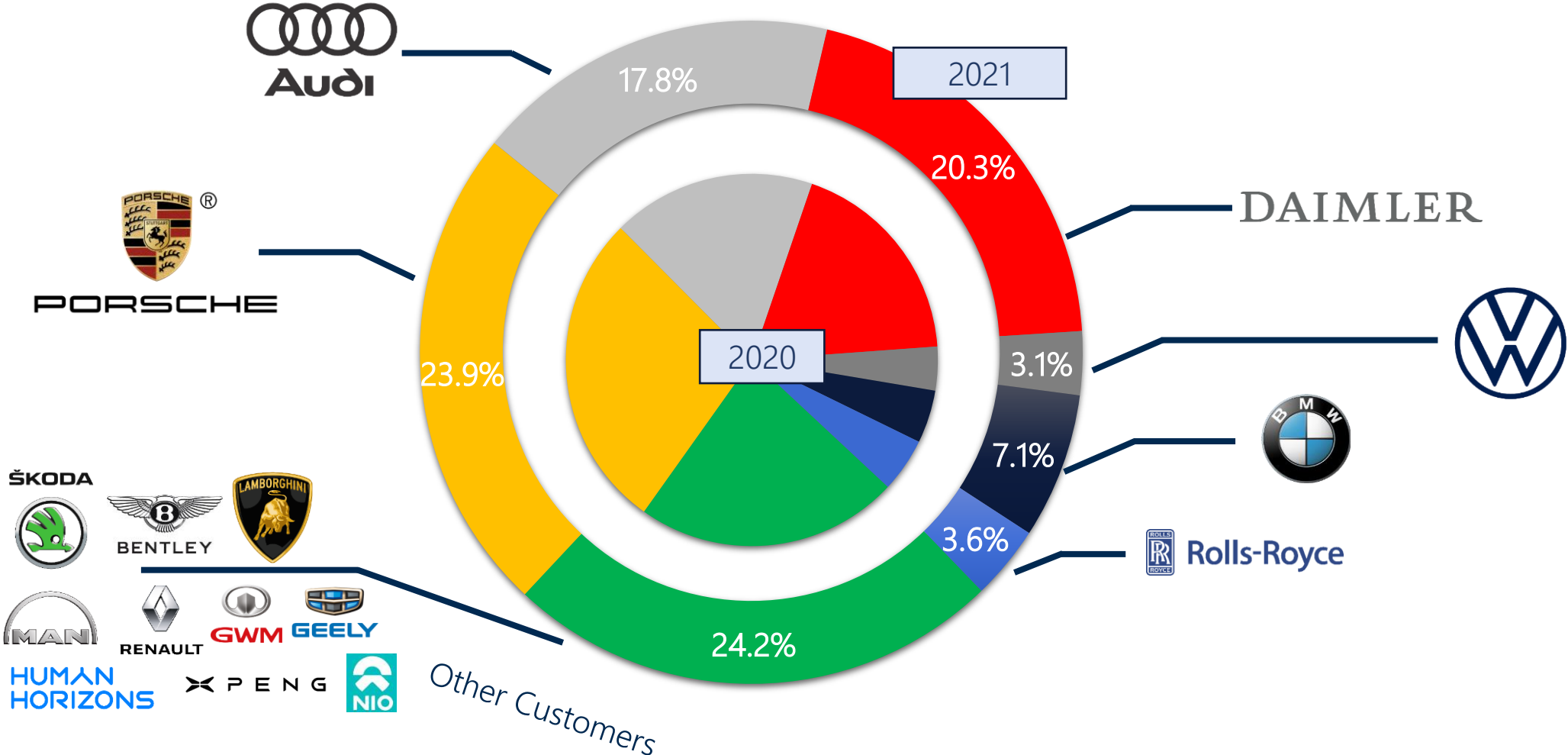
- Year of foundation: 1988
- Corporate form: GmbH & Co. KGaA (limited partnership)
- General Partner: paragon GmbH (unlimited liability)
- Management: Klaus Dieter Frers, founder and CEO
Dr. Matthias Schöllmann, Managing Director
Dr. Martin Esser, CFO
- Stock exchange: Listed in Frankfurt/Main since 2000
ISIN DE0005558696
- Shareholders: Klaus Dieter Frers 49.3 %
Freefloat 50.7%



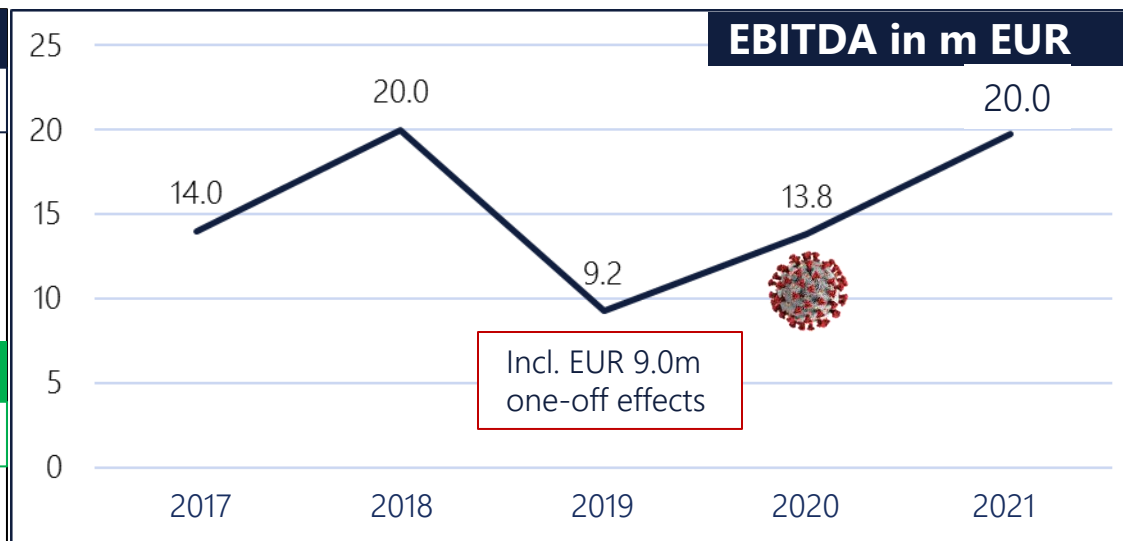
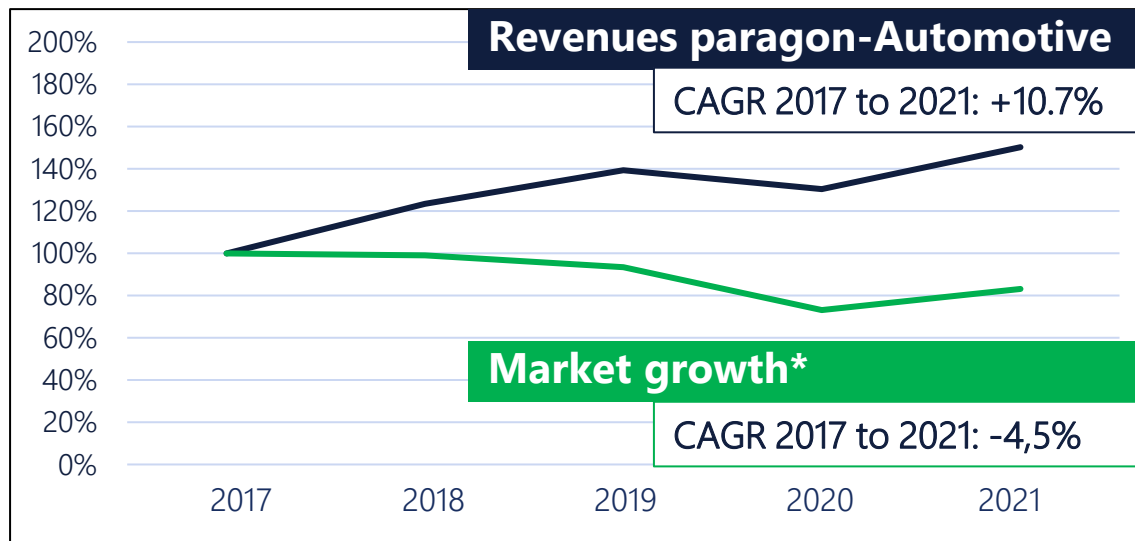
paragon addresses Global Megatrends



paragon's Premium Automotive Customers



2021: paragon is Beating overall Market Trends



*Source: IHS Markit - Customized Light Vehicle Production Forecast, October 2021

- ▶ Higher volumes + new products + new customers resulting in higher market penetration
- ▶ paragon's innovative products address the entire market – massive potential for gaining further market share
- ▶ Revenue drivers are sensors, instruments, and AI software

- ▶ paragon is focusing on high growth of revenues AND reducing costs IN PARALLEL
- ▶ EBITDA more than doubled despite COVID and supply chain crises - further improvements expected

Five growing Business Units

<p>Business Unit</p> <h2>Sensors</h2> 	<p>Business Unit</p> <h2>Interior</h2> 	<p>Business Unit</p> <h2>Kinematics</h2> 
<p>Business Unit</p> <h2>Digital Assistance</h2> 	<p>Business Unit</p> <h2>Power</h2> 	

The Future of the Automotive Industry

Transformation

Shift to electronics

Electromobility

Digitalization

paragon's position

Electronics since 1988

No product depends on type of drive

Artificial Intelligence/ Machine Learning
in series since 2018



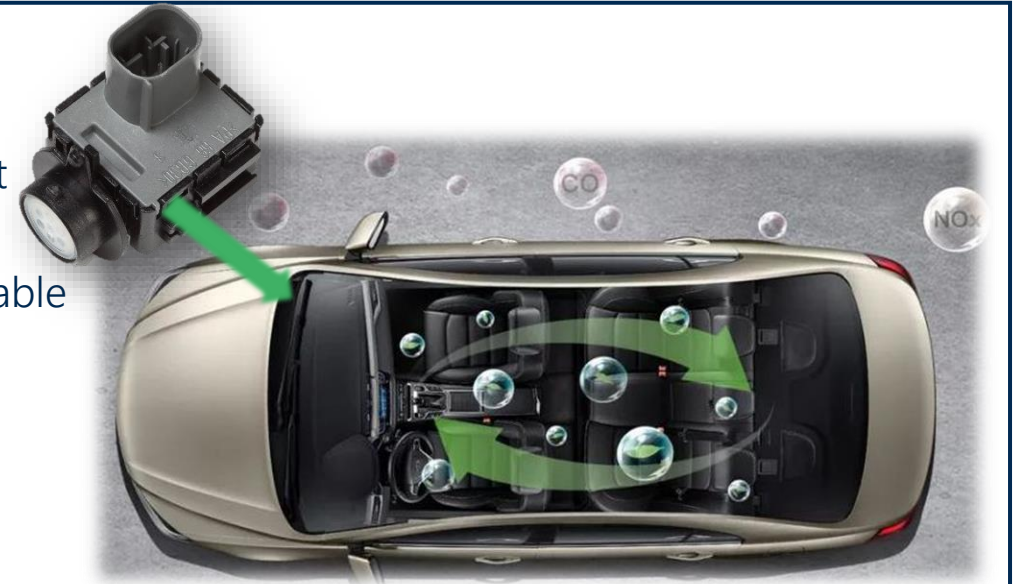
Sensors: Leading the Market

<p>Business Unit</p> <h2>Sensors</h2> 	<p>Business Unit</p> <h2>Interior</h2> 	<p>Business Unit</p> <h2>Kinematics</h2> 
<p>Business Unit</p> <h2>Digital Assistance</h2> 		<p>Business Unit</p> <h2>Power</h2> 

Spotlight Business Unit Sensors

Air Quality Sensors (AQS)

- Automatic control of the vehicle`s recirculation flap
- Reduction of dangerous emissions inside the cabin
- Advanced technology for detection of toxic gases and unpleasant smell (e.g. diesel or petrol engine exhaust fumes and ammonia)
- Versions with temperature, humidity and dew point sensors available
- PWM or LIN interface
- Integrated algorithms for special situations like:
 - Driving through a tunnel
 - Window cleaning with antifreeze



USPs

- + Over 25 years experience on AQS development with millions of miles road experience, production and application
- + Largest production of gas sensor elements worldwide inhouse
- + Easy integration in air inlet area or HVAC system
- + Broad product portfolio to cover different applications and interfaces

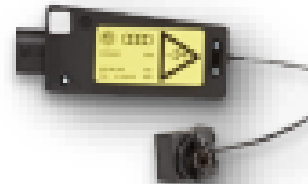
History/Status/Timeline:

1993	SOP in Suhl, Germany
2016	SOP in Kunshan, China

Spotlight Business Unit Sensors

Air Quality Improver (AQI)

- Fresh air effect by artificial ionization
- Enhancing of well-being of vehicle passengers
- Fine dusts, gases and smells are bound by negative ions
- Reduction of germs and bacteria in vehicle interior through physical air treatment
- Different types for various applications:
 - *Standard-mode*: negative ions
 - *Advanced-mode*: positive and negative ions



USPs

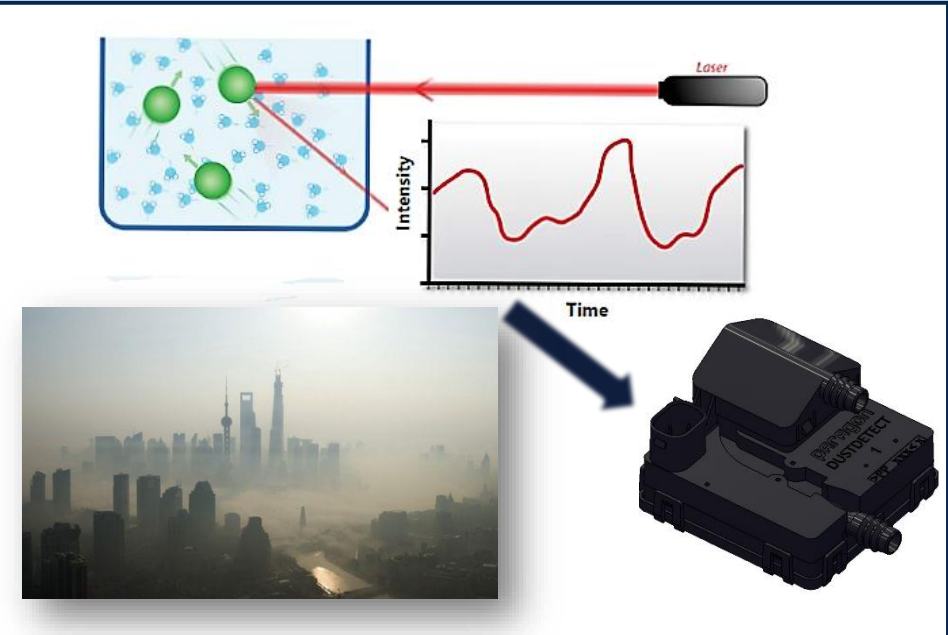
- + Easy integration in HVAC system or air duct (1 ECU for 2 emitters)
- + Broad product portfolio to cover different price levels and interfaces
- + Foreign Object Detection (FOD) available
- + Very low O3-emission

History/Status/Timeline:

- 03/2012 SOP in Suhl, Germany
- 12/2020 SOP in Kunshan, China

Particulate Matter Sensor DUSTDETECT

- Measurement of in-cabin and environmental particulate matter
- Particulate matter sensor based on the laser light scattering principle
- Optical Particle Counter (OPC, less sensitivity to pollution of optics in comparison with Photometer)
- Size discrimination PM1, PM2.5 and PM10
- Fast measurements (1/s)
- For outside and in cabin measurements



USPs

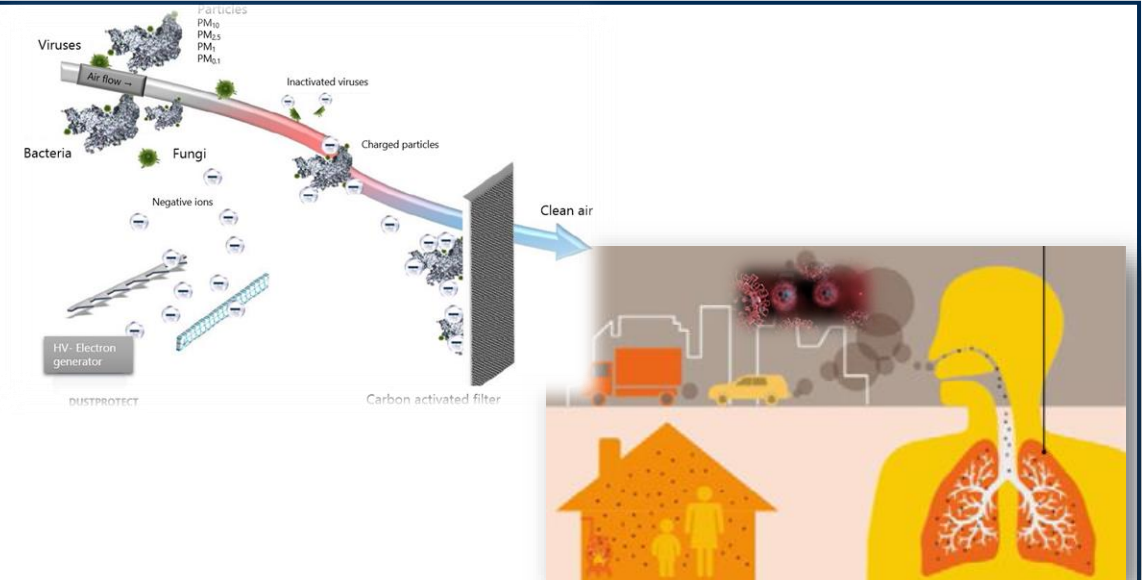
- + Broad product portfolio to cover different use cases and installation space (one-channel, two channels and pressure-free)
- + Cost and size optimized

History/Status/Timeline:

Q3/2019	SOP in Suhl, Germany
Q2/2021	SOP in Kunshan, China

Electronic filter DUSTPROTECT

- The paragon DUSTPROTECT HV plasma filter cleans the vehicle interior by filtering particles and viruses with the efficiency like a HEPA filter
- Particles, **viruses**, bacteria and pollen are electrically charged and afterwards captured in an electrostatic fiber filter
- The filtration efficiency is enhanced without increasing the pressure drop in the HVAC. This saves energy (extremely important for E-cars) and improves the acoustic comfort in the interior



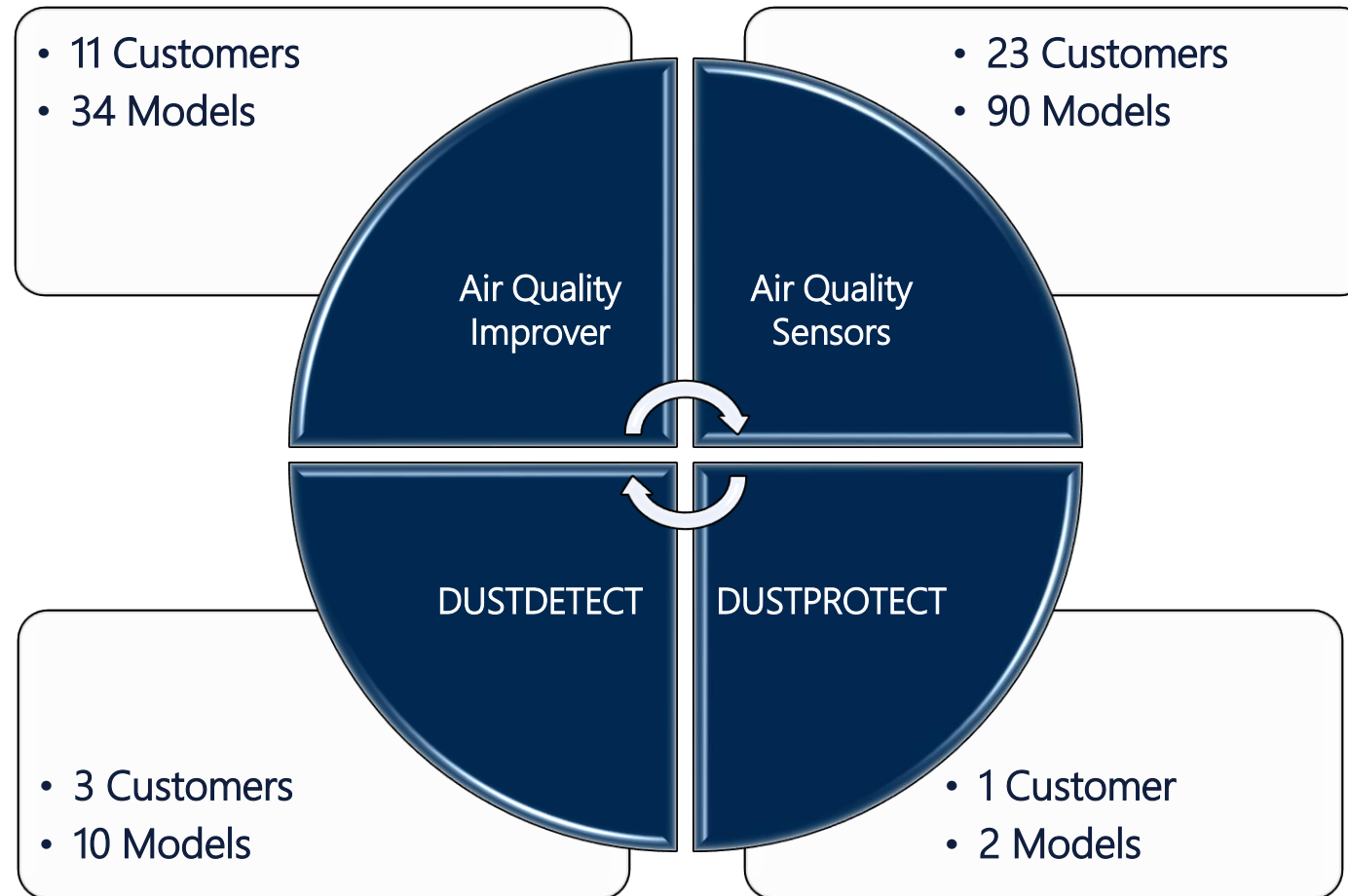
USPs

- + Different custom-made integration solutions
- + Very low pressure drop
- + Competitive costs in comparison with HEPA filters

History/Status/Timeline:

2019	Proof of concept (at FIATEC)
2020	Prototypes for several OEMs
2021	1st series contract booked
2023	1st automotive SOP

Sensors – Worldwide Market Penetration



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2021: Financial Highlights

Strengthening the foundation

Financial results in line with forecast

Focus on
Automotive

Implemented
measures for
operational
performance

Reduction of debt

EBITDA up 44.8%

Revenues up 15.5%

2021: P&L Development paragon Automotive

Income Statement in MEUR	2019	2020	2021
Revenues	135.9	127.2	146.9
Other own work capitalized	11.3	4.9	7.4
Change of finished goods	-4.5	-8.5	0.4
Other operating income	5	2.7	4.8
Total operating performance	147.7	126.4	159.5
Costs of materials	-72.7	-61.6	-72.9
Personnel expenses	-44.2	-34.3	-44.6
Others operating expenses	-21.6	-16.7	-22
EBITDA	9.2	13.8	20
Depreciation & Amortization	-24.7	-24.4	-19.2
EBIT	-15.5	-10.6	0.8

▶ Increase of revenues (+15.5%) despite weak automotive market

▶ Further increase of EBITDA (+44.8%) in 2021

▶ Revenues and EBITDA in line with forecast for 2021

2021: Measures Executed to Improve Profitability

- ▶ Relocation of loudspeaker plant from Neu-Ulm to existing locations in 2021
→ lower fixed costs [savings 2022ff: EUR 700k]
- ▶ Concentration of kinematics production in Landsberg am Lech and Oroslavje (Croatia) in 2021/2022
→ lower fixed costs, products with high manual effort shifted to Croatia [savings 2022ff: EUR 600k]
- ▶ Increased automation (e.g. spoiler for Porsche 992, external loudspeaker for BMW E-vehicles) in 2021
→ lower unit costs [savings 2022ff: EUR 300k]
- ▶ Established R&D in India in 2021
→ lower personnel costs [savings 2022ff: EUR 225k]
- ▶ Better product mix since H2 2021
→ higher profitability
- ▶ Sale of loss-making financial investment in Voltabox AG
→ Free up of management attention
→ Consolidated P&L no longer negatively affected by weak financial results of Voltabox



2021: Focus on Working Capital Management

Inventories

- 15.5% higher revenues must not lead to higher inventories
- + EUR 2.4m compared to December 2020
- Need to ensure delivery capability despite chip allocation
- But negative impact on free cashflow (see later slide)

Accounts Receivable

- + EUR 1.8m compared to December 2020
- Increase mainly related to increased revenues in 2021



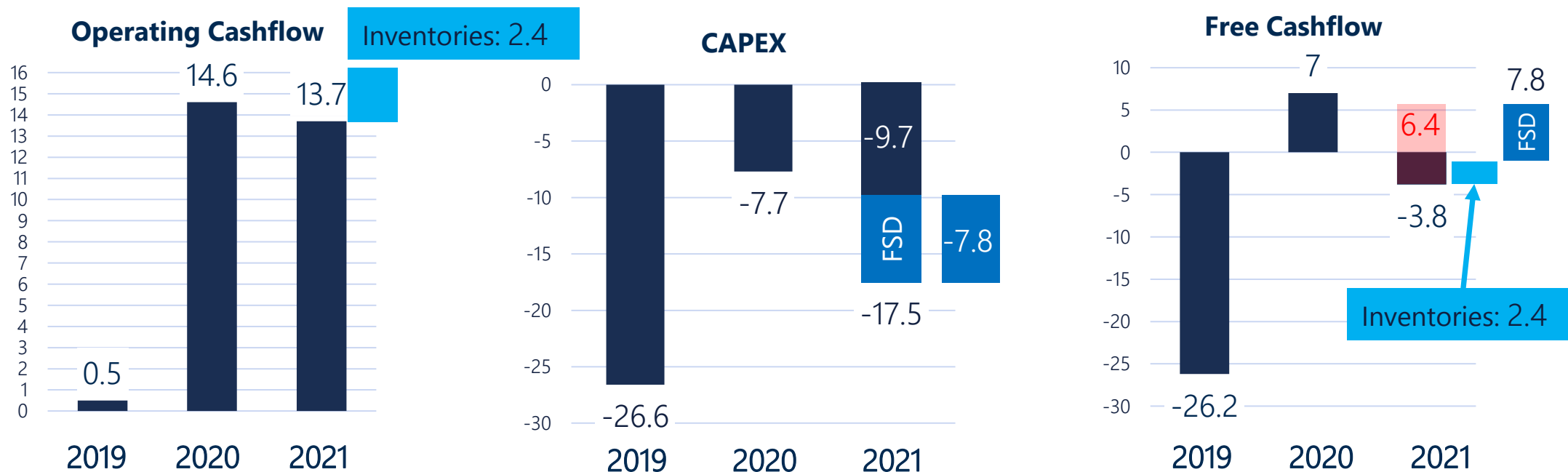
2021: Headcount Development

Distribution of permanent employees at Group sites			
Location	12/31/2021	12/31/2020	Change in %
Delbrueck (corporate headquarters, North Rhine-Westphalia)	187	188	-0.5
Aachen (North Rhine Westphalia)	7	10	-30.0
Landsberg am Lech (Bavaria)	102	103	-1.0
Neu Ulm (Bavaria)	0	47	-100.0
Nuremberg (Bavaria)	11	10	10.0
Limbach (Saarland)	171	117	46.2
St. Georgen (Baden-Wuerttemberg)	34	32	6.3
Suhl (Thuringia)	256	260	-1.5
Total in Germany	768	767	0.1
Kunshan (China)	43	36	19.4
Other European countries (France, Italy)	2	2	0.0
Oroslavie (Croatia)	15	5	200.0
Bangalore (India)	11	0	n.a
Total abroad	71	43	65.1
Total continued operation	839	810	3.6
Delbrück (corporate headquarters, North Rhine-Westphalia)	0	146	-100
Total in Germany	0	146	-100
Austin (Texas, USA)	0	39	-100
Kunshan (China)	0	1	-100
Total abroad	0	40	-100
Total discontinued operations	0	186	-100
Total Group	839	996	-15.8

- ▶ Plant in Neu-Ulm was closed in 2021 and production shifted to other paragon plants
- ▶ Number of employees working in Limbach increased by 46.2% due to intensive hiring for the business unit digital assistance
- ▶ Permanent employees increased only by 3.6% despite an increase in revenue of 15.5%
- ▶ This is the result of efficiency increases on the shopfloor and in the indirect areas

2021: Cost Reductions and Efficiency Increases show Effect

Free cashflow impacted by increase in inventories (EUR 2.4m) and acquisition of FSD technology (EUR 7.8m) in 2021



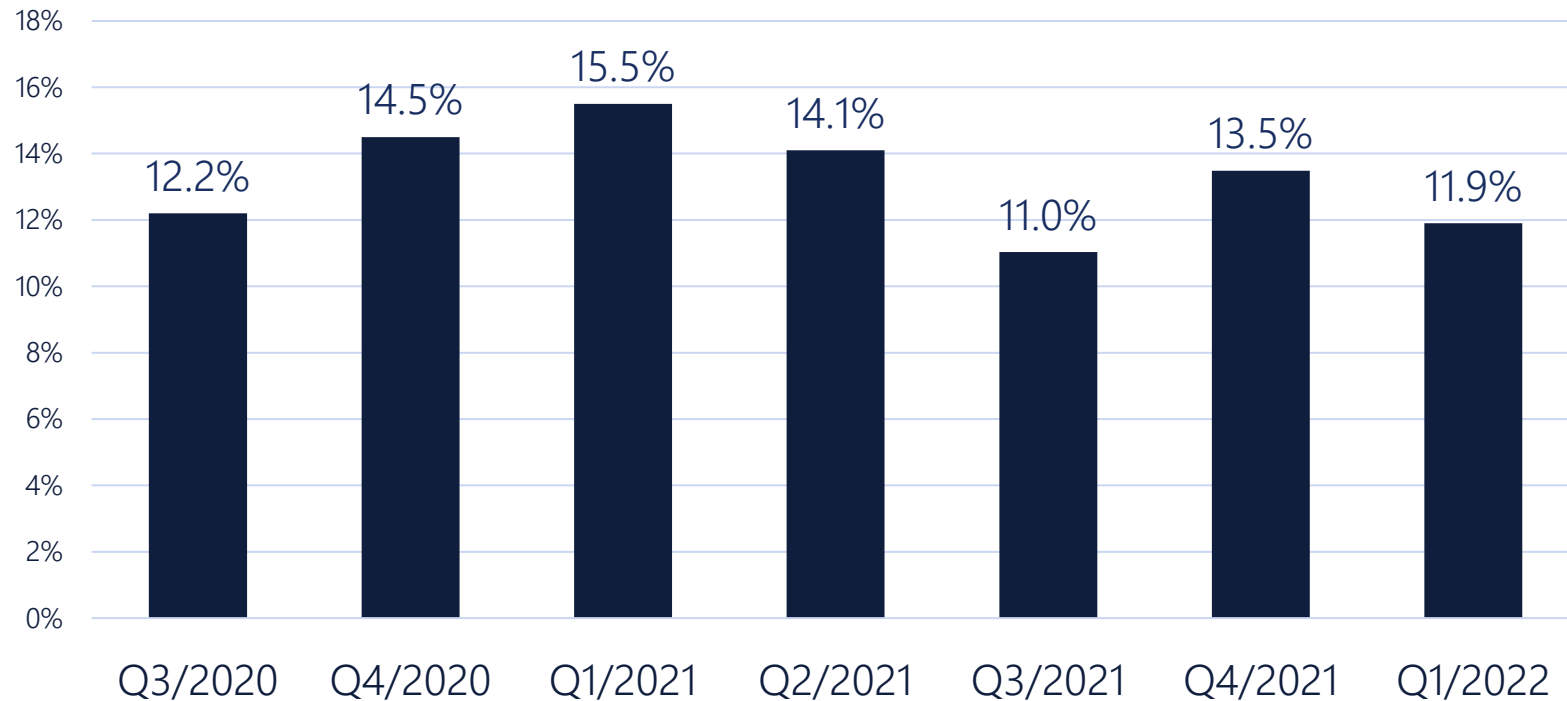
Without inventory increase and acquisition of FSD technology the free cash flow in 2021 would be comparable to 2020

Q1 2022: P&L Development

Income Statement in MEUR	2021	Q1 2022
Revenues	146.9	41.7
Other own work capitalized	7.4	2.7
Change of finished goods	0.4	0.7
Other operating income	4.8	1
Total operating performance	159.5	46.1
Costs of materials	-72.9	-22.8
Personnel expenses	-44.6	-12.4
Other operating expenses	-22	-5.9
EBITDA	20.0	5.0
Depreciation & amortization	-19.2	-4.1
EBIT	0.8	0.9

- ▶ Revenues increased by 6.3% to EUR 41.7m in first quarter
- ▶ EBITDA of 11.9% despite negative one time effects
- ▶ Sale of Aachen activities in first quarter 2022 (book loss of EUR 0.5m)
- ▶ Unrealized currency losses due to weaker EUR to CHF (EUR 0.4m)

Q1 2022: EBITDA in % of Revenues

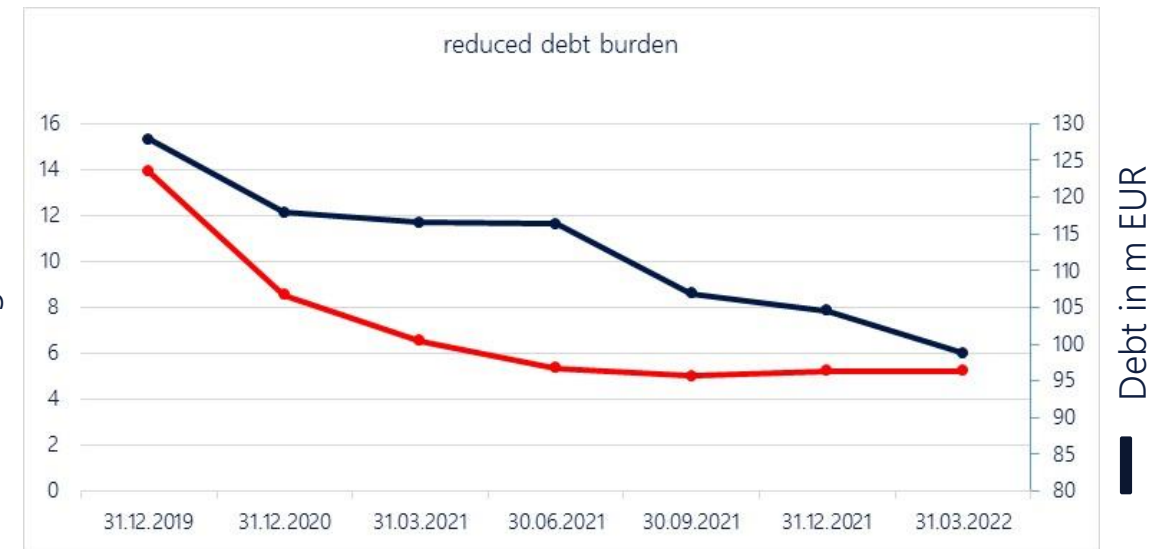
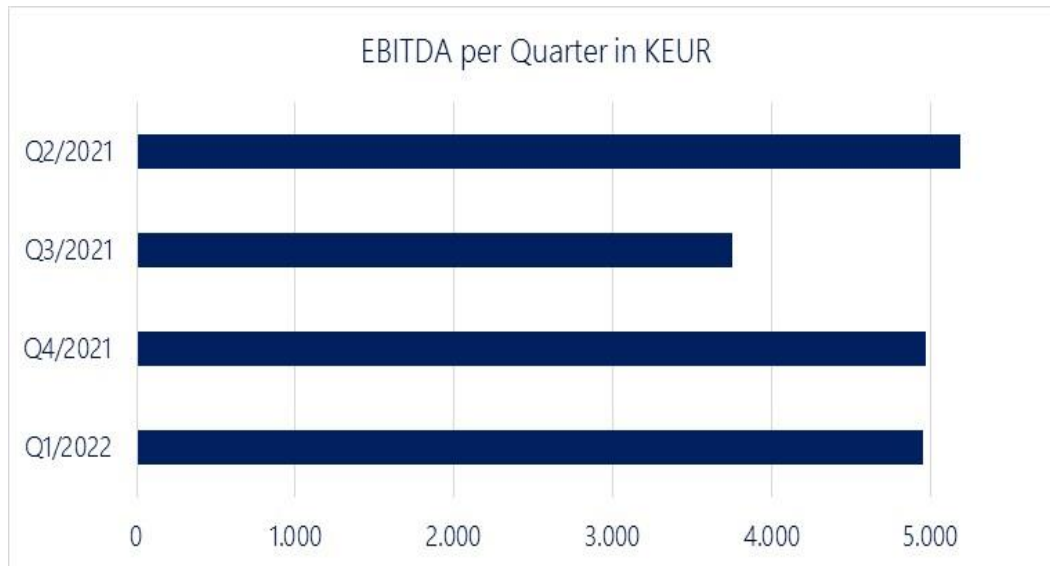


▶ In the last seven quarters (since Q3 2020) paragon was able to achieve **double digit EBITDA margins => robust business modell**

▶ EBITDA margin in 2021 with 13.6% in line with forecast of 12% to 15% despite reduced production volumes of OEMs

▶ EBITDA margin in Q1 2022 influenced by one time costs (book loss from the sale of the Aachen site and noncash unrealized currency losses) but still in line with expectations

Actual Gearing improved to 5.2



paragon-Automotive achieved EUR 18.9m EBITDA in the last 12 months

Total liabilities to banks and bondholders have been reduced by EUR 29.1m to EUR 98.8m from Dec. 2019 to March 2022

Increased profitability and reduced debt improve **gearing** (debt to EBITDA) since December 2019 from 13.9 to 5.2 at the end of March 2022. paragon is committed to further deleveraging step-by-step

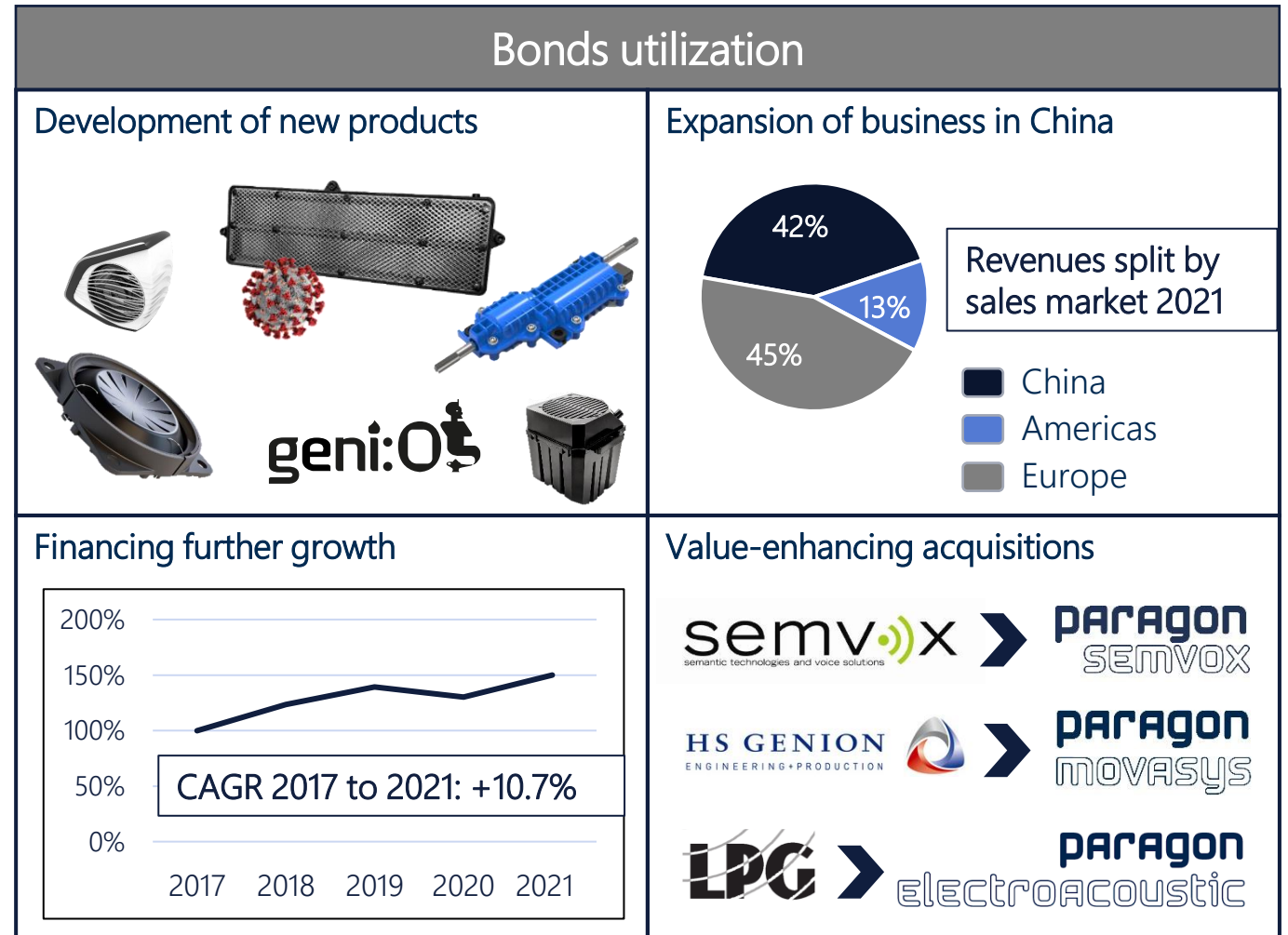
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1. Viable Business Model
2. Financial Results
- 3. Bonds**
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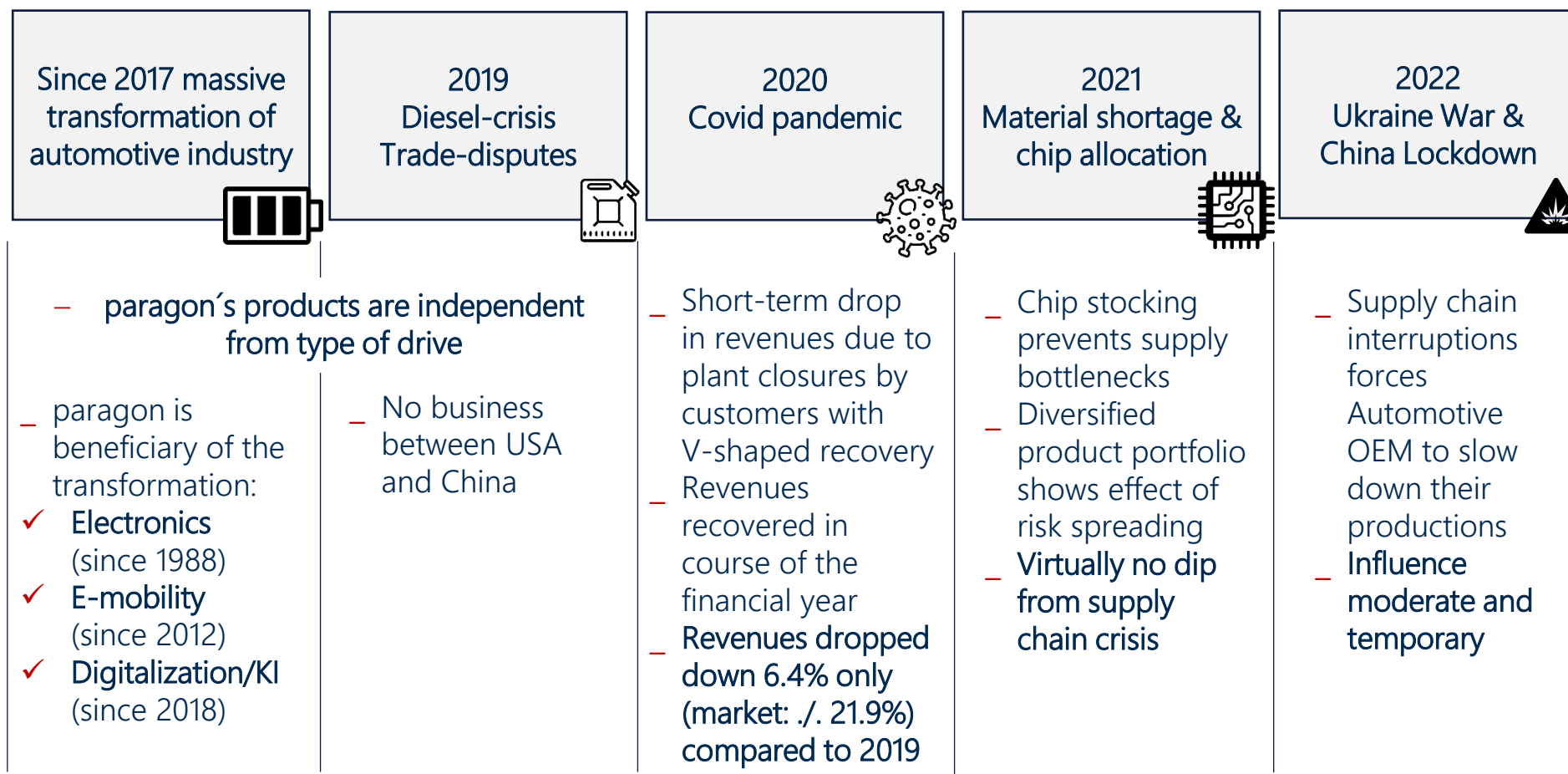
Bonds at a Glance

Bonds boosted market position

- paragon revenues increase despite decreasing market growth and difficult market conditions (in the last 5 years by an average of approx. 11%)
- Largest orders in 2022 are preview of paragon's future
- **Responsible** and **sustainable** use of the bond – no cash burning
- Expansion of **combustion engine-independent product portfolio** sets paragon apart from the market



paragon is here to Stay - Crises come and go



Euro Bond Maturity: Current M&A-Project needed more Time

- ▶ Interested parties tried to push down price in view of redemption 7/2022
- ▶ Sale of assets below value was prevented in the interest of all stakeholders
- ▶ 2020/2021 was not suitable for achieving adequate prices on M&A market
- ▶ Having more time increases the chance of achieving higher prices and allows further refinancing opportunities
- ▶ The issue is not "not being able to pay", it is about preserving values
 - Repayment in 2022 would only weaken the company
 - The aim is to reduce the debt ratio step by step
 - This is possible without damaging the company and keep using the opportunities in future
- ▶ **Prolongation of Euro Bond as preferred measure**

Refinancing of EUR bond Successfully Achieved

99% Vote for prolongation reached with the EUR bondholders on March 10, 2022

- EUR bond is prolonged by 5 years
 - Interest rate increased from 4.5% to **6.75%** (depending on debt ratio decreasing to 5.0%)
 - Interest will then no longer be paid annually but **semi-annually**
 - Additional 2.5% per annum (PIK interest) or convertible note of 3.0%
(*Wandelschuldverschreibung*)
-
- On certain dates in 2023, 2025 and 2026 **early partial repayments or buy backs totaling EUR 25m**
This agreement reflects paragon's intention to further reduce the debt levels

Refinancing of EUR bond ensures the further growth path of paragon

CHF Bond

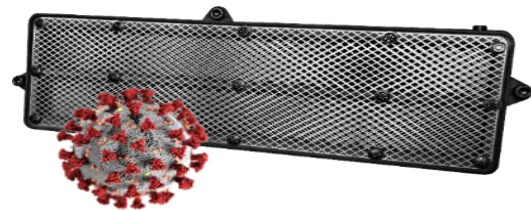
- Original emission was CHF 35m
 - Repayment of CHF 5.25m in August 2021 and of CHF 8.75m in April 2022
 - Total outstanding amount CHF 21m as of today
 - Maturity for these CHF 21m is April 2023
-
- **Refinancing options**
 - Prolongation of five years
 - Voluntary swap into a new bond
 - New bond
 - Exchange bond
 - Sale of business units and use the proceeds to pay back bond
 - Use of Free Cash Flow
 - Or a combination of the above mentioned options

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Recent Developments in Q1 2022

- AI based speech control: New order (EUR 40m)
- DUSTPROTECT: New order (EUR 45m)
- Sale of non-core activities in Aachen
- Sale of production building (formerly Voltabox)



+++ Corporate News +++

paragon wins another record contract - OEM orders anti-virus filters worth EUR 45 million

- OEM order for DUSTPROTECT exceeds the largest contract in the company's history to date from January for a novel AI infotainment system.
- CEO Frers: "These two most recent major orders prove our superior technology and show that our customers are convinced of paragon's sustainable growth path."
- 2026 total sales now seen at upper end of EUR 250 - 300 million target range

Delbrück, April 04, 2022 – Starting in 2025, one of the leading international automotive groups will install the electric anti-virus filter DUSTPROTECT developed by paragon GmbH & CO. KGaA [ISIN DE0005558696] in large numbers further vehicle platforms in China and Germany. The innovative product will be used by the long-standing paragon customer in a vehicle in China as early as 2025.

+++ Corporate News +++

paragon receives largest single order in its history

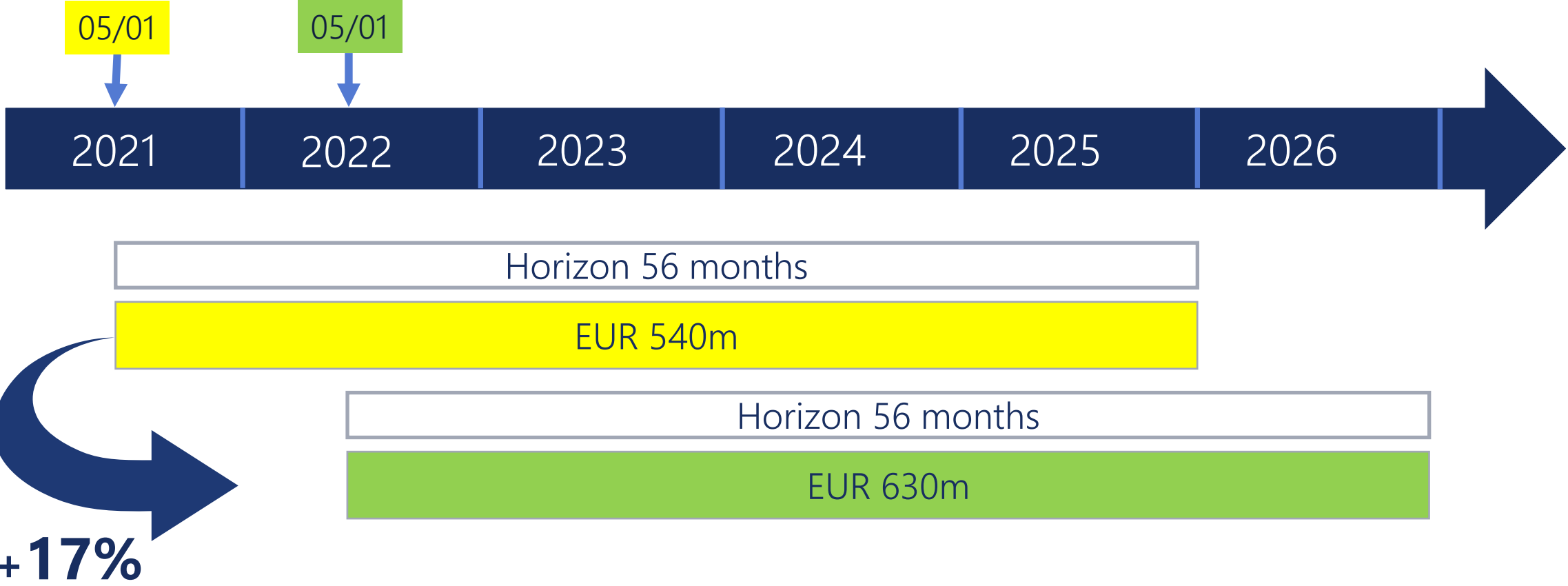
- Strong start to 2022: paragon secures OEM order worth around 40 million euros
- Growth segment of AI-based voice control is becoming a key revenue driver
- paragon will already receive development revenues from this order in 2022
- CEO Frers: "The potential of AI-based voice assistance is far from fully exploited."

Delbrück, 18 January 2022 – paragon GmbH & Co. KGaA [ISIN DE0005558696] is capitalizing on its innovation leadership in AI-based voice assistance systems by securing the largest order in the company's history to kick off 2022.

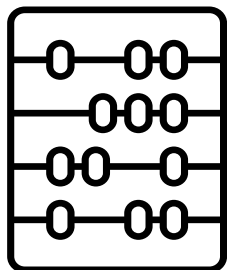
One of the world's leading automakers has opted for the geni:OS voice assistance system developed by paragon subsidiary paragon semvox GmbH and will equip millions of vehicles with this adaptive AI-based software from 2024. The development phase for this groundbreaking technology will get underway in the spring. As is customary for projects of this nature, paragon will already receive significant development revenues from the customer for performing this crucial groundwork in the current calendar year.



Booked Business

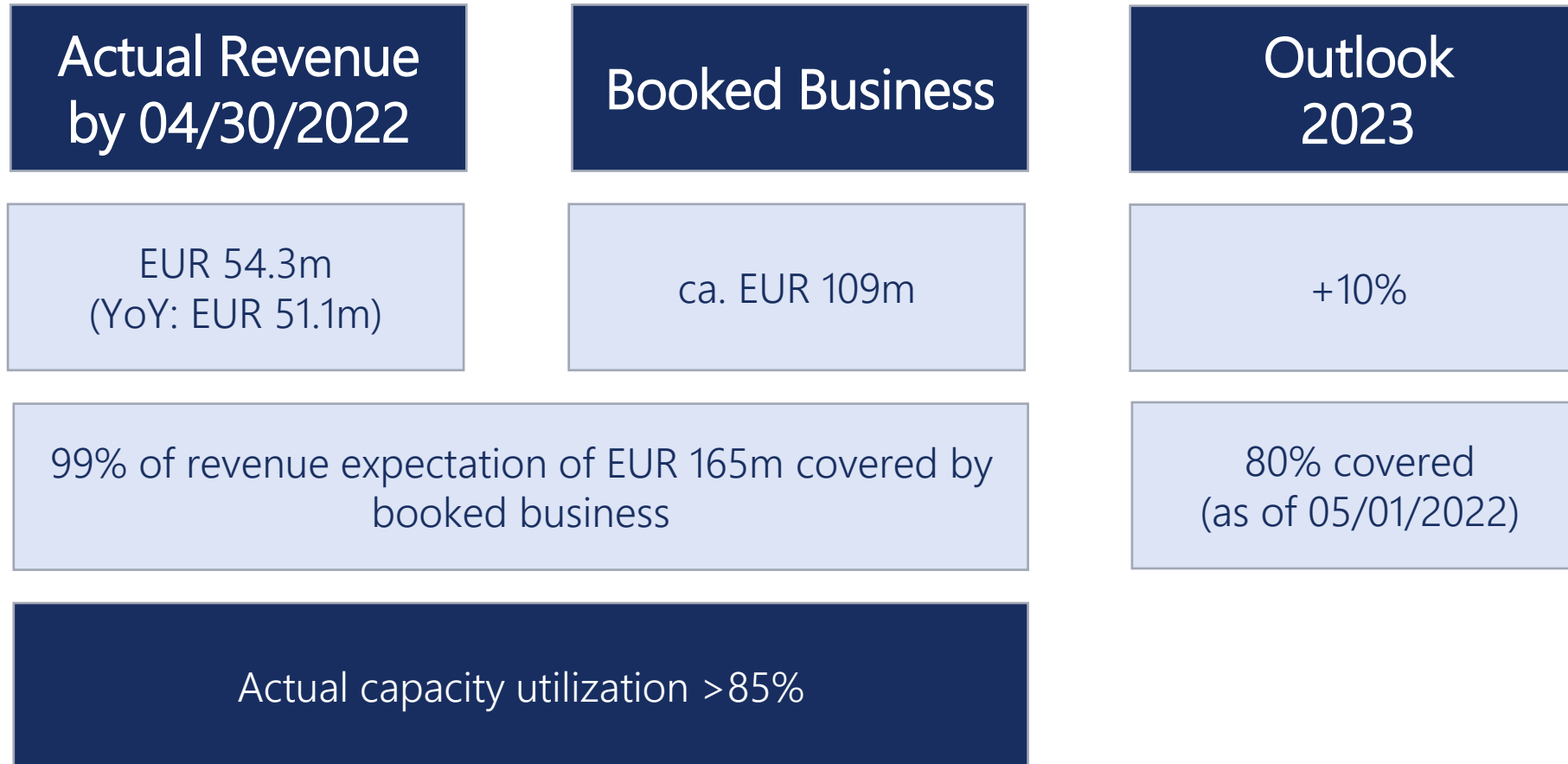


Forecast



	Forecast from November 2021		Forecast from 05/16/2022	
	Revenues	EBITDA margin	Revenues	EBITDA margin
2022e	EUR 155-165m	>15%	EUR 165m (+12% YoY) and potential for further guidance increase	>15%
2023e			Growth > 10%	

Current Trading and Outlook



Plausibility Check of paragon's Corporate Planning

- Review of paragon's five year plan by well-known consulting company **Dr. Wieselhuber & Partner**

Key messages:

- The expected growth rate is 20% p.a. - EBITDA is increasing from 13.7% in 2021 to 20% in 2026
- **Based on higher revenues and improved profitability paragon is able to reduce the debt level and increase the equity ratio**
- "We consider the **annual revenue planning presented to be plausible and achievable.**"
 - "The **planned increase in sales revenue is mainly based on secured orders in the short term and on defined projects** in the long term.
 - The **fixed cost degression set in the planning appears equally achievable** in the context of the value creation structure and the investments included in the planning.

- "We also consider the annual **balance sheet and cash flow statement derived from the earnings planning to be plausible and achievable.**"

Summary

- Focus on Automotive – Major business wins for business units Sensoric and Digital Assistance
- Orderbook +17% within a year
- Revenues increased in Q1 2022 despite weaker automotive market
- EUR Bond successfully prolonged in March 2022
- Businessplan confirmed by Dr. Wieselhuber & Partner
- Sale of loss-making Voltabox AG has relieved paragon of a burden and released energies
- Voltabox obstructed view of the capital market

paragon outperforming the automotive sector since years

Thank you for your attention.

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

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The background of the entire page is an abstract, motion-blurred image. It features a central perspective of a tunnel or a road that curves to the right. The colors are predominantly shades of blue, ranging from light sky blue to deep navy blue, with streaks of purple and magenta. The blurring effect creates a sense of high speed and dynamic movement.

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