

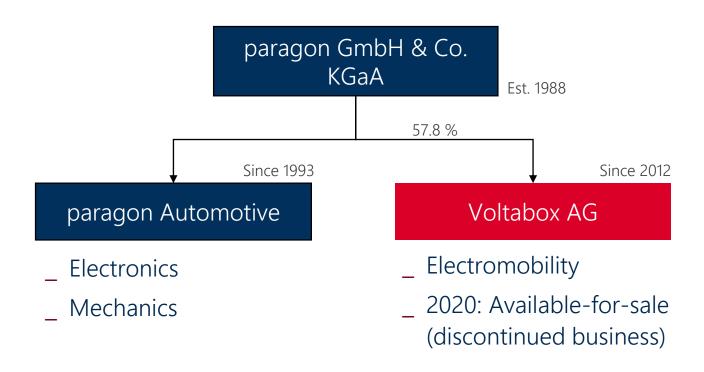


paragon GmbH & Co. KGaA H1/2020:

Strong recovery after forced plant shutdowns

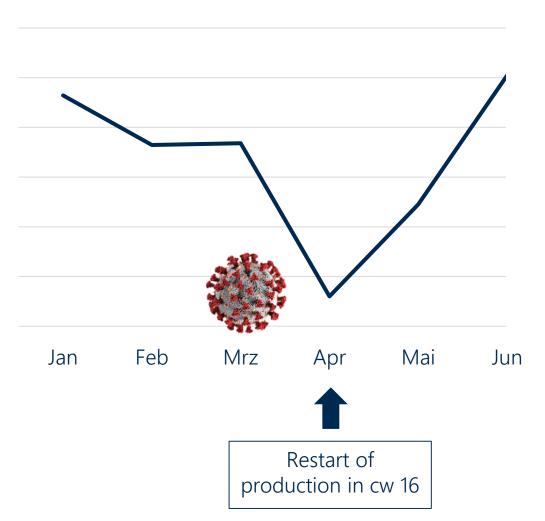


Company Structure





Revenue Development in H1/2020 Shows V Formation



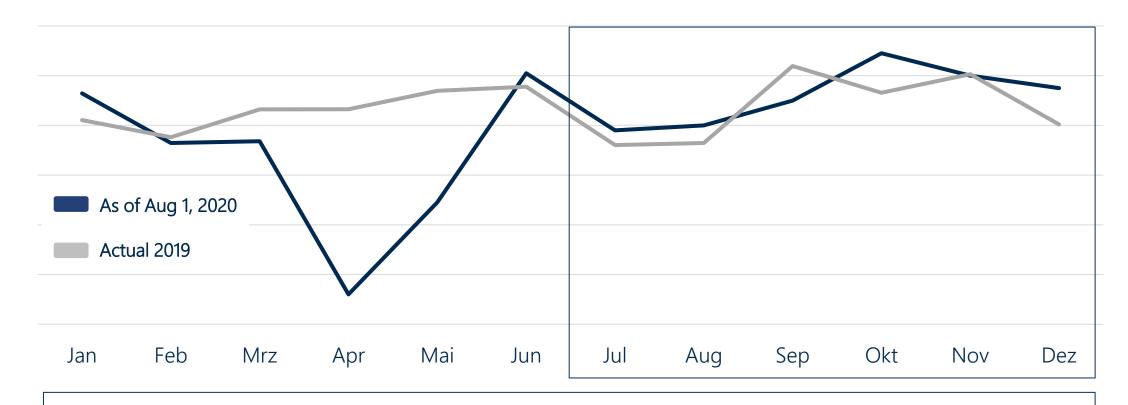
Production restarted from week 16 onwards / logistical challenges mastered; average capacity utilization at 95% of previous year



Corona-dip is behind us!



Forecast H2/2020 Equals Previous Year



Actual figures from July and August including forecast September to Dezember indicate:

H2/2020 revenues could mirror H2/2019



Strong Recovery

- Corona impact on revenues less severe than originally expected
- _ Rapid recovery of Chinese market direct and indirect deliveries to China estimated to determine 40% of paragon's sales
- Strong increase of major vehicle sales production portfolio adapted
- Production capacity nearly fully utilized
- _ Already 9 extra shifts completed for key products capacity increase on the way



paragon Automotive - Retrospective

2020



- **+** Sensors +12.3 %
- (+) Overall turnover +10 %
- March: Comprehensive production stoppages at all automotive customers
 - All paragon production plants closed for 6 weeks
 - Short-time work
 - Salary cut at management level



paragon Automotive - Retrospective

2020



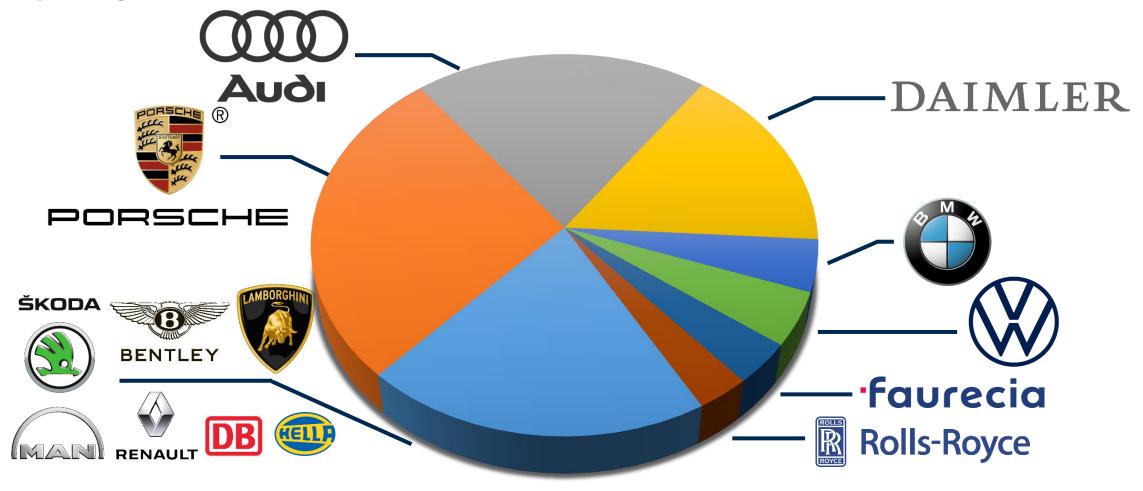
- Review of all capital expenditure activities
- Focus on working capital management
- + Focus on cash management
- + Focus on cost-saving activities
- Successful restart of production

(+) May & June

- Negotiated price increases for various products
- (+) Capacity usage in general on previous year's level
- Already 9 extra shifts



paragon Automotive Customer Structure H1/2020





P&L Development 2017-2020 in Comparison

P&L paragon Automotive in €m	H1/ 2019	Q1/ 2020	Q2/ 2020	H1/ 2020
Revenues	64.0	29.5	20.5	50.0
Capitalized development costs	6.6	1.9	1.2	3.1
Change in finished goods and WIP	-0.2	-1.6	-0.3	-1.9
Other operating income	3.0	1.7	0.5	2.2
Total performance	73.4	31.5	21.9	53.4
Material costs	-38.5	-14.4	-12.2	-26.6
Personnel costs	-22.2	-10.6	-6.3	-16.9
Other expenses	-7.6	-4.5	-2.0	-6.5
EBITDA	5.1	2.0	1.4	3.4
EBITDA in %	8.0%	6.8%	6.8%	6.8%
Depreciation	-6.9	-4.4	-4.5	-8.9
EBIT	-1.8	-2.4	-3.1	-5.5

Revenues H1/2020

- _ Kinematics' sales robust with only 12.5% decline to € 16.5m
- _ Increase Digital Assistance by 30.8% compared to H1/2019
- _ Electronics segment € 33.5m (prior year: € 45.1m)

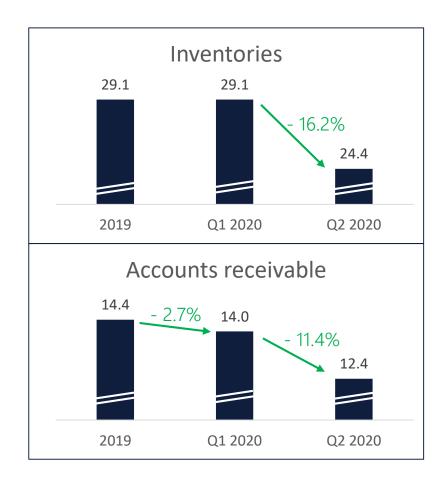
EBITDA margin H1/2020

- Only slight decrease compared to H1/2019 despite
 Corona-influence
- Same level as FY 2019 previous year was burdened by one-time effects
- EBITDA margin in June was 17% showing the potential of implemented cost-saving measures



Focus on Working Capital Management

- _ Inventories reduced by 16.2% from Q1 to Q2 through active management of stocks at hand
- Reduction of receivables by 13.9% from 2019 to Q2 due to improved collection of overdue and one time payments from customers
- Positive cash effect results in € 6.7m

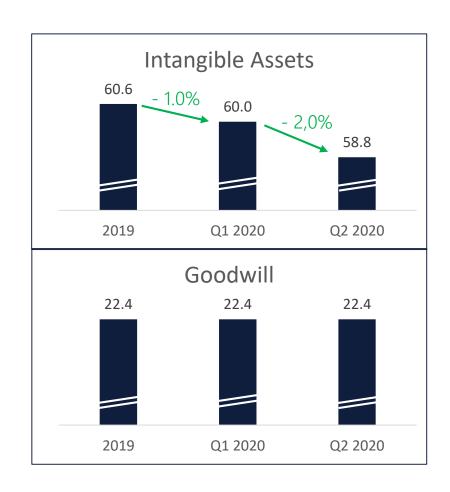




No Influence of Corona for Goodwill in 2020 Expected

Goodwill stable at € 22.4m

- _ € 16.1m (71.9%) of goodwill stands for paragon semvox GmbH → very successful and promising AI-technology with increasing penetration rate in European market
- — € 5.1m (22.8%) apply to paragon movasys GmbH
 → already partly amortized by 31.12.2019 (was
 € 6.6m by 31.12.2018) due to change of forecast





New Forecast for 2020

Forecast 2020 paragon-Automotive (post-Corona) improved:

Revenues 2020e

€110 to 120m (was € 105 to 115m)

EBITDA margin 2020e

8 to 12% (Significant effects of cost savings expected)

Investments 2020e

€ 15 to 20m (was € 20m)

Outlook



First Trends for 2021 and 2022

Magnitude of revenues 2021

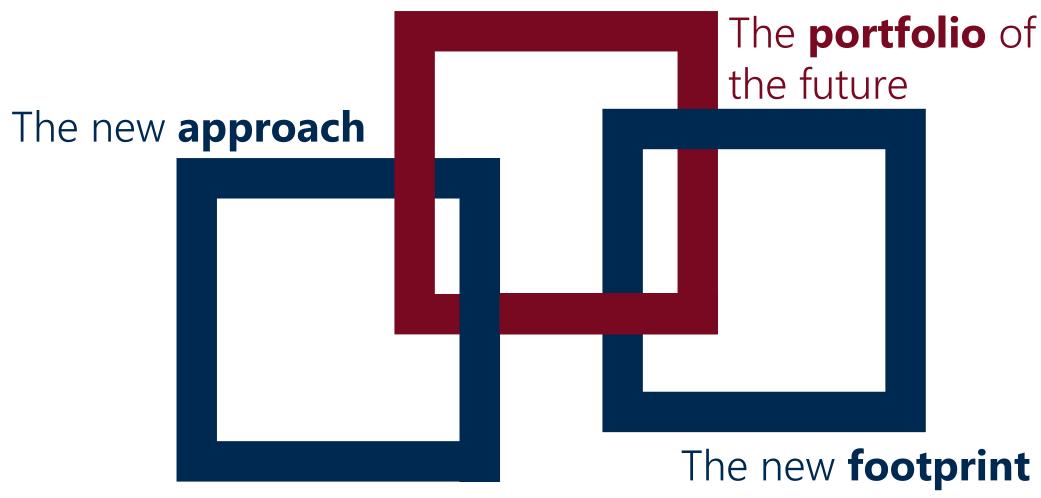
likely to repeat 2019

Magnitude of revenues 2022

back to pre-Corona budget



The paragon 2021 - Re-inventing paragon



PACAGON®

Software as a Product



E.D.W.I.N. Enhanced Driving With Intelligence

Goal Development of own ecosystem for Al-assistants

- Explainable and controllable Al
- Speech Recognition
- Speech Synthesis
- Sovereignty of digital data
- Emotion recognition and processing
- Eco-system for services and solutions

Edwin | The digital buddy



Software Increases Product Performance

Perfect subwoofer

- Criterium: Maximum air movement to enable outstanding speaker performance
- Limitation: classic loudspeaker design limits acoustic utilization of diaphragm to 50%
- New: paragon's real-time software algorithms compensate nonlinearities of loudspeakers and significantly increase diaphragm utilization range
- New: paragon active speaker with outstanding diaphragm performance allowing for reduction of volume (up to 50%), weight (up to 50%) and cost (up to 30%)



PACAGON®

Software Enables New Products

Road Noise Cancellation

- _ Goal: Reduction of driving noise in vehicle cabin
- Limitation: Identification of noise as well as calculation and processing of counter-noise must be faster than acoustic travel of noise to the ear; state-of-the-art noise cancellation systems with 10 ms signal delay sufficient for engine noise only
- _ paragon's innovation:
 - Concept with inherent signal processing time below 1 ms enables elimination of additional relevant noise sources (tires and chassis) as well
 - Super flat and powerful speakers to enhance noise cancellation performance by being mounted close to ear, e. g. integrated into headrest

