INTEGRATION AND GROWTH.

ANNUAL REPORT 2018

At a Glance

Highlights from Fiscal Year 2018

- Group sales increase 50.1% to € 187.4 million (prior year: € 124.8 million)
- EBITDA up 104.5% to € 30.3 million (prior year: € 14.8 million)
- EBIT increases 173.9% to € 14.8 million (prior year: € 5.4 million)
- Revenue 2019 from € 230 to € 240 million expected with an EBIT margin of around 8%

Group Key Figures (IFRS)

In € thousands/as indicated	**Jan. 1 to Dec. 31, 2018**	Jan. 1 to Dec. 31, 2017	Change in %	**Oct. 1 to Dec. 31, 2018**	Oct. 1 to Dec. 31, 2017	Change in %
Revenue	187,383	124,823	50.1	68.576	40,078	71.1
EBITDA	30,290	14,810	104.5	13,118	2,215	492.4
EBITDA margin in %	*16.2*	*11.9*	*n/a*	*19.1*	*5.5*	*n/a*
EBIT	14,832	5,415	173.9	7,144	-717	n/a
EBIT margin in %	*7.9*	*4.3*	*n/a*	*10.4*	*-1.8*	*n/a*
Group result	3,365	-3,968	n/a	1,405	-6,170	n/a
Earnings per share in €	0.52	-0.30	n/a	0.24	-0.82	n/a
Investments (CAPEX)[1]	48,805	21,802	123.9	23,889	24,269	-1.6
Operating cash flow	-53,475	-9,967	436.5	-18,118	-13,273	36.5
Free cash flow[2]	-102,280	-31,769	221.9	-42,007	-37,542	11.9

In € thousands/as indicated	**Dec. 31, 2018**	Dec. 31, 2017	Change in %	**Dec. 31, 2018**	Sep. 30, 2018	Change in %
Total assets	362,293	307,956	17.6	362,293	309,149	17.2
Equity	177,799	175,969	1.0	177,799	174,364	2.0
Equity ratio in %	*49.1*	*57.1*	*n/a*	*49.1*	*56.4*	*n/a*
Free liquidity	48,926	166,826	-70.7	48,926	73,517	-33.4
Interest bearing liabilities	110,636	86,336	28.1	110,636	95,564	15.8
Net debt[3]	61,710	-80,490	n/a	61,710	22,047	179.9
Employees[4]	1,032	678	52.2	1,032	847	21.8

Share

	Dec. 31, 2018	Dec. 31, 2017	Change	**Dec. 31, 2018**	Sep. 30, 2018	Change
Xetra closing price in €	17.48	78.68	-77.8%	17.48	37.35	-53.2%
Number of shares outstanding	4,526,266	4,526,266	0.0%	4,526,266	4,526,266	0.0%
Market capitalization in € million	79.1	356.1	-277.0	79.1	169.1	-90.0

1 CAPEX = Investments in property, plant and equipment + investments in intangible assets
2 Free cash flow = Operating cash flow – Investments (CAPEX)
3 Net debt = interest bearing liabilities – free liquidity
4 Plus 107 temporary employees (December 31, 2017: 130; September 30, 2018: 88)

Letter from the Management Board

DEAR SHAREHOLDERS, CUSTOMERS, BUSINESS PARTNERS AND EMPLOYEES,

Last year we once again boosted the pace of our growth, as was previously announced. We increased our Group revenue by 50% to around € 187 million and our EBIT by 100% to around € 15 million. Our EBIT margin is 7.9%. We have thus fully matched our forecast, which we most recently updated on August 21, 2018, and have fulfilled the capital market's expectations.

The past fiscal year was defined by growth and integration. With these goals in mind, we once again made a series of far-reaching decisions and initiated related measures. Thanks to the company's transformation into a limited liability company and partnership limited by shares (GmbH & Co. KGaA), the continued expansion of its top management team, its successful acquisitions and its latest innovative new product developments, paragon is now better placed to face the future. This was our top priority in view of the revolutionary changes afoot in the automotive value chain. Within our Electronics operating segment, Interior (which combines Acoustics and Cockpit) and Digital Assistance have been established as new units. At the same time, we have laid the foundations so that in the future we will be able to operate even more effectively as a system provider in our rapidly growing market segments.

Our tried-and-tested business model is based on our independent development of product innovations in the following fields of innovation: shared mobility, connectivity, e-mobility, autonomous driving, digital assistance and emission control. We are thus making a lasting improvement to the driving experience of tomorrow. The latest product innovations that we presented at the Consumer Electronics Show in Las Vegas at the start of this year met with strong interest from visitors. Potential end customers were able to try out these innovations for themselves in our specially developed driving simulator. Over the remainder of the year, we will pursue targeted marketing activities through various communication channels in order to support our growth trajectory.

The year's many highlights certainly include our entry into the field of voice-controlled interactive solutions and digital services through our acquisition of SemVox. This is a relatively young market segment of the automotive sector that is set to enjoy particularly strong growth over the next few years thanks to artificial intelligence and machine learning. Several German car manufacturers are already integrating SemVox's platform into series production for their own systems, and further model series with millions of units will be added over the course of the year.

Nonetheless, the increasingly difficult capital market environment – which was even tougher in the automotive sector due to various profit warnings from other companies in the second half of the year – has significantly increased the level of uncertainty on the part of investors. In addition to volatile trading, geopolitical risks and the uncertainty about the impact of U.S. trade policy on the world economy, the change in the U.S. yield curve in particular was seen as indicating an impending slowdown in the real economy.

Despite the company's independent business model, which clearly differs from that of other automotive suppliers, the paragon share was unable to remain immune in the face of this negative overall trend. It should be borne in mind here that a valuation of the company based on relative financial ratios does not accurately represent paragon's considerable future potential in its current growth phase. Accordingly, the operational progress we have made in implementing our growth strategy should also always be taken into consideration, and we regularly report on this in our publications. During the development phase of our new business units, this is naturally placing a strain on our working capital and resulting in a negative free cash inflow. Within the scope of our forward-looking investment and liquidity planning, we ensure that we use available cash and cash equivalents where this promises the greatest possible leverage for our future company growth. We generally use the broad spectrum of available instruments for financing purposes without diluting the shares held by existing investors. Against this background, in October we also opposed the taking up of another corporate bond. The conditions that could be realized on the capital market at the time were not acceptable from our point of view.

Our corporate management strategy serves the primary goal of a long-term increase in our enterprise value. The family context in which we have made business decisions for some decades now affords us the necessary scope for this. In our view, the fact that our medium-sized company is family-oriented but also publicly traded is a key ingredient of our success.

The Voltabox subgroup also performed very well in the past year and fully achieved its goals, with a 145% increase in revenue to around € 67 million and even exceeded its target EBIT margin, at 8.4%.

In the 2018 fiscal year, we passed the threshold of 1,000 employees in the paragon Group. These employees are distributed across 10 German and two foreign sites (in Austin, Texas, USA, and in Kunshan, China). We have thus now reached a size that our increasing need for space necessitates physical structural changes. By mid-2020, around 500 employees at our Delbrück location will have begun to work at the newly built Hagen business park. On the site of a former furniture factory that covers almost 17 soccer pitches, an extensive new building project that will gradually provide more space for our planned expansion is currently underway. In April, Artega GmbH – which is not part of the paragon Group – will begin to produce its "Microlino" small electric car at this site; the Microlino uses batteries from Voltabox, among others. In late 2019, paragon movasys GmbH will then move into a new building, followed by Voltabox AG and, finally, paragon GmbH & Co. KGaA with a new headquarters.

All of us at paragon once again have a lot of plans for the current fiscal year. For our Electronics and Mechanics automotive operating segments, we expect the current market trends to remain largely as they are. For this year, that will mean weak global growth in overall terms in the sales market for cars. However, the premium segment of major German automotive manufacturers that paragon caters to will once again outperform this trend. Our pace of growth will therefore also once again outstrip the market as a whole. With our specific product/customer mix, we consider ourselves to have an outstanding market position to achieve this. As well as increasing e-mobility, we see digitization, artificial intelligence and networked and automated driving in particular as the key factors driving the growth of the automotive market. We are very well positioned for this and in this connection we would like to expressly thank Dr. Stefan Schwehr, who leaves the management as planned on March 31, 2019 after 5 years in order to devote himself to managing his own entrepreneurial activities in the home hi-fi area as a managing partner of audionet GmbH. While Dr. Schwehr was initially instrumental in shaping the product offensive for the IAA 2015 and the introduction of modern, agile methods in leadership and product development, he subsequently concentrated on paragon's digitization strategy. Most recently, Dr. Schwehr ensured the smooth integration of SemVox GmbH into the paragon group.

For the Electromobility operating segment, we expect market growth of around 12% in the submarkets served by Voltabox. With a revenue forecast of between € 105 and 115 million and an EBIT margin between 8% and 9%, Voltabox will therefore once again achieve particularly strong growth.

Accordingly, we envisage a Group revenue figure of between € 230 and 240 million, which will again be subject to the normal seasonal fluctuations at Voltabox in the current year. We envisage an EBIT margin of around 8% at Group level, in line with our goal of profitable growth.

We would like to take this opportunity to thank all our employees for their outstanding work and our business partners, customers and shareholders for their trust.

Klaus Dieter Frers
Chairman

Dr. Matthias Schöllmann

Dr. Stefan Schwehr

Integration and growth –
Interview With the Management Board

Dr. Matthias Schöllmann, Klaus Dieter Frers, Dr. Stefan Schwehr (from left to right)

Mr. Frers, Dr. Schöllmann, Dr. Schwehr, you have set new records in the company's 30th anniversary year – from your point of view, what were the greatest achievements?

Frers: Following the crucial decisions we made in 2017 – I hardly need to mention the extremely successful IPO of our subsidiary Voltabox, our emergence as the world market leader for body kinematics through our acquisition of HS Genion GmbH and our successful € 50 million bond issue – with revenue growth of 50%, 2018 proved that we can achieve profitable growth even in a politically and economically challenging environment.

We say what we do, and we do what we say. In the end, reliability and long-term planning pay off. In 2018, we also adjusted our corporate structure in line with our growth; this is a process that we will bring to fruition in

2019, thus further enhancing our external transparency. – I am really proud of the fact that we have opened the gateway to the digital automotive world through our acquisition of 82% of the shares in SemVox GmbH. We could not be better positioned to face the challenges the future has to offer.

To date, the Electronics operating segment has impressively represented paragon's long-standing core business. What is the purpose of changing how the business units are structured?

Frers: The merger of the Acoustics and Cockpit units made sense; these two units had long since been pursuing joint development projects. Their activities were increasingly converging from a product point of view, and their combined form as the Interior unit clearly demonstrates where all of this will end up: the in-car human-machine interface that utilizes all of the human senses. And since our acquisition of SemVox, this includes the use of artificial intelligence and machine learning. All of our previous digital activities, such as cloud-based services, have now been integrated within paragon semvox.

The acquisition of SemVox was already something of a paradigm shift for paragon, as a specialist for the automated production of electronic components and systems. This demonstrated that you are responding to the fundamental changes in the automotive value chain. But considering its origins as a project at the German Research Center for Artificial Intelligence, you are faced with a different business culture here as well as different operational processes and revenue models. How will you ensure the optimal integration of SemVox within the paragon Group?

Dr. Schwehr: For one thing, paragon semvox is now a proven partner of the automotive industry and is thus accustomed to the same processes and workflows that paragon's products undergo as part of series development. This common ground is an important aspect of the integration process.

And, right from the beginning, we have emphasized close integration with the Interior operating segment, which was established at the same time and in which our previous Acoustics and Cockpit units have now been incorporated as departments. Thanks to this measure, paragon semvox products can already be integrated within the electronics platforms of our Interior unit. This enables us to create further added value for the paragon portfolio.

This integration will be pursued even further through a new joint site in Limbach (Saarland) as well as our first joint projects, such as the voice-enabled assistant "Edwin" that we presented at the CES in Las Vegas at the start of the year.

In the Mechanics operating segment, the enormous rate of growth year-on-year is striking. What role will your acquisition of HS Genion in late 2017 play in the future, and are you satisfied with its integration so far?

Dr. Schöllmann: paragon movasys – in which we have combined the existing activities of our Body Kinematics unit and those of our acquisition HS Genion – is playing an prominent role in the paragon Group as a whole. The automotive sector's dynamic revenue growth has been strongly driven by the series launches of new product generations at paragon movasys.

Despite the integration activities that are unfolding at the same time, our strong focus on the quality of the launch process meant that we were able to ensure the successful completion of all of the production launches that were scheduled for the past year. We also successfully acquired new customers. For instance, paragon movasys has already produced sliding door modules for autonomous taxis and minibuses in small tranches.

All in all, with its growing product portfolio, the Body Kinematics unit has thus contributed not only to safety and energy efficiency but also to the major growth market of autonomous driving.

What can we expect for the future development of paragon movasys? Do you already have concrete plans here, and what has happened to the one-off expenses in 2017 you intended to pass on to customers last year?

Dr. Schöllmann: The introduction of our proven paragon processes at movasys in Landsberg am Lech, in order to safeguard quality and productivity levels, did require some initial effort, certainly also from a financial point of view. We are also introducing our new ERP system throughout our Group. Further important series launches in the first half of the current year will tie up movasys's resources. Aside from this, we are focusing on attracting profitable new business through our marketing activities. We are keeping a very close eye on the rapidly growing market segment of the new automotive manufacturers.

In view of the increased expenditure I mentioned before, at the end of the past year we agreed a solution with our customers; one-off payments and higher prices for parts are one aspect of this.

Does that mean that the Group will undergo further changes to its structure, like through acquisitions or spin-offs? Or will you follow the automotive industry trend of increased cooperation?

Frers: We have always successfully combined in-house development, targeted acquisitions and promising partnerships. None of that will change. In 2019, there will certainly once again be some interesting news in terms of our cooperation with other companies, to facilitate new product development.

Acquisitions are less of a focus for our Group at the moment; we are concentrating on the integration and consolidation of our most recent purchases, even though our eyes and ears are always open. And we are considering whether our Group structure requires any further improvements, due to our enormous growth spurt.

Looking back, was your decision to take Voltabox public as an independent company the right decision? Judging by the share price trend, some of the initial euphoria seems to have dissipated.

Frers: Of course it was the right thing to do – Voltabox has acquired the resources it needs to take advantage of the enormous market opportunities and to achieve rapid growth. But this move has also paid off for paragon. For one thing, thanks to the direct inflow of funds and, for another, due to the disclosure of the value of its 60% stake in Voltabox.

Both companies have performed in line with their forecasts. I can only assume that the share price trend in the past fiscal year for paragon and Voltabox did not reflect these companies' actual business situation or their prospects and was instead shaped by external factors. We have already addressed this in detail in our financial reporting in the second half of the year.

Looking at the further increase in our order backlog and the continuation of our profitable growth, sooner or later the capital markets can be expected to realize that a generalized risk assessment for an entire industry is inadequate and this will give way to a plausible market capitalization.

This year you appeared at the Consumer Electronics Show in Las Vegas for the first time, with your own stand. What were your reasons for this, and what impressions have you brought back home with you?

Dr. Schöllmann: That was actually a very logical step. We had already made the key decisions in this respect last year, with our acquisitions as well as through the reorganization of our units. The increased capacity of the paragon Group now needs to become visible externally.

Together with our Voltabox subsidiary, we had a lot of new things to present. Some of them, such as our voice-enabled assistant "Edwin," our belt monitoring system "Seat Belt Observer" and our vital data registration system were genuine world premieres. We are not only supporting the automotive megatrends of digitization, CO_2 reduction, increased comfort and urbanization which are relevant for us here; in some cases we are even making our own contributions to these megatrends. The great feedback our stand received demonstrates that our latest product developments are highly attractive for consumers. The audience paid our innovations just as much attention as products developed by much larger suppliers.

That sounds promising! How much progress have you made in the development of concrete products, and when do you expect them to start contributing to future revenue growth?

Dr. Schöllmann: Our appearance at CES – which was a complete success for us – wasn't so much a sales event from our point of view. Instead, we aimed to demonstrate paragon's capacity for innovation. We held many extensive, binding discussions and have already identified several concrete new strategies that we now intend to pursue.

To give you just a few examples: This includes the development of our voice-operated assistant for an existing customer, the use of "Edwin" in the field of agricultural machinery and the development of an air quality map for a German automotive manufacturer where our sensors make it possible to measure roadside air quality in real time. We also held follow-up discussions on how to integrate the perfect speaker within existing vehicle architectures.

What is the current situation in terms of data sovereignty and security for the data your systems will generate in the future? – Are there any tasks yet to be resolved here before your products actually hit the road?

Dr. Schwehr: Not at all. In fact, that is precisely the charm of paragon semvox's products. They can be immediately combined with the electronics platforms in paragon's Interior unit, and data security is already guaranteed by design thanks to our collaboration with automotive manufacturers.

paragon semvox also provides the infrastructure for secure cloud computing by hosting its own servers in Germany – that is, our own cloud! As Dr. Schöllmann just mentioned, this also enables us to tackle new data-based services. Our air quality map is just the start of an entirely new product line that will be based on the data measured by paragon's sensors.

Unlike in previous years, paragon's share price trend was unsatisfactory – the company's stock market value has fallen by € 277 million, after having risen by € 169 million in the prior year. At the same time, last year you invested around € 73.4 million in total in property, plant and equipment, intangible assets as well as acquisitions of companies in order to achieve even faster future growth. How do you account for this discrepancy?

Frers: As I mentioned earlier, the capital market in 2018 reacted to various political and macroeconomic challenges as well as industry-specific challenges through considerable reductions in value – without giving any consideration to the companies that are unaffected or only marginally affected by these challenges.

Fear gained the upper hand, obscuring the successful performance of companies like paragon and Voltabox. We are certainly not alone in that. It would be a mistake to react to this now by adjusting our strategy. On behalf of all of our stakeholders, we must do what is necessary and appropriate for our company's long-term development rather than follow the short-term ups and downs of share prices. In the medium and long term, investors with a long-term focus will benefit from this.

What should your shareholders expect to see, in concrete terms, in 2019? Which alternative forms of financing will you adopt, and what will your free cash flow look like at the end of the year?

Frers: 2019 will be defined by the integration and consolidation of our acquisitions as well as our leveraging of income potential, alongside continuing strong growth. Following a revenue increase of 50% in 2018, we intend to achieve further growth of around 25%, which all of our operating segments and units will contribute to. We are thus likely to finally pull ahead of the general industry forecasts that are currently being reported in the media. With our current EBIT margin forecast of 8%, we will demonstrate that we can significantly grow our business while increasing our results in line with this trend.

We will continue to utilize the opportunities offered by the capital market that we consider to be lucrative for paragon. This was not the case at the time of the bond issue we had planned for 2018, and our firm "no, thank you" to what the market offered us at that time was certainly a sign of our strength. Once the financial markets settle down again in 2019, we can take another look at things. In terms of the paragon Group's free cash flow at the end of the year, we currently expect this to improve significantly.

The capital market is likely to respond favorably to that. Your new forecast impressively demonstrates your uninterrupted business momentum. What is the basis for your revenue forecast, and what concrete measures do you envisage in order to achieve your income target?

Frers: All operating segments are expected to contribute to this growth. In the Electronics segment, the Sensors and Digital Assistance business units deserve special mention. However, Voltabox will again contribute disproportionately to growth in the electromobility segment. In all of our company's fields, we are leveraging cost potential by means of ongoing rationalization, automation and, for a few years now, via cost-cutting programs. We have once again stepped up the goals for our cost-cutting program in 2019; we have approved dozens of individual measures and our controlling department is monitoring these closely from a timing point of view, within the scope of our target/actual budget comparison process. Responsible use of resources while securing strong growth offers enormous potential, which we intend to consistently exploit.

Last year, you outlined your vision for the paragon Group at the start of the new decade. Have you been able to implement any of this yet?

Frers: Our vision is more up-to-date than ever, and we have taken a major step forward on our path in this direction. Our units ideally cover our customers' current and future needs, which are derived from the megatrends of relevance for the automotive sector: urbanization, digitization, CO_2 reduction and increasing comfort requirements.
Our evolution toward a system focus can be felt and seen in each of our five units. Our acquisitions fit perfectly with this strategy and enhance it. Not only is paragon defining and shaping the mobility transformation, it is also increasingly profiting from it.

Mr. Frers, Dr. Schöllmann, Dr. Schwehr, thank you very much for the insightful conversation. We wish you and your employees at paragon all the best and every success in your further activities shaping the company's future.

Investor Relations at paragon

Capital Market Environment

Despite the absence of a year-end rally in 2017, medium term-oriented investors in particular began the first quarter of 2018 with an optimistic attitude. This quickly deteriorated, however, due to profit-taking. Although the DAX recorded a new all-time high in January, fear of an adjustment increased among investors. This was supported by the implicit announcement of the U.S. Federal Reserve to raise the key interest rates in March. This was followed at the beginning of February by the biggest positive change in sentiment since October 2012, which led to renewed profit-taking, especially among international investors. In the subsequent consolidation phase with falling prices, only private investors were on the buyer's side. This trend intensified in March with increasing volatility.

Following a rather moderate start to the year, overall economic activity expanded strongly as macroeconomic capacity utilization in the second quarter increased. By contrast, however, growth prospects declined. The greatest economic risk for the international financial markets stemmed from a possible slowdown in economic activity in conjunction with a rise in prices resulting from a tightening of the hegemonic U.S. trade policy. The sharp rise in interest rates since the beginning of the year and the growing interest rate differential between U.S. government securities and German government securities were also of particular importance. While private investors were still on the buyer side during the consolidation phase on the German stock market at the end of the first quarter, the Frankfurt Sentiment Index for this group fell to 0 at the beginning of the second quarter, while medium term-oriented institutional investors were again cautiously optimistic after the profit-taking in the previous quarter. As the second quarter continued, concerns about a sustained correction of the stock markets predominated among both investor groups, not least because of the increasing geopolitical risk of U.S. policy regarding the nuclear treaty with Iran and disappointing Purchasing Manager Index figures in the eurozone. While the sentiment indicator turned negative and institutional investors were increasingly short selling, private investors hardly reacted. However, their sentiment continued to deteriorate – reaching the greatest level of pessimism in nearly five years. At the end of the second quarter, the U.S. administration's newly announced punitive tariffs on car imports from the EU to the U.S. contributed to a further deterioration in sentiment. Stocks in the automotive sector were particularly affected.

While sentiment initially improved slightly on the German stock market at the start of the third quarter and German investors closed out short positions, institutional investors exploited the market environment in order to take profits. However, negative market sentiment continued to predominate among private investors. As a result, no clear trend emerged on the market. In the end, private investors increased their short positions again. Halfway through the quarter, this group of investors then exploited the DAX's sideways movement in order to exit their short positions while avoiding losses. Private investors subsequently switched to the buyer side, while institutional investors increasingly sold off their stocks. The leading indices suffered a significant decline in early September, without this prompting purchasing on the part of the active traders among the institutional players. Accordingly, the bear camp – measured in terms of sentiment on the Frankfurt Stock Exchange – increased by more than a third. At the end of the quarter, private investors especially were once again bullish, while international institutional investors continued to reallocate their investments to the USA and significantly expanded their short positions in German stocks. At the same time, profits were taken so as to be able to reinvest at a lower level amid an anticipated sideways trend. On the other hand, private investors were increasingly optimistic and did not engage in profit-taking. In the third quarter, the automotive sector was particularly badly affected by speculation over the impact of American trade policy as well as increased profit warnings from manufacturers and various suppliers.

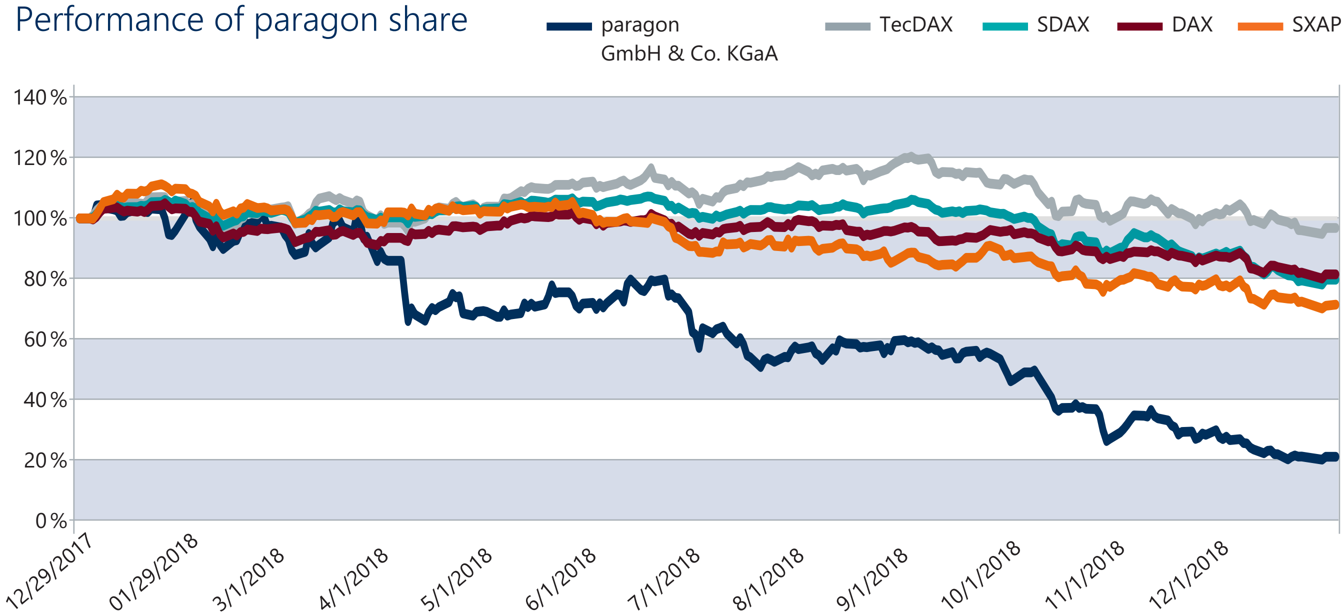
At the start of the fourth quarter, the news environment was increasingly negative. Institutional investors initially tried to improve their previous performance in the existing sideways movement against the price trend. However, a clear shift in sentiment toward the bearish camp was already apparent in the second half of October. The high market volatility was demonstrated by the immediate subsequent recovery with large-scale purchases of German blue chips. After the U.S. midterm elections in early November, in which the Democrats regained the majority in the House of Representatives, the optimism of professional investors even jumped to a two-year high. At the beginning of December, the mood worsened again drastically. In addition to geopolitical risks and the uncertainty about the global economic impact of U.S. trade policy, the change in the U.S. yield curve was particularly seen as an indicator of a looming weakening in the real economy. As of mid-December, institutional investors were still making purchases to improve their performance over the year as a whole, while private investors stood by their commitments despite heavy paper losses in some cases.

On balance, the final sentiment poll of the past year provided a mixed picture for institutional and private investors. While in absolute terms private investors were marginally optimistic, over the year as a whole their sentiment should be characterized as relative pessimism. On the other hand, slight optimism was apparent on the part of institutional investors, at least temporarily. However, year-end profit-taking was seen as a burden on the entire market in the absence of foreign demand. As a result, market participants suffered their first year of losses since 2011.

Share: Share Price Performance and Trading Volume

The price trend of the paragon share in the past fiscal year was disproportionately affected by the increasingly difficult market environment and, for the first time since early 2016, influenced by negative overall momentum. With an Xetra closing price of € 17.48 as of the reporting date (prior year: € 78.68), the share price fell by 77.8% over the course of the year (prior year: price increase of 89.5%). This corresponds to a decrease in the company's stock market value of around € 277.0 million (prior year: increase of € 168.1 million).

Performance of paragon share



Most of the German stock indices concluded the first quarter with losses (DAX -6.4%, SDAX 0.3%, TecDAX -1.4%). However, the STOXX Europe 600 Automobiles & Parts (SXAP) index, which lists the most important European automotive stocks, posted slight growth of 2.0%. In the first three months of the year, the paragon share was unable to remain immune in the face of this generally weak market environment, with a decline in value of 13.8%. Starting from an initial price of € 78.68, the high of € 82.90 was reached at the end of January, while the low of € 67.70 was reached at the end of March. The quarter ultimately ended at a price of € 67.80. This corresponds to a stock market value for the company of around € 306.9 million as of this reporting date and a first-quarter decrease in its stock market value of roughly € 49.2 million.

The second quarter saw a mixed picture among the most important German stock indices. While the broad DAX was up slightly by 1.7% and the SDAX by 0.2%, the TecDAX was comparatively robust at 7.9%. However, at -12.7% the performance of the STOXX Europe 600 Automobiles & Parts (SXAP) already clearly reflected the generally poor trend in the automotive sector. With a price trend of -25.5%, the paragon share was even more strongly influenced by the negative market environment. Starting from an initial price of € 67.80, which also marked a high, the share performed very weakly in the further course of trading and with a high level of volatility up to early May. With exceptionally high trading volumes, several chart support levels were breached. The share subsequently staged something of a recovery in the period up to mid-June, before reaching a low of € 45.40 in late June and ending the second quarter at a price of € 50.50. This corresponds to a stock market value for the company of around € 222.6 million as of this reporting date and a second-quarter decrease in the company's stock market value of around € 84.3 million.

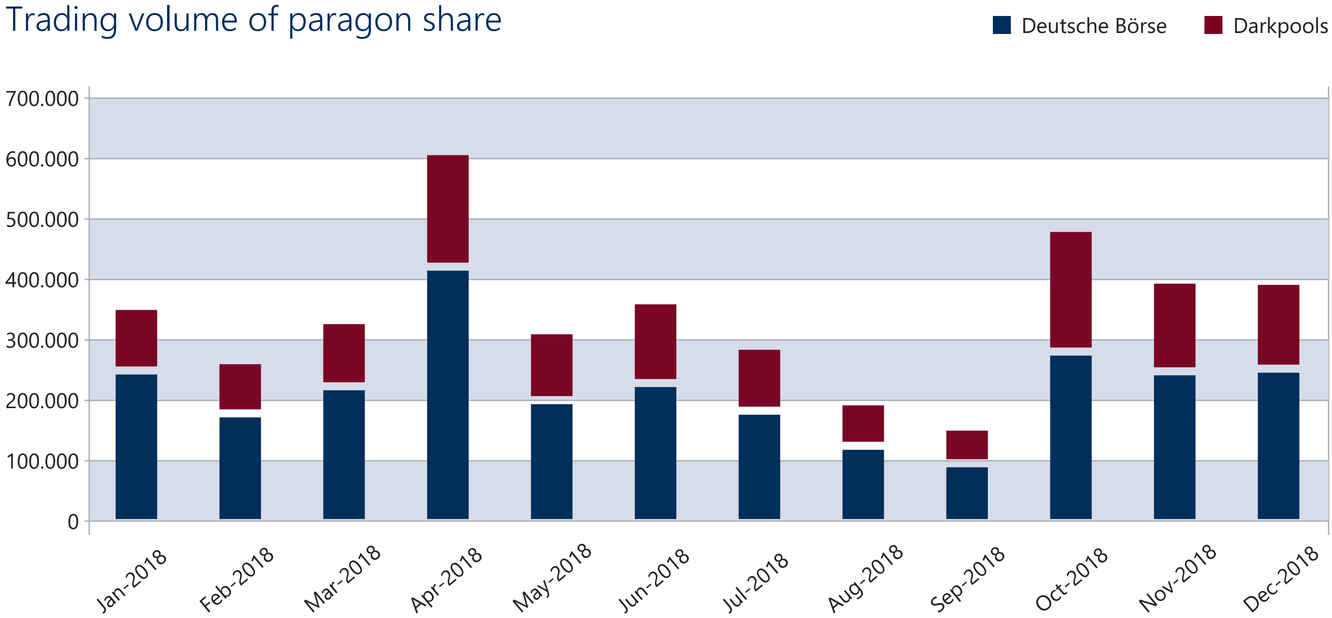
All in all, the key German stock indices moved sideways in the third quarter. The broad indices registered a marginally negative trend, -0.5% for the DAX and -0.7% for the SDAX, while this trend was somewhat more pronounced for the STOXX Europe 600 Automobiles & Parts (SXAP) at -2.3%. Only the technology stocks sold positively again with a 4.5% increase in value in the TecDAX. With a price trend of -26.0%, the paragon share was once again particularly strongly affected by the negative sentiment, even though the Management had indicated in its half-year report that the company had not been significantly affected by the difficulties and uncertainties in the automotive sector. Starting from an initial price of € 49.18, a high of € 50.90 was reached in early July. However, the share's performance was subsequently increasingly weak while volatility remained high, until a low of € 36.85 was reached in late September. The quarter ultimately ended at a price of € 37.35. This corresponds to a stock market value for the company of around € 169.1 million as of this reporting date and a decrease in the company's stock market value in the third quarter of around € 53.5 million.

The fourth quarter was the quarter with the heaviest losses by far for all of the key indices (TecDAX -12.9%, SDAX -19.8% and DAX -13.8%). The European automotive stocks once again suffered losses in line with this trend (SXAP -17.4%). The paragon share was again particularly strongly affected, with a decline in value of 53.2%. Starting with an initial price of € 39.15, close to the high of € 39.65, in the second half of October the share fell below € 30 – amid a comparatively high volume of trading – and below € 20 in early December. In the second half of December, the share reached a low of € 16.74 and ended the quarter at a closing price of € 17.48. This corresponds to a stock market value for the company of around € 79.1 million as of this reporting date, or a decrease in the company's stock market value in the fourth quarter of around € 89.9 million.

Trading volumes varied over the course of the year. Over the year as a whole, the volume traded each month averaged around 343 thousand shares (prior year: 350 thousand shares). Deutsche Börse AG's trading platforms accounted for around 65.8% of this volume (prior year: 71.5%). Trading via dark pools (i.e., internal bank and stock exchange trading) thus increased slightly in the past fiscal year.

The volume traded each month was slightly lower in the first quarter, at around 310 thousand shares, while trading activity in the second quarter significantly exceeded

Trading volume of paragon share



the average level, at around 429 thousand shares per month. This was due to the above-average level of trading activity in April, with around 620 thousand shares. With a monthly trading volume of around 201 thousand shares, the third quarter reflected the normal decline in trading activity over the summer months. In the fourth quarter, the monthly trading volume once again increased significantly, to 424 thousand shares. October was the month with the highest trading volume, with around 485 thousand shares.

Corporate Bond 2013/18

In July 2013, the company had issued a corporate bond denominated in euros with a term lasting until July 2, 2018, and an annual interest coupon of 7.25%. It was tradable under WKN A1TND9 or ISIN DE000A1TND93. In early July, the corporate bond 2013/18 was repaid as scheduled with an outstanding volume of around € 13 million. This repayment was made from the inflow of funds from the corporate bond 2017/22 issued in July.

Corporate Bond 2017/22

The corporate bond (ISIN DE000A2GSB86; WKN A2GSB8) that was placed on June 27, 2017, with a total volume of € 50 million has an interest coupon of 4.5% p.a. (as of July 5 each year). The bond is listed on the open market (free trade) of the Frankfurt Stock Exchange in Deutsche Börse AG's Scale segment for corporate bonds. This bond matures on July 5, 2022. It closed the year trading in Frankfurt at 96.0% of the issue price. On average over the year as a whole, the bond traded at 103.9%. A company rating is not planned for this bond.

Equity Interest in Voltabox AG

At the end of 2018, the company continued to have a 60% investment in its subsidiary Voltabox AG, which is listed in the Prime Standard segment of the Frankfurt Stock Exchange with the symbol VBX, the ISIN

DE000A2E4LE9 and the WKN A2E4LE. At the end of 2018, this investment had a stock exchange valuation of around € 116.3 million. Voltabox AG is fully consolidated in the consolidated financial statements. Minority interests are indicated separately in the Group's statement of comprehensive income.

Financial Communications

paragon GmbH & Co. KGaA regularly and simultaneously informed all of the capital market participants about the economic situation of the company. The continuous reporting included the annual report for fiscal year 2017 (published on March 13, 2018), the interim report as of March 31, 2018 – 1st quarter 2018 (published on May 8, 2018), the interim report as of June 30, 2018 – 1st half-year 2018 (published on August 21, 2018) and the interim report as of September 30, 2018 – 9 months 2018 (published on November 13, 2018), among others. In addition to these reporting dates, the company published financial notices, which included the Management's assessment of further business development.

The Management's revenue and earnings forecast for the 2018 fiscal year, as of January 29, was outlined in the 2017 Group management report (published on March 13, 2018) as a point forecast with an approximate figure including the key assumptions on which the forecasts are based. On August 21, 2018, this forecast was finally increased to a range (interval forecast) for the Group revenue figure and reduced in terms of the EBIT margin.

In the past fiscal year, the company continued to build up internal resources in the area of investor relations. Ongoing communication with institutional and private investors has thus been expanded and consolidated at the level of the paragon Group and likewise at the level of its subsidiary Voltabox AG, which is also publicly traded.

More than 250 individual meetings were held with institutional investors from Germany, the United Kingdom, France, Finland, Sweden, Denmark, Luxembourg, the Netherlands, Switzerland, Austria, Italy, Spain, Poland, the USA and Canada. Over the course of the year, 6 research firms (prior year: 5) published a total of 32 studies (prior year: 21) on paragon GmbH & Co. KGaA.

The company sees effective financial communication as the targeted reduction in the asymmetric flow of information between management and shareholders on the current economic situation and specific future potential of paragon GmbH & Co. KGaA. Accordingly, the ongoing dialogue with professional capital market participants is given high priority. Furthermore, the company aims to provide the broader public with up-to-date and relevant information via various media channels and to be available as a personal contact for private investors.

Supervisory Board Report

Prof. Dr.-Ing. Lutz Eckstein, Supervisory Board Chairman

Monitoring and Consulting in Continuous Dialog with the Management Board

The Management Board and Supervisory Board of paragon GmbH & Co. KGaA uphold the obligation highlighted in the German Corporate Governance Code (GCGC) of ensuring the continued viability of the company and its sustained value creation (corporate interests) in conformity with the principles of the "social market economy." There were no conflicts of interest among the Management Board or Supervisory Board members in fiscal year 2018. The mandates of the Supervisory Board members are listed in the notes (note 45).

The Supervisory Board of paragon GmbH & Co. KGaA fulfilled the consulting and monitoring obligations incumbent upon it according to law, the Articles of Association, German Corporate Governance Code and rules of procedure with great care in fiscal year 2018. Here, the Supervisory Board supervised the company's Management on an ongoing basis and made sure of its legal and regulatory compliance, appropriateness and effectiveness. Furthermore, the Supervisory Board was available to the Management Board, resp. since July 5, 2018, the Management Board of Directors, for consultation and was involved in discussions and decisions regarding issues of material importance. Thanks to the good cooperation between the Supervisory Board members, even time-sensitive decisions were resolved quickly.

In February 2018, the Management Board and Supervisory Board updated the company's Declaration of Compliance according to Section 161 of the German Stock Corporation Act (AktG) and made it publicly available on the Investor Relations page of the paragon GmbH & Co. KGaA website. The deviations from the recommendations of the GCGC and additional information on corporate governance at paragon GmbH & Co. KGaA are also provided here.

The Management Board comprehensively informed the Supervisory Board in written and oral form in the Supervisory Board meetings on all proceedings of material importance, the Company's general performance and its current situation. Here, it gave particular priority to the topics of strategy, planning, business development, risk situation and risk management. The Supervisory Board intensively reviewed the Management Board's reports and discussed them at its meetings. In addition to the Supervisory Board meetings and conference calls involving all members of the Management Board and Supervisory Board, the Supervisory Board Chairman and the Management Board discussed important matters when necessary. The Supervisory Board was fully informed about extraordinary events that were of material importance for assessing the year's results.

Supervisory Board Meetings

In fiscal year 2018, the Supervisory Board convened at four ordinary plenary meetings and held two conference calls. All Supervisory Board meetings were held with the participation of the Management Board. All of the Supervisory Board's conference calls were held with the participation of the CEO. The entire Supervisory Board was present for every meeting.

The focus of the first meeting of the Supervisory Board in Cologne, held on March 12, 2018, was the review and approval of the annual financial statements for fiscal year 2017 as well as the review and approval of the consolidated financial statements for fiscal year 2017. The Supervisory Board also dealt with the nomination of the auditor for fiscal year 2018 and recommended Baker Tilly Roelfs AG Wirtschaftsprufungsgesellschaft, Düsseldorf, as the auditor. During this meeting, the Supervisory Board also discussed the agenda of the Annual General Meeting and approved the invitation proposed by the Management Board. Finally, the Supervisory Board was informed about current business developments.

In its second meeting held in Hövelhof on May 7, 2018, the Supervisory Board was informed about the company's performance in the first quarter and its current prospects. Further preparations for the Annual General Meeting were also on the agenda.

At its third meeting held in Delbrück on September 3, 2018, the Supervisory Board discussed the possible acquisition of SemVox GmbH. The Management Board also notified it of the company's performance in the first half of the year and the current outlook.

In its fourth meeting in Delbrück on December 3, 2018, the Supervisory Board focused on the development of business during the first nine months of the year and the company's current prospects. It also discussed the planning for fiscal year 2019 presented by the Management Board as well as the scheduling of the financial calendar for 2019.

During a telephone conference on September 7, 2018, the Supervisory Board approved the conclusion of a share purchase agreement for the acquisition of 82% of the shares in SemVox GmbH, Saarbrücken and authorised the Management Board to conclude or make all other legal transactions and declarations in connection with the acquisition of the shares.

During a telephone conference on October 15, 2018, the Supervisory Board approved the conclusion of a share purchase agreement for the acquisition of 100 % of the shares in LPG Lautsprecher-Produktions-Gesellschaft mbH and authorised the Board of Managing Directors to conclude or submit all other legal transactions and declarations in connection with the acquisition of shares.

LPG in turn holds 100 % of ETON Deutschland Electro Acoustic GmbH. In addition, approval was given for the issue of a corporate bond in the amount of EUR 50 million.

Forming Committees

As in the past, the three-member Supervisory Board did not form any committees in fiscal year 2018 and dealt with all issues as a single body.

Audit of the Annual Financial Statements and Consolidated Financial Statements for Fiscal Year 2018

Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft, Düsseldorf, was appointed by resolution of the Annual General Meeting on May 8, 2018, as auditor for the fiscal year from January 1 to December 31, 2018, and accordingly commissioned by the Supervisory Board Chairman. The Supervisory Board was provided a statement of independence from the auditor pursuant to No. 7.2.1 of the German Corporate Governance Code.

The scope of the audit included the annual financial statements of paragon GmbH & Co. KGaA prepared by the Management Board pursuant to the provisions of the German Commercial Code (HGB) for the fiscal year from January 1, 2018, to December 31, 2018, the consolidated financial statements prepared by the Management Board pursuant to Section 315a of the German Commercial Code and on the basis of the International Financial Reporting Standards (IFRS) for the fiscal year from January 1, 2018, to December 31, 2018, and the combined management report of the paragon Group and paragon GmbH & Co. KGaA.

Upon completion of the audit, Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft, Düsseldorf, issued an unqualified audit certificate for the annual financial statements, the consolidated financial statements and the combined management report of the paragon Group and paragon GmbH & Co. KGaA.

The auditor also determined that the information and monitoring system established by the Management Board meets the statutory requirements and is suitable for recognizing developments that could endanger the continued existence of the company at an early stage.

The auditor made the documents submitted for auditing concerning the annual financial statements, the consolidated financial statements, the combined management report of the paragon Group and paragon GmbH & Co. KGaA and the report on the audit available to every member of the Supervisory Board. The audit was reported on and discussed at the Supervisory Board meeting on March 27, 2019. The auditors participated in the discussions on the annual and consolidated financial statements. They reported on the key audit results and were available to the Supervisory Board to answer any questions and provide additional information. Based on the final outcome of its examinations, the Supervisory Board approved the annual and consolidated financial statements. The annual financial statements are thereby approved.

The Supervisory Board also assessed the proposal from the Management Board on the appropriation of the balance sheet profits at its meeting on March 27, 2019, and discussed this with the auditor. The Supervisory Board subsequently agreed with the Management Board's proposal.

The Supervisory Board did not exercise its right to inspect the company's accounts and correspondence in the past fiscal year.

The Supervisory Board expresses its gratitude and appreciation to the members of the Management Board of Directors and all of the Group's employees for their hard work and personal commitment in 2018.

Delbrück, Germany, March 27, 2019

For the Supervisory Board,

Prof. Dr.-Ing. Lutz Eckstein

Supervisory Board Chairman

Combined Management Report

Combined Management Report for the paragon Group and paragon GmbH & Co. KGaA

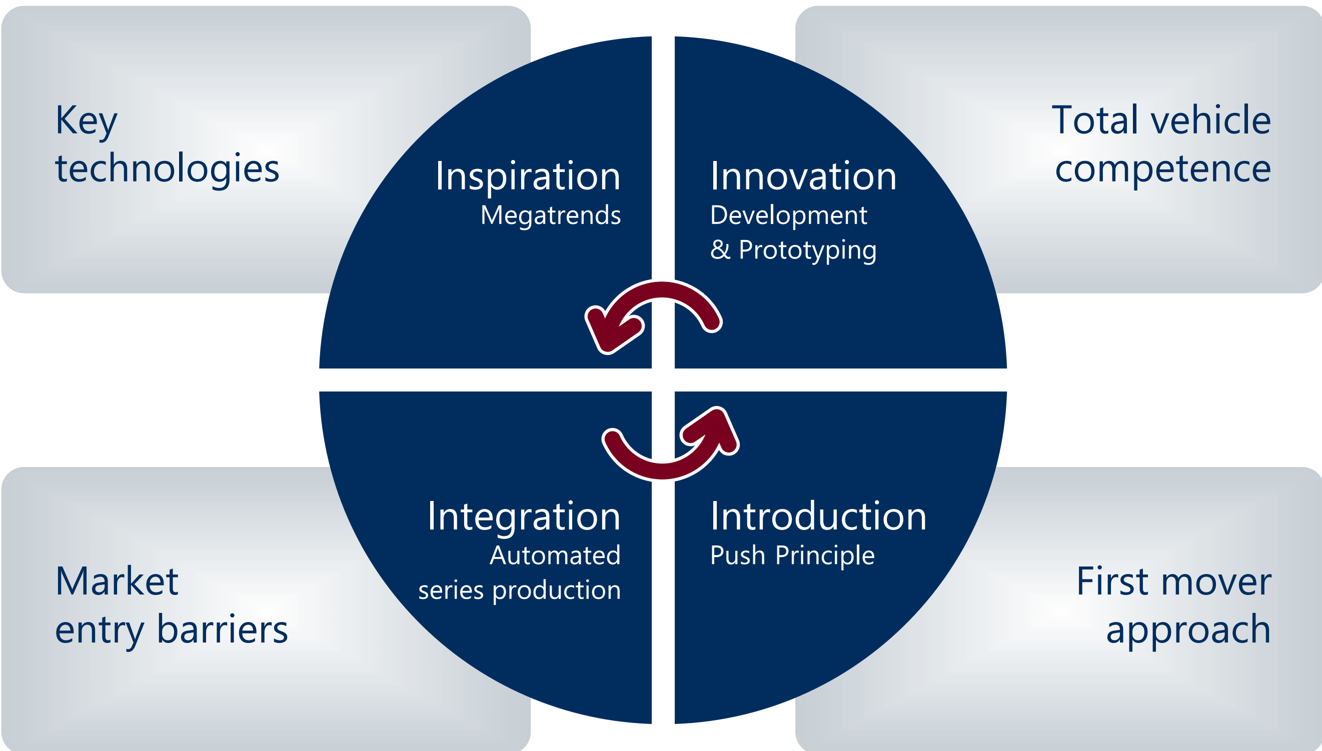
Key Facts About the Group

Business Model

According to its Articles of Association, the business purpose of paragon GmbH & Co. KGaA (hereinafter also the "company") is the research and development of microelectronics, the manufacture and sale of electronic devices, related peripherals and modules as well as the management of patents, licenses and utility models. paragon may establish or acquire other companies, hold interests in companies, establish branches and implement any other measures and legal transactions that are necessary or serve to achieve or promote the company's aims.

The business model of the paragon Group (hereinafter also simply "paragon") is based on the independent development of product innovations at its own expense. To achieve this, a proven innovation system is used to keep the current product portfolio at a very high level of innovation. With the overall vehicle expertise that has been built up over the last three decades in the paragon Group, developments and prototypes are characterized by a deep understanding of the entire automotive manufacturing process.

Business Modell



The product innovation process within the paragon Group is inspired by the core idea of enhancing the driving experience for modern car users (end customers).

Based on the global megatrends of climate change, digitization and urbanization, paragon identifies the megatrends that are of relevance for the automotive value chain: digitization, CO_2 reduction, increased comfort and urbanization. The fields of innovation relevant for paragon's business model are derived from these trends: shared mobility, connectivity, e-mobility, autonomous driving, digital assistance and emission control. These are systematically covered by its Sensors, Interior, Digital Assistance, Body Kinematics and Electromobility units. This allows paragon to accurately anticipate the demands of end customers for modern features and characteristics in future models.

The market launch of product innovations follows the "push principle," where specific marketing with automotive manufacturers as direct customers only begins once functional prototypes (A-samples) and the corresponding patent applications have been established. This allows paragon to maintain a time advantage over its competitors even in shorter innovation cycles. With an optimized vertical range of manufacturing, paragon has also established itself as a reliable partner for automotive manufacturers.

The level of automation in series production is constantly being increased in order to improve the cost structure over the life cycle of the individual product series. In this way, the series production of a wide range of product variations represents its own field of innovation within the company. At the end of the past fiscal year, 31 industrial robots (prior year: 26) were being used across the Group for manufacturing tasks.

Group Structure

The Annual General Meeting held on May 8, 2018, resolved the company's change of legal form proposed by the Management Board and the Supervisory Board from a stock corporation (Aktiengesellschaft) to a partnership limited by shares (Kommanditgesellschaft auf Aktien, KGaA). This partnership limited by shares was entered in the commercial register at Paderborn District Court, HRB 13491, on July 5, 2018.

In addition to the company headquarters at Artegastrasse 1, 33129 Delbrück (North Rhine-Westphalia, Germany), paragon GmbH & Co. KGaA and its subsidiaries operate sites in Suhl (Thuringia, Germany), Nuremberg and Landsberg am Lech (Bavaria, Germany), St. Georgen (Baden-Württemberg, Germany), Bexbach and Saarbrücken (Saarland, Germany) and Aachen (North Rhine-Westphalia, Germany) as well as in Kunshan (China) and Austin, Texas (USA).

The following companies were incorporated in the paragon Group in the year under review:

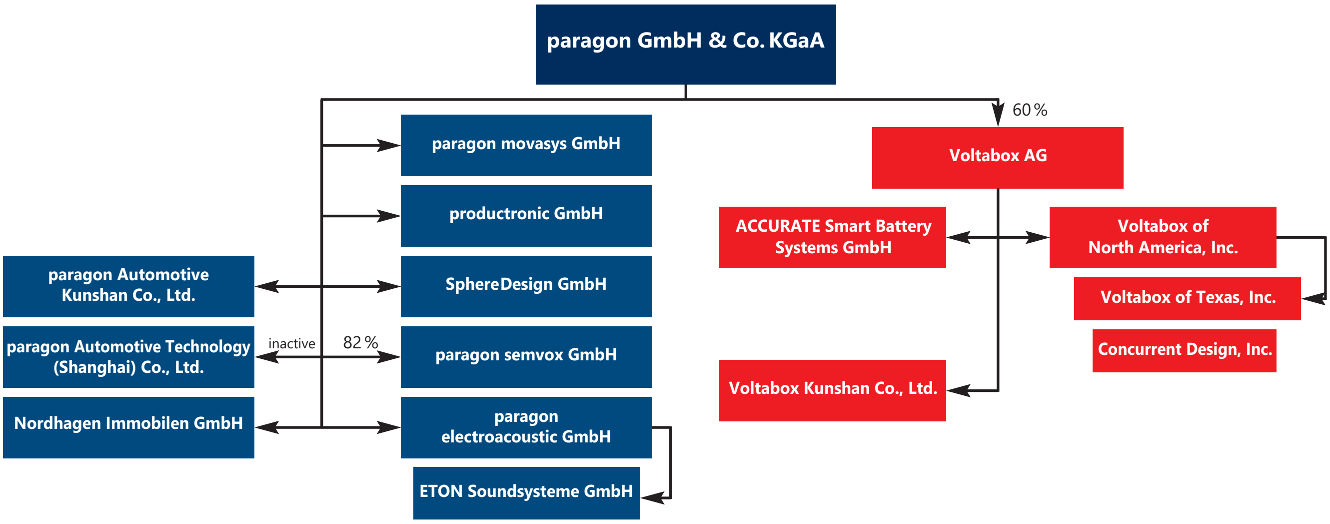
- On April 1, 2018, Voltabox of Texas, Inc. acquired all of the shares in Concurrent Design, Inc. (Texas). Concurrent Design provides product design and development services for electromechanical industrial products. This includes technical services in the areas of planning, technical analysis, detailed construction design and documentation as well as the development of prototypes and series production. Concurrent Design is included in the company's Electromobility operating segment.

- On September 1, 2018, Voltabox AG acquired all of the shares in ACCURATE - SMART BATTERY SYSTEMS – GmbH (Korntal-Münchingen). ACCURATE - SMART BATTERY SYSTEMS – GmbH develops, produces, manufactures and sells battery systems. ACCURATE - SMART BATTERY SYSTEMS – GmbH is included in the company's Electromobility operating segment.

- On October 1, 2018, paragon GmbH & Co. KGaA acquired 82% of the shares in SemVox GmbH (Saarbrücken). SemVox GmbH develops and sells interactive systems and semantic technologies and advises on the planning and implementation of IT projects. The change of the company's name to paragon semvox GmbH was entered in the commercial register on October 22, 2018. paragon semvox GmbH is included in the Group's Electronics operating segment.

- On November 1, 2018, paragon GmbH & Co. KGaA acquired all of the shares in LPG Lautsprecher-Pro-

Group Structure



Unless otherwise stated, the subordinate companies of paragon GmbH & Co. KGaA each have a 100% interest.

duktions-Gesellschaft mbH (Neu-Ulm). This company manufactures and sells loudspeakers and other acoustic and electronic devices to industrial and trade customers. The change of the company's name to paragon electroacoustic GmbH was entered in the commercial register on January 3, 2019. paragon electroacoustic GmbH is included in the company's Electronics operating segment. paragon electroacoustic GmbH in turn holds all of the shares in ETON Deutschland Electro Acoustic GmbH. This company manufactures and sells, as well as imports, exports and trades electronic components and related articles.

Corporate Strategy

Through its corporate strategy, paragon pursues the goal of sustainable and stable growth in order to safeguard the company's long-term success. This strategy is developed as part of a revolving process at management level. In the automotive sector, paragon's sustainable strategy is based on the independent development of product innovations from the relevant fields – shared mobility, connectivity, e-mobility, autonomous driving, digital assistance and emission control – for the automotive industry, in order to achieve a sustained improvement in the driving experience for the company's end customers: modern car users.

In its Electromobility operating segment, paragon has, via its Voltabox subgroup, so far pursued the strategy of entering rapidly growing submarkets for lithium-ion battery systems on the capital goods market early on. On this basis, the consumer market will also be specifically developed for individual applications in the future.

Overall, paragon's sustainability strategy comprises the following four levels:

Constant development of product innovations based on megatrends (product development)

To enter lucrative submarkets in the premium segment of the automotive sector in particular early on, paragon develops technological innovations by means of a tried-and-tested process and thus identifies fields of action for the automotive industry that will be explored in future research and development activities.

In the Electromobility operating segment, the strategic focus is currently on submarkets for capital goods such as local public transportation, intralogistics and automated guided vehicles, mining vehicles and construction and agricultural vehicles. Here, existing submarkets are replacing lead-acid batteries or diesel backup generators (in the case of trolleybuses) with lithium-ion battery systems. In these submarkets, paragon is able to benefit from substitution effects that result from users' rational investment decisions.

In this operating segment, the following industries are to be catered for: construction and agricultural machinery, vehicles for municipal services and airport service vehicles. To enter into the global car mass market, paragon will address individual niches with tailor-made battery systems and use them as the opportunity arises. It is also increasingly addressing relevant market niches for mass applications such as pedelecs, garden equipment and medical technology devices.

For 25 years now, paragon has worked on the human-machine interface in vehicles. The digitization trend and the growing demand for enhanced comfort mean that not only do modern car users have increasingly high expectations in terms of connecting their cars to the internet and seamless use of in-car apps, they also expect intelligent, thinking technologies that react to the driver's needs in real time. With the digital transformation, cars are becoming digitally networked lifestyle and work devices on wheels.

From paragon's perspective, the trend of CO_2 reductions will lead to increased demand for reduced weight and improved aerodynamics. Urbanization has led to a fundamental change in consumer behavior in terms of individual mobility and therefore to alternative mobility concept, such as shared mobility and automated (autonomous) driving.

In this context, paragon is also seeking to achieve a systematic expansion of its product portfolio and its current operating segments by means of targeted investments in technologies and production. It aims to be able to provide high-quality systems from a single source and thus to increase its share of the automotive value chain. Examples of this include the company's newly developed in-car communication system that optimizes car user communication by integrating individual components such as its belt-mic® or other hands-free microphones and its newly developed 3D+ in-car audio system.

Gaining new automotive manufacturers as customers (market penetration)

One of paragon's key strengths is the customer relationships it has developed over the years with leading German and international automotive manufacturers in the premium and luxury segments and with the Volkswagen Group in particular. paragon intends to achieve a further increase in its volume of business with various premium manufacturers who are already important customers but who paragon sees as offering significant further potential. This will be supported through targeted sales activities, in particular thanks to additional account managers as well as tailored acquisitions and the side effects of acquisitions.

Vehicle functions and equipment that are currently largely limited to the premium automotive segment are increasingly finding their way into volume models. In line with this general trend, paragon has already been able to make inroads into high-volume models in the mid-range and compact segments with its first few products. Production for paragon's Electronics operating segment is optimized through productronic GmbH's unified management of the German production sites in Suhl, St. Georgen and Bexbach, in order to pursue this trend further and to ensure that the company's innovations are attractive not only for the premium and luxury segments of the automotive industry but also to make new trends accessible to customers in the mid-range and compact segments. The same is true of the Mechanics operating segment, where paragon implements production through paragon movasys GmbH at its Landsberg am Lech, St. Georgen and Delbrück production sites. paragon considers tailored software-based acoustics systems and electronic networking components such as its MirrorPilot® and certain aerodynamics systems to be potential products for the mid-range and compact segments.

Tapping into new sales areas (market development)

For its future growth, paragon is also increasingly seeking to internationalize its business activities. Besides its home market of Germany and Europe's key automotive markets, paragon is therefore concentrating particularly strongly on the high-growth markets in Asia and North America, where the Group is already present through subsidiaries.

Voltabox of Texas, Inc., Cedar Park (Austin/Texas), was established in December 2013 and has subsequently handled the Group's business activities in the Electromobility operating segment in the North American market. A production area of 1,280 square meters is currently available at the Group's Austin/Texas site. However, this is to be expanded as part of the planned development of a highly automated production line for battery modules based on prismatic lithium-ion cells at the Austin/Texas location. Voltabox of North America, Inc. was established in the reporting year and handles the key management functions.

In China, paragon Automotive Technology Co. Ltd, Shanghai, commenced operations in 2013. paragon Automotive Kunshan Co., Ltd. was established in September 2015 and is responsible for the production and marketing of paragon products for the Chinese market. China remains especially attractive for paragon's strategic focus, as its largest individual market. The Chinese automotive industry is one of the world's largest growth drivers promoting the rapid spread of resource-conserving technologies. The Chinese automotive market therefore offers particularly strong sales potential for paragon in the medium term. It has already gained its first few Chinese manufacturers such as Chang'an, GAC-Group and Geely as new customers
.

Voltabox AG has recently leased a production building in the direct vicinity of paragon's site in Kunshan and has established Voltabox Kunshan Co., Ltd. The plan is to gradually establish a production facility here that will mainly concentrate on lithium-ion battery systems for use in specific mass-market applications.

Tapping into new submarkets with new product offers (diversification)

Another key component of paragon's growth strategy is to tap into new submarkets with innovative product ranges. In the past, paragon has established itself strategically in select, high-growth industrial e-mobility submarkets as a pioneer for high-performance battery systems. In the field of complex battery systems and battery management systems, paragon already sees itself one of the world market leaders. paragon has now also positioned itself in new submarkets as a leading provider of motorcycle starter batteries as well as batteries for intralogistics applications and mining vehicles, and it has a technological lead over its competitors here.

Through its acquisition of 82% of the shares in SemVox GmbH, Saarbrücken, (now: paragon semvox GmbH) in the third quarter of 2018, paragon is also seeking to enter relevant market segments in the field of digital assistance systems early on and to become one of the leading system providers thanks to innovative product and system solutions. Here, paragon is emerging as a supplier of technology for proactive assistants based on artificial intelligence (AI) and machine learning. From paragon's perspective, its system solutions based on the latest AI technologies – such as its high-performance and versatile platform ODP S3 for proactive interactive and assistance systems – are providing it with a clear technological competitive edge in this rapidly growing market segment. The goal is to expand the range of integrated solutions in the future and likewise in this market to increasingly establish the company as a system provider for automotive manufacturers.

Control System

Alongside a high level of innovation, paragon's organizational structure is characterized by flat hierarchies, fast decision-making and continual optimization of process management. The Group has the character of an owner-operated, medium-sized company while combining a long-term strategic orientation with the integration abilities of a publicly traded company. Thanks to this unique organizational orientation, the Management considers that the company is in position to successfully compete with substantially larger groups and to further expand its market position as a direct supplier to well-known automotive manufacturers.

The Management regularly compares its strategy with the actual business development of the paragon Group. In review meetings, follow-up activities and optimization measures are determined at the management level as well as fundamental changes in direction when necessary.

The company's domestic mechanical production at its plants in Suhl, St. Georgen and Bexbach is uniformly controlled by productronic GmbH. The goal of this joint management approach is to harmonize and standardize processes and workflows, in order to boost production efficiency. This will mainly be supported through further automation of production workflows. A higher level of automation ensures a consistent, stable level of quality while reducing quality costs.

To provide the Group with a better overview of the economic situation as well as improved planning and management of operational processes, the ERP system Microsoft Dynamics AX will in future be used throughout the Group.

paragon GmbH & Co. KGaA has a comprehensive planning and control system for operational implementation of its strategic planning. This includes constant monitoring of weekly, monthly and annual plans. These reports document possible deviations from the planned figures in a target/actual comparison and provide the basis for business decisions. Another important control instrument is the regular manager meetings, where the current developments in the individual segments and medium to long-term outlooks are discussed in addition to regular interdisciplinary and segment-related project status meetings.

Financial Performance Indicators

Management regularly uses key figures to measure the economic success of the operative implementation of its corporate strategy. The control system takes into account the type and/or amount of one-time or extraordinary effects on the performance indicators, particularly in relation to the development of the new Body Kinematics and Electromobility units. Due to the dynamic development of these units, the internal targets are generally set as bandwidths for measuring and managing operative performance, depending on the respective planning horizon. The relative development of the key figures of revenues, EBIT margin and investments is observed by paragon Group using rolling medium-term planning that accounts for experience curve effects within a given corridor. For paragon GmbH & Co. KGaA, revenue and EBIT margin are also financial performance indicators. Given the dynamic growth strategy, this facilitates forward-looking management in terms of both risk- and opportunity-oriented corporate governance.

Group Renvenue

The established range of electronic components offered on the market includes a broad portfolio of sensors, microphones and display instruments that are in various phases of their product life cycles and are in some cases combined as systems. On the other hand, the latest generation of product innovations – particularly considering the companies acquired in the reporting year – present future additional sources of revenue, depending on when automotive manufacturers introduce them to new vehicle models or model generations. Products' and systems' revenue contributions generally vary during the different phases of their life cycles. Vehicle models' take-rates in terms of paragon's products and systems are another influencing factor and likewise change over time.

In the Sensors and Interior units, revenue is almost entirely generated through the sale of air quality sensors, microphones and display instruments produced in-house, while in the Digital Assistance unit revenue is also generated through the sale of software licenses by paragon semvox GmbH. Runtime licenses play a key role in the sale of licenses, i.e., customers purchase an individual license for each unit of their own product (vehicle) sold. The ODP SDK/Workbench development environment is also licensed in some cases. In addition, paragon is increasingly seeking to tap into recurring sources of revenue. It has already gained its first few pilot customers with subscription models based on the number of units activated per month (or the number of smartphone apps downloaded and activated).

paragon's business activities in its Body Kinematics unit, represented by paragon movasys GmbH, focus on the development and production of drive controls for movable body components. With the second generation of its adaptively extendable rear spoilers that were developed in-house, paragon initially concentrated on premium sports cars. Through the acquisition of HS Genion GmbH in late 2017 (now: paragon movasys GmbH), in the reporting year paragon significantly expanded its business activities here, which now include the sale of movable interior components.

Business activities in the Electromobility operating segment – which is represented by the publicly traded 60 percent-owned subsidiary Voltabox AG – accounted for the largest share of Group sales provided by an individual operating segment in the year under review. The future revenue trend will mainly depend on the mix of the respective application areas. While large and complex battery systems with multiple battery modules are sold for trolleybuses and, in particular, mining vehicles within the scope of long-term project business, the series manufacture of battery modules for use in forklifts and automated guided vehicles, as well as starter batteries for motorcycles and battery packs for pedelecs, comes closer to being definable as mass production.

As such, Group revenue is subject to a series of influences relating to type, scope and direction, which are all regularly evaluated. This fact is accounted for with the provision of a target corridor (range) when providing forecasts.

Group EBIT Margin

EBIT represents Group earnings before interest and taxes and provides a general snapshot of a company's operative profitability or efficiency. Profitability can be compared over time and internationally – irrespective of varying financial structures and income taxes.

In terms of corporate management, however, EBIT is not defined by the Management as a stand-alone corporate monetary target (in absolute terms). Instead, the development of operative earnings is managed in such a way that the strategically defined growth course can be implemented with appropriate profitability. In the context of the dynamic growth strategy, all relevant expenses are therefore included in the company's forward-looking management. In addition, the volume of the development work capitalized according to IAS 38 (as investments in intangible assets) is a key factor influencing the corporate management strategy, since product innovations developed at the company's own expense will only yield revenue in future accounting periods.

This fact is accounted for with the provision of the EBIT margin as a relative key figure, within a defined range, when providing forecasts. This means that medium-term planning also accounts for the dynamic effects that may arise over time in the relevant expenditure and income positions.

Investments (CAPEX)

For paragon, investments are a key factor for managing the dynamic growth strategy as part of medium-term planning. Since this involves the long-term commitment of financial resources to property, plant and equipment and intangible assets, the Management's investment decisions are made as a result of a structured and careful decision-making process. This process takes into particular account the impact of investment decisions on the non-monetary corporate objectives stemming from the dynamic growth strategy. In addition to an early expansion into profitable market niches with independently developed product innovations that aim to take advantage of megatrends, the high technological and quality requirements in the series production of large quantities for the automotive industry are particularly relevant. In addition, the investment decisions made in relation to intangible assets reflect Group-wide R&D activities.

These investment decisions are used to react individually to market developments within the framework of the dynamic growth strategy, thereby making the most of the potential for growth in the short and medium term. The overall investments envisaged in the annual investment planning for property, plant and equipment and intangible assets are therefore indicated in the forecast. This does not include investments in financial assets or the acquisition of consolidated companies and other business units.

In the past fiscal year, paragon once again invested heavily in the further expansion of its business activities. Investments by the Group in intangible assets amounted to € 27.2 million (prior year: € 17.1 million). Of the development work capitalized of € 15.7 million (prior year: € 16.4 million), € 15.1 million (prior year: € 15.8 million) related to own work pursuant to IAS 38, about 48% of which can be attributed to the Electronics operating segment (prior year: 37%), roughly 33% (prior year: 30%) to the Mechanics operating segment and around 19% (prior year: 33%) to the Electromobility operating segment. Around € 0.6 million (prior year: € 0.7 million) was distributed among various other projects.

The Group's investments in property, plant and equipment amounted to roughly € 21.6 million (prior year: € 4.7 million) in the reporting year.

Nonfinancial Performance Indicators

As the company is strategically positioned as an innovative provider of technologically sophisticated and high-quality products and systems that are based on current megatrends, the Management also uses nonfinancial performance indicators as part of its corporate management. The non-financial performance indicators are not material for the management of the paragon Group.

Employees

The current megatrends have triggered a fundamental change in the automotive value chain. This is having a far-reaching influence on the future qualification requirements of employees in this sector. As well as high production standards, new technologies and management concepts, shortened innovation cycles and agile development methods increasingly represent a challenge for the recruitment and development of employees in the automotive sector. Location factors, working conditions and demographic trends are further key success factors in competition on the labor market.

The operational implementation of paragon's dynamic growth strategy also necessitates an ongoing review and adaptation of the company's organizational and operational structures. The integration of the companies acquired in the year under review into the paragon Group and its network spanning a total of 12 sites are particularly significant.

At the same time, the business model of independently developing product innovations requires the targeted further development of the existing innovation culture within the company. Essential elements for this are the anchoring of entrepreneurial thinking and responsible, independent action along with barrier-free internal communication. Development processes are being converted to conform with the principles of agile project management in order to better meet the ever-shorter model generation and maintenance cycles of automotive manufacturers. Creativity, self-confidence and inspiration play a special role here. The creation of efficient project teams – also across different sites, subsidiaries and business units – is becoming increasingly important.

The successful sourcing, development and retention of qualified employees are therefore seen as particularly significant for the implementation of the long-term growth strategy.

In order to provide all of its employees with equal opportunities and to motivate them to contribute their potential, the paragon Group cultivates an organizational culture characterized by mutual respect and appreciation of every individual, regardless of gender, nationality, ethnic origin, religion or world view, disability, age or sexual orientation or identity.

paragon has established specific processes and projects to promote the personal and professional development of each individual employee in view of short technical and economic development cycles, and likewise to promote equal opportunity and work-life balance.

Personnel development – which encompasses long-term planning of positions, selection of personnel and continuous support for employees and their appropriate employment within the various operating segments – is seen as a key component of sustainable business success.

To continuously promote the professional and personal potential of its employees, paragon offers on-the-job training and further education, one-day seminars or in-house training and practical seminars and training. This also includes strengthening social skills, for example through communication training.

In the 2018 fiscal year, 382 new employees were hired across the Group (prior year: 133). Of these, 145 were hired by the Voltabox subsidiaries (prior year: 47) and 237 were added to the other Group companies (prior year: 86). In this context, 162 new positions were created within the Group (prior year: 62). An additional 181 employees (prior year: 102 employees) were added through the companies acquired during the year under review. The turnover rate was 4.9% (prior year: 5.1%). The share of female employees in the Group increased to 30.6% (prior year: 25.7%). The number of employees with university degrees likewise rose, to 32.1% (prior year: 28.3%). The share of disabled employees was 1.6% (prior year: 1.3%). The average employee age decreased to 42.1 (prior year: 43.1) and the average length of service declined to 4.9 years (prior year: 6.3 years).

Development of Employees in the paragon Group

	Dec. 31, 2018	**Dec. 31, 2017**	**Change in %**
Number of employees	1,032	678	52.2
thereof in development	270	154	75.3
Number of temporary employees	107	130	- 17.7
thereof in development	3	11	- 72.7

Distribution of Permanent Employees to the Group Locations

	Dec. 31, 2018	Dec. 31, 2018	Change in %
Delbrück (Corporate headquarters, North-Rhine-Westfalia)	326	230	41.7
Aachen (North-Rhine-Westfalia)	10	3	233.3
Bexbach (Saarland)	22	22	0
Korntal-Münchingen (Baden-Wurttemberg)	16	n. a.	n. a.
Landsberg am Lech (Bavaria)	97	102	- 4.9
Neu-Ulm (Bavaria)	63	n. a.	n. a.
Nuremberg (Bavaria)	30	28	7.1
Saarbrücken (Saarland)	65	n. a.	n. a.
St. Georgen (Baden-Wurttemberg)	35	36	- 2.8
Suhl (Thuringia)	273	207	31.9
Germany total	**937**	**628**	**49.2**
Austin (Texas, USA)	70	18	288.9
Kunshan (China)	25	32	- 21.9
International total	**95**	**50**	90.0

Personnel expenses totaled € 52.2 million in the reporting period (prior year: € 35.3 million). Of this, € 38.7 million was attributable to wage and salary costs (prior year: € 25.2 million), € 6.5 million to social contributions and pensions (prior year: € 4.3 million) and € 7.0 million to expenses for temporary workers (prior year: € 5.8 million).

Quality and the Environment

As a manufacturing company with a large portfolio of electronic components, paragon has many years of experience in optimizing production processes. All paragon locations are organized according to the international standard IATF 16949 and were last certified in March 2018. The established interactive and process-oriented management system provides continuous improvements while emphasizing error prevention and waste reduction.

Since 2016, productronic GmbH has uniformly controlled the domestic production activities of paragon GmbH & Co. KGaA in the Electronics operating segment at its Suhl, St. Georgen and Bexbach sites. This structure, which pools production within a single subsidiary, enables improved management of the production processes, more detailed controlling of production costs and optimal distribution of production across the various sites.

Ongoing process optimization in production is ensured via smaller control loops. In conjunction with a consistent service and customer orientation, this results in a continuous improvement of internal quality standards.

The following specific measures were in focus for fiscal year 2018:

- Optimization of quality for series launches through the use of preventive methods such as “Failure Mode and Effects Analysis” (FMEA) and “Advanced Product Quality Planning” (APQP)

- Extensive development programs focusing on quality planning and assurance

- Workshops with suppliers to increase supplier quality

Defective goods and customer-related quality costs, “zero-km complaints” (factory incidents) and field complaints have thus been reduced by around 20%

(prior year: 25% decrease). The costs mainly arose in the Interior and Sensors units.

Furthermore, environmental protection and occupational health and safety are an integral part of the corporate mission statement. paragon has integrated the requirements of DIN EN ISO 14001 into its management system. Its effectiveness is confirmed in annual audits. paragon also pursues sustainability through the use of state-of-the-art production technologies as well as the careful handling of raw materials and energy resources.

In 2018, paragon acquired additional buildings in Landsberg am Lech in Bavaria and in Limbach, near Saarbrücken. It immediately began to modernize the technical infrastructure here to ensure compatibility with the Group's structures, in order to increase its own production and storage capacities. Moreover, its Voltabox subsidiary installed a charging station for battery-powered vehicles at its Artegastrasse site in Delbrück. In addition, the Delbrück and Suhl sites are using fully electric battery-operated transport vehicles, which are therefore CO_2 neutral. Since these vehicles are used for a large number of necessary journeys between the Group's various sites in Delbrück during everyday production activities, paragon significantly reduces CO_2 emissions.

In terms of transport packaging, paragon Group employees ensure that reusable packaging is mainly used. This reduces the use of resources and thus conserves natural resources. paragon's packaging specifications reflect quality and environmental requirements. paragon also encourages its customers to introduce packaging specifications in line with these requirements.

Other Control Benchmarks

For the management of the paragon Group, only the financial performance indicators are significant. In addition to the non-financial performance indicators mentioned above, there are other control parameters for the Group. These other control benchmarks are of subordinate importance compared to the performance indicators. The Management pays particular attention to the activities in research and development and materials management in addition to the free liquidity and equity ratio benchmarks as indicators for control and further development.

Research and Development

Since paragon's business model is based on early expansion into lucrative market segments with product innovations it has developed in-house, specific competences and adequate capacities in the field of research & development (R&D) are additional control benchmarks.

The units have decentralized responsibility for the development of new products. In the Electronics operating segment, the units are Sensors, Interior (consisting of the previous Cockpit and Acoustics units, which have now been incorporated as departments) and Digital Assistance. In the Mechanics operating segment, the Body Kinematics unit is represented by paragon movasys, while in the Electromobility operating segment, the Electromobility unit is represented by the Voltabox subgroup. Thanks to direct integration with sales, this decentralized organizational structure enables the implementation of new ideas within a short period of time. Research and development activities are predominantly internal and application-related. paragon's philosophy here is that it must be able to manufacture all of its new product developments itself, with a high level of automation. Among other requirements, this means that the hardware must be designed as simply as possible, while the software accounts for the complex aspects of the process.

In fiscal year 2018, paragon spent € 24.9 million (prior year: € 16.8 million) on R&D activities. This corresponds to 13.3% of revenue (prior year: 13.5%). The ratio of capitalized development costs was approximately 61.2% (prior year: 93.7%) of overall research and development costs.

The number of employees in research and development increased during the reporting year by 65.5% to 273 (prior year: 165). Of the companies acquired over the course of the year, SemVox GmbH (now: paragon semvox GmbH) contributed 51 employees and LPG Lautsprecher-Produktions-Gesellschaft mbH (now: paragon electroacoustic GmbH) 6 employees, while Concurrent Design, Inc. (Cedar Park, Austin/Texas) – which was acquired by the company's subsidiary, Voltabox – brought 16 employees. That figure accounts for about 24% of all Group employees as of the reporting date (prior year: 20.4%).

In 2018, the company maintained its consistent research and development focus on the automotive megatrends of digitization, CO_2 reduction, increased comfort and urbanization with the resulting fields of innovation relevant for paragon: shared mobility, connectivity, e-mobility, autonomous driving, digital assistance and emission control. The primary goal is to achieve a sustained improvement in the driving experience for modern car users as the company's end customers. paragon sees these areas of innovation as the key factors driving future automotive value creation. Accordingly, established and emerging automotive manufacturers likewise concentrated on these areas of innovation in their investments during the year under review.

Moreover, automotive megatrends are leading to a further increase in vehicle complexity, resulting in increasing outsourcing of entire systems to the supplier industry. paragon's systematic expansion of its development activities at the system level in recent years has reached a new peak in all of its units as well as across the board.

Sensors Business Unit

In 2018, the Sensors unit continued to focus on projects related to in-car air quality, with a particular focus on particulate matter pollution. In particular, this covered the internally defined field of innovation of emission control.

According to a study by the World Health Organization[5] (WHO), exhaust emissions are an important source of transport-related pollution. In this respect, the WHO cites a large number of epidemiological and toxicological studies that have investigated the negative health impacts of these emissions. Road wear, tire wear and brake wear have been identified as the non-exhaust-related traffic emissions that are becoming increasingly important as exhaust emissions are reduced. Toxicological research is also increasingly examining the observable health impacts of these kinds of non-exhaust-related pollutants.

Particles with an aerodynamic diameter of less than 10 micrometers (µm) are known as particulate matter (PM). Some of these particles have an aerodynamic diameter of less than 2.5 µm (PM2.5). Ultrafine particles with an aerodynamic diameter of less than 0.1 micrometers (PM1) are seen as the most harmful type of particles, since these particles can reach the bloodstream directly via the lungs and the alveoli and thus spread throughout the organs.

Most anthropogenic particulate matter emissions result from combustion processes, like those produced by traffic and during manufacturing processes. The size of particles and their chemical composition determine the physical and chemical properties of this dust. Characteristics such as particle size, geometric shape and the pollutants that cling to the surface are relevant from a health impact perspective. Very fine dust particles can penetrate deep into the lungs and have a negative impact on health.

Specifically, the following projects were the core focus of R&D activities in this unit in the year under review:

"DUSTPROTECT"

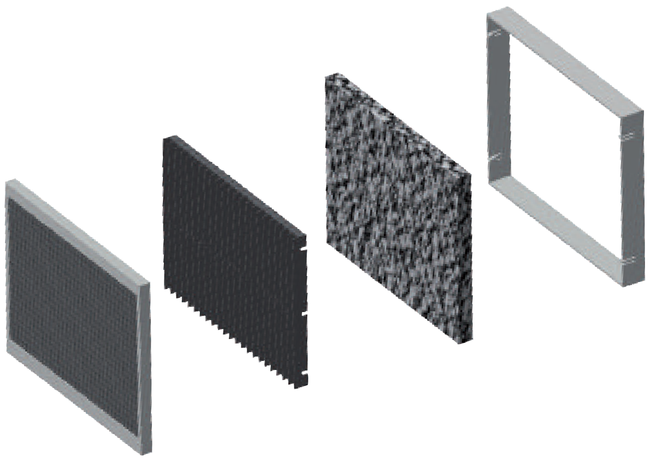
This project accounted for a significant share of the Sensors unit's development resources in the reporting year. DUSTPROTECT is an important new component of paragon's comprehensive range of air quality systems. The primary goal behind the development of

5 http://www.euro.who.int/__data/assets/pdf_file/0004/193108/REVIHAAP-Final-technical-report-final-version.pdf?ua=1

DUSTPROTECT is to prevent fine particulate matter (2.5 µm) and ultra-fine particulate matter (>1µm), which are harmful to health, from entering the vehicle. The system protects car users without interrupting the supply of fresh air. In paragon's view, this electrofilter developed in-house is significantly more efficient than filters that are currently in use.

Compared to high-efficiency particulate air (HEPA) filters, which mechanically cleanse the air and are used in environments like operating rooms, the electrofilter technology used by paragon has a shorter service life and suffers less pressure loss.

DUSTPROTECT



Polluted air passes through a prefilter, which filters out particularly coarse dust particles (>PM10). Smaller dust particles (PM2.5) and ultrafine particles (PM1) are subsequently charged at a high voltage and deposited onto collector plates. Harmful gases are then cleaned by means of an activated carbon filter.

DUSTPROTECT was tested and evaluated by various interested automotive manufacturers during the year. Further customer test vehicles are to be fitted with the system during the current fiscal year.

"DUSTDETECT"

A German premium manufacturer is set to include the dual-channel DUSTDETECT in its series production of several model ranges in the current fiscal year. Specific fixtures, tube systems and water separators have been developed for each model range.

This unit has also received two application-related development contracts from a Chinese automotive manufacturer for its DUSTDETECT particulate matter sensor for detection of fine dust particles with a diameter of 2.5 µm. This involves a single-channel sensor and a dual-channel sensor. paragon will deliver the first A-samples on schedule in the first half of 2019.

MKIII Air Quality Ionizer

With the third product generation of paragon's AQI ionizer, a significantly expanded system was developed and delivered to the first few automotive manufacturers in the year under review. The benefits of a new type of emitter include significantly higher and more stable ion output. Series production is due to begin at a German automotive manufacturer in the current fiscal year.

Vital Data Recognition

The internal Vital Data Recognition project was initiated in 2018. Heart and pulse rates can be measured by means of an innovative radar application. This system was presented to the world for the first time in early 2019 at the Consumer Electronics Show.

This development specifically is initially meant for the autonomous driving field of innovation. In 2017, the lower chamber of the German parliament (Bundestag) passed a law granting human and computer drivers the same legal status. This will be relevant in the future for level 3 autonomous driving vehicles, where the driver can temporarily look away from the traffic and will thus no longer be responsible for driving the vehicle. In this case, fully automated systems will assume control, but the driver must be able to intervene and to deactivate the system at any time. At the same time, the system must identify the driver's condition and assess whether he will be able to take the steering wheel if necessary.

However, there are currently no legally defined reaction times within which the driver must resume control of the vehicle. Individual control recovery times may vary greatly and depend on a large number of different factors. In paragon's view, this means that permanent monitoring of the driver is required so that they can confidently resume control if needed, depending on how they are feeling at that moment in time and their sitting position.

Seat Belt Observer (SBO)

A test vehicle was fitted with paragon's sensor-based Seat Belt Observer for an innovative German automotive manufacturer in the year under review. VW is to test this vehicle extensively in the USA in the current fiscal year. This system is intended to significantly increase the frequency of seat belt-wearing in the American market. A control unit combines the information provided by the device monitoring whether a seat is occupied with data from other sensors in the seat belt, buckle switch and the seat itself. In internal tests, the system safely recognized all of the misuse scenarios defined by the automotive manufacturer.

Interior Business Unit

In the Interior unit, which has incorporated the former Acoustics and Cockpit units as departments, the recent R&D activities in the year under review have been implemented as part of the integration of paragon semvox GmbH (previously SemVox GmbH) and paragon electroacoustic GmbH (previously LPG Lautsprecher-Produktions-Gesellschaft mbH). With this integration, the Saarbrücken and Neu-Ulm sites have also been newly added to the paragon Group. R&D activities here are increasingly joint projects spanning multiple departments and units, so that several of paragon's defined fields of innovation focusing on shared mobility, connectivity and e-mobility can be addressed at the same time.

In the year under review, the following projects were the core focus of R&D activities in the Acoustics department:

Exterior Sound (AVAS)

According to Article 8 of EU Regulation No 540/2014 of the European Parliament and of the Council of April 16, 2014, on the sound level of motor vehicles and of replacement silencing systems, all new hybrid electric and pure electric cars must have an "Acoustic Vehicle Alerting System" (AVAS) installed for improved protection of pedestrians by July 1, 2019. In the summer of 2020, this requirement will also come into effect for all battery-electric and fuel cell vehicles – including buses and trucks. Unlike conventional combustion engines, electric engines produce hardly any noise, which may increase the level of risk for pedestrians in certain traffic situations. Particularly for older people and people with an impaired field of vision, electric vehicles may therefore represent a serious threat in traffic.

The required acoustic warning must be audible from start up and up to a speed of 20 kilometers per hour as well as during reversing. Automotive manufacturers may freely – with the exception of music pieces – choose what this warning signal sounds like. However, to avoid unnecessary environmental pollution, these noise emissions are subject to specific requirements.

According to the German Federal Motor Transport Authority[6], a total of 31,442 plug-in hybrid cars and 36,062 pure electric cars were newly registered in Germany in 2018, which corresponds to a combined share of around 1.9% of all cars newly registered in Germany. In paragon's assessment, the number of new registrations is likely to increase significantly over the next few years in view of an improved infrastructure and political incentives.

6 German Federal Motor Transport Authority, press release no. 1/2019 – Vehicle Registrations in December 2018 – Results for the Year as a Whole

In the year under review, paragon electroacoustic GmbH continued the targeted development of its existing expertise and technology for related exterior sound systems (AVAS).

Perfect Speaker

Thanks to the use of intelligent software that compensates for distortions, paragon is able to build significantly smaller speakers. With this, automotive manufacturers achieve cost and weight savings, since they can make do without heavy subwoofers that take up a lot of assembly space. paragon continued to develop its "perfect speaker" in the year under review. The developments outlined below were pursued at the system level as part of this project.

Sound Source Algorithmics/Linearization

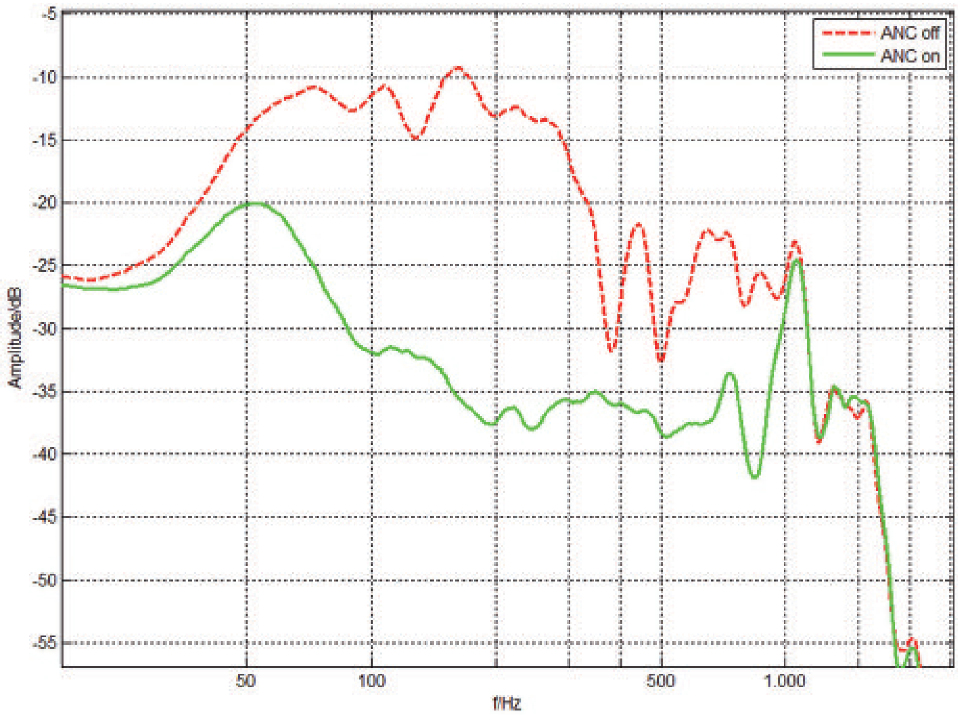
In the year under review, a demonstrator was realized in which the algorithm for linearization of the speaker dynamics was integrated within a hardware module included in paragon's module sound system kit. The hardware module receives the necessary real-time current measurement through a voltage drop calculator integrated in the amplifier IC along the "drain-source routes" for the output stage transistors.

This concept enables the replacement of a 13 cm woofer with a 10 cm woofer and reduces the installation space by half, while maintaining all of the acoustic parameters. The demonstrator system has been fitted inside a vehicle door in order to demonstrate this function.

Active Noise Cancellation (ANC)

paragon is developing this noise canceling technology – which has mainly been used in headphones to date – for in-car use in connection with its scalable sound system kit. This technology eliminates generally disruptive sound by producing inverted signals via the speakers integrated within the system, which are known as "anti-

Active Noise Cancelation (ANC)



This image shows a typical frequency range during driving (marked with dashed red lines). When the ANC is switched on, the level of engine and tire volume is reduced by a number of magnitudes ("green curve"; a reduction of 10dB corresponds to a halving of the perceived volume). paragon aims to significantly reduce the noise as far as 1 kHz (and beyond, in line with the wind noise that increases as speed picks up).

sound." Sound and anti-sound neutralize one another, so that car users no longer hear undesirable noise, such as engine and tire noise. paragon sees major market potential for this technology, particularly for the growing market of electric vehicles, where engine noise no longer crowds out undesirable ambient noise.

In the year under review, a test vehicle was fitted with a prototype of the ANC system. The ANC algorithm was integrated in a hardware module from paragon's modular sound system kit. This integration enables the low signal transfer time required for ANC as well as a low-cost architecture that is appropriate for the vehicle in question. The anti-sound signal output is ideally provided by means of the bass door speakers (woofers) already fitted in the vehicle. For acoustic requirements of more than 200 Hz, the use of speakers positioned close to the head, e.g., fitted in the headrest, is necessary. These headrest speakers can then also be used for additional functions such as improved surround sound ("3D") and low-latency in-car communication (ICC).

Digital Microphone

A digital microphone concept was also developed in the year under review. The goal was to provide microphone signals via a digital bus, so as to be able to offer automotive manufacturers a low-cost networking solution. This makes it easier for automotive manufacturers to include a large number of microphones with high signal transmission requirements in their future model generations at low cost. Various digital interfaces (e.g., A²B or INICnet) can be used for this purpose. Finally, functional modules with an integrated triple microphone array are available here.

Audio Processing Bridge (APB)

The predevelopment projects successfully completed in the year under review for two automotive manufacturers entail the integration of audio applications in complex, innovative seating concepts. paragon sees major growth potential here for future model generations as part of the automotive megatrends of digitization and increased comfort.

Sound Test Vehicle

Finally, sound management and in-car communication (ICC) were further optimized in paragon's presentation vehicle and additional settings were added. This will enable automotive manufacturers' requirements and various configurations to be fulfilled even more effectively in the future. In the current fiscal year, integration of the "perfect speaker" and the ANC system within a presentation vehicle is planned, enabling a first-hand experience of these forward-looking product developments.

In the year under review, the following projects were the core focus of R&D activities in the Cockpit department:

Interior Remote Control (IRC)

This customer-related development project consists of the first driver interior remote control with a new type of comfort control unit and a full-graphic display for trucks, enabling control of a wide range of comfort functions inside the truck cabin, from the sleeping area, including window regulators, air conditioning and heating, central locking, an alarm clock, an interior light, a radio, driving times and the status of the vehicle's battery. This also meets the need for a particularly robust setup. The system includes a new data compression method in the vehicle bus for software updates as well as a new automated test bench for the human-machine interface, which will be used in various future projects at paragon.

15W Wireless Charging

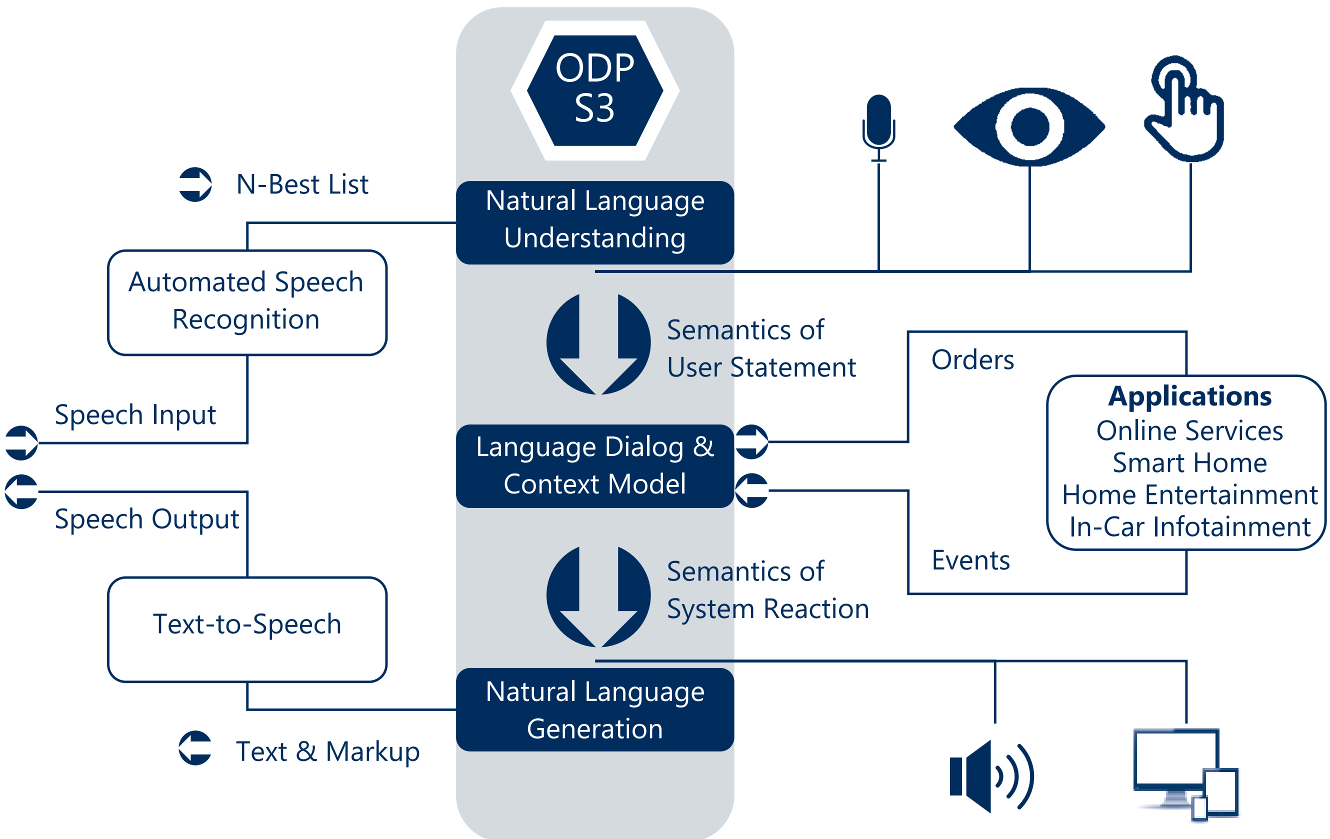
The technology for contactless charging of mobile devices continued to develop in fiscal year 2018. The well-known contact-free energy transmission method involves the transmission of electrical energy via electromagnetic fields instead of wiring. The applicable standards and norms for electromagnetic compatibility (EMC) and the electromagnetic impact on users are taken into account within the scope of electromagnetic environmental compatibility (EMEC) and its threshold values.

All recent smartphones with a wireless charging function now use Qi charging technology. The electrical energy flows once the electric coils in the charging tray and the back of the smartphone are placed directly on top of one another. Due to people's increasingly digital lifestyle, this wireless charging function is becoming ever more widespread. In cars, the first few models are being offered with this technology, currently mainly in the center console. In paragon's view, the maximum available charging rate is a key competitive factor here. paragon's product developments can now be fitted in the charging areas in vehicle door panels and achieve a charging capacity of up to 15W.

Digital Assistance Business Unit

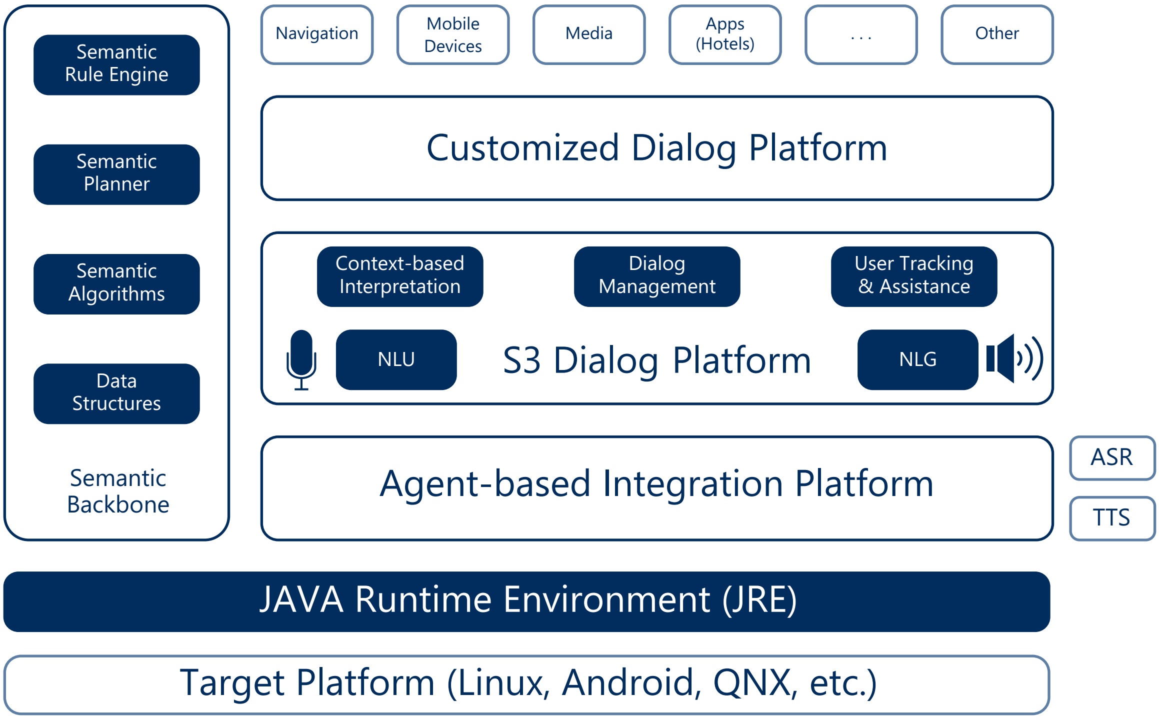
In the newly established Digital Assistance unit – which is represented by paragon semvox GmbH – R&D activities in the reporting year mainly related to innovative technologies and solutions for voice control applications, human-machine interaction and intelligent assistance systems based on artificial intelligence and machine learning technologies.

ODP S3 System overview



The ODP S3 voice-operated assistant can be used in embedded, cloud-based and hybrid settings. The ODP S3 cloud solutions can thus be hosted via the manufacturer's own infrastructures, communicate exclusively via the internet or both. This guarantees data sovereignty.

ODP S3 Platform overview



With ODP S3, dialogue components can be developed as easily as a smartphone app. The target platforms include Linux x86/ARM, QNX Neutrino, Android and Windows Embedded. This significantly shortens the development times for individual applications.

The ODP S3 voice-operated assistant is a Java-based, modular platform enabling a natural language dialogue. On the basis of the principle "Write Once, Run Anywhere," dialogue components can be reused on various target platforms. ODP S3 requires only limited resources while operating at peak performance on embedded systems (including for J2ME). ODP S3 is based upon AI technologies that enable the implementation of intelligent solutions, also for embedded systems.

ODP S3 provides a software development kit (SDK) as well as a tool chain through which integrators can themselves develop next-generation speech dialogues and integrate these into their systems. This includes ODP Workbench as an integrated tool chain based on Eclipse, which supports all of the steps in the dialogue development process and contains its own SDK. It supports the entire development process, from the system specification to the creation of knowledge sources and the system test to deployment on the target platforms. Intelligent tools such as Content Assist, Syntax Check and Wizards help the developer to increase productivity and quality in the development process. Test cases and system documentation can be automatically generated from the system specification, which will in turn be incorporated in the quality management process. The technical integration of the system environment is implemented as early as during the dialogue modeling.

The current generation of ODP S3 technology is already being used in a large number of vehicles of German premium manufacturers to control the infotainment unit. In 2018, development activities concentrated on the new generation of this technology. Through linked AI technology, this enables deep integration of connected services and devices with AI functions for the first time. As well as integrating a large number of services and devices while taking into consideration the learned preferences and interests of users, the goal here is to enable the use of genuine intelligent assistants for the first time, which can proactively adapt to the user's needs.

In the year under review, the performance of linked AI technology was demonstrated through a series of predevelopment projects for well-known automotive manufacturers, thus paving the way for its transfer to serial projects in 2019. This new generation of ODP S3 technology will be introduced in the first quarter of 2019.

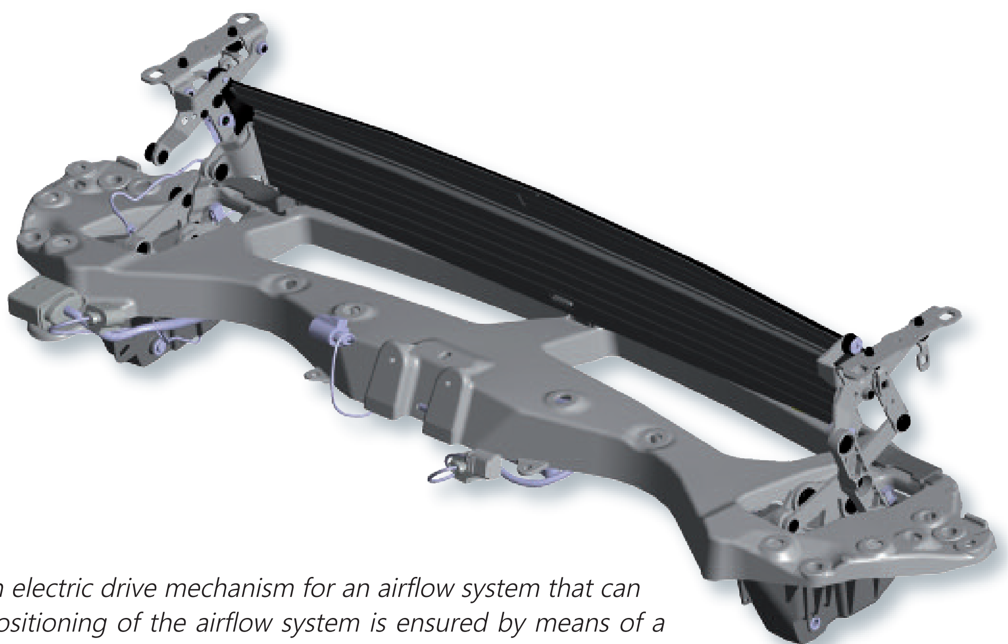
The Digital Assistance unit is also involved in a series of predevelopment and research activities in the field of smart assistance. For instance, the EmmA (emotional mobile assistant) project is researching the future topic of empathetic assistance. A socio-emotional behavioral model makes it possible for the first time to provide the user with empathetic support in line with his state of mind, even in critical situations.

Further research activities will examine application scenarios in the fields of robotics, industry and medicine.

Body Kinematics Business Unit

In the Body Kinematics unit, which is represented by paragon movasys GmbH, activities in the year under review continued to focus on the development of the latest generation of spoiler drive systems. In particular, this included the new spoiler drive for the best-known model of a German automotive manufacturer in the premium sports car segment, which was transferred to series production in the fourth quarter of 2018. With this complex technology, fulfillment of customers'

Z-drive Unit for Free Positioning Spoiler System



The "Z drive unit" enables an electric drive mechanism for an airflow system that can be freely positioned. Free positioning of the airflow system is ensured by means of a self-locking central gear unit. Multiple hinges connect the gear unit with the airflow system and enable them to move together in a confined space. The aluminum mounting support offers a large number of integrated functions and provides interfaces with the gray zones, engine coil fans, airflow, cable routing, tail fairing, lights and trunk lid.

stringent requirements – including during series production – is a particular development challenge. In this regard, paragon benefited from its experience of two similar series launches for other models of this automotive manufacturer in the prior year, which were directly incorporated in the development process.

The development of the "compact modular spoiler drive" (K-DSG) with four series launches in the year under review was an important milestone for the Body Kinematics unit. The expertise thus developed in the field of drive technology will be highly significant in case of new inquiries for series production, but also for predevelopment and ongoing development. The next level will include a control board that controls the drive system and communicates with the vehicle via a bus system.

In the spoiler for a four-door coupé of a German premium manufacturer which was newly introduced in the fourth quarter of 2018, an alternative drive was fitted by means of a cable system. This design looks great, even in an extended position. The series unit includes the spoiler blade, which is adjusted exactly in line with the vehicle environment by means of a special device, so as to ensure simple and custom-fit assembly on the production line for the automotive manufacturer.

In addition, a further version of the "compact modular spoiler drive"(K-DSG) was transferred to series production for a five-door hatchback produced by an innovative German automotive manufacturer in the year under review. Here, among other details, the binding strap for the spoiler blade was optimized, which also enables a default tilt setting and facilitates assembly for the automotive manufacturer.

Finally, a new application in the area of drive technology and kinematics was developed in the reporting year for a San Francisco start-up that was founded in 2012. This relates to the doors and tailgates of fully autonomously driving vehicles. The requirements for these vehicles clearly differ from those of current vehicle generations. This young company is currently developing proprietary software for self-driving cars and plans to produce its first autonomous vehicles from 2020. These "robot taxis" represent an entirely new vehicle category for paragon, with great potential for future mobility. The first modules for prototypes were delivered in the year under review. In the current fiscal year, development activities are concentrating on the planned series production.

Electromobility Business Unit

The Electromobility unit, which is represented by the Voltabox subgroup, focused on the following projects in the year under review:

Following the comprehensive evaluation of the market's response to the Schäffer compact loader at Agritechnica 2017, Voltabox's developer team made further progress in the optimization of this system in the reporting year. Two prototypes were subsequently delivered to Schäffer whose use provided further valuable findings with a view to the final validation of the system. In the fourth quarter of fiscal year 2018, the successful completion of this process culminated in the successful launch of series production for this system.

The system approach and the scalability of the products in the area of battery systems for automated guided vehicles (AGVs) has been significantly improved once again. Thanks to the consistent improvement in the level of standardization of the battery container for AGVs and the modular development of the entire system, several OEMs were added to the company's customer base in the year under review. This battery system was transferred to series production for a new customer within the space of a few months. In 2018, Voltabox also launched UL certification for various battery systems for Kuka and aims to successfully complete this process in the current fiscal year.

Increased flexibility and improved scalability were also the key factors behind the development of a "standard container" which serves as the basis for freely expandable trolleybus battery systems. Standardization of the battery – which enables modular development of a larger system – permits series production even where this battery system is used in different trolleybus models.

Standard Container

Weight-optimized standard containers have an energy content of 15.2 kWh. Long-term charging and discharging amounts to 50 kW, but can reach up to 80 kW. The standard container has an ISO 26262-compliant design and an ECE R 100 certificate, whose award marked the core focus of validation activities in the past fiscal year.

At Voltabox of Texas, the development projects for Komatsu Mining were a key focus of its activities in the year under review. In 2018, the battery system pilot series was completed for the Battery Hauler 18/20, a battery-powered tractor for use in underground mining with a nominal load capacity of up to 20 tonnes. Due to the complexity of this system, further adjustments and fine-tuning were required prior to the launch of series production. These were implemented by the R&D department in 2018. The Battery Hauler was subsequently transferred to series production on schedule as the first vehicle in Komatsu's fleet of electrified vehicles for underground mining.

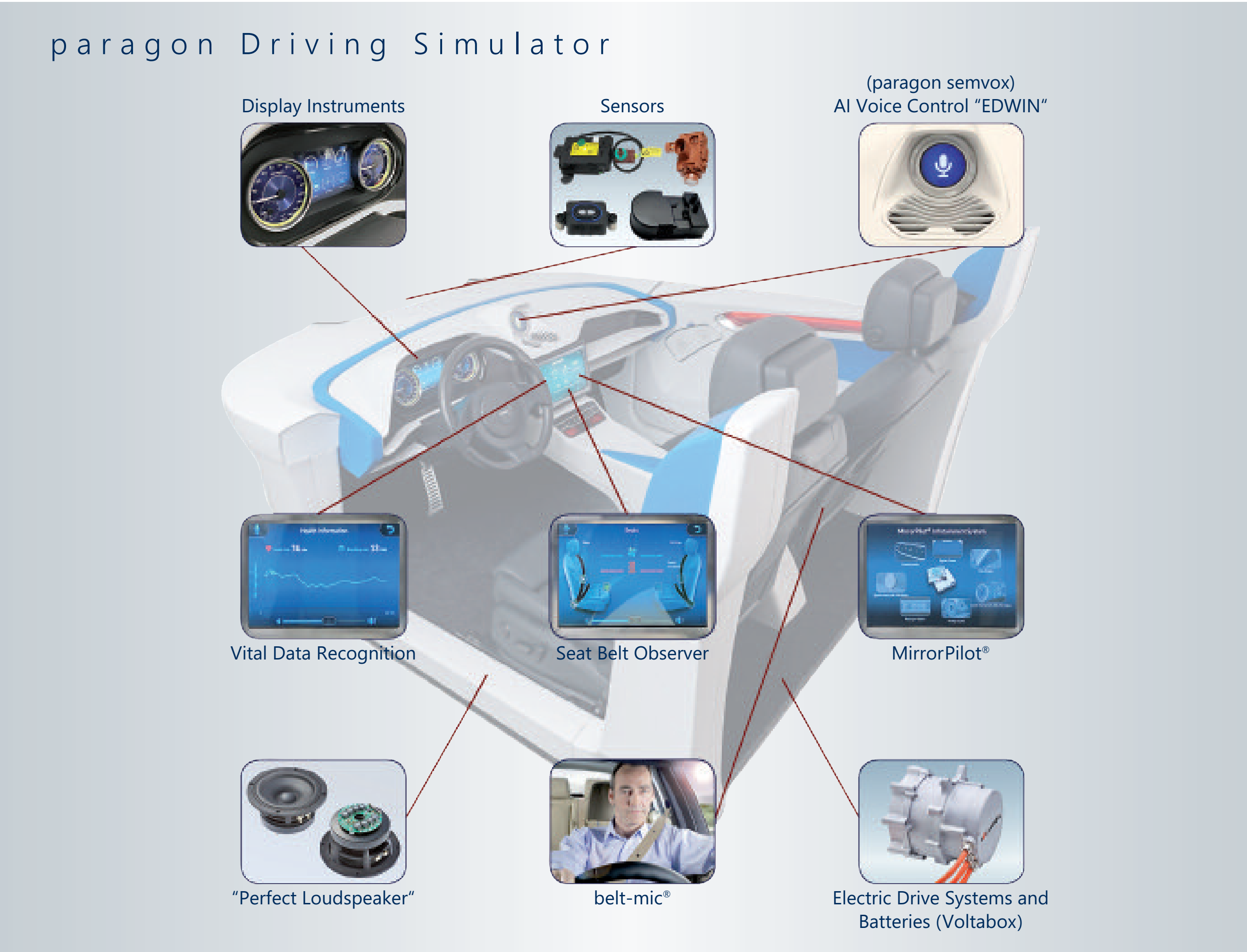
The electrification of further Komatsu Mining vehicles is already envisaged, including the Load Haul Dump, also known internally as "Big Bertha." Development activities at the Cedar Park, Austin/Texas, site focused on further design optimizations and additions as part of the forthcoming design as a complete system. Moreover, during the current fiscal year, key steps will follow in terms of implementation of the battery system within the vehicle architecture of an initial prototype.

At the Aachen research and development center, further progress was made in fiscal year 2018 in the development of forward-looking power electronics. Work was carried out on the integration of the high-performance onboard charger (OBC) for charging vehicles directly onboard, even in an extremely compact assembly space, and on the reliable cooling system this requires. In the year under review, R&D activities also focused on enabling the highest possible output voltage for the OBC. To achieve this, modern silicon carbide (SiC) semi-conductor components are installed, which permit significantly higher switching frequencies than conventional components. In concrete terms, the R&D team has set itself the goal of developing a 44 kW high-performance charger for assembly space requirements, as are typical for 22kW-class devices. This means combining the 400V and 800V voltage architectures that are common in the automotive sector in a single device. This results in possible output voltages in the range of 220 V to 480 V as well as 440 V to 960 V. These specifications allow high-performance onboard charging in a wide range of electromobility applications, from electric cars to heavy electrified construction and mining vehicles.

Moreover, the functional model of a DC/DC converter was completed in the past fiscal year and is now undergoing validation. The voltage converter makes it possible to convert the DC voltage supplied by the lithium-ion battery system into a DC voltage with a lower voltage level. For instance, the onboard electronics can be supplied with energy from a high-voltage battery system. The 3.3 kW solution developed by Voltabox has an output voltage of 12 volts. A key feature of the DC/DC voltage converter is its extremely compact build. In the year under review, a core priority was to optimize the functional reliability and safety of this product in view of the extremely high input voltage that it must convert. Furthermore, the validation process was prepared for by creating the necessary laboratory conditions.

Presentation at Consumer Electronics Show 2019

From January 8–11, 2019, paragon presented its major new product developments at the Consumer Electronics Show (CES) in Las Vegas and met with a strong response from industry visitors as well as the trade press in attendance. The latest innovations in the company's



Sensors, Interior and Digital Assistance units were the core focus. Voltabox was also present at paragon's stand with selected applications and was thus represented at one of the world's leading consumer electronics trade fairs for the first time.

The stand featured a simulator enabling in-depth testing of these innovations. Visitors were able to gain a personal impression of the passenger compartment in a futuristic car whose various features enable an entirely new driving experience. With this simulation, paragon also made it possible for trade fair visitors to test a large number of products that have either recently been introduced to the market or that are currently being marketed to automobile manufacturers.

Materials Management

Materials management plays a special role at paragon with its production-intensive plants and broad product portfolio. In the reporting year, the material input ratio was 56.5% (prior year: 57.1%). Particularly at the system level, Group-wide implementation of the dynamic growth strategy required targeted development of existing structures and processes as well as efficient integration of the flow of materials of the companies acquired during the year under review. As a result, materials management has the function of an internal benchmark.

The close cooperation with select high-performance suppliers and a demand-oriented purchasing policy also formed the basis for procurement in fiscal year 2018. The aim of this approach was to be able to achieve ambitious production targets even in the case of short-term and large-volume orders by automobile manufacturers as well as individual project developments in e-mobility.

The following core measures in particular were implemented in the year under review:

- International purchasing was reinforced at a decentralized level, in particular at the Kunshan (China) plant
- The value chain was further expanded, especially in the Mechanics operating segment
- Synergy effects were realized due to the increased purchasing quantities in connection with the companies acquired, specifically paragon movasys
- The Group-wide strategic supplier management approach was expanded to include the plants in Kunshan (China) and Landsberg am Lech (paragon movasys)
- The industry-wide shortage of electronic components in the second half of the year was offset by means of specific procurement measures

Free Liquidity

paragon GmbH & Co. KGaA's business model requires the ongoing availability of sufficient liquid funds. Liquidity is also an important economic indicator for third parties looking to comparatively assess the business situation of a company in a specific industry. In addition, the medium and long-term liquidity planning for servicing interest payments and repayments is constantly being reviewed by creditors. Finally, the company's liquidity planning contributes to the internal management of the balance sheet structure.

Free liquidity includes all funding that is available within the paragon Group and is not intended to be used. According to the definition used by the company, current net debt is therefore to be determined by subtracting free liquidity from (current and noncurrent) interest-bearing liabilities.

Free liquidity developed as follows as of the reporting date:

In € thousands	**2018**	2017
Free Liquidity	48,926	166,826

Equity Ratio

The equity ratio is used by the Management as an internal indicator for the management of the capital structure. Within the scope of the company's capital-intensive growth strategy, the recognition of the 40 percent minority interest in the equity of Voltabox AG due to its consolidation as well as the profit/loss carried forward significantly strengthened the equity reported in the paragon Group's balance sheet.

In addition, the equity ratio reflects the current status of the investment cycle amid continuing operational implementation of the company's long-term growth strategy. In the long term, the Management Board sees an equity ratio of about 30% as optimal.

As of the reporting date, the equity ratio developed as follows:

In Percent	2018	2017
Equity Ratio	49.1	56.8

Financial Management

The financial management of the company does not include an independent target system. Rather, the Management uses internal financial management to plan and monitor the implementation of its growth strategy. In this context, comprehensive financial planning is carried out on the basis of revolving sales planning, from which investment and liquidity plans are then derived. In addition to the individual segments, the company's legal entities are viewed and consolidated at a Group level on a monthly basis. The introduction of Microsoft Dynamics AX as a uniform ERP system throughout the Group is intended to facilitate further expansion into integrated financial planning.

Dividend Policy

Over the last few years, the Management has developed a dividend policy that is designed to meet the company's strategic goal of profitable growth. On the one hand, this is intended to enable paragon shareholders to further increase the value of their shares through dividend payments and provide an incentive for long-term investment decisions. On the other hand, the company's equity base should not be excessively burdened during its capital-intensive growth phase. Corporate profits are therefore largely reinvested. In the medium term, the Management would consider a disbursement ratio in the range of 20 to 40 percent of paragon GmbH & Co. KGaA's balance sheet profit (as reported in the financial statements according to the German Commercial Code) as appropriate.

For the reporting year, the Management and the Supervisory Board will propose a dividend of € 0.25 (prior year: € 0.25) per participating share to the Annual General Meeting.

Remuneration Report of the Management Board and Supervisory Board

The company is committed to a high degree of transparency in its reporting. This also applies to the remuneration of the Management, which is disclosed and explained in full in the remuneration report, together with all its components and on an individualized basis. The Management and the Supervisory Board have therefore decided to use the Management remuneration sample tables provided by the German Corporate Governance Code (GCGC) in the remuneration report.

Management Board Remuneration

The remuneration of the members of the Management Board consists of an annual fixed remuneration, ancillary benefits and a one-year variable remuneration component. A cap (minimum/maximum) is not provided for the variable compensation component. A variable compensation component for multiple years has not been specified. Finally, the total remuneration still includes a service cost under IAS 19. This is recognized pursuant to the GCGC as part of total remuneration, even though this is not a newly granted contribution in the narrower sense, but a past decision of the Supervisory Board that continues to be effective.

The total remuneration of the Management contains salaries and short-term benefits of € 1,668 thousand (prior year: € 1,238 thousand) and includes fixed components of € 1,089 thousand (prior year: € 860 thousand) and variable components of € 578 thousand (prior year: € 376 thousand). The main variable remuneration components are oriented on EBITDA as defined by IFRS and the economic situation of the company. Expenses relating to share-based remuneration were not incurred in the year under review (prior year: € 0 thousand). Service costs amounted to € 1 thousand (prior year: € 2 thousand).

The following table shows the contributions granted to the members of the Management in the reporting year:

Benefits granted in €]	**Klaus Dieter Frers Chairman of the Management Board Date joined: Apr. 11, 1988**		**Dr. Stefan Schwehr Member of the Management Board Date joined: Apr. 1, 2014**		**Dr. Matthias Schöllmann Member of the Management Board Date joined: Sep. 1, 2018**	
	2018	2017	**2018**	2017	**2018**	2017
Fixed compensation	600,000.00	600,000.00	200,000.35	200,000.00	200,000.00	0.00
Fringe Benefits	70,986.36	51,792.52	12,931.45	8,688.00	5,510.40	0.00
Total	**670,986.36**	**651,792.52**	**212,931.80**	**208,688.00**	**205,510.40**	**0.00**
One-year variable compensation*	510,840.00	332,000.00	67,570.00	44,000.00	0.00	0.00
Total	**1,181,826.36**	**983,792.52**	**280,501.80**	**252,688.00**	**205,510.40**	**0.00**
Service cost	605.64	1,789.56	0.00	0.00	0.00	0.00
Total compensation	1,182,432.00	985,582.08	280,501.80	252,688.00	205,510.40	0.00

* Uncapped (minimum/maximum)

Allocation in €]	Klaus Dieter Frers Chairman of the Management Board Date joined: Apr. 11, 1988		Dr. Stefan Schwehr Member of the Management Board Date joined: Apr. 1, 2014		Dr. Matthias Schöllmann Member of the Management Board Date joined: Sep. 1, 2018	
	2018	2017	**2018**	2017	**2018**	2017
Fixed compensation	600,000.00	600,000.00	200,000.35	200,000.00	200,000.00	0.00
Fringe benefits	70,986.36	51,792.52	12,931.45	8,688.00	5,510.40	0.00
Total	**670,986.36**	**651,792.52**	**212,931.80**	**208,688.00**	**205,510.40**	**0.00**
One-year variable compensation*	510,840.00	482,760.00	67,570.00	65,230.00	0.00	0.00
Total	**1,181,826.36**	**1,134,552.52**	**280,501.80**	**273,918.00**	**205,510.40**	**0.00**
Service cost	605.64	1,789.56	0.00	0.00	0.00	0.00
Total compensation	1,182,432.00	1,136,342.08	280,501.80	273,918.00	205,510.40	0.00

* Uncapped (minimum/maximum)

In fiscal year 2018, paragon GmbH & Co. KGaA reported expenses for the allocation of pension provisions to Mr. Klaus Dieter Frers in the amount of € 167 thousand (prior year: € 364 thousand) in the company's annual financial statements pursuant to the provisions of the German Commercial Code.

In fiscal year 2018, paragon GmbH & Co. KGaA reported expenses for the allocation of pension provisions to Mr. Klaus Dieter Frers in the amount of € 154 thousand (prior year: € 251 thousand) in the company's consolidated financial statements pursuant to IFRS.

Supervisory Board Remuneration

In accordance with the Articles of Association, the remuneration of the members of the Supervisory Board is determined by the Annual General Meeting and consists of fixed remuneration. The Supervisory Board Chairman receives € 60 thousand and the remaining members of the Supervisory Board each receive € 30 thousand per fiscal year.

The members of the Supervisory Board received fixed remuneration totaling € 120 thousand (prior year: € 120 thousand) in the year under review.

The following table shows the remuneration of the Supervisory Board members:

in € thousands	Prof. Dr. Lutz Eckstein Chairman of the Supervisory Board		Hermann Börnemeier		Walter Schäfers	
	2018	2017	**2018**	2017	**2018**	2017
Fixed compensation	60	60	30	30	30	30
Total compensation	**60**	**60**	**30**	**30**	**30**	**30**

Economic Report

Global Economic Conditions

In October 2018, the International Monetary Fund ("IMF") noted in its global economic outlook[7] the slightly subdued and less balanced global growth outlook over the course of 2018. A slowdown in trade, manufacturing and investments at a global level played a particularly important role here. Overall, global economic growth was still considered solid, albeit somewhat plateaued, with mixed dynamics in the individual economic regions.

Global economic growth was estimated at 3.7% for 2018, while global growth of 3.9% had been expected back in April. The IMF made this adjustment in response to the economic risk associated with heightened political uncertainty. The uneven distribution of economic growth between developed economies (2.4%) and emerging markets (4.7%) remained unchanged. In particular, economic growth in 2018 was estimated to have amounted to 2.9% in the U.S. (prior year: 2.2%), 2.0% in the eurozone (prior year: 2.4%), 1.9% in Germany (prior year: 2.5%) and 6.6% in China (prior year: 6.9%).

In this still positive global economic environment, in the past fiscal year the German economy grew for the ninth consecutive year, but this growth suffered a loss of momentum.

According to data from the German Federal Statistical Office ("Destatis")[8], following price, seasonal and calendar adjustment, gross domestic product (GDP) rose 0.9% in the fourth quarter of 2019 (prior year: 2.2%). This follows increases of 1.1% in the third quarter (prior year: 2.2%), 2.3% in the second quarter (prior year: 0.9%) and 1.4% in the first quarter (prior year: 3.4%). Private consumer spending, which is important for the automotive industry, contributed to the positive momentum in the fourth quarter, next to public spending. It posted an adjusted growth rate of 1.0% (prior year: 0.7%), after 0.2% in the third quarter (prior year 1.1%), 1.0% in the second quarter (prior year: 1.1%) and 1.7% in the first quarter (prior year: 1.2%).

As a supplier to the automotive industry, in fiscal year 2018 paragon generated most of its Group revenue with premium automotive manufacturers headquartered in Germany and in the European Union. These, in turn, sell the vehicles they produce worldwide. Overall economic development is therefore important for paragon in that it affects the sales opportunities for the automotive manufacturers it supplies, and thus also indirectly affects the development of private consumer demand for paragon products.

Market Development 2018

In line with the general slowdown in economic growth, in the past fiscal year global automobile sales matched the prior year's level, in overall terms, with variable momentum. The German Association of the Automotive Industry (VDA)[9] has calculated that around 85 million cars were newly registered worldwide in 2018.

According to the VDA[10], the global market for cars in 2018 proved to be robust overall. The European car market maintained the same high volume seen in the prior year. However, the performance of the individual markets varied in this respect. The biggest volume markets – France (+3%) and Spain (+7%) – gained ground, while Germany matched the extremely high level reached in the prior year despite the upheavals that came with the WLTP changeover. On the other hand, the markets in Italy (-3%) and the United Kingdom (-7%) declined.

The U.S. light vehicle market even registered slight growth. China saw a decrease for the first time, but the market volume there remains very high. On the other hand, the secondary sales markets such as Brazil, Russia and India partly recorded significant growth rates.

New registrations/sales of passenger cars developed in the most important sales markets as follows:

7 https://www.imf.org/en/Publications/WEO/Issues/2018/09/24/world-economic-outlook-october-2018
8 Federal Office of Statistics, Press Release dated Febr. 22, 2019 – 064/2019
9 VDA Press Release dated Dec. 5, 2018: German Automotive Industry Drives Future of Mobility Forward
10 VDA Press Release dated Jan. 16, 2019: International Automotive Business Produces Solid Results in 2018

In million units	2018	2017	Change
USA	17.2	17.2	0.5 %
Europe	15.6	15.6	0.0 %
China	23.3	24.1	- 3.8 %

In 2018, the premium manufacturers Audi, Volkswagen, Porsche, Daimler and BMW, which are important for paragon, maintained the same high volume achieved in the prior year, with around 13.2 million passenger cars sold worldwide.[11] The Volkswagen Group reported that it had increased its deliveries within Europe, China and the U.S. through successful product campaigns.[12] paragon's largest customer group thus more than made up for the generally declining Chinese sales market. This is mainly attributable to the significant sales growth registered by Audi and Porsche. According to the VDA[13], the German automotive industry accounted for around 20 percent of the global car market. In China, the German automotive industry even increased its market share to 22 percent.

The premium segment of the major German automotive manufacturers, which paragon caters for, has thus once again outperformed the overall market.

In the e-mobility market, 2018 continued to be characterized by dynamic market growth in the industrial submarkets relevant to Voltabox. This market dynamic was based on the ongoing process of diesel backup generators and lead-acid batteries being replaced by modern lithium-ion battery systems.

paragon thus experienced a positive economic environment during the past fiscal year.

Business Performance of the Group

The excellent operative performance in the young operating segments Electromobility and Mechanics (Body Kinematics unit) was a key factor in the company's growth in the fiscal year 2018.

Operating Segment	Electronics			Mechanics			Electromobility			Eliminations			Group		
in € thousands / as indicated	2018	2017	Δ in %	2018	2017	Δ in %	2018	2017	Δ in %	2018	2017	Δ in %	2018	2017	Δ in %
Revenue (third party)	85,518	90,799	-5.8	34,977	9,330	274.9	66,888	24,694	170.9	0	0	0	187,383	124,823	50.1
Revenue (Intersegment)	8,272	4,064	103.5	45,503	64,728	-29.7	19	2,580	-99.3	-53,794	-71,372	-24.6	0	0	0
Revenue	**93,790**	**94,863**	**-1.1**	**80,480**	**74,058**	**8.7**	**66,907**	**27,273**	**145.3**	**-53,794**	**-71,372**	**-24.6**	**187,383**	**124,823**	**50.1**
EBIT	**10,547**	**9,683**	**10.5**	**-748**	**1,167**	**n/a**	**5,609**	**-1,641**	**n/a**	**-576**	**-3,794**	**-84.8**	**14,832**	**5,415**	**173.9**
EBIT margin	**11.2 %**	**10.2 %**	**n/a**	**-0.9 %**	**1.6 %**	**n/a**	**8.4 %**	**-6.0 %**	**n/a**	**n/a**	**n/a**	**n/a**	**7.9 %**	**4.3 %**	**n/a**

The largest operating segment, Electronics, dominated Group activities with revenue of € 93.8 million (prior year: € 94.9 million). Of this amount, € 85.5 million were attributable to third-party revenue in the Sensors, Interior and Digital Assistance units (prior year: € 90.8 million). At € 34.3 million, revenue in the Sensors unit increased by 1.5% (prior year: € 33.8 million). This is primarily due to increasing take-rates in the current vehi-

11 Calculated on the basis of the respective information from the press releases of the car manufacturers
12 Volkswagen AG, Press Release dated Jan. 11, 2019 – New Delivery Record for Volkswagen Group in 2018
13 VDA Press Release dated Jan. 30, 2019: Automotive World About to Change Faster Than Ever Before

cle models with the latest sensor generation from paragon. Revenue in the Interior unit decreased by 12.3% to € 50.0 million (prior year: € 57.0 million), which was mainly due to life-cycle effects. The Acoustics special field recorded revenue decline of 22% to € 16.7 million (prior year: € 21.4 million). In addition, LPG Lautsprecher-Produktions-Gesellschaft mbH (now: paragon Electroacoustic GmbH), which was acquired on Nov. 1, 2018, contributed € 1.6 million to segment revenue for the first time. The Cockpit special field recorded revenue decline of 6.5% to € 33.3 million (prior year: € 34.7 million). The newly established Digital Assistance unit is represented by SemVox GmbH (now: paragon semvox GmbH), in which a majority stake was acquired on Oct. 1, 2018, and also contributed € 1.2 million to segment revenues for the first time. The EBIT for the operating segment amounted to € 10.5 million (prior year: € 9.7 million), which corresponds to an EBIT margin of 11.2% (prior year: 10.2%).

Segment revenue in the Mechanics operating segment amounted to € 80.5 million (prior year: € 74.1 million). Of this figure, € 35.0 million was attributable to third-party revenue in the Body Kinematics unit (prior year: € 9.3 million), which is represented by paragon movasys GmbH. With an increase in growth of 274.9%, this operating segment achieved disproportionate growth. On the one hand, series production of the latest generation of spoiler drive systems was a major source of revenue in the year under review. In addition, HS Genion GmbH (now: paragon movasys GmbH), which was acquired on Dec. 1, 2017, contributed to revenues for the entire fiscal year for the first time. EBIT for the operating segment amounted to € -0.7 million (prior year: € 1.2 million), which correspondends to an EBIT margin of -0.9% (prior year: 1.6%).

Segment revenue in the Electromobility operating segment rose to € 66.9 million (prior year: € 27.3 million), which was almost completely achieved with third parties (prior year: € 24.7 million). This operating segment is represented by the Voltabox subgroup, which is fully consolidated. With an increase of 170.9%, this operating segment also posted disproportionately high growth dynamics. The largest growth driver was the serial production of battery modules for appications in intralogistics, especially forklifts. Other revenue drivers included battery systems for trolleybuses and for use in mining vehicles, agricultural vehicles and starter batteries for motorcycles. Furthermore, ACCURATE - SMART BATTERY SYSTEMS - GmbH (Korntal-Münchingen), which was taken over by Voltabox AG on Sep. 1, 2018, contributed € 2.2 million to revenue for the first time. EBIT for the operating segment amounted to € 5.6 million (prior year: € -1.6 million), which corresponds to an EBIT margin of 8.4 (prior year: -6.0%).

Revenue distribution in € thousands	**2018**	**Share in %**	2017	**Share in %**	**Change in %**
Sensors	34,276	18.3	33,760	27.0	1.5
Interior*	50,010	26.7	57,038	45.7	-12.3
Digital Assistance**	1,232	0.6	n/a	n/a	n/a
Body Kinematics	34,977	18.7	9,330	7.5	274.9
Electromobility	66,888	35.7	24,694	19.8	170.9
thereof: Germany	57,808	30.9	21,369	17.1	170.5
thereof: USA	9,080	4.8	3,325	2.7	173.1
Total	187,383	100.0	124,823	100.0	50.1

* Previously Cockpit and Acoustics.
** As of the 4th Quarter 2018

In the 2018 fiscal year, in addition to the above-mentioned company acquisitions, in particular life-cycle effects in the product portfolio and increasing take rates have influenced the business activities of the Group.

Business Performance of the Parent Company paragon GmbH & Co. KGaA

The business performance of paragon GmbH & Co. KGaA's business performance was mainly characterized by the Sensors and Interior units. At € 34.3 million, revenue in the Sensors increased by 1.5% (prior year: € 33.8 million). This is primarily due to life-cycle effects with simultaneously increasing take-rates in the current vehicle models with the latest sensor generation from paragon.

Revenue in the Interior unit decreased by 12.3% to € 50.0 million (prior year: € 57.0 million), which was mainly due to life-cycles effects.

Key Factors of Business Performance

The business performance of the paragon Group during the past fiscal year was again mainly characterized by an increase in the take-rate for certain air quality sensors and an increase in the output volume of the latest generation of hands-free microphones as well as several production starts for display instruments and the latest generation of adjustable spoilers. At the same time, production volumes for older product generations fell as part of their life cycles.

Furthermore, the relative composition of the customer structure changed over the course of the year according to the successive implementation of the growth strategy. This was mainly attributable to the significant growth in the Electromobility operating segment, which fed off of the particularly dynamic development in the intralogistics market. In addition, HS Genion GmbH, which has been consolidated since Dec. 1, 2017 and now operates under the name paragon movasys GmbH, bundling all business activities of the Body Kinematics unit, for the first time contributed to revenues for the entire fiscal year.

At the same time, the revenue share with the largest customer fell to 33.9% (previous year: 49.0%), while the customer base in the automotive business segments Electronics and Mechanics was further broadened overall. The different model cycles of the respective automobile manufacturers and the selected times for model maintenance and generation changes have had an additional influence on this development.

In the past fiscal year, the development and production of lithium-ion battery systems for industrial applications had a major impact on the course of business in the Electromobility operating segment, which is represented by the Voltabox subgroup. These include, in particular, local public transportation (trolleybuses), intralogistics (forklift trucks and automated guided vehicles) as well as mining and agricultural vehicles. Business performance was increasingly dominated by the automated series production of ready-to-use battery modules for intralogistics.

In addition, serial production of 5Ah and 10Ah starter batteries for BMW motorcycles began in the third quarter. The first series-produced battery systems for the first application in mining were delivered in the fourth quarter. Moreover, business was characterized by the construction of a further prototype for a newly designed large underground mining vehicle from Komatsu and the development of power electronics. In the second quarter of 2018, the cooperation with our partner Triathlon Batterien GmbH ("Triathlon"), which has existed since 2014, was fundamentally renewed for battery systems for forklift trucks. The new cooperation agreement stipulates that Voltabox's lithium-ion battery systems intended for distribution in the EU will continue to be assembled at Triathlon. Voltabox produces and supplies the modules, while Triathlon manufactures troughs as well as system and module electronics. Subsequently, Voltabox started direct sales of battery systems for forklift trucks in the EU parallel to the cooperation with Triathlon.

Assets, Financial Position and Earnings

Earnings of the paragon Group

With revenue growth of 50.1% to around € 187.4 million (prior year: € 124.8 million), the paragon Group continued its existing growth momentum in fiscal year 2018 and exceeded its revenue forecast. With a Group EBIT margin of 7.9%, the earnings forecast of the Management Board of around 8% was also achieved.

Other operating income increased by 421.9% to € 7.2 million (prior year: € 1.4 million), mainly due to currency translation effects and compensation payments. Inventories of finished goods and work in progress rose to € 9.2 million, compared with a decline of € 1.1 million in the prior year. This development is attributable to a build-up of inventories to realize revenues in the first quarter of 2019. At € 15.7 million, other own work capitalized remained slightly below the prior year's level (€ 16.4 million). The cost of materials increased in line with revenue growth by 48.7% to € 105.9 million (prior year: € 71.2 million), which corresponds to a cost of materials ratio of 56.5% (prior year: 57.1%). This results in gross profit of € 113.5 million for the 2018 fiscal year (prior year: € 70.2 million), which corresponds to a gross profit margin of 60.6% (prior year: 56.3%).

Personnel expenses rose by 47.9% to € 52.2 million (prior year: € 35.3 million) in the course of the fiscal year, primarily due to new hires in connection with operating growth and the expansion of the scope of consolidation. As a result, the personnel expense ratio fell slightly to 27.8% (prior year: 28.2%). Other operating expenses increased by 54.3% to € 31.1 million (prior year: € 20.2 million). This is due in particular to currency translation effects, increased rental expenses and legal and consulting costs in connection with company acquisitions. Earnings before interest, taxes, depreciation and amortization (EBITDA) thus increased by 104.5% to € 30.3 million (prior year: € 14.2 million), corresponding to an EBITDA margin of 16.2% (prior year: 11.9%).

After scheduled higher depreciation of € 14.4 million (prior year: € 9.4 million), earnings before interest and taxes (EBIT) increased by 173.9% to € 14.8 million (prior year: € 5.4 million). The EBIT margin thus increased to 7.9% (prior year: 4.3%).

As a result of slightly lower financing expenses, the financial result improved slightly to € - 4.2 million (prior year: € - 4.4 million). This results in an increase in earnings before taxes (EBT) of 928.6% to € 10.6 million (prior year: € 1.0 million). Taking into account significantly higher income taxes (deferred taxes) of € 7.2 million (prior year: € 5.0 million), the paragon Group generated a consolidated result of € 3.4 million in the reporting period (prior year: € - 4.0 million). This corresponds to earnings per share of € 0.52 (previous year: € - 0.30).

The portion of Group result attributable to minority interests amounted to € 1.0 million (prior year: € -2.6 million). The balance of Group result and other comprehensive income of € 0.9 million (prior year: € -2.3 million) was allocated to minority interests.

Net Assets of the paragon Group

The assets of paragon GmbH & Co. KGaA increased by 17.6% to € 362.3 million (December 31, 2017: € 308.0 million), mainly due to the capitalization of development costs, the expansion of the scope of consolidation and the significant expansion of operating activities.

Non-current assets increased to € 176.7 million (December 31, 2017: € 107.9 million). This was mainly due to the 52.7% increase in intangible assets to € 91.7 million (December 31, 2017: € 60.0 million) caused by the capitalization of development costs and the expansion of the scope of consolidation. Goodwill increased accordingly by 310.2% to € 30.4 million (December 31, 2017: € 7.4 million).

For the year under review, management had forecast investments (CAPEX) of around € 35 million, which at € 48.8 million were exceeded by 39.4%.

Current assets decreased to € 185.6 million (December 31, 2017: € 200.1 million). This is attributable to the 239.8% increase in inventories to € 58.9 million (December 31, 2017: € 17.3 million), the 116.5% increase in trade receivables to € 70.7 million (December 31, 2017: € 32.7 million), and the increase in other assets by 234.4% to € 14.1 million (December 31, 2017: € 4.2 million), while liquid funds decreased by 71.3% to € 41.8 million (December 31, 2017: € 145.8 million). The increase in inventories is attributable in particular to the significant expansion of the business activities of the Voltabox subsidiary as well as the expansion of the scope of consolidation. The increase in trade receivables is mainly attributable to the Voltabox subgroup as a result of changed contractual terms with a major customer and, in particular, to the expansion of the scope of consolidation.

Equity increased to € 177.8 million (December 31, 2017: € 176.0 million), in particular as a result of the significant increase of the Group result to € 2.3 million (December 31, 2017: € -1.4 million). In addition, profit carried forward fell to € 95.9 million (December 31, 2017: € 98.3 million). The minority interest (39.97%) in Voltabox AG amounted to € 61.9 million (December 31, 2017: € 61.1 million).

Against the backdrop of the increased balance sheet total, the equity ratio fell to 49.1% as of the balance sheet date (December 31, 2017: 57.1%).

Non-current provisions and liabilities increased to € 100.1 million (December 31, 2017: € 85.6 million), which is mainly attributable to the 68.8% increase in deferred taxes to € 24.1 million (December 31, 2017: € 14.3 million). The increase in deferred tax liabilities is attributable to effects from the first-time consolidation of new subsidiaries. In addition, other non-current liabilities of EUR 3.8 million were reported (December 31, 2017: 0).

Current provisions and liabilities increased to € 84,4 million (December 31, 2017: € 46.4 million). In addition to the 801.9% increase in current loans to € 41.4 million (December 31, 2017: € 4.6 million) due to the utilization of current account credit lines and maturity effects, trade payables increased by 61.5% to € 28.2 million (December 31, 2017: € 17.5 million) as a result of the increase in the cost of materials. In addition, other current liabilities increased by 31.9% to € 12.7 million (December 31, 2017: € 9.6 million) due to increased accruals and purchase price liabilities from the acquisition of SemVox GmbH (now: paragon semvox GmbH).

Financial Position of the paragon Group

Cash flow from operating activities fell to € -53.5 million in the reporting period (prior year: € -10.0 million). Taking into account earnings before taxes (EBT), which increased by € 9.6 million, an increase of EUR 5 million in depreciation and amortization of non-current assets and non-cash expenses of € 3.8 million, this development is attributable in particular to an increase in net working capital of € 51.6 million. The increase in net working capital is due to a € 33.7 million higher increase in inventories and a € 13.0 million higher increase in trade receivables, while trade payables decreased by € 0.6 million (prior year: increase of trade payables by € 4.8 million).

Cash flow from investing activities rose to € -73.4 million in the reporting period (prior year: € -37.2 million). This development resulted from the € 16.9 million increase in payments for investments in property, plant and equipment, the € 10.1 million increase in payments for investments in intangible assets and the € 10.4 million increase in payments for the acquisition of consolidated companies and business units.

This results in a free cash flow adjusted for transaction investments of € -102.3 million (prior year: -€ 31.8 million).

Cash and cash equivalents decreased accordingly to € 41.8 million at the balance sheet date (prior year: € 145.8 million).

General Statement on the Net Assets, Financial Position and Earnings of the paragon Group

The company's assets, financial position and earnings developed as planned during the past fiscal year.

Earnings of paragon GmbH & Co. KGaA

paragon GmbH & Co. KGaA recorded a slight increase in revenue in its financial statements by 0.5% to € 109.2 million (prior year: € 108.7 million) and thereby achieved its forecast for fiscal year 2018. If only the external revenue of paragon GmbH & Co. KGaA is taken into account, there was a decline in revenue by 8.6% to € 93.0 million (prior year: € 101.7 million).

EBIT decreased to € -0.5 million (prior year: € 16.3 million), which corresponds to an EBIT margin of -0.4% (prior year: 15.0%). As a result, the forecast EBIT margin of 5% could not be achieved. The reason for the decrease in EBIT are one-off effects.

Other operating income amounted to € 1.9 million in the year under review (prior year: € 21.2 million). The decline is due to one-off effects in the previous year.

The cost of materials ratio was 72.5% in the year under review (prior year: 73.1%).

The personnel costs decreased by 0.4% to € 13.8 million (prior year: € 14.1 million). The reason for this are lower social security contributions.

Other operating expenses amounted to € 14.5 million in the year under review (prior year: € 14.8 million).

paragon GmbH & Co. KGaA's net finance costs improved to € -0.9 million (prior year: € -12.4 million). The reduction is due in particular to the last assumption of loss of Voltabox AG in the previous year. The profit transfer consists of the profit transferred from productronic GmbH in the amount of € 1.8 million and the profit transferred from Sphere Design GmbH in the amount of € 0.0 million.

In the period under review, paragon GmbH & Co. KGaA generated net loss of € -1.4 million (prior year: net income of € 3.9 million).

Net Assets of paragon GmbH & Co. KGaA

The assets of paragon GmbH & Co. KGaA decreased significantly to € 151.8 million as of the end of the reporting period (December 31, 2017: € 266.0 million), mainly as a result of internal cost allocations to the subsidiaries.

Fixed assets increased € 29.7 million to € 99.3 million (December 31, 2017: € 69.6 million). The main reason for this increase are the investment activities in financial assets and in property, plant and equipment. Investments in financial assets amounted to € 20.7 million and mainly relate to the purchase of SemVox GmbH (now: paragon semvox GmbH) with a carrying amount of EUR 16.6 million as of the balance sheet date.

Current assets decreased to € 52.5 million (December 31, 2017: € 196.1 million). This is mainly due to a decrease in receivables from affiliated companies as part of the internal cost allocation with subsidiaries.

Liquid funds decreased to € 10.6 million as of the balance sheet date (December 31, 2017: € 37.1 million).

Equity decreased by € 2.6 million from € 25.6 million to € 23.0 million.

The provisions of paragon GmbH & Co. KGaA amounted to € 4.8 million as of the end of the reporting period (December 31, 2017: € 4.5 million). This increase is due to personnel provisions.

Liabilities decreased to € 123.2 million (December 31, 2017: € 234.9 million). This is mainly due to the internal cost allocation between the subsidiaries.

Financial Position of paragon GmbH & Co.KGaA

Cash flow from operating activities decreased in the period under review to € -12.0 million (prior year: € 6.7 million). This is primarily due to the significantly higher interest charges and inventories.

Cash flow from investment activity increased in the period under review to € 33.2 million (prior year: € 17.6 million). This development resulted from the significant increase in payments for investments in property, plant and equipment to € 13.5 million (prior year: € 3.4 million).

Cash and cash equivalents decreased to € 10.6 million as of the balance sheet date (prior year: € 37.1 million).

General Statement on the Net Assets, Financial Position and Earnings of paragon GmbH & Co. KGaA

The net assets, financial position and results of operations essentially developed as planned in the past fiscal year, whereby special effects from incidental transaction costs influenced the EBIT margin. The Management Board considers the operative performance favorable.

Opportunity and Risk Report

paragon has established a comprehensive risk management system to identify opportunities and risks in corporate development. All the operating segments regularly issue risk reports, from which management is informed about the probability of occurrence and possible damages resulting from the risks identified. The risk reports contain an assessment of the risks as well as suggestions for appropriate countermeasures. For information on the risk management objectives and methods with regard to the use of derivative financial instruments, please refer to the notes (note D. 38).

Opportunity Report

Opportunities

The German Association of the Automotive Industry expects further global sales growth for passenger cars in fiscal year 2019.[14] There are opportunities associated with this for paragon in the Electronics and Mechanics operating segments. For years, the Management Board has pursued the goal of increasing the share of sales per vehicle, for instance, by increasing take-rates with existing customers, winning new customers for existing products internationally and developing innovative products and systems with a higher added value. Examples of this from fiscal year 2018 include the presentation of the DUSTPROTECT filter system for fine particulate matter and the development of a scalable software-controlled acoustics system.

In addition, numerous new product innovations from the Electronics operating segment are currently being intensively marketed. Due to its strategic positioning, paragon will be able to profit from changes in the automotive value chain that will arise from the megatrends of digitization, electrification, shared mobility, CO_2 reduction and autonomous driving. As the largest individual market, the Chinese market is highly significant here. While significant changes should be expected on the supply side, due to factors such as the development of many domestic start-ups and the recent elimination of the requirement of 50:50 joint ventures with local brands for production in China, demand is currently developing positively in the premium segment, which is important for paragon.[15] Premium brands are profiting from robust demand from their liquid customers and from Chinese reduction in tariffs in July 2018 on imported cars from 25 to 15 percent – for all countries of origin except the USA.

In its “Profiling tomorrow’s trendsetting car buyers” study published in December 2018[16], the management consultancy McKinsey researched the level of acceptance in specific customer segments. 46 percent of those questioned indicated that they felt comfortable with the idea of using autonomous vehicles. The highest level of acceptance (72 percent) was registered in China, with 58 percent of respondents who live in cities, 52 percent premium brand vehicle owners and 50 percent of respondents under the age of 50. In addition, vehicles’ connectivity (human-machine interface) was a very high priority; around 40 percent of the survey participants would even change their car brand for the sake of improved connectivity features. Overall, end customers’ perceive these new technologies to be either on the horizon (autonomous driving, intelligent mobility) or else already on their doorstep (electrification, connectivity). The survey suggests that these trends are set to gain in momentum and are increasingly seen as interlinked with one another.

The investment bank Lazard and the consulting firm Roland Berger quantified these changes in their joint “Global Automotive Supplier Study,”[17] published in December 2017. It asserts that the connectivity of vehicles will become available as a standard feature – at least in developed markets – which, together with the steady rise of artificial intelligence, opens up almost limitless possibilities. The authors also estimate that the proportion of new vehicles sold in 2018 attributable to new mobility concepts will account for 10–15 percent in the U.S. and up to 35 percent in China. At the same time, they forecast the share of new vehicles with more advanced autonomous systems to be between 5 and 26

14 VDA Press Release dated Dec. 5, 2018: German Automotive Industry Drives Future of Mobility Forward
15 Global Automotive Business 2018/2019, Automobil Produktion Magazine Special Edition, November 2018
16 https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/profiling-tomorrows-trendsetting-car-buyers
17 https://www.lazard.com/perspective/global-automotive-supplier-study-2018/

percent in 15 to 20 years' time. After all, the momentum for increasing electrification is steadily growing, so that the share of electric vehicles is forecast to amount to 8–20 percent in the U.S., 20–32 percent in Europe and 29–47 percent in China by 2025.

In 2019, the market research institute IDTechEx[18] expects market growth of about 12% for battery systems in the submarkets currently occupied by Voltabox. The average annual growth rate until 2023 is estimated at around 19% in these submarkets (reference year: 2018).

As a result, paragon has the following opportunities, particularly in the medium term, which the company considers to be significant, as in the previous year:

- Thanks to its business model focusing on the independent development of product innovations as well as the acquisition of complementary technologies, paragon is able to realize competitive advantages in the Electronics operating segment due to the dynamic technology transformation surrounding current megatrends.

- The focus on the development of product innovations is increasingly shifting from the component level to the system level in the Electronics and Mechanics operating segments. This provides paragon with the opportunity to increase the added value that each vehicle provides.

- Due to the globally high levels of air pollution in heavily frequented, urbanized areas, in the future, paragon will be able to benefit from potentially higher take-rates for air quality sensors in passenger cars, particularly with the DUSTPROTECT particle filter system currently in development. When breathed in, fine particulate matter (PM2.5) can reach the alveoli and have negative health impacts. Its small size allows it to remain in the atmosphere longer and be carried further distances. As a result, politically induced strategies to reduce the health impacts of air pollution are gaining in importance internationally.

- The growing relevance of increased comfort, modern infotainment and artificial intelligence is accounted for in a special way by the 3D+ sound system presented by paragon in 2017. It not only enables future augmented audio applications to be realized but also allows for a noise reduction function, for instance, by eliminating unwanted driving noise through counter signals. At the same time, it is also possible for car manufacturers and mobility providers to stream seat/user-specific content on a subscription basis.

- paragon semvox's intelligent voice-operated assistant also enables a smooth dialogue between the driver and the vehicle, with spontaneous and intuitive interaction.

- The external speakers marketed by paragon electroacoustic have growing sales potential, since from July 1, 2019, an "Acoustic Vehicle Alerting System" (AVAS) will be mandatory in the EU for hybrid electric and pure electric vehicles.

- According to the German Association of the Automotive Industry, the Chinese automotive market maintained its outstanding position in the past fiscal year as the largest sales market with some 23.3 million new registrations.[19] Further above-average sales growth of around 2% is expected here, with some volatility, for fiscal year 2019. With paragon Automotive Kunshan Co., Ltd., paragon has its own local production facility. The Chinese government's five-year plan (2016–2020) provides concrete targets for the significant reduction of air pollution. The Chinese automotive industry is now one of the world's largest growth drivers for the rapid spread of resource-conserving technologies. This means there is particularly high sales potential in the Chinese automotive market for paragon in the medium term if it can acquire Chinese automotive manufacturers as new customers for the DUSTPROTECT particle filter system with high take-rates and sales figures.

18 https://www.idtechex.com/research/reports/industrial-and-commercial-electric-vehicles-on-land-2017-2027-000505.asp
19 VDA Press Release dated Dec. 5, 2018: German Automotive Industry Drives Future of Mobility Forward

- The Body Kinematics unit's growing product portfolio is providing a significant contribution to vehicles' safety and energy efficiency. Moreover, with the development of sliding door modules, e.g., for autonomous taxis and minibuses, it will also be able to profit from the large growth market of autonomous driving in the future.

- paragon's Electromobility operating segment also offers great opportunities for further applications for the lithium-ion battery systems developed by the publicly traded 60 percent-owned subsidiary Voltabox AG. The electromobility megatrend has already led to the first applications in individual capital goods submarkets such as trolleybuses for public transport, intralogistics forklifts and automated guided vehicles in networked production as well as underground mining vehicles. With the help of strong cooperation partners, paragon is able to benefit from substitution effects here that result from the economic advantages its battery technologies offer compared to the lead-acid batteries or diesel backup generators used to date. In these fast-growing submarkets, paragon has the opportunity to significantly increase Voltabox's relative market share within a short period of time and thus to assume a leading market position (market penetration and market development). This includes the company's entry into the market segment of agricultural and construction vehicles.

- Moreover, the niche strategy of horizontal and vertical diversification offers major sales opportunities in further submarkets in the medium term. For instance, this includes the launch of series production of starter batteries for motorcycles as well as the company's entry into the market for pedelecs, in addition the new development of a battery system and an electric drive system for pumping milk into and out of transport vehicles. Often it is the complex requirements regarding the performance, safety and reliability of the lithium-ion battery systems developed by Voltabox that play a decisive role.

Overall Assessment of Opportunities

Through the regular and structured monitoring of opportunities within the paragon Group and the relevant sales markets as well as internal, barrier-free communication at the various levels of management, the Management is in a good position to identify opportunities for the Group. The consistent utilization of business opportunities in the form of planning adjustments can make a positive contribution to the company's strategic and operational success. At the end of fiscal year 2018, both external and internal opportunities were identified or confirmed that are basically unchanged compared to the prior year.

The significance of the listed opportunities as well as the resulting positive effects on the financial performance indicators projected for fiscal year 2019, and thus on the short-term development of the paragon Group as a whole, is classified as low. The Management Board therefore expects the positive development of business described in the forecast.

Risk Report

Risk Management

paragon uses a comprehensive risk management system as part of its risk-oriented corporate governance.

Risks are defined in the paragon Group not only as activities, events and developments endangering the company's existence, but also those affecting its business success. Particular attention is paid to risk concentrations, e.g., dependencies on individual customers, suppliers, products or countries. In the case of material risks, mutual dependencies and impacts are taken into account, since individual risks can mutually reinforce each other or cause compensation effects between them. We understand business success in terms of measurable values, e.g., revenue and EBIT. Risks are therefore represented in these figures in the reports from the respective process owners. Risk assessment is always based on the risk outcome. A risk includes the possibility that a threat exposes a vulnerability and causes damage to or the loss of an object and thereby directly or indirectly results in a negative impact. The aim is also to identify and evaluate these risks in order to be able to select suitable and appropriate countermeasures on this basis.

Strategic Governance and Risk Management

The aim of risk management is to secure the company's continued existence, i.e., securing its future development and profitability as well as reducing the risks of breaching the confidentiality, integrity and availability of the information or data used or contained in the performance of activities. The task of risk management is also to report deviations from the corporate objectives at an early stage and thereby enable timely countermeasures. Risk guidelines are defined in the risk manual.

Group-wide responsibility for risk management lies with the Management. Risk management at the respective sites is adequately covered and secured in regular (video and telephone) meetings with the respective senior management. This means that the Management is directly informed of the situation and the corresponding risks are continuously monitored and managed by the Management. In risk fields where quantification is not possible or useful, work is done to identify risk factors.

Central Risk Management

An important role in the risk management and control process belongs to central risk management. Within its responsibility for the risk situation of the company, the Management transfers the task of implementing permanent risk management activities to the central risk management team. Responsibility for central risk management lies with the Head of Controlling. paragon's central risk management team is responsible for coordinating all decentralized risk management functions, evaluating risk analyses and consolidating them into risk reporting as well as improving and enhancing the risk management system. Working with the Management, the central risk management team determines the reporting cycles and defines the thresholds for the risks which, when exceeded, require a risk control report to be prepared outside the obligatory reporting requirements. Both the threshold values and the reporting cycles are based on the relevance of the risks.

Central risk management supports the decentralized risk managers in the preparation of risk analyses and checks their returns and plausibility. It summarizes the individual risk profiles in a joint document. This means that interactions between the risks can be analyzed and the overall risk situation of the paragon Group can be recorded, evaluated and commented on. This summary is referred to as risk reporting. This task is of particular importance because the objective of an integrated risk management system is the holistic consideration of a company's risk situation. Risk reporting acts as the basis for the statements on the paragon Group's risk situation in the management report.

The decentralized risk managers are consulted whenever new risk management measures are established or existing measures are adapted.

Decentralized Risk Management

Decentralized risk management in the paragon Group is located within the company's individual segments and sites. The area and process managers are responsible for risk management in their respective areas of work as decentralized risk managers. The decentralized risk management team reports on the development of risks in these areas as part of risk control measures. For each reporting cycle, the decentralized risk managers write up a report on the risks for which they are responsible. The focus here is on the description of the expected development of the risk. With this, measures for future risk management or the improvement of existing measures are developed and included in the risk control report as proposed measures for implementation. The decision on implementation is the responsibility of the Management. In addition, the Management must be informed without delay of any risks incurred throughout the year. This is known as ad-hoc risk reporting. According to a resolution by the Management, regular meetings with all decentralized risk managers are no longer held. Instead, individual discussions are held with the decentralized risk managers.

Risk Monitoring

Risk monitoring is the task of decentralized and central risk management. Early warning indicators for critical success factors are defined by the decentralized risk managers. The task of central risk management is to monitor the defined early warning indicators. As soon as the defined thresholds are reached, a risk report is prepared by the decentralized risk manager, i.e., a forecast of the expected effects of the risk event for paragon. These forecasts are to be supplemented by scenario analyses, which take into account different data constellations. Risk monitoring thus serves as a form of knowledge enhancement to assist with management decisions, as attempts are made to reduce uncertainty regarding the future development of the company or the risk situation.

Based on this information and the recommendations made by the decentralized risk managers and central risk management, the Management decides whether and to what extent measures are to be implemented or whether an adjustment of the company's objectives is necessary. The monitoring of the early warning indicators and their associated threshold values as well as the creation of scenario analyses is the responsibility of decentralized risk management.

Risiko-Reporting

The quarterly report to the Management contains all new risks identified in the reporting period as well as risks that have changed by 50% or more relative to the prior month.

Central risk management is required to provide an ad hoc report to the Management in the case of risks that have changed by 100% or more as compared to the previous reporting period. The Management, in turn, is then obliged to provide a report to the Supervisory Board within 24 hours of being informed about the risk.

The risks continually analyzed by paragon as part of risk monitoring can be assigned to the following risk categories, each of which is divided into individual risks:

- Strategic and Environmental Risks
- Market Risks
- Operating Risks
- Financial Risks
- Management and Organizational Risks

At the end of the reporting year, a total of 24 individual risks were recorded in the paragon Group (prior year: 25) that equally affect the individual company. In the opinion of the company, none of these individual risks endangered its continued existence.

Risks

Strategic and Environmental Risks

Overall economic development is observed in the risk management system due to its possible influence on end customer behavior within the automotive industry. This can lead to fundamental changes to supply and demand behavior in the procurement and sales markets for paragon. For example, a longer-term economic downturn, possibly triggered by the economic policy measures of individual submarkets such as the U.S. or China, could have a negative impact on the company's assets, financial position and earnings. A politically motivated move away from the rule-based international trade system or its disturbance through isolated protectionist measures could lead to distortions in the global automotive value-added chain. As the paragon Group has its own production facilities in China and the U.S., and as it has a specific customer/product structure, the Management Board views the overall risk of protectionist influence on earnings as low.

Market Risks

For years, paragon has held a strong market position as a proven and innovative direct supplier of premium German manufacturers in the automotive industry – and this is increasingly true for large customers in the area of e-mobility as well. In 2018, the global sales market for passenger cars maintained the high volume seen in the prior year. In fiscal year 2019, growth dynamics for the global sales market are expected to amount to around 1 percent.[20]

Due to its specific product/customer structure, paragon was able to grow significantly faster than the market in organic terms in the past fiscal year, while the acquisitions made in the year under review offer further potential. In the year under review, the Electromobility operating segment was significantly strengthened through Voltabox AG's acquisition of 100% of the shares in Concurrent Design, Inc. Austin, Texas, as well as 100% of the shares in Accurate Smart Battery Systems GmbH, SemVox GmbH, Korntal-Münchingen, while paragon GmbH & Co. KGaA's acquisition of 82% of the shares in SemVox GmbH, Saarbrücken, and 100% of the shares in LPG Lautsprecher-Produktions-Gesellschaft mbH, Neu-Ulm, significantly strengthened the Electronics operating segment. In the year under review, the consolidated figures include Concurrent Design for a period of 9 months, Accurate for 4 months, SemVox for 3 months and LPG for 2 months. The growth effects will increase accordingly in 2019.

Overall, paragon achieved growth in 2018 of around 50 percent on the prior year – and thus significantly outperformed the market. On the one hand, the Management attributes this performance to the fact that paragon's largest customers are among the leaders within their sectors and thus also boast promising future prospects. Moreover, the strategy of delivering holistic systems will increasingly pay off. The globally active premium German manufacturers Audi, Daimler, BMW and Porsche were again able to achieve sales increases in fiscal year 2018 and are well-positioned to continue this development in the current fiscal year with many new models and favorable general economic conditions.

paragon's close ties to these important customers and its concentration on specific market niches shape the company's strategic positioning. Sales opportunities and risks are assessed through a comprehensive operative sales management system. Key components of this system are the analysis of market and competition data, rolling planning for the short and medium term and regular coordination between sales, production and development. The company's comparatively broad portfolio demonstrates its relatively strong level of independence in relation to individual product groups and customers.

Nevertheless, the loss of a major customer could have a significant impact on the company's assets, financial position and earnings in the medium term. However, due to the multi-year contract periods for the various series, the loss of a key customer would be known at an early stage. paragon counteracts this risk by comprehensive development work on product innovations as well as detailed permanent order backlog analyses focusing on early risk identification.

The paragon innovation process is characterized by independent product development that takes the interests and wishes of car users into consideration. In contrast to many other automotive suppliers, paragon

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does not wait for automotive manufacturers to make certain demands and specific requirements, but rather develops its own innovative solutions, which are implemented in cooperation with pilot customers and subsequently offered to a wider customer base. As a growing number of automotive innovations are electronic in nature, paragon sees a wide range of market opportunities for its Electronics operating segment. paragon has responded to this trend through the new structure of its units: Sensors, Interior (previously Cockpit and Acoustics) and Digital Assistance (represented by paragon semvox). However, it cannot be ruled out that a product development may not achieve its expected quantities or that its economic success may be lower or later than originally planned. This could have a negative impact on the Group's revenue and earnings.

Operating Risks

In terms of operating risks, paragon is currently focusing on its research and development, materials management, production and information technology activities.

The market for automotive electrics, electronics and mechatronics is subject to increasingly dynamic, technological change. paragon's future economic success will therefore depend on the ability to continuously develop new and innovative products on time – for customers and in collaboration with them – and to successfully introduce them to the market. Recognizing new technological developments and trends at an early stage, reacting to them and implementing solutions in partnership with customers is key here. Should paragon not be able to, or not quickly enough, recognize and implement new trends, changing customer requirements or future technological advances or to develop new products and adapt existing products in accordance with business principles, this may have a detrimental effect on the company's assets, financial position and earnings.

In addition, development costs may not be recoverable if paragon's customers subsequently do not issue serial production orders or if the quantities paragon sells are significantly lower than expected. Given the high proportion of capitalized development activities on the balance sheet, a corresponding valuation allowance for intangible assets could have a negative impact on the company's assets, financial position and earnings.

In close cooperation with the development departments of important customers, paragon contributes to automotive product innovations with its wide range of development projects and innovative solutions. Significant deviations from the project objectives in terms of time and money may result in cost and legal risks (e.g., contractual penalties). Ongoing development and project monitoring is undertaken to limit associated risks.

Past experience has shown that, through the use of the existing sales channels, paragon can generate additional business with new products. With continuous investments in machinery and plants, paragon ensures that the production facilities at all of the Group's sites meet the high requirements of the automotive industry.

In its procurement activities, paragon took advantage of the global price competition on all relevant markets and secured a substantial portion of its procurement prices through framework contracts, annual agreements and long-term supplier relationships. The Group continues to purchase around 75 percent of its purchasing volumes from European contract partners, while the rest is purchased directly in Asia and the USA. The major purchasing currency is the euro; around 25 percent of invoices were billed in U.S. dollars in the year under review. The volume of purchases in U.S. dollars will continue to rise significantly as a result of the expected sales growth in the Electromobility operating segment. Currency risks arise primarily for purchases in U.S. dollars that are intended for the European currency area. These risks are minimized by sliding-price clauses and other appropriate measures.

With the rapid spread of information technology (IT) and the ubiquitous connectivity provided by the internet, IT risks, such as system failures and unauthorized access to company data and information, are also on the rise. In order to avert possible dangers, paragon, in cooperation with specialized service companies, has established modern security solutions that protect its data and IT infrastructure. The company made further progress in modernizing its IT infrastructure in fiscal year 2018. It also initiated a changeover to a new, integrated ERP software package and began to integrate its acquisitions within the Group's IT landscape. This resulted in synergies in processes and cooperation. Finally, various organizational security measures have been established to protect the company from internet threats (cyber attacks).

Financial Risks

In addition to interest rate, liquidity and currency risks, paragon also monitors risks associated with the loss of receivables, balance sheet risks and tax risks in the financial risks category.

Interest rate risks are virtually meaningless for paragon, as fixed interest rates are currently agreed upon for most of its long-term liabilities. Financial covenants do not exist with any credit institutions.

The company's ability to pay is ensured by comprehensive planning and monitoring of liquidity. These plans are prepared on a short, medium and long-term basis. In addition, paragon has a rigorous receivables management system to ensure timely cash inflows. A substantial portion of the receivables is also hedged by means of a commercial credit insurance. An additional possibility for short-term financing exists in the form of factoring agreements.

The € 50 million bond issued in early July 2017 with a term of five years has resulted in a cash inflow of around € 47 million and has refinanced the repayment in early July 2018 of the bond issued in 2013 with an outstanding amount of around € 13 million. In addition, the subsidiary Voltabox AG was floated on the stock exchange in October 2017, generating a further € 147 million in cash inflow for the Group. At the start of the year under review, the paragon Group had free liquidity of around € 167 million. At the end of the fiscal year, the Group's free liquidity amounted to roughly € 49 million.

The company monitors possible currency risks on the procurement and sales side by continuously tracking foreign currency exchange rates. At present, paragon does not use financial instruments to hedge currency risks.

Management and Organizational Risks

In this risk category, paragon primarily monitors risk factors resulting from its dynamic growth strategy. This includes personnel and organizational risks in particular, as well as management and communication risks. Clear assignments and demarcations in the respective areas of responsibility, within the system of owner-oriented governance, are intended to prevent missing interfaces and functional overlaps. Currently, the Management does not consider there to be any material risks to paragon in this area.
However, the company is fundamentally dependent on the hiring and long-term retention of qualified personnel and persons in key positions. The future economic success of paragon depends to a considerable extent on the continued involvement of its executives, senior employees and employees in key positions. This is particularly the case for its founder, primary shareholder and Management Chairman, Klaus Dieter Frers, who is the company's engine and an important source of ideas. In addition, paragon also relies on qualified employees in the areas of management, research and development, and sales. The company cannot guarantee that it will be able to hold key executives, senior executives and employees in key positions or attract new executives and employees with appropriate qualifications. There is increasing competition for such qualified employees and the personnel market, particularly in regions outside major German cities, is comparatively small. This means that individual experts can only be replaced with difficulty or not at all. If paragon is un-

able to obtain sufficient personnel in the future, the strategic and economic objectives of the company may not be achievable or only achievable at a later date. This could have a detrimental impact on the company's assets, financial position and earnings.

Overall Assessment of the Risk Situation

The company's risk management was further adapted to the dynamic development of the paragon Group over the past year. Here, the new organizational structure with the operating segments Electronics, Mechanics and Electromobility – which contains the subsidiary Voltabox AG which is likewise publicly traded – was taken into account in accordance with the company's internal management system. The Management currently expects that its ongoing Group-wide monitoring of operating risks will become increasingly important as business activities expand.

In the future, paragon will also protect itself against general market risks in the automotive industry. In the year under review, the share of revenue with important customers pursuant to IFRS 8.34 was still around 68.2% (prior year: 76.6%). The company's strategic positioning as a direct supplier to premium German manufacturers and its long-standing, successful business relationships with these companies are expected to further reduce this risk. Accordingly, in the future the Management expects to be less exposed, in relative terms, to cyclical fluctuations on the automotive industry's global sales markets. Existing customer contacts also offer considerable opportunities to position new product innovations within the Electronics and Mechanics operating segments. The increasing diversification of the Group's product portfolio and the development of a separate customer base in the Voltabox subgroup outside of the automotive industry should help to further reduce market risks.

The € 50 million corporate bond issued in the summer of 2017 as well as the € 147 million net issue proceeds realized through Voltabox AG's IPO in the fall of 2017 have strengthened the medium-term financing structure of the paragon Group. With paragon's capital-intensive growth strategy, the company's overall economic development remains linked to the economic development of the automotive industry and, particularly, its key customers.

As of the publication date of this report, no risks have been identified that could jeopardize the company's continued existence. A differentiated view on the development of the automotive industry shows that the company is positioned in forward-looking market segments or submarkets, has promising customer relationships and offers diverse niche products that are in some cases only offered on the market by paragon.

The extension of payment terms with the Voltabox customer Triathlon in fiscal year 2018 resulted in an increase in the relevance of counterparty default risks for trade receivables compared to the previous year. The Group attaches corresponding importance to the relevance of this risk position, although there was no increase in the underlying individual risks. The relevance of the counterparty default risk in general remained unchanged in fiscal year 2018 and is expected to decrease in the current fiscal year.

The potential impact from the various risks on the overall future performance of the paragon Group, as well as its financial and nonfinancial performance indicators for fiscal year 2019, are regarded as low by the Management as a whole as in the previous year. Accordingly, the Management expects that the business development described in the forecast will not be significantly impacted by the disclosed risks.

Description of the Key Characteristics of the Internal Control and Risk Management System with Regard to Group Accounting Processes Pursuant to Section 315 (4) of the German Commercial Code (HGB)

Since the internal control and risk management system is not legally defined, paragon based its definition on that of the Institut der Wirtschaftsprüfer in Deutschland e.V., Düsseldorf, Germany, regarding accounting-related internal control systems (IDW PS 261).

An internal control system is therefore understood as the principles, procedures and measures enacted by management that are aimed at the organizational implementation of management's decisions. The objectives are as follows:

a) Ensure the effectiveness and profitability of the business (including the protection of assets and the prevention and detection of asset damages)

b) Ensure the regularity and reliability of internal and external accounting

c) Comply with the legal and statutory regulations applicable to the company

The Group's risk management system includes all organizational regulations and measures for risk identification and handling risks related to entrepreneurial activity.

The Management of paragon GmbH & Co. KGaA bears the overall responsibility for the internal control and risk management system with regard to the accounting process. The principles, procedural instructions, procedural organization and processes of the accounting-related internal control and risk management system are laid down in organizational instructions that are adapted at regular intervals to current external and internal developments.

In view of the size and complexity of the accounting process, management has determined the scope and design of the control activities and implemented them in this process. Independent controls have also been established. The control activities address those control risks which, in terms of their probability of occurrence and their impact, could have a significant influence on the accounting and overall statement of the consolidated financial statements, including the Group management report. Key principles, procedures, measures and control activities include:

- Identification of the key control risks relevant to the accounting process

- Process-independent controls for monitoring the accounting process and its results at the level of the Management of paragon GmbH & Co. KGaA

- Control activities in the finance department of paragon GmbH & Co. KGaA that provide essential information for the preparation of the annual financial statements and management report, including the required separation of functions and approval procedures

- Measures that ensure the proper computerized processing of accounting-related information

Risk reporting on the use of financial instruments Pursuant to Section 315 (2) no. 1 of the German Commercial Code (HGB)

The following risks arise from the paragon Group's use of financial instruments:

The issuance in July 2017 of a € 50 million corporate bond with a term of five years has resulted in a cash inflow of around € 47 million. The corporate bond issued in 2013 with an outstanding amount of € 13 million was refinanced in July 2018 on this basis. Moreover, the IPO of the subsidiary Voltabox AG took place in October 2017, providing the paragon Group with a further cash inflow of € 147 million. paragon has thus significantly reinforced the Group's liquidity and financial strength.

Interest rate risks are virtually meaningless for paragon, as fixed interest rates are currently agreed upon for most of its long-term liabilities. No financial covenants have been agreed with financing financial institutions.

The company's ability to pay is ensured by comprehensive planning and monitoring of liquidity. These plans are prepared on a short, medium and long-term basis. In addition, paragon has a rigorous receivables management system to ensure timely cash inflows. A substantial portion of the receivables is also hedged by means of a commercial credit insurance. An additional possibility for short-term financing exists in the form of factoring agreements.

The company monitors possible currency risks on the procurement and sales side by continuously tracking foreign currency exchange rates. At present, paragon does not use financial instruments to hedge currency risks.

Forecast

Market Development 2019

The International Monetary Fund (IMF) published its outlook[21] for the global economy in October 2018. In the report, it pointed out the slightly subdued and less balanced global growth outlook over the course of 2018. Overall, global economic growth was still considered solid, albeit somewhat plateaued, with mixed dynamics in the individual economic regions. In the run-up to the World Economic Forum in Davos, the IMF published an updated forecast[22] with slightly reduced growth prospects in January 2019. It now expects global growth to slow to 3.5% in 2019 and to 3.6% in 2020.

The IMF currently still considers growth in the United States to be extraordinarily robust, thanks to a procyclical, expansionary fiscal policy. However, this could put a strain growth in the USA and worldwide beginning in 2020. On the other hand, the short-term growth outlook has been downgraded for countries such as China, due to weaker credit growth and growing trade barriers in connection with U.S. import tariffs, as well as the eurozone and the United Kingdom due to the uncertainty over how Brexit will unfold.

The reduction in the global growth outlook implemented in January, by 0.2 percentage points in 2019 and 0.1 percentage points in 2020, partly reflects the knock-on effect of the most recent developments in the second half of 2018. In addition to the introduction of new emissions standards for motor vehicles in Germany, these developments include concerns over sovereign and financial risks in Italy, which have weighed on domestic demand. The IMF also cites other factors, such as weakening financial market sentiment.

21 https://www.imf.org/en/Publications/WEO/Issues/2018/09/24/world-economic-outlook-october-2018
22 https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019

At the same time, the IMF considers that the global growth risks are declining overall, with further escalation of the trade conflict remaining the key risk factor shaping its outlook.

The IMF continues to expect an uneven distribution of economic growth between developed economies (2.0% in 2019 and 1.7% in 2020) and emerging economies (4.5% in 2019 and 4.9% in 2020). Specifically, economic growth in the USA is expected to reach 2.5% in 2019 and 1.8% in 2020, in the eurozone 1.6% in 2019 and 1.7% in 2020, in Germany 1.3% in 2019 and 1.6% in 2020, and in China 6.2% in 2019 and 2020.

Accordingly, the most important global markets for the automotive industry will continue to be characterized by a positive overall economic outlook in the current fiscal year, with slightly weaker momentum. As well as e-mobility, the German Association of the Automotive Industry sees digitization, artificial intelligence as well as networked and automated or autonomous driving as the key factors shaping the development of the automotive market.[23]

Overall, the German Association of the Automotive Industry expects global passenger car sales to increase by around 1% in 2019 to 85.9 million units (prior year: around 85 million units). In particular, the European market is expected to match the high sales level seen in the prior year, with 15.8 million cars, and so too is the U.S. market with 17.2 million cars. On the other hand, the Chinese sales market is expected to remain volatile in the current year. The VDA assumes slight sales growth to 24.4 million units (+2%) over the course of the year.

In its Electromobility operating segment, paragon is mainly active in selected industrial submarkets through the Voltabox subgroup. These currently include:

- Trolleybuses used in public transportation
- Forklifts and automated industrial trucks in intralogistics and networked production environments
- Underground mining vehicles
- Agricultural and construction vehicles

The development in these submarkets is essentially characterized by the replacement of lead-acid batteries – or diesel backup generators in the case of trolleybuses – with lithium-ion batteries. Voltabox benefits from this trend with its modular product portfolio. These are trends that have a period of several years and typically show a saturation curve with increasing market penetration.

In 2019, the market research institute IDTechEx[24] expects market growth of about 12% for battery systems in the submarkets currently catered for by Voltabox. The average annual growth rate until 2023 is estimated at around 19% in these submarkets (reference year: 2018).

As a result, the following assumptions are particularly important for establishing the paragon Group’s forecast:

- Global economic trend remains positive, with slightly weaker momentum
- Declining overall risks for global growth
- Increase in global sales of passenger cars of around 1%
- Continuous replacement of lead-acid batteries and diesel backup generators with lithium-ion batteries in the submarkets currently catered for
- Global market growth of around 12% for battery systems in the submarkets catered for by Voltabox

23 VDA Press Release dated Dec. 5, 2018: German Automotive Industry Drives Future of Mobility Forward
24 https://www.idtechex.com/research/reports/industrial-and-commercial-electric-vehicles-on-land-2017-2027-000505.asp

paragon Group

The Group's corporate planning is based on detailed sales and revenue planning and is broken down by customer to the product level. The main cost components are planned via individual planning models for a period of several years and are then updated in proportion to the development of revenue.

Significant parameters, such as price changes in purchasing or sales as well as possible cost increases in personnel or changes in the tax base, are integrated into the planning. The constantly updated risk management system allows the company to identify risks at an early stage and, if necessary, counter them accordingly.

Based on the good order situation for 2019, management expects revenues to grow by around 25 percent, also in view of the current challenging market situation in the automotive market. All operating segments (Electronics, Mechanics and Electromobility) should contribute to this. In the Electronics operating segment, significantly higher revenues are expected in the Sensors business unit, in particular, from air quality sensors for the Chinese market and the start of series production of the fine dust particle sensor DUSTDETECT; the new Digital Assistance operating segment should also make a significant contribution to revenue growth in 2019 with the introduction of voice assistance systems in at least 10 new models. The Mechanics operating segment is growing as a result of volume increases and new launches, while the Electromobility operating segment will be a significant growth driver though the expansion of revenue in the USA, including new battery systems for the intralogistics market and the increasing demand in Europe for Li-ion battery systems for commercial vehicles and Electric Vehicles as well as pedelecs and e-bikes.

Against this backdrop, paragon's Management is very optimistic about the current fiscal year. With expected Group revenue in a range of between € 230 million and € 240 million and a Group EBIT margin of around 8%, the company will maintain its dynamic growth trajectory.

Voltabox AG – which represents the Electromobility operating segment – is expected to once again make a particularly strong contribution to the Group's growth, with projected revenue of between € 105 million and € 115 million and an EBIT margin of between 8 and 9%. Voltabox's strong growth makes paragon less dependent on economic factors in the automotive sector even over the medium and long terms, while expanding the customer base.

Management plans on investment volume (CAPEX) of around € 40 million in the current year. Of this amount, about 35 percent relates to Voltabox. According to plans, the Group's capitalized development costs will amount to around 45 percent of the investment total. Over the medium term, significant synergies should be leveraged from the commissioning of new buildings in Landsberg am Lech, Limbach and Delbrück planned over the course of the year. No significant acquisitions are planned for the current year. Instead, the integration and consolidation of previous acquisitions have priority.

Development of Key Performance Indicators

	2017	2018	Change in %	Forecast		
In € thousands / as indicated				2018		2019
Financial Performance Indicators				As of Mar. 13, 2018	As of Aug. 21, 2018	
Group revenue	124,823	187,383	50.1	Approx. € 175 million	€ 180 million to € 185 million	€ 230 million to € 240 million
EBIT margin	6.1 %	7.9%	n/a	Approx. 9 %	Approx. 8 %	Approx. 8 %
Investments CAPEX[25]	21,802	48,805	123.9	Approx. € 35 million	Approx. € 35 million	Approx. € 40 million

25 CAPEX = Investments in property, plant and equipment + investments in intangible assets

Furthermore, the management plans a further increase in the number of employees in line with the company's growth and a further reduction in quality costs.

paragon GmbH & Co. KGaA

Management expects paragon GmbH & Co. KGaA to achieve a slight increase in revenue in the current fiscal year with a positive EBIT margin.

Disclosures Required Under Takeover Law Pursuant to Sections 289a (1) and 315a (1) of the German Commercial Code (HGB)

Composition of the Subscribed Capital

paragon GmbH & Co. KGaA's subscribed capital (share capital) amounts to € 4,526,266.00 and is divided into 4,526,266 no-par-value shares with a nominal value of € 1.00 each. All shares are entitled to dividends. Each share grants one vote at the Annual General Meeting.

Stock Voting Right and Transfer Restrictions

The Management is not aware of any limitations affecting voting rights or the transfer of shares.

Holdings That Exceed 10 Percent of the Voting Rights

Taking into consideration the allocation pursuant to Section 34 of the German Securities Trading Act (WpHG), the Management Chairman (and founder of the predecessor company), Klaus Dieter Frers, held 2,263,134 shares in the company as of the reporting date. This equates to a proportion of 50% plus one share of the share capital of paragon GmbH & Co. KGaA.

Shares With Special Rights of Control

There are no shares that confer special rights of control.

Voting Right Controls for Employees Participating in the Capital

Insofar as employees participate in the limited liability capital (share capital) as shareholders, they cannot derive any special rights from them.

Appointment and Dismissal of Members of the Management Board and Amendments to the Articles of Association

paragon GmbH manages paragon GmbH & Co. KGaA as a general partner. With this type of capital-based structure for the partnership limited by shares (KGaA), the management bodies of the general partner thus effectively manage the business of the partnership limited by shares. The provisions of the German Stock Corporation Act that apply to a management board apply analogously to the management.

However, unlike in the case of the management board of a stock corporation, the general partner is a "born" management body, i.e., it is entitled to manage the company's business and to represent it permanently and not just for a specific period of time. The general partner is appointed on the basis of the Articles of Association rather than by the Supervisory Board or the Annual General Meeting. For this reason, the general partner cannot be dismissed by the Supervisory Board or the Annual General Meeting.

Regarding the rules for amending the Articles of Association, please refer to Section 278 (3) and Section 179 (2) Clause 2 of the German Stock Corporation Act.

Authorization of the Management to Issue Shares

Pursuant to the resolution of the Annual General Meeting of May 10, 2017, the general partner is authorized, with the consent of the Supervisory Board, to increase the company's share capital once or several times by up to € 2,263,133.00 until May 9, 2022, inclusive, via the issue of up to 2,263,133 new no-par-value shares against contributions in cash and/or in kind (Authorized Capital 2017/I).

Shareholders are to be granted a subscription right. The statutory subscription right may also be granted by having the new shares taken over by a banking consortium with the obligation to offer the shares indirectly to shareholders for subscription pursuant to Section 186 (5) of the German Stock Corporation Act. However, the general partner is authorized, with the consent of the Supervisory Board, to exclude the statutory subscription rights of shareholders in the cases specified in Section 4 No. 6 of the company's Articles of Association in the version dated May 8, 2018.

Pursuant to a resolution passed by the Annual General Meeting on May 10, 2017, the company's share capital underwent a conditional increase of up to € 2,263,133.00 by issuing 2,263,133 new no-par-value shares (Conditional Capital 2017/I).

The conditional capital was created exclusively to grant shares to holders or creditors of convertible bonds and/or bonds with options that are issued by the company (or by a Group company as defined in Section 18 of the German Stock Corporation Act, in which the company has a shareholding of at least 90%) pursuant to the authorization by the Annual General Meeting on May 10, 2017, against contributions in cash or in kind until May 9, 2022. In accordance with the respective terms and conditions for convertible bonds and bonds with options, the conditional capital increase also serves to issue shares to holders of convertible bonds and/or bonds with options subject to conversion or option obligations.

The conditional capital increase shall only be implemented to the extent that the holders of warrants from options or creditors of convertible bonds exercise their conversion or option rights, or the holders or creditors of convertible or warrant-linked bonds who are obligated to exercise or convert the option or warrant-linked bonds fulfill their obligation to exercise or convert the option or warrant-linked bonds, provided that the conversion or option rights are not serviced by granting treasury stock or other forms of settlement. These rights must have been issued by the company (or by a Group company as defined in Section 18 of the German Stock Corporation Act, in which the company has a direct or indirect shareholding of at least 90%) based on the authorization granted by the Annual General Meeting, which lasts from May 10, 2017, through May 9, 2022. The new shares shall be issued at the conversion/option prices in the bond or option conditions to be determined in accordance with the aforementioned authorizing resolution. The new shares may be granted a dividend entitlement starting in the fiscal years for which the Annual General Meeting has not yet passed a resolution on the appropriation of profits. The general partner is authorized to determine the further details regarding the implementation of the conditional capital increase.

Change of Control and Compensation Agreements

According to Section 6 No. 3 of the company's Articles of Association as of May 8, 2018, further general partners may be admitted to the company, with or without an authorization to manage its business and/or to represent it. This admission will require the consent of the general partner and the Annual General Meeting. The provisions of the company's Articles of Association concerning the general partner apply analogously for general partners newly joining the company.

Pursuant to Section 6 No. 4 of the company's Articles of Association as of May 8, 2018, the general partner will retire from the company in the event that a person other than Ms. Brigitte Frers or a direct relative of Mr. Klaus Dieter Frers (Section 1589 (1) Clause 1 of the German Civil Code) becomes the legal or beneficial owner of a majority of the voting rights in the general partner and does not provide the company's shareholders with a takeover or mandatory offer in accordance with the provisions of the German Securities Acquisition and Takeover Act within three months of this acquisition coming into effect.

In the event that the general partner retires from the company without another general partner being admitted at the same time, pursuant to Section 6 No. 5 of the company's Articles of Association of May 8, 2018, the limited liability shareholders will continue to manage the company's business on their own, on a temporary basis. In this event, the Supervisory Board is required to request the appointment of a substitute representative without delay who will represent the company until a new general partner is admitted.

Sustainability Reporting

For fiscal year 2018, the company has prepared a consolidated nonfinancial report for the paragon Group and for paragon GmbH & Co. KGaA. This report is not a part of the management report. The Management has produced this report separately and has published it on the company's website (https://ir.paragon.ag).

The company has included the components required by law in its sustainability reporting and has supplemented these with further comments where clarification is necessary. paragon GmbH & Co. KGaA applies the framework provided by the German Sustainability Code (GSC) – while complying with Section 289c of the German Commercial Code – for its sustainability reporting.

Dependent Company Report of the Voltabox AG Subsidiary

The Management Board of the Voltabox AG subsidiary has prepared a dependent company report for the first time for fiscal year 2018. This report has been presented to the auditor, who has issued confirmation that appropriate consideration was granted for legal transactions with the parent company or its subsidiaries. Voltabox AG has not suffered any unbalanced disadvantage on account of measures which have or have not been implemented. The auditor subsequently presented this report to the Supervisory Board for review. The Supervisory Board will report to the Annual General Meeting of Voltabox AG on the results of its review of the dependent company report.

Corporate Governance Statement Pursuant to Section 315d and Section 289f (1) of the German Commercial Code (HGB)

The Annual General Meeting held on May 8, 2018, resolved the company's change of legal form proposed by the Management Board and the Supervisory Board from a stock corporation (Aktiengesellschaft) to a partnership limited by shares (Kommanditgesellschaft auf Aktien, KGaA). This partnership limited by shares was entered in the commercial register at Paderborn District Court, HRB 13491, on July 5, 2018.

The Management and the Supervisory Board of the company remain committed to the principles of transparent and responsible corporate governance and supervision. They ascribe a high priority to the standards of good corporate governance. With the Management Chairman as the majority shareholder and the specific legal form-related characteristics of a partnership limited by shares, in terms of its entrepreneurial responsibility the Management adheres particularly strongly to the principles of the "honorable merchant," from the point of view of its operational procedures. This includes the obligation to ensure the continued viability of the company and its sustained value creation (corporate interests) in conformity with the principles of the "social market economy."

The Corporate Governance Statement pursuant to Section 315d and Section 289f (1) of the German Commercial Code can be accessed at any time on paragon's website at https://ir.paragon.ag. It contains the corporate governance declaration pursuant to Section 161 of the German Stock Corporation Act and the corporate governance report pursuant to No. 3.10 of the German Corporate Governance Code.

Legal Form-Specific Details

The German Corporate Governance Code (GCGC) has been designed for companies with the legal form of a stock corporation (AG) or a European company (SE) and does not take into consideration the specific characteristics of a partnership limited by shares (KGaA). Many of the recommendations made in the GCGC can therefore only be applied to paragon GmbH & Co. KGaA in a modified form. In particular, the following legal form-specific details have resulted in significant modifications:

Legal Nature of the Partnership Limited by Shares (KGaA)

A partnership limited by shares is a legal entity that combines a stock corporation with a limited partnership. In place of the capital contributions provided by limited liability partners, the limited liability shareholders participate in the company under stock corporation law. The shares of the partnership limited by shares are tradable in the same way as the shares of a stock corporation and may therefore be admitted to trading on a stock exchange, unlike in the case of capital contributions provided by limited liability partners. A partnership limited by shares thus has one or more general partners and one or more limited liability shareholders. The legal status of the general partner (also in relation to the limited liability shareholders and the creditors of the company) is subject to limited partnership law pursuant to Section 278 (2) of the German Stock Corporation Act and Sections 161, 105 et seq. of the German Commercial Code, while the partnership limited by shares itself and the limited liability shareholders are subject to stock corporation law pursuant to Section 278 (3) of the German Stock Corporation Act. The general partner is liable personally, directly and without limit for all liabilities of the partnership limited by shares. The limited liability shareholders are only required to provide a capital contribution on the basis of the shares for which they have subscribed; they are otherwise not liable.

Management

Unlike a stock corporation, a partnership limited by shares does not have a management board. The general partner(s) is/are responsible for the company's management. The provisions of the German Stock Corporation Act that apply to a management board apply analogously to the management. However, unlike in the case of the management board of a stock corporation, the general partner is a "born" management body, i.e., it is entitled to manage the company's business and to represent it permanently and not just for a specific period of time. The general partner is appointed on the basis of the Articles of Association rather than by the Supervisory Board or the Annual General Meeting. For this reason, the general partner cannot be dismissed by the Supervisory Board or the Annual General Meeting. It is not necessary for the general partner to participate in the company's share capital; however, the general partner may simultaneously be a limited liability shareholder.

General partners could be natural persons, a limited liability company, a stock corporation or other legal persons (capital-based partnership limited by shares). In the case of a capital-based partnership limited by shares, the management bodies of the general partner thus effectively manage the business of the partnership limited by shares. Moreover, due to its legal form (stock corporation or limited liability company) in the case of a capital-based partnership limited by shares the otherwise direct, personal and unlimited liability of the general partner for all of the company's liabilities is limited to the company assets of the general partner and thus effectively to its share capital or nominal capital.

The company's general partner is paragon GmbH, headquartered in Delbrück, which is represented by its managing directors Klaus Dieter Frers (Management Chairman), Dr.-Ing. Matthias Schöllmann and Dr.-Ing. Stefan Schwehr. Unlike in the case of the management board of a stock corporation, the managing directors of paragon GmbH have not been appointed for a limited period of time. The shares in paragon GmbH are held by Mr. Klaus Dieter Frers, Ms. Brigitte Frers and Mr. Niklas Frers. The associated shareholder rights are exercised by the shareholders' meeting.

Supervisory Board

As in the case of a stock corporation, the supervisory board of a partnership limited by shares is a supervisory body. In particular, it is responsible for supervising the general partner's management of the company. For this purpose, it has the same rights to information and inspection rights as the supervisory board of a stock corporation. Unlike in the case of a stock corporation, it is also responsible for fulfillment of the resolutions passed by the Annual General Meeting.

In principle, a supervisory board is not entitled to make specific management measures subject to its consent, to prepare a list of transactions requiring its consent or to issue rules of procedure for the general partner encompassing such business measures. However, according to the Articles of Association of paragon GmbH & Co. KGaA the following transactions of the company and affiliated companies require the consent of the Supervisory Board:

- Transformation measures resulting in a change in the Group's structure

- The purchase, disposal or encumbrance of land, rights equivalent to real property or rights to land insofar as the value of the respective measure exceeds an amount of € 3 million

- Participation in other companies or the relinquishment of such participations, insofar as the value of the respective measure exceeds an amount of € 5 million

- Assumption of sureties, guarantees and similar liability outside the scope of normal business activities, insofar as the measure in question is significant for the Group

- Grant of loans or other credits outside the scope of normal business activities, insofar as the measure in question is significant for the Group

In addition, the Supervisory Board is responsible for representing the partnership limited by shares in relation to the general partner.

Unlike in the case of a stock corporation, the supervisory board of a partnership limited by shares is not involved in the approval of the annual financial statements of the partnership limited by shares. However, the supervisory board is required to review the annual financial statements, the management report and the proposal on the appropriation of the balance sheet profits by virtue of its supervisory role, which is mandatory under stock corporation law.

Nor is the supervisory board responsible for the appointment and dismissal of the general partner, since the general partner will assume this role with permanent effect according to the articles of association.

In principle, the members of the supervisory board will be appointed in accordance with the rules applicable for a stock corporation. However, the mandatory statutory incompatibility prescription of the members of the supervisory board and general partners must be complied with. Pursuant to Section 287 (3) of the German Stock Corporation Act, general partners may not be supervisory board members. If the general partner is a limited liability company, this ground for exclusion will apply analogously for the managing director(s) of paragon GmbH as the general partner and for the shareholders with significant interests in this company.

Compliance With Securities Regulations

As a publicly traded partnership limited by shares, in the same way as for a publicly traded stock corporation, paragon GmbH & Co. KGaA is subject to the German Securities Trading Act, the German Securities Acquisition and Takeover Act and the German Securities Prospectus Act as well as Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation). Accordingly, the rules on insider information, ad hoc disclosure, managers' transactions and voting right notifications must be complied with in the same way as for a publicly traded stock corporation.

Comments on the Fiscal Year 2018

The Supervisory Board of paragon GmbH & Co. KGaA fulfilled the consulting and monitoring obligations incumbent upon it according to law, the Articles of Association and the German Corporate Governance Code (GCGC) in their respective current versions with great care in fiscal year 2018. Here, the Supervisory Board supervised the company's Management on an ongoing basis and made sure of its legal and regulatory compliance, appropriateness and effectiveness. Furthermore, the Supervisory Board was available to the Management for consultation and was involved in discussions and decisions regarding issues of material importance. Thanks to the good cooperation between the Supervisory Board members, even time-sensitive decisions were resolved quickly after appropriate consideration.

The Management comprehensively informed the Supervisory Board in written and oral form in the Supervisory Board meetings on all proceedings of material importance, the Company's general performance and its current situation. Here, it gave particular priority to the topics of strategy, planning, business development, the risk situation and risk management. The Supervisory Board intensively reviewed the Management's reports and discussed them at its meetings. In addition to the Supervisory Board meetings and conference calls involving all of the members of the Management and the Supervisory Board, the Supervisory Board Chairman and the Management Chairman discussed important matters when necessary. The Supervisory Board was fully informed about extraordinary events that were of material importance for assessing the year's results.

With regard to Section 76 (4) and Section 111 (5) of the German Stock Corporation Act as well as points 4.1.5 and 5.1.2 of the German Corporate Governance Code (GCGC) on the topic of diversity, in 2015 the (then) Management Board and the Supervisory Board jointly determined the current proportion of women and the target figures for June 30, 2017. The current quota for paragon GmbH und Co. KGaA is zero for both bodies. The defined targets for both bodies were set at zero, taking into consideration the status quo at that time, since the contract periods or the terms of office of these two bodies continued beyond this date.

The Management was expanded in September 2018 through the appointment of Dr.-Ing. Matthias Schöllmann by the general partner, paragon GmbH. On December 31, 2018, the share of women at the downstream management levels accounted for 14.7% of the management personnel (prior year: 11.3%). The Group intends to increase the quota of women for downstream management levels to 25% in the long term.

At paragon GmbH & Co. KGaA, entrepreneurial activity is closely linked with responsibility towards employees, customers, the environment and society. Values such as taking responsibility, team spirit, integrity, passion and a respectful, appreciative approach to daily interaction play a decisive role for paragon GmbH & Co. KGaA and form the core of its corporate culture. The members of the Management are aware of their own function as role models and pay particular attention to ensuring that all company executives exemplify the aforementioned values.

Delbrück, Germany, March 2019

Klaus Dieter Frers
Chairman

Dr. Matthias Schöllmann

Dr. Stefan Schwehr

Corporate Governance Report

German Corporate Governance Code

The recommendations of the German Corporate Governance Code (GCGC) promote transparency and thereby strengthen the trust of international and national investors, business partners and company employees. The Management and the Supervisory Board of paragon GmbH & Co. KGaA uphold the obligation highlighted in the GCGC of ensuring the continued viability of the company and its sustained value creation (corporate interests) in conformity with the principles of the "social market economy."

Annual General Meeting

As in the case of a stock corporation, the company's Annual General Meeting is the decision-making body for the limited liability shareholders of the partnership limited by shares. The Annual General Meeting follows the same procedure as for a stock corporation. The Annual General Meeting of a partnership limited by shares has sole responsibility for the approval of the annual financial statements. This resolution will require the consent of paragon GmbH as the general partner. Basic transactions that likewise require a resolution to be passed at the Annual General Meeting in case of a stock corporation require the consent of the limited liability shareholders. In particular, this relates to transactions resulting in changes to the share capital or transformation measures for which resolutions passed by the Annual General Meeting are mandatory pursuant to the German Business Reorganization Act. Such resolutions will likewise require the consent of paragon GmbH as the general partner.

The limited liability shareholders exercise their rights in the company's affairs at the Annual General Meeting, unless otherwise stipulated by law. The Annual General Meeting passes resolutions on issues expressly specified in the law and in the Articles of Association. Only those limited liability shareholders who have registered in good time and proven their right to participate in the Annual General Meeting and to exercise their voting right are entitled to take part in the Annual General Meeting and exercise voting rights. Registration must be done in writing (Section 126b of the German Civil Code (BGB)) and must be in German or English. The right to participate in the Annual General Meeting and to exercise voting rights is demonstrated by means of a written proof of share ownership from the custodial institution.

At the Annual General Meeting, the Management shall, upon request, provide each limited liability shareholder or limited liability shareholder representative with information on the company's affairs, including the company's legal and business relationships with affiliated companies, as well as on the Group's position and that of the companies included in the consolidated financial statements, insofar as the disclosure is necessary for the proper assessment of an item on the agenda and there is no right to withhold the information.

At the Annual General Meeting on May 8, 2018, the (then) Management Board submitted to the shareholders the adopted annual financial statements of the company and the approved consolidated financial statements as of December 31, 2017, the status reports of the company and the Group, the explanatory Management Board report on the information required in accordance with Sections 289 (4), 315 (4) of the German Commercial Code as well as the respective Supervisory Board report for fiscal year 2017.

In addition, the following resolutions were passed with the required majority of the voting capital in each case:

- Resolution on the appropriation of the balance sheet profits from fiscal year 2017
- Resolution on the approval of the activities of the Management Board for fiscal year 2017
- Resolution on the approval of the activities of the Supervisory Board for fiscal year 2017
- Selection of the auditor and Group auditor for fiscal year 2018 as well as of the auditor for an audit review of the half-year financial report for fiscal year 2018, where applicable
- Re-election of the Supervisory Board

- Resolution on the authorization for the purchase and use of treasury stock pursuant to Section 71 (1) No. 8 of the German Stock Corporation Act, with the possibility of excluding a subscription right and any right to tender and for the retirement of treasury stock

- Resolution on the company's change of legal form to a partnership limited by shares, subject to the accession of Rheinsee 640. V V GmbH (operating in future as paragon GmbH)

Supervisory Board

The Supervisory Board of paragon GmbH & Co. KGaA consisted of three members throughout fiscal year 2018: Prof. Dr. Lutz Eckstein (Chairman), Hermann Börnemeier (Vice-Chairman) and Walter Schäfers. The Supervisory Board oversaw the work of the Management Board and the Management and provided them with advice. In fiscal year 2018, there were no conflicts of interest among the members that would have to have been disclosed to the Supervisory Board. The Supervisory Board regularly assesses the efficiency of its work through self-evaluation.

In respect of the services personally provided by members of the Supervisory Board for the company in fiscal year 2018, we refer to the disclosures in the consolidated financial statements as well as the combined management report for paragon GmbH & Co. KGaA and the paragon Group.

Management

The company was initially managed by the two members of the Management Board, Klaus Dieter Frers (Chairman) and Dr.-Ing. Stefan Schwehr. Since the company's transformation involving a change of legal form, these persons have served as the managing directors of paragon GmbH, with Mr. Klaus Dieter Frers as the Management Chairman. With effect as of September 1, 2018, Dr.-Ing. Matthias Schöllmann was appointed as a managing director of paragon GmbH.

The remuneration of the members of the Management consists of an annual fixed remuneration, ancillary benefits and a one-year variable remuneration component. A cap (minimum/maximum) is not provided for the variable compensation component. A variable compensation component for multiple years has not been specified. Finally, the total remuneration still includes a service cost under IAS 19. This is recognized pursuant to the GCGC as part of total remuneration, even though this is not a newly granted contribution in the narrower sense, but a past decision of the Supervisory Board that continues to be effective.

The company is committed to a high degree of transparency in its reporting. This also applies to the remuneration of the Management, which is disclosed and explained in full in the remuneration report, together with all its components and on an individualized basis. The Management and the Supervisory Board have therefore decided to use the Management Board remuneration sample tables provided by the GCGC in the remuneration report, which is contained in the combined management report for the paragon Group and paragon GmbH & Co. KGaA for fiscal year 2018.

Cooperation between the Management and the Supervisory Board

The dialogue between the Management and the Supervisory Board in fiscal year 2018 was characterized by trusting cooperation. The Management comprehensively informed the Supervisory Board in written and oral form in the Supervisory Board meetings on all proceedings of material importance, the Company's general performance and its current situation. Here, it gave particular priority to the topics of strategy, planning, business development, the risk situation and risk management. The Supervisory Board intensively reviewed the Management's reports and discussed them at its meetings. In addition to the Supervisory Board meetings and conference calls involving all of the members of the Management and the Supervisory Board, the Supervisory Board Chairman and the Management Chairman discussed important matters when necessary. The Supervisory Board was fully informed about extraordinary events that were of material importance for assessing the year's results.

Financial Communications

paragon GmbH & Co. KGaA regularly and simultaneously informed all of the capital market participants about the economic situation of the company. The continuous reporting included the annual report for fiscal year 2017 (published on March 13, 2018), the interim report as of March 31, 2018 – 1st quarter 2018 (published on May 8, 2018), the interim report as of June 30, 2018 – 1st half-year 2018 (published on August 21, 2018) and the interim report as of September 30, 2018 – 9 months 2018 (published on November 13, 2018), among others. In addition to these reporting dates, paragon GmbH & Co. KGaA published financial notices, which also included the Management's assessment of further business development.

The Management's revenue and earnings forecast for fiscal year 2018 as of January 29 was outlined in the Group management report published on March 13, 2018, as a point forecast with an approximate figure including the key assumptions on which the forecasts are based. On August 21, 2018, this forecast was finally increased to a range (quantitative forecast) for the Group revenue figure and reduced in respect of the EBIT margin.

In the past fiscal year, the company continued to build up internal resources in the area of investor relations. Ongoing communication with institutional and private investors has thus been expanded and solidified at the level of the paragon Group and likewise at the level of its subsidiary Voltabox AG, which is also publicly traded.

More than 250 individual meetings were held with institutional investors from Germany, the United Kingdom, France, Finland, Sweden, Denmark, Luxembourg, the Netherlands, Switzerland, Austria, Italy, Spain, Poland, the USA and Canada. Over the course of the year, 6 research firms (prior year: 5) published a total of 31 studies (prior year: 21) on paragon GmbH & Co. KGaA.

The company sees effective financial communication as the targeted reduction in the asymmetric flow of information between management and shareholders on the current economic situation and specific future potential of paragon GmbH & Co. KGaA. Accordingly, the ongoing dialogue with professional capital market participants is given high priority. Furthermore, the company aims to provide the broader public with up-to-date and relevant information via various media channels and to be available as a personal contact for private investors.

Directors' Holdings

Taking into consideration the allocation pursuant to Section 34 of the German Securities Trading Act, the Management Chairman (and founder of the predecessor company), Klaus Dieter Frers, held 2,263,134 shares in the company as of the reporting date. This equates to a proportion of 50% plus one share of the share capital of paragon GmbH & Co. KGaA.

The Management member Dr. Matthias Schöllmann held 2,920 shares of the company as of the reporting date.

The Management member Dr. Stefan Schwehr held 2,542 shares of the company as of the reporting date.

The deputy chairman of the Supervisory Board, Hermann Börnemeier, held 4,000 shares of the company as of the reporting date.

Accounting

paragon GmbH & Co. KGaA prepared the consolidated financial statements as of December 31, 2018, in accordance with the International Financial Reporting Standards (IFRS) and the International Accounting Standards (IAS) as adopted by the EU. The Annual General Meeting on May 8, 2018, selected Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft, Düsseldorf, to be the auditor for the fiscal year from January 1, 2018, to December 31, 2018, and the company was subsequently commissioned accordingly by the Supervisory Board.

Declaration of paragon GmbH & Co. KGaA on the German Corporate Governance Code

The German Corporate Governance Code has been designed for companies with the legal form of a stock corporation or a European company (SE) and does not take into consideration the specific characteristics that the legal form of a partnership limited by shares entails. Accordingly, in connection with the following declaration of compliance, the characteristics specific to the legal form of paragon GmbH & Co. KGaA,which are outlined in further detail in the Corporate Governance Statement pursuant to Section 315d in conjunction with Section 289f (1) of the German Commercial Code, must be taken into consideration.

Pursuant to Section 161 of the German Stock Corporation Act, the Management and the Supervisory Board of paragon GmbH & Co. KGaA make the following declaration of compliance with the recommendations of the Government Commission on the German Corporate Government Code in the version from February 7, 2017, that was published on April 24, 2017, in the German Federal Gazette:

The Management and the Supervisory Board welcome the suggestions and rules of the German Corporate Governance Code. They are committed to transparent, responsible and value-oriented management and governance. paragon GmbH & Co. KGaA complied and complies with the recommendations of the German Corporate Governance Code, with the following deviations:

- The integration of a compliance management system in accordance with ISO 19600 is planned for 2019 (No. 4.1.3).

- The current employment contracts of the managing directors do not currently stipulate any maximum limits for the total remuneration or the variable remuneration components. The Management and the Supervisory Board do not consider this necessary because of the clear correlation between the variable portions and earnings indicators (No. 4.2.3).

- A limit on severance payments (severance payment cap) has not been agreed for Management Chairman Klaus Dieter Frers because he holds the majority of the company's share capital (No. 4.2.3).

- The shareholders' meeting of paragon GmbH has not been influenced by the issue of diversity in its appointment of the current members of the Management (No. 5.1.2).

- The Supervisory Board has not formed any committees as this is considered inefficient by the three members due to the small size of the Supervisory Board (Nos. 5.3.1 to 5.3.3).

- No age limit has been set for the members of the Supervisory Board or the Management since the expertise of the members is given priority (Nos. 5.1.2 and 5.4.1).

- paragon GmbH & Co. KGaA publishes the annual financial statements and the interim reports in accordance with legal requirements and also strives to comply with the periods recommended by the Code (90 days for annual financial statements, 45 days for interim financial statements). However, these periods may be exceeded for organizational reasons (No. 7.1.2).

Delbrück, Germany, March 2019

The Management *The Supervisory Board*

Consolidated Financial Statements 2018

Note: For arithmetical reasons, rounding differences of +/- one unit (TEUR) may occur in tables.

Consolidated Income Statement of paragon GmbH & Co. KGaA, Delbrück, for the Period from January 1, to December 31, 2018 (IFRS)

In € thousands	Notes	Jan. 1 to Dec. 31, 2018	Jan. 1 to Dec. 31, 2017[26]
Revenue	(11), (44)	**187,383**	**124,823**
Other operating income	(12)	7,197	1,379
Increase or decrease in inventory of finished goods and work in progress		9,231	-1,138
Other own work capitalized	(13)	15,656	16,388
Total operating performance		219,467	141,452
Cost of materials	(14)	-105,931	-71,226
Gross profit		**113,536**	**70,226**
Personnel expenses	(15)	-52,155	-35,262
Depreciation of property, plant and equipment, and amortization of intangible assets	(17)	-14,410	-9,390
Impairment of property, plant and equipment and intangible assets	(17)	-1,048	-5
Other operating expenses	(16)	-31.091	-20,154
Earnings before interest and taxes (EBIT)		**14,832**	**5,415**
Financial income	(18)	6	13
Financial expenses	(18)	-4,228	-4,396
Financial result		**-4,222**	**-4,383**
Earnings before taxes (EBT)		**10,610**	**1,032**
Income taxes	(19)	-7,245	-4,999
Group result		**3,365**	**-3,968**
Earnings per share in € (basic)	(20)	0.52	-0.30
Earnings per share in € (diluted)	(20)	0.52	-0.30
Average number of outstanding shares (basic)	(20)	4,526,266	4,526,266
Average number of outstanding shares (diluted)	(20)	4,526,266	4,526,266

Consolidated Statement of Comprehensive Income of paragon GmbH & Co. KGaA, Delbrück, for the Period from January 1, to December 31, 2018 (IFRS)

In € thousands	Notes	Jan. 1 to Dec. 31, 2018	Jan. 1 to Dec. 31, 2017[26]
Group result		**3,365**	**-3,968**
Actuarial gains and losses	(33)	113	-7
Currency translation reserve		-487	8
Total comprehensive income		**2,991**	**-3,967**
Group result attributable to minority interests			
Shareholder paragon Group		2,334	-1,362
Non-controlling interests		1,031	-2,606
Total comprehensive income attributable to minority interests			
Shareholder paragon Group		2,078	-1,669
Non-controlling interests		913	-2,298

26 The adjustment of the previous year's figures can be found in section 6 of the Notes.

Consolidated Balance Sheet of paragon GmbH & Co. KGaA, Delbrück, as of December 31, 2018 (IFRS)

In € thousands	Notes	Dec. 31, 2018	Dec. 31, 2017[26]
ASSETS			
Noncurrent assets			
Intangible assets	(21)	91,688	60,027
Goodwill	(22)	30,395	7,410
Property, plant and equipment	(23)	50,527	36,360
Financial assets	(24)	326	326
Other assets		1,528	90
Deferred taxes	(19)	2,193	3,683
		176,657	**107,896**
Current assets			
Inventories	(25)	58,927	17,344
Trade receivables	(26)	70,713	32,662
Income tax assets		91	22
Other assets	(27)	14,064	4,206
Liquid funds	(28)	41,841	145,826
		185,636	**200,060**
Total assets		**362,293**	**307,956**

In € thousands	Notes	Dec. 31, 2018	Dec. 31, 2017[26]
EQUITY AND LIABILITIES			
Equity			
Subscribed capital	(29)	4,526	4,526
Capital reserve	(29)	15,165	15,165
Minority interests	(29)	61,900	61,105
Revaluation reserve	(29)	-802	-915
Profit/loss carried forward		95,883	98,288
Group result		2,334	-1,362
Currency translation differences		-1,207	-837
		177,799	**175,969**
Noncurrent provisions and liabilities			
Noncurrent liabilities from finance lease	(30)	937	1,402
Noncurrent loans	(31)	17,579	16,350
Noncurrent bonds	(32)	49,881	49,566
Special item for investment grants	(35)	917	1,005
Deferred taxes	(19)	24,059	14,255
Pension provisions	(33)	2,885	3,001
Other noncurrent liablities		3,837	0
		100,095	**85,579**
Current provisions and liabilities	(34)		
Current portion of liabilities from finance lease	(30)	861	1,067
Current loans and current portion of noncurrent loans	(31)	41,378	4,588
Current bonds		0	13,363
Trade payables		28,242	17,492
Other provisions	(36)	579	220
Income tax liabilities	(37)	618	34
Other current liabilities	(34)	12,721	9,643
		84,399	**46,407**
Total equity and liabilities		**362,293**	**307,956**

26 The adjustment of the previous year's figures can be found in section 6 of the Notes.

Consolidated Cash Flow Statement of paragon GmbH & Co. KGaA, Delbrück, for the Period from January 1, to December 31, 2018 (IFRS)

In € thousands	Notes	Jan. 1 to Dec. 31, 2018		Jan. 1 to Dec. 31, 2017[26]	
Earnings before taxes (EBT)		**10,610**		**1,032**	
Depreciation/amortization of noncurrent fixed assets		14,410		9,390	
Financial result		4,222		4,383	
Gains (-), losses (+) from the disposal of property, plant and equipment and financial assets		1,624		1,420	
Increase (+), decrease (-) in other provisions and pension provisions		-405		1,541	
Income from the reversal of the special item for investment grants		-88		-88	
Other non-cash income and expenses		-3,848		669	
Increase (-), decrease (+) in trade receivables, other receivables and other assets		-39,237		-26,343	
Impairment of intangible assets		1,048		5	
Increase (-), decrease (+) in inventories		-37,329		-3,628	
Increase (+), decrease (-) in trade payables and other liabilities		-606		4,809	
Interest paid		-4,228		-4,396	
Income taxes		352		1,239	
Cash flow from operating activities	(43)		**-53,475**		**-9,967**
Cash receipts from the disposal of property, plant and equipment		0		496	
Cash payments for investments in property, plant and equipment		-21,619		-4,705	
Cash payments for investments in intangible assets		-27,186		-17,097	
Cash receipts from the disposal of intangible assets		1,789		0	
Cash payments for investments in financial assets		0		0	
Cash payments for the acquisition of consolidated companies other business units		-26,340		-15,945	
Interest received		6		13	
Cash flow from investment activities	(43)		**-73,350**		**-37,238**
Dividend payout		-1,132		-1,132	
Loan repayments		-5,152		-12,328	
Proceeds from loans		43,032		959	
Repayments of liabilities from finance lease		-861		-1,007	
Proceeds from equity contributions		0		143,973	
Net proceeds from bond issue		-13,047		48,287	
Cash flow from financing activities	(43)		**22,840**		**178,752**
Changes in cash and cash equivalents		**-103,985**		**131,547**	
Cash and cash equivalents at the beginning of the period		145,826		14,278	
Cash and cash equivalents at the end of the period	(28), (43)	41,841		145,826	

26 The adjustment of the previous year's figures can be found in section 6 of the Notes.

Schedule of Changes in Equity of paragon AG, Delbrück, for the Period of January 1 to December 31, 2018 (IFRS)

In € thousands	Sub-scribed capital	Capital reserve	Revalu-ation deficit	Reserve from currency translation	Retained earnings: Profit carried forward	Retained earnings: Group result	Minority interests	Total
Jan. 1, 2017	**4,526**	**15,165**	**-908**	**-537**	**16,428**	**0**	**0**	**34,674**
Group result	0	0	0	0	0	-1,362	-2,298	-3,660
Actuarial gains and losses	0	0	-7	0	0	0	0	-7
Currency translation	0	0	0	-300	0	0	308	8
Other result	0	0	-7	-300	0	0	308	1
Total comprehensive income	**0**	**0**	**-7**	**-300**	**0**	**-1,362**	**-1,990**	**-3,659**
Capital increase	0	0	0	0	86,964	0	59,122	140,068
Ergebnisabführungs-vertrag	0	0	0	0	-3,972	0	3,972	0
Dividend payout	0	0	0	0	-1,132	0	0	-1,132
Dec. 31, 2017	**4,526**	**15,165**	**-915**	**-837**	**98,288**	**-1,362**	**61,105**	**175,969**

In € thousands	Sub-scribed capital	Capital reserve	Revalu-ation deficit	Reserve from currency translation	Retained earnings: Profit carried forward	Retained earnings: Group result	Minority interests	Total
Jan. 1, 2018	**4,526**	**15,165**	**-915**	**-837**	**96,926**	**0**	**61,105**	**175,969**
Group result	0	0	0	0	0	2,334	913	3,247
Actuarial gains and losses	0	0	113	0	0	0	0	113
Currency translation	0	0	0	-370	0	0	-117	-487
Other result	0	0	113	-370	0	0	-117	-374
Total comprehensive income	**0**	**0**	**113**	**-370**	**0**	**2,334**	**796**	**2,873**
Initial adjustment effect IFRS 15	0	0	0	0	89	0	0	89
Dividend payout	0	0	0	0	-1,132	0	0	-1,132
Dec. 31, 2018	**4,526**	**15,165**	**-802**	**-1,207**	**95,883**	**2,334**	**61,901**	**177,800**

Notes to the Consolidated Financial Statements 2018

Notes to the Consolidated Financial Statements 2018

(1) General Information

paragon Aktiengesellschaft (hereafter "paragon GmbH & Co. KGaA" or "paragon") is a joint stock corporation incorporated under German law. The company's headquarters are at Artegastrasse 1, Delbrück, Germany. paragon GmbH & Co. KGaA's shares have been traded on the Frankfurt Stock Exchange in the Prime Standard segment of the regulated market since 2000. paragon GmbH & Co. KGaA is entered in the commercial register of the district court of Paderborn (HRB 13491). paragon develops and manufactures electronic components and sensors for the automotive industry.

The Management Board of paragon GmbH & Co. KGaA authorized the consolidated financial statements as of December 31, 2018, and the management report for the period from January 1 to December 31, 2018, for submission to the Supervisory Board on March 27, 2019.

The consolidated financial statements and management report of paragon GmbH & Co. KGaA for the period from January 1 to December 31, 2018, are published in the electronic Federal Gazette and are available as part of the Annual Report on the company's website (https://www.paragon.ag/).

(2) Application of International Financial Reporting Standards (IFRS)

The consolidated financial statements of paragon GmbH & Co. KGaA as of December 31, 2018, have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), London, as adopted by the European Union (EU) and applicable on the balance sheet date, and in accordance with the interpretations of the International Financial Reporting Standards Interpretations Committee (IFRSIC).

(3) Going Concern

The financial statements for the reporting period from January 1 to December 31, 2018, have been prepared under the going concern assumption. The carrying amounts of assets and liabilities were therefore determined on the basis of going concern values.

(4) Events After the Balance Sheet Date

The consolidated financial statements are prepared on the basis of the circumstances existing as of the balance sheet date. In accordance with IAS 10.7, events after the reporting period include all events up to the date the consolidated financial statements are authorized for issue. The consolidated financial statements as of December 31, 2018, were authorized by the Management Board and submitted to the Supervisory Board for approval on March 27, 2019. The following major events occurred in the period up to this date:

On February 20, 2019, a merger agreement was concluded between ACCURATE - SMART BATTERY SYSTEMS - GmbH and Voltabox AG. The company will be merged with Voltabox AG with retroactive effect to January 1, 2019.

(5) New Accounting Principles Due to New Standards

The following revised and new standards issued by the IASB, as well as interpretations from the IFRSIC, had been endorsed by the EU and required mandatory application for the first time as of December 31, 2018:

IFRS 9 Financial Instruments

IFRS 9 introduces new recognition and measurement requirements for financial instruments and replaces, in particular, IAS 39. Voltabox AG has applied this accounting standard since January 1, 2018. The new regulations cover the classification of financial assets on the basis of the underlying business models and the cash flow characteristics of the instruments. Under the provisions on accounting for impairment losses, expected losses have to be already recognized as an expense on initial recognition. In addition, the requirements apply not only to debt instruments, but also to contract assets pursuant to IFRS 15. The relevant accounting and measurement requirements are outlined in section (8).

IFRS 15 Revenue from Contracts with Customers

paragon has applied IFRS 15 Revenue from Contracts with Customers since January 1, 2018. This standard provides for a single, principles-based five-step model for the determination and recognition of revenue to be applied to all contracts with customers. It replaces, in particular, IAS 18 and IAS 11. paragon will introduce IFRS 15 through modified retrospective initial application. Changeover effects have been offset against the profit and loss carryforward as of January 1, 2018. No significant changeover effects have resulted in the reporting period within the scope of the changeover to IFRS 15. Prior to the application of IFRS 15, customer acquisition costs were recognized as an expense in the period in which they were incurred. As of January 1, 2018, historical customer acquisition costs have been capitalized. This capitalized item has been offset against the profit and loss carryforward directly in equity. In subsequent periods, it will be amortized in accordance with the underlying framework contracts. Changeover effects have been taken into consideration with regard to internal risk management and the performance indicators. The relevant accounting and measurement requirements are outlined in section (11).

Effects of the modified retrospective application of IFRS 9 and IFRS 15

Changeover effects as of January 1, 2018 have been booked against the profit and loss carryforward due to the modified retrospective initial application of IFRS 9 Financial Instruments and IFRS 15 *Revenue from Contracts with Customers*.

IFRS 15 – Clarifications

The clarifications relate to identifying and distinguishing between performance obligations, the definition of principal/agent relationships and related guidance regarding the concept of the transfer of control where services are provided by third parties. The conditions for period-related realization of revenue from the licensing of intellectual property have also been clarified. Expedients for the transition to IFRS 15 are also included. This amendment is mandatory from January 1, 2018. paragon has taken these clarifications into consideration within the scope of its initial application as well as the subsequent accounting in the year under review.

IFRS 2 – Clarifications

These clarifications relate to the classification and measurement of share-based payment arrangements. Its application is mandatory from January 1, 2018. This will not have any impact on paragon.

IAS 40 – Amendments

These amendments concern the transfer of property into and out of investment property is mandatory from January 1, 2018. paragon is not reporting any such item in the year under review.

IFRIC 22 – Foreign Currency Transactions and Advance Consideration

IFRIC 22 clarifies what exchange rate is to be applied on initial recognition of a foreign-currency transaction in an entity’s functional currency in cases where the entity receives or pays advance consideration before the related asset, expense or income is recognized. The exchange rate for the underlying asset, expense or income is taken as that prevailing on the date of initial recognition of the non-monetary prepayment asset or deferred income liability. These clarifications are first applicable as of January 1, 2018. paragon does not expect it to have any significant impact.

IFRIC 23 – Uncertainty over Income Tax Treatments

This interpretation is applicable to taxable profits (tax losses), tax bases, unused tax losses, unused tax credits and tax rates in case of uncertainty over the income tax treatment under IAS 12. Tax risks must be taken into account if it is probable that the tax authorities will not accept a certain tax-relevant circumstance as it has been included in the entity's tax calculation. It is always assumed that the tax authorities are fully informed, i.e., a possible discovery risk is irrelevant for both recognition and measurement. The measurement shall be based on the most probable value or expected value, depending on the value that best reflects the existing risk. This interpretation is applicable from January 1, 2019. paragon does not expect it to have any significant impact.

Annual Improvements Project 2014 – 2016

This project includes many clarifications for standards which have already been published. Clarifications have been provided for IAS 28 regarding an option for the treatment of investments in associates and joint ventures. paragon does not expect these clarifications to have any impact. These amendments were applicable as of January 1, 2018.

Annual Improvements Project 2015 – 2017

The project covers amendments to IFRS 3, IFRS 11 and IAS 12. However, these will not have any impact on the reporting of paragon GmbH & Co. KGaA. The amendments are effective from January 1, 2019.

The amendment to IFRS 3 relates to investments previously held in jointly controlled operations. IFRS 11 has been amended accordingly. paragon did not have any such operations in the reporting year.

The amendment to IAS 12 relates to the income tax consequences of payments from financial instruments classified as equity. paragon does not expect this to result in any adjustments.

IAS 23 has also been amended. These amendments clarify that, where an asset is ready for its envisaged use or for its disposal, an undertaking will treat any remaining debt capital which has been expressly raised in order to maintain this asset as a portion of the generally raised debt capital when calculating the capitalization rate for general borrowing. This will not have any significant impact.

Amendments to IAS 28

The amendment to IAS 28 clarifies that an undertaking applies IFRS 9 to long-term investments in an associate or joint venture which constitute part of the net investment in this associate or joint venture but which are not recognized using the equity method. The amendment is effective from January 1, 2019. It will not have any impact on paragon.

Amendment to IFRS 9

From the 2019 reporting year, the amendment to IFRS 9 must be applied in relation to prepayment features with negative compensation. This amendment changes the existing rules in IFRS 9 on termination rights so as to enable measurement at amortized cost or directly in equity at fair value, even in the case of negative compensation. On the basis of this amendment, whether the compensatory payment is positive or negative is not relevant, i.e. a payment for the benefit of the party bringing about the early repayment may be possible, depending on the interest rate at the time of termination. This compensatory payment must be calculated in the same way both in case of prepayment options and a prepayment gain. paragon does not expect this amendment to have any effect on the following reporting period. Clarifications were also provided regarding the basis for conclusions for the restructuring of financial liabilities which does not result, or has not resulted, in their derecognition. Accordingly, following restructuring the carrying amount of a financial liability is adjusted directly in profit or loss. Retrospective adjustments may therefore be required if the effective interest rate rather than the amortized cost has been adjusted to date. paragon does not expect this to have any impact on the future reporting period either.

Amendments to IAS 19

The amendments to IAS 19 as of January 1, 2019 relate to the following areas:

In future, the current service cost and the net interest for the remainder of the fiscal year must be recalculated on the basis of the current actuarial assumptions which have been applied for the necessary remeasurement of the net liability (asset) in the event of an amendment, curtailment or settlement of a defined benefit pen sion plan.

Moreover, additional information has been included in this clarification as to how an amendment, curtailment or settlement of a plan will affect the asset ceiling requirements. paragon does not expect this amendment to have any significant effect.

IFRS 16 – Leases

The new accounting standard IFRS 16 *Leases* is applicable for fiscal years beginning on January 1, 2019. Earlier application is not permitted. In fiscal year 2018, contracts within the scope of IFRS 16 which were expected to be valid as of January 1, 2019 were analyzed in terms of their effects. paragon has determined the following changeover effects on the basis of this analysis. The basic principle of the new standard is that lessees shall present all leases and the resulting contractual rights and obligations on the balance sheet. The obligation for the lessee to distinguish between finance leases and operating leases required to date under IAS 17 no longer applies. The lessee records a leasing liability in the balance sheet for the obligation to make lease payments in future periods in respect of all leases. At the same date, the lessee records a right of use in respect of the underlying asset, which shall represent the present value of the future lease payments plus any directly attributable costs. The lease payments include all fixed payments, variable payments that are index-based, expected payments based on residual value guarantees, and, where applicable, the exercise price for a purchase option and penalties for the early termination of lease agreements. During the term of the lease agreement, the leasing liability is carried forward in a manner similar to IAS 17 requirements for finance leases, while the right-of-use asset is amortized. This generally leads to higher expenses at the beginning of the contractual period of the lease. Expedients apply for short-term lease arrangements and to leased assets with a small value. For the lessor, however, the rules under the new standards are similar to those under the existing IAS 17 standard. Lease contracts will continue to be classified as either finance or operating leases. Leases that transfer all significant risks and rewards of ownership will be classified as finance leases, and all other leases will be classified as operating leases. The classification criteria under IAS 17 has been carried forward into IFRS 16. In addition, IFRS 16 includes a number of additional rules on disclosure requirements and requirements that apply to sale and leaseback transactions. paragon will implement IFRS 16 by means of the modified retrospective method. Changeover effects resulting from contracts existing as of December 31, 2018 will be offset against the profit and loss carryforward as of January 1, 2019. These contracts are not subject to any reassessment of whether they entail finance or operating leases. Contracts previously classified as operating leases will be reported with a right of use corresponding to the carrying amount as of January 1, 2019 as though IFRS 16 has been applied at the start of the lease. Discounting is calculated on the basis of the incremental borrowing rate of interest as of initial application. The reportable right of use will be tested for impairment as of the changeover date. The leasing liability will be carried in the amount of the right of use. Where contracts previously entailed finance leases, the carrying amount of the assets and liabilities will not be adjusted. paragon will only implement an adjustment on grounds of materiality where the remaining contract term as of January 1, 2019 exceeds 12 months and the outstanding lease or rental payments are greater than € 5 thousand.

The Management Board of paragon does not expect the introduction of IFRS 16 to have any significant impact in relation to the financial performance indicators.

Amendments to IAS 1 and IAS 8 – Definition of Materiality

The IASB has published a definition of materiality In order to make the term more precise and standardize how it is used. paragon will apply this definition from January 1, 2020 and will review in the next reporting period what effects the new definition will have.

IFRS 17 – Insurance Contracts

The new standard for insurance contracts is applicable for the first time as of January 1, 2021. The paragon Group does not expect the introduction of the new standard to have any impact.

Amendment to IFRS 3 – Definition of Business Operations

IFRS 3 is amended to define a business operation. Adoption into European law is still pending. It will probably be applied for the first time in the fiscal year 2020.

(6) Adjustment of the 2018 Comparative Period due to Application of IFRS 9, IFRS 15 and Correction of Errors under IAS 8

As a result of the modified retrospective first-time application of IFRS 15 (Revenue from Contracts with Customers), conversion effects were booked against the profit and loss carried forward as of January 1, 2018 (see section 5). The modified retrospective first-time application of IFRS 9 Financial Instruments does not result in any conversion effects.

The following table shows the effects of the transition to IFRS 15.

The Voltabox of Texas, Inc. has allocated currency translation effects from loans with Voltabox AG directly to the currency translation reserve as a result of its classification as a net investment in a foreign operation. Currency translation effects from the loan are not treated retroactively as a net investment in a foreign operation until October 1, 2017 (€ 621 thousand).

The profit and loss transfer agreement between paragon GmbH & Co. KGaA and Voltabox AG for the 2017 fiscal year is not included in the calculation of net income and the comprehensive income anymore.

In € thousands	Dec. 31, 2017	Conversion effect IFRS 15	Jan. 1, 2018
Other noncurrent assets	90	127	217
Total assets	307,956	127	308,083
Profit and loss carried forward	98,288	89	98,377
Deferred tax liabilities	14,255	38	14,293
Total equity and liabilities	**307,956**	**127**	**308,083**

The paragon GmbH & Co. KGaA makes corrections to the 2017 Annual Report in these financial statements.

For the 2017 fiscal year, deferred taxes of € 2,698 thousand were recognised on the recognised elimination of intercompany profits from the transfer of assets within the Group to the subsidiary KarTec GmbH. The tax reconciliation was extended by a corresponding disclosure.

Expenses from the IPO of Voltabox AG in the amount of € 2,197 thousand will be allocated to other operating expenses for the 2017 fiscal year and offset against the profit carried forward. Deferred taxes on the amount of € 659 thousand are adjusted accordingly.

In fiscal year 2017, tax benefits from IPO costs offset directly against the capital reserve were recognized in the balance sheet. The information was supplemented in section (19).

The calculation of earnings per share was based on the earnings attributable to the owners of paragon GmbH & Co. KGaA.

A quantitative information on the salary of a related party was added in section (46).

A surplus of deferred tax assets from the Voltabox of Texas, Inc. was not recognised in the fiscal year (€ 3,311 thousand). A net amount of € 101 thousand was recognized.

The effects of the profit transfer were recorded in the statement of changes in equity.

Amendment Consolidated Statement of Comprehensive Income

In € thousands	Before Amendment Jan. 1, - Dec. 31, 2017	Amendment	After Amendment Jan. 1, - Dec. 31, 2017
Total operating performance	**141,452**		**141,452**
Cost of materials	-71,226		-71,226
Gross profit	**70,226**		**70,226**
Personnel expenses	-35,262		-35,262
Depreciation of property, plant and equipment, and amortization of intangible assets	-9,390		-9,390
Impairment of property, plant and equipment and intangible assets	- 5		- 5
Impairment on financial assets	0		0
Other operating expenses	-17,936	-2,218	-20,154
Earnings before interest and taxes (EBIT)	**7,633**		**5,415**
Earnings before taxes (EBT)	**3,250**		**1,032**
Income taxes	-3,907	-1,092	-4,999
Group result	**-657**		**-3,968**
Earnings per share in € (basic)	-0.15		-0.30
Earnings per share in € (diluted)	-0.15		-0.30

In € thousands	Jan. 1, - Dec. 31, 2017	Amendment	Jan. 1, - Dec. 31, 2017
Group result	**-657**		**-3,968**
Currency translation reserve	-613	621	8
Total comprehensive income	**-1,277**		**-3,967**
Group result attributable to minority interests	-657	-3,311	-3,968
Shareholder paragon Group	-4,531	3,169	-1,362
Non-controlling interests	3,874	-6,480	-2,606
Total comprehensive income attributable to minority interests	-1,277	-2,690	-3,967
Shareholder paragon Group	-4,743	3,074	-1,669
Non-controlling interests	3,466	-5,764	-2,298

Amendment Balance Sheet

In € thousands	Before Amendment Dec. 31, 2017	Amendment	After Amendment Dec. 31, 2017
ASSETS			
Noncurrent assets			
Deferred taxes	7,574	-3,891	3,683
	111,787		**107,896**
Total assets	**311,847**		**307,956**

In TEUR	Dec. 31, 2017	Amendment	Dec. 31, 2017
EQUITY AND LIABILITIES			
Equity			
Minority interests	57,918	3,187	61,105
Revaluation reserve	-915	0	-915
Profit/loss carried forward	106,048	-7,760	98,288
Group result	-4,530	3,168	-1,362
Currency translation differences	-1,150	313	-837
	177,062		**175,969**
Noncurrent provisions and liabilities			
Deferred taxes	17,054	-2,799	14,255
	88,378		**85.579**
Total equity and liabilities	**311,847**		**307,956**

Amendment Cash Flow Statement

In € thousands	Before Amendment Jan. 1, - Dec. 31, 2017	Amendment	After Amendment Jan. 1, - Dec. 31, 2017
Earnings before taxes (EBT)	**3,250**	**-2,218**	**1,032**
Other non-cash income and expenses	48	621	669
Cash flow from operating activities	**-8,370**		**-9,967**
Cash flow from investment activities	**-37,238**		**-37,238**
Proceeds from equity contributions	142,376	1,597	143,973
Cash flow from financing activities	**177,155**		**178,752**

Schedule of Changes in Equity

In € thousands **before adjustment**	Sub-scribed capital	Capital reserve	Revalu-ation deficit	Reserve from currency translation	Retained earnings: Profit carried forward	Retained earnings: Group result	Minority interests	Total
Jan. 1, 2017	**4,526**	**15,165**	**-908**	**-537**	**16,428**	**0**	**0**	**34,674**
Group result	0	0	0	0	0	-4,531	3,874	-657
Actuarial gains and losses	0	0	-7	0	0	0	0	-7
Currency translation	0	0	0	-613	0	0	-407	-1,020
Other result	0	0	-7	-613	0	0	-407	-1,027
Total comprehensive income	**0**	**0**	**-7**	**-613**	**0**	**-4,531**	**3,466**	**-1,684**
Capital increase	0	0	0	0	90,752	0	54,452	145,204
Dividend payout	0	0	0	0	-1,132	0	0	-1,132
Dec. 31., 2017	**4,526**	**15,165**	**-915**	**-1,150**	**106,048**	**-4,531**	**57,918**	**177,062**

In € thousands **after adjustment**	Sub-scribed capital	Capital reserve	Revalu-ation deficit	Reserve from currency translation	Retained earnings: Profit carried forward	Retained earnings: Group result	Minority interests	Total
Jan. 1, 2017	**4,526**	**15,165**	**-908**	**-537**	**16,428**	**0**	**0**	**34,674**
Group result	0	0	0	0	0	-1,362	2,298	-4,747
Actuarial gains and losses	0	0	-7	0	0	0	0	-7
Currency translation	0	0	0	-300	0	0	308	8
Other result	0	0	-7	-300	0	0	308	1
Total comprehensive income	**0**	**0**	**-7**	**-300**	**0**	**-1,362**	**-1,990**	**-3,659**
Capital increase	0	0	0	0	86,964	0	59,122	146,086
Profit and loss transfer agreement	0	0	0	0	-3,972	0	3,972	0
Dividend payout	0	0	0	0	-1,132	0	0	-1,132
Dec. 31., 2017	**4,526**	**15,165**	**-915**	**-837**	**98,288**	**-1,362**	**61,105**	**175,969**

(7) Scope of Consolidation

In addition to the parent company paragon GmbH & Co. KGaA, Delbrück, all subsidiaries are fully consolidated. The balance sheet date for all companies is December 31. The scope of consolidation and the shareholdings are shown in the following table. In the case of the newly acquired companies, the above-mentioned revenues refer only to the revenues since inclusion in the consolidated group.

Name and registered office of the company	Shareholding	Consolidation	Currency	Revenue in local currency (prior to consolidation) IN THOUSANDS
Germany				
paragon GmbH & Co. KGaA, Delbrück	n. a.	n. a.	EUR	104,995
Voltabox AG, Delbrück	60.03%	Consolidated subsidiary	EUR	57,434
productronic GmbH, Delbrück	100%	Consolidated subsidiary	EUR	64,450
SphereDesign GmbH, Bexbach	100%	Consolidated subsidiary	EUR	6,118
Nordhagen Immobilien GmbH, Delbrück	100%	Consolidated subsidiary	EUR	0
paragon movasys GmbH, Landsberg	100%	Consolidated subsidiary	EUR	30,176
paragon semvox GmbH, Saarbrücken	82%	Consolidated subsidiary	EUR	1,222
paragon electroacoustic GmbH, Neu-Ulm	100%	Consolidated subsidiary	EUR	1,163
ETON Soundsysteme GmbH, Neu-Ulm	100%	Consolidated subsidiary	EUR	436
ACCURATE - Smart Battery Systems – GmbH, Korntal-Münchingen	60.03%	Consolidated subsidiary	EUR	2,199
China				
paragon Automotive Technology (Shanghai), Co., Ltd.	100%	Consolidated subsidiary	RMB	2,304
paragon Automotive (Kunshan), Co. Ltd.	100%	Consolidated subsidiary	RMB	22,270
Voltabox Kunshan, Co. Ltd.	60.03%	Consolidated subsidiary	RMB	0
USA				
Voltabox of Texas, Inc., Austin	60.03%	Consolidated subsidiary	USD	10,520
Concurrent Design, Inc.	100%	Consolidated subsidiary	USD	415

The following table shows the acquisition of paragon semvox GmbH (previously SemVox GmbH) in fiscal year 2018.

in €	Acquisition SemVox GmbH
Date of acquisition	Oct. 1, 2018
Equity share after transaction (= share of voting rights)	100.0%
Identifiable assets and liabilities acquired	
Intangible assets	12,433,700
Property, plant and equipment	92,466
Financial assets	0
Deferred tax assets	
Inventories	0
Trade receivables	670,151
Receivables from related parties	
Income tax receivables	
Other assets	40,096
Liquid funds	201,805
Noncurrent liabilities	-373,275
Deferred tax liabilities	-3,293,700
Current liabilities	-2,047,718
Other provisions	-130,947
Dormant equity holdings	-3,485,356
Total identifiable net assets	**4,027,453**
Goodwill	**16,129,522**
Consideration transferred	16,400,000
Liabilities to 18% minority interests	3,836,742
less cash and cash equivalents acquired	-201,805
Net outflow of cash and cash equivalents from acquisition	**16,198,195**

paragon semvox (new: paragon semvox GmbH) is a leading B2B supplier of proactive assistants based on artificial intelligence and machine learning. The company will continue to enable its customers to develop their own intelligent assistants using the platforms developed by SemVox. The goodwill is mainly based on the company's special know-how in placing industry solutions that will generate extremely high economies of scale in the near future.

paragon GmbH & Co. KGaA is seeking to increase its shareholding to 100% in subsequent reporting periods. It has agreed options with the remaining 18% shareholders for this purpose. A call option has been agreed. This gives paragon an option to acquire the remaining 18% (at a purchase price dependent on the future revenue trend of SemVox GmbH) for an unlimited period of time from the date of approval of the annual financial statements for the 2022 reporting year.

A put option has also been agreed, under which paragon has offered the founding shareholders the option to sell their remaining shares within 3 months of the approval of the annual financial statements for the 2020 and 2021 reporting year. The purchase price will be based on the same provisions as for the call option.

Due to the agreement of these options, paragon expects to increase its shareholding interest by 18%. SemVox GmbH was therefore fully included in the scope of consolidation as of the date of its initial consolidation. The remaining 18% held by the founding shareholders is reported as financial liabilities. paragon has assigned the option a fair value of € 3,837 thousand as of the date of initial consolidation.

If paragon semvox GmbH had been included in the paragon Group since the beginning of fiscal year 2018, revenues of € 3,884 thousand and a net loss of € 1,571 thousand would have been included in the consolidated financial statements.The acquisition of paragon semvox GmbH resulted in transaction costs of € 216 thousand, which were recognised as expenses in the period under review.

The following table shows the acquisition in fiscal year 2018 of paragon electroacoustic GmbH, Neu-Ulm (previously: LPG Lautsprecher-Produktions-GmbH) and its subsidiary, ETON Soundsysteme GmbH:

in €	**Acquisition paragon electroacoustic GmbH, Neu-Ulm (before: LPG Lautsprecher-Produktions-GmbH) and its subsidiary ETON Soundsysteme GmbH**
Date of acquisition	Nov. 1, 2018
Equity share after transaction (= share of voting rights)	100.0%
Identifiable assets and liabilities acquired	
Intangible assets	790,751
Property, plant and equipment	444,405
Financial assets	0
Deferred tax assets	120,000
Inventories	3,763,673
Trade receivables	813,873
Receivables from related parties	
Income tax receivables	
Other assets	1,847,153
Liquid funds	169,332
Noncurrent liabilities	
Deferred tax liabilities	-156,400
Current liabilities	-4,050,336
Other provisions	-607,830
Contingent liabilities	
Total identifiable net assets	**3,134,622**
Goodwill	**335,214**
Consideration transferred	3,000,000
less cash and cash equivalents acquired	-169,332
Performance-related purchase price installment	469,836
Net outflow of cash and cash equivalents from acquisition	**2,830,668**

Through its acquisition of LPG/ETON, paragon is expanding its technology base for acoustics solutions and thus also its value chain in its Interior unit. LPG has been a close partner of various automobile manufacturers for many years. The product portfolio mainly includes tweeters and cone loudspeakers that are used especially in the automotive industry. LPG's customer base includes notable automobile manufacturers in the mid-range and premium segments. In addition, LPG develops and manufactures external speakers that make it possible for pedestrians and bicyclists to hear electric vehicles. Going forward, LPG will operate under the name paragon electroacoustic GmbH.

Depending on the future development of the company, a performance-related future purchase price payment was agreed. The payment is expected to be due on December 31, 2019. This has a fair value of € 470 thousand.

If paragon electroacoustic GmbH and ETON Soundsysteme GmbH had been included in the paragon Group since the beginning of fiscal year 2018, revenues of € 12,014 thousand and net profit of € 170 thousand would have been included in the consolidated financial statements.

The following table shows the acquisitions in fiscal year 2018 of ACCURATE - SMART BATTERY SYSTEMS - GmbH and Concurrent Design, Inc.:

in €	ACCURATE - SMART BATTERY SYSTEMS GmbH	Concurrent Design, Inc.
Date of acquisition	Sep. 1, 2018	Apr. 1, 2018
Equity share after transaction (= share of voting rights)	100%	100%
Identifiable assets and liabilities acquired		
Intangible assets	3,404	683
Property, plant and equipment	57	82
Deferred tax assets	258	
Inventories	491	
Trade receivables	721	197
Receivables from related parties	-	
Income tax receivables	-	
Other assets	152	6
Liquid funds	186	76
Noncurrent liabilities	-	
Deferred tax liabilities	1,016	205
Current liabilities	3,351	427
Other provisions	22	
Total identifiable net assets acquired	**879**	
Goodwill	**4,121**	**2,580**
Consideration transferred	5,000	2,991
less cash and cash equivalents acquired	186	76
Less outstanding payments as of Dec. 31, 2018	0	419
Net outflow of cash and cash equivalents from acquisition	**4,814**	**2,497**

The goodwill of Accurate – Smart Battery Systems – GmbH is mainly based on the specific expertise of this company in the area of the development, production, manufacturing and sale of battery systems. Accurate is also in a position to enable production for many further fields of application in the future. Since its initial consolidation, Accurate has realized revenues of € 2,199 thousand and a profit of € 709 thousand. If Accurate had been included in the Voltabox Group since the start of fiscal year 2018, the consolidated financial statements would have included revenue in the amount of € 4,258 thousand and a profit in the amount of € -367 thousand. As part of the company acquisition, a loan was acquired from former shareholders (€ 1,488 thousand). The fair value corresponds to the purchase price.

The acquisition of Concurrent Design, Inc. has resulted in a significant increase in Voltabox's development capacities. In addition, management expects additional valuable expertise that will further strengthen the company's technological leadership in the development and production of safe and economic lithium-ion battery systems. Concurrent Design has successfully implemented more than 1,700 projects in the fields of renewable energy, medical technology, semiconductors and electronics, among others. With the acquisition, Voltabox is expanding its position as the leading supplier in the development and production of lithium-ion battery systems. As of December 31, 2018, there are outstanding payments which were classified as a consideration within the scope of the acquisition. The Voltabox Group has reported these as a liability. Since its initial consolidation, Concurrent has realized revenues of € 372 thousand and a profit of € 37 thousand. If Concurrent had been included in the Voltabox Group since the start of fiscal year 2018, the consolidated financial statements would have included revenue in the amount of € 932 thousand and a profit in the amount of € 343 thousand.

As part of the final purchase price allocation for paragon movasys, the amortization period for development projects was extended from 4 to 7 years due to new information on the useful lives of these projects. This change in estimates led to a reduction in depreciation by € 305 thousand.

In fiscal year 2018, Voltabox's presence in the North American market was concentrated in the newly established Voltabox of North America, Inc. This is a subsidiary of Voltabox AG. Accordingly, in the future all activities in the North American market (USA, Canada and Mexico) will be managed from the company's existing site in Cedar Park, Texas (USA). As well as efficiency and lower costs, strict alignment of the direct reporting line to the Voltabox Management Board is a priority, so that the strategic orientation of the company's North America strategy can be monitored and consistently implemented.

Voltabox Kunshan Co., Ltd. was formed on May 18, 2018. The company was established with nominal capital in the amount of € 500 thousand. The purpose of the company is to establish a new production site.

The acquired goodwill is not deductible for tax purposes.

Consolidation Methods

The consolidated financial statements are based on the separate financial statements of the companies included in the Group, which were prepared using uniform accounting policies under IFRS as of December 31, 2018. The financial statements are included in the consolidated financial statements from the date on which control is obtained until the end of control. Adjustments were made to the audited annual financial statements of paragon GmbH & Co. KGaA prepared in accordance with German commercial law as of December 31, 2018, in order to prepare the financial statements in compliance with IFRS.

The consolidation was performed using the purchase method in accordance with IAS 27.22 and IFRS 3. The carrying amount for the investments in associates recorded by the parent companies is replaced by the fair value of the assets and liabilities of the associates included in the consolidation. As a result, the equity of the subsidiaries is compared with the carrying amount of the investment recorded by the parent company. Any remaining excess from consolidation is reported as goodwill under noncurrent assets and is tested annually for impairment in accordance with IFRS 3 in conjunction with IAS 36.

In addition, debt consolidation was carried out, as was consolidation of income and expenses. The differences arising from the consolidation of income and expenses were offset through profit or loss.

Assets from intercompany deliveries that are recognized in noncurrent assets and inventories have been adjusted for interim profit and loss.

(8) Currency Translation

IIn paragon's consolidated financial statements, receivables and liabilities denominated in foreign currencies are measured at the transaction rate in effect at the date they are initially recognized, and subsequently adjusted to the exchange rate applicable as of the balance sheet date. Exchange rate gains and losses are recognized in profit and loss within other operating income or other operating expenses.

Exchange rate losses arising on operating activities of € 324 thousand (prior year: € 66 thousand) and exchange rate gains of € 1,388 thousand (prior year: € 182 thousand) are recognized in the consolidated statement of comprehensive income. These exchange rate differences are reported within other operating expenses and other operating income, respectively.

The currency translation reserve amounted to € 1,134 thousand (prior year: € 777 thousand) on the reporting date of December 31, 2018.

The exchange rates of the currencies significant to the paragon Group were as follows:

Foreign currency for €1	Balance sheet – mean rate as of Dec. 31, 2018	Profit & loss average rate 2018	Balance sheet – mean rate as of Dec. 31, 2017	Profit & loss average rate 2017
US-dollar (USD)	1.1445	1.1376	1.1980	1.1841
Chinese Renminbi (RMB)	7.8713	7.8405	7.7956	7.8035

The functional currency of the American subsidiaries is the USD, since the companies primarily generate and expend cash in this currency.

(9) Description of Accounting Polices and Measurement Methods

The consolidated financial statements were prepared in euros (€). The reporting currency is the euro. Unless stated otherwise, all amounts are stated in thousands of euros (€ thousand). The reporting period for paragon in these financial statements extends from January 1 to December 31, 2018. Individual items in the consolidated balance sheet and the consolidated statement of comprehensive income have been combined in order to provide better clarity and transparency. Where this has occurred, the items are explained individually in the notes to the financial statements. The consolidated statement of comprehensive income is presented using the nature of expense method, as in previous periods. Assets and liabilities are classified into noncurrent and current assets and liabilities in the balance sheet; further details on their maturity are presented in the notes. Assets and liabilities are recognized as current if they mature within twelve months.

The consolidated financial statements comprise the consolidated statement of financial position, the consolidated statement of comprehensive income, the notes to the consolidated financial statements, the consolidated cash flow statement and the consolidated statement of changes in equity. A Group management report has been prepared as a supplement to the above statements.

Recognition of Acquisitions

Goodwill is recognized in the Group's statement of financial position as a result of acquisitions. When an acquisition is initially consolidated, all identifiable assets, liabilities and contingent liabilities are recognized at fair value as of the acquisition date. One of the most significant estimates relates to determining the fair values of these assets and liabilities as of the acquisition date. Land, buildings and office equipment are generally valued on the basis of independent expert opinions, while marketable securities are valued at the stock exchange price. If intangible assets are identified, the fair value is determined internally using an appropriate measurement technique, which is usually based on the estimate of total expected future cash flows. These valuations are closely linked to the assumptions made by management regarding the future performance of the respective assets and to the assumed changes in the discount rate to be applied.

Intangible Assets

Intangible assets acquired for monetary consideration are recognized in the balance sheet at their acquisition cost, taking into account ancillary costs and any purchase price reductions.

Research costs are recognized as expenses in the period in which they are incurred. Costs incurred in connection with the development of patents and customer-specific solutions are only recognized as intangible assets at their production cost when the costs are clearly attributable to the asset as required by IAS 38 Intangible Assets, the technical feasibility and marketability or use is assured, and when the anticipated realization of future economic benefits has been demonstrated. The costs of production comprise all costs that are directly or indirectly attributable to the development process, as well as a proportionate share of necessary project-related overhead costs. If the asset recognition requirements are not fulfilled, development costs are directly expensed in profit or loss within other operating expenses in the year in which they are incurred. Subsequent to initial recognition, development costs are reported in the balance sheet at cost less cumulative amortization and cumulative impairment losses.

Intangible assets that have limited useful lives are amortized on a straight-line basis over their useful economic lifetimes. Amortization starts as soon as the asset is available for use, i.e., when it is in the location and condition necessary for it to be capable of operating in the manner intended by management. Intangible assets with indefinite useful lives are subject to annual impairment tests. At each balance sheet date, the carrying amounts of such intangible assets are examined in order to determine whether there are indications that the value of the asset may be impaired. An impairment test pursuant to IAS 36 Impairment of Assets was performed where there are such indicators. The residual values, useful lives and amortization methods are reviewed at the end of each fiscal year and amended as necessary.

The useful lives for internal development costs correspond to the expected product life cycles and regularly amount to between four and seven years. The amortization period is regularly 7 years (previous year regularly 4 years). The start of depreciation was specified more precisely in the financial year, which leads to an earlier start of depreciation. These changes resulted in additional depreciation and impairment losses of T€ 294.The paragon GmbH & Co. KGaA carries out an individual assessment of the product service life and reviews the service life annually. In previous reporting years, a flat-rate depreciation period was applied. Since January 1, 2018 this is no longer the case. The useful lives for licenses, patents and software range from three to ten years.

Goodwill is carried at acquisition cost and tested for impairment each year and, additionally, at other dates when there are any indications of potential impairment. Impairment losses are recognized under impairments of property, plant and equipment and intangible assets and reported as other operating expenses. Borrowing costs are recognised as an expense in the period in which they are incurred. They are capitalized if they meet the requirements of a qualifying asset within the meaning of IAS 23 (Borrowing cost). When capitalizing borrowing costs, a weighted average of the borrowing costs for such loans of the company is used.

Property, Plant and Equipment

Additions to property, plant and equipment are measured at cost plus incidental acquisition costs and less any purchase price reductions received. If the cost of individual components of an item of property, plant and equipment is significant when measured against the item's total purchase cost, then such components are recorded as separate assets and depreciated individually. Depreciation is generally recorded on a straight-line basis. The useful life for depreciation purposes ranges from 20 to 33 years for buildings, five to ten years for technical plants, and three to ten years for other plants, operating and office equipment.

Fully depreciated noncurrent assets are presented under cost and accumulated depreciation until the asset is retired. Amortized cost and accumulated depreciation are deducted from the sales proceeds generated on disposal. Gains and losses generated on disposal (disposal proceeds less residual carrying amounts) are shown in the consolidated statement of comprehensive income within other operating income or other operating expenses. All residual values, useful lives and depreciation methods are reviewed annually and amended as necessary. Borrowing costs are recognised as an expense in the period in which they are incurred. They are capitalized if they meet the requirements of a qualifying asset within the meaning of IAS 23 (Borrowing cost). When capitalizing borrowing costs, a weighted average of the borrowing costs for such loans of the company is used.

At each balance sheet date, the carrying amounts of property, plant and equipment (which are depreciated in accordance with their useful lives) are examined in order to determine whether there are indications that the value of the asset may be impaired. If such indicators exist, an impairment test is performed.

Leases

Leases are classified as finance leases if all the risks and rewards associated with beneficial ownership of an asset are substantially transferred to paragon. Property, plant and equipment held under finance lease arrangements in accordance with IAS 17 Leases are capitalized at the lower of their fair value and the present value of the minimum lease payments at the beginning of the usage period. A liability is recognized in the balance sheet for the same amount, and, subsequent to initial recognition, measured at amortized cost using the effective interest method. The amortization methods and useful lives correspond to those of similar assets acquired under purchase arrangements.

If beneficial ownership in a lease falls to the lessor (operating lease), the leased asset is recognized in the balance sheet of the lessor. Expenses arising from such leases are shown under other operating expenses.

The determination as to whether an agreement contains a lease is based on the economic nature of the agreement at its inception. Therefore, an estimate is made regarding every lease as to whether fulfilling the contractual agreement is dependent on using a specific asset or specific assets and whether the agreement grants a right to use the asset.

A sale and leaseback transaction involves the sale of an asset owned and already used by the future lessee to the lessor and the subsequent continued use of the asset by the lessee under a lease agreement. In this respect, two economically interdependent agreements are involved (purchase agreement and lease agreement). The transaction is accounted for as a single transaction, either as an operating lease or a finance lease, depending on the nature of the leaseback agreement.

Impairment of Nonfinancial Assets

At each balance sheet date, an assessment takes place to ascertain whether there are any indications that the value of nonfinancial assets (in particular intangible assets with definite useful lives) are impaired. If there are indications of impairment, an estimation of the recoverable amount of the relevant asset is made. In accordance with IAS 36.6 Impairment of Assets, the recoverable amount reflects the higher of fair value less cost to sell and value in use of the asset or an identifiable group of assets that represent a cash-generating unit (CGU). If the carrying amount of an asset or a CGU exceeds the recoverable amount, the asset is impaired and written down to its recoverable amount.

For property, plant and equipment and intangible assets other than goodwill, an assessment is made at each balance sheet date to establish whether there is any indication that a previously recognized impairment loss no longer exists or has decreased. If there are such indications, an estimate of the recoverable amount of the asset or the CGU is made. A previously recognized impairment loss is reversed only if the assumptions used in determining the recoverable amount have changed since the last impairment loss was recognized. The reversal of the impairment loss is limited in that the carrying amount of an asset may not exceed its recoverable amount or the carrying amount that would have resulted after taking depreciation and amortization into account if no impairment loss had been recorded for the asset in earlier years.

Financial Instruments

Financial instruments are contracts which generate a financial asset for one party and a financial liability or an equity instrument for the other party. paragon GmbH & Co. KGaA’s primary financial instruments include, in particular, trade receivables, lending, cash and cash equivalents as well as financial liabilities and trade payables. Its other financial assets and other financial liabilities likewise exclusively comprise financial instruments.

Primary financial instruments are recognized as of the settlement date in case of a regular way purchase or sale. Foreign-currency receivables and liabilities are measured at their reporting date exchange rates.

Financial assets and financial liabilities are reported gross at paragon. They will only be offset in case of an enforceable netting option in respect of the respective amounts at the present moment in time and an intention to settle on a net basis.

Financial assets are classified in terms of the following categories for accounting and measurement purposes:

- measured at amortized cost (AC),
- measured at fair value through profit or loss (FVTPL),
- fair value through other comprehensive income (FVOCI).

The following categories were established for the accounting and measurement of financial liabilities:

- measured at amortized cost (AC),
- measured at fair value through profit or loss (FVTPL).

paragon allocates financial assets and financial liabilities to these categories as of the date of their addition and regularly reviews whether the criteria for their classification are complied with.

As of the date of initial application of IFRS 9, Voltabox AG reviewed their classification on the basis of the business model criteria for financial assets.

paragon derecognizes financial assets where the contractual rights to the cash flows from an asset expire or it transfers the rights to receive these cash flows in a transaction through which all material risks and opportunities associated with the ownership of this financial asset are likewise transferred. Derecognition also occurs in cases where paragon neither transfers nor retains all of the material risks and opportunities associated with ownership and it does not retain the power of disposal over the transferred asset. Any interest in such transferred financial assets which is generated at or is retained by paragon is recognized as a separate asset or as a separate liability.

Financial liabilities are derecognized if the contractual obligations have been fulfilled or canceled or have expired.

Valuation allowances for financial assets which are measured at amortized cost and for contractual assets resulting from agreements with customers are implemented on the basis of a future-oriented model, taking expected loan losses into consideration. The consolidated financial statements do not include any FVOCI financial assets, since receivables which are intended for sale to a factoring bank are assigned immediately as and when they arise. For this reason, the difference between the purchase amount and the nominal value of the receivable is treated as income.

As of the initial application of IFRS 9, the assets which were measured at amortized cost were examined to determine whether there was a significant risk of default. Appropriate and reliable information which was obtainable within a reasonable period of time was used for this purpose.

Valuation allowances for trade receivables, contractual assets and leasing receivables are determined using the simplified approach, on the basis of the life-time expected credit losses.

With the exception of financial assets measured at fair value through profit or loss, financial assets are tested for possible indications of impairment on each reporting date. Financial assets are considered to be impaired if there is an objective indication of a negative change in the expected future cash flows for a financial asset due to one or more events occurring following the initial recognition of the asset in question. Various facts such as defaults over a specific period of time, the initiation of coercive measures, the risk of insolvency or overindebtedness, the application for or the initiation of insolvency proceedings or the failure of restructuring measures may constitute objective indications of impairment.

Financial assets are measured at amortized cost where the business model envisages the holding of a financial asset for the collection of the contractual cash flows and the contractual terms of the instrument will exclusively result in cash flows which comprise interest and principal repayments.

Upon initial recognition, financial instruments belonging to the AC category are reported at fair value plus the directly allocable transaction costs.

Upon subsequent measurement, financial assets measured at amortized cost are measured in accordance with the effective interest method. Where the effective interest method is used, all directly allocable fees, charges paid or received, transaction costs and other premiums or discounts included in the calculation of the effective interest rate are amortized over the expected term of the financial instrument.

Interest revenue and expenses resulting from application of the effective interest method are recognized through profit or loss under interest revenue or interest expenses from financial instruments.

Non-interest bearing and low-interest receivables with a term of more than twelve months are discounted at the interest rate which is appropriate for the respective term.

Cash and cash equivalents comprise cash on hand as well as current account balances with banks and other financial institutions. They are only reported under cash and cash equivalents if they may be converted at any time into cash amounts which may be determined in advance, are only subject to slight fluctuation risks and have a remaining term of not more than three months from the date of acquisition.

Where the business model envisages the holding and sale of the financial asset and the contractual terms for the instrument will exclusively result in cash flows which comprise interest and principal repayments, the financial asset is reported at fair value, with value adjustments recognized in other comprehensive income (FVOCI). paragon has such financial assets in respect of receivables which are to be disposed of through factoring.

Financial assets which are exclusively held for trading purposes are recognized at fair value through profit or loss, with changes in value reported through profit or loss (FVTPL). Derivatives are included in this category. There is also an option to measure financial instruments recognized at amortized cost at fair value through profit or loss by means of the fair value option if this will significantly reduce or prevent inconsistency in their measurement or recognition. Voltabox AG does not make use of the fair value option.

Equity instruments are always measured at fair value. At initial recognition, there is an irrevocable option to report realized and non-realized changes in value in the statement of comprehensive income instead of the income statement, provided that the equity instrument is not held for trading purposes. Amounts recognized in profit or loss may not subsequently be reclassified to the income statement.

Current and noncurrent financial liabilities to banks, trade payables and other liabilities are measured as financial liabilities at amortized cost, with the exception of derivative financial instruments. Noncurrent liabilities are measured on the basis of the effective interest method, less directly attributable transaction costs.

They are initially recognized at fair value less the directly attributable transaction costs.

Interest revenue and expenses resulting from application of the effective interest method are recognized through profit or loss under interest revenue or interest expenses from financial instruments.

A financial liability is measured at fair value through profit or loss where it is held for trading purposes or is thus designated upon initial recognition. Financial liabilities are classified as held for trading purposes where they are acquired for the purpose of disposal in the near future. Directly attributable transaction costs are recognized in profit or loss as soon as they are incurred.

Fair Value – Measurement

The measurement of financial instruments at fair value is based upon a three-level hierarchy, in accordance with the proximity of the measurement factors used to an active market. A market is designated "active" where prices quoted on this market are readily and regularly available and these prices are based upon actual, regular arms-length market transactions.

Level 1: prices for identical assets and liabilities quoted on active markets (which are used unchanged).

Level 2: input data observable either directly or indirectly for the asset or liability which are not considered Level 1 quoted prices. The fair values of the Level 2 financial instruments are calculated on the basis of the terms in effect on the balance sheet date using recognized models, e.g. discounted cash flow models.

Level 3: input data used for the measurement of the asset and the liability which is not based upon observable market data (non-observable input data).

The fair values were determined on the basis of the available market conditions as of the balance sheet date, using financial measurement methods. They correspond to the prices received between independent market participants for the sale of an asset or for the transfer of a liability.

Reclassifications between the levels of the fair value hierarchy are taken into consideration as of the respective reporting dates. In fiscal years [2018] and 2017, no reclassifications were implemented between Level 1, Level 2 or Level 3.

Income Taxes

Income taxes contain both taxes that are payable on income and deferred taxes.

Income taxes payable for current and earlier periods are measured at the amount at which a refund from or payment to fiscal authorities is anticipated. The calculation of that amount is based on the current status of tax legislation and therefore on the tax rates that are in effect or that have been announced as of the balance sheet date.

Deferred taxes are recognized using the balance sheet liability method in accordance with IAS 12 Income Taxes. Deferred tax assets and liabilities are recognized to reflect temporary differences between the carrying amount of a specific balance sheet item in the IFRS consolidated financial statements and its tax base (temporary concept). Deferred taxes are also recognized for future tax refund claims.

Deferred tax assets on deductible temporary differences and tax refund claims are recognized to the extent it can be assumed that they can be expected to be used in future periods, based on the availability of adequate taxable income.

The calculation of current and deferred taxes is based on judgments and estimates. If actual events deviate from these estimates, this could have a positive or negative impact on the assets, financial position and earnings. A deciding factor for the recoverability of deferred tax assets is the estimate of the probability of reversal of measurement differences or the usability of the tax loss carryforwards or tax benefits that led to recognition of the deferred tax assets. This is in turn dependent on the generation of future taxable profits during the period in which the tax loss carryforwards can be used. Deferred taxes are measured using the tax rates applicable at the time of realization based on the current legal situation as of the balance sheet date.

Current income tax assets and liabilities and deferred income tax assets and liabilities are only offset if it is legally permissible to do so and the deferred tax assets and liabilities relate to income taxes that have been levied by the same tax authority and if there is a legally enforceable right to offset current tax refund claims against current tax liabilities. Deferred taxes are reported as noncurrent in accordance with IAS 1.70.

Inventories

Inventories are measured at the lower of cost and net realizable value. In accordance with IAS 2 Inventories, the costs of conversion include all costs directly related to the units of production as well as a systematic allocation of fixed and variable production overheads. In addition to direct materials and direct labor, they therefore also contain proportional indirect materials and overheads. Administration and social welfare expenses are taken into account provided they can be attributed to production. Financing costs are not recognized as part of the cost of acquisition or conversion because the assets do not meet qualification criteria. Inventory risks resulting from the storage period and reduced usability are taken into account during the calculation of the net realizable value by applying appropriate write-downs. Lower values at year-end resulting from reduced selling prices are also taken into account. Raw materials, consumables and supplies as well as merchandise are primarily measured using the moving average method.

Trade Receivables and Other Current Assets

Trade receivables are classified as loans and receivables and measured at amortized cost less any necessary write-downs. Write-downs in the form of specific valuation allowances take sufficient account of the expected default risks. Specific defaults lead to the derecognition of the receivables concerned. The calculation of write-downs for doubtful receivables is primarily based on estimates and evaluations of the creditworthiness and solvency of the respective customer.

Other current assets are measured at amortized cost, taking into account necessary write-downs sufficient to cover the expected default risks. If recourse to the courts is made for the collection of these receivables, paragon firmly expects that the amounts recognized in the balance sheet will be fully enforceable. Where these represent financial assets (financial instruments), they are classified as loans and receivables.

Cash and Cash Equivalents

Cash and cash equivalents include cash and bank balances with original maturities of up to three months. The total of cash and cash equivalents reported in the cash flow statement corresponds to the cash and cash equivalents stated in the balance sheet (cash and bank balances). As of December 31, 2018, the Group reported receivables of € 751 thousand (prior year: € 408 thousand) relating to factoring agreements under cash and cash equivalents.

Provision for Pensions

Provisions for pensions are calculated using the projected unit credit method in accordance with the revised requirements of IAS 19 Employee Benefits. The projected unit credit method not only takes into account the pension benefits and benefit entitlements known as of the balance sheet date, but also the increases in salaries and pension benefits to be expected in the future based on relevant estimation factors. The calculation is based on actuarial calculations, using biometric actuarial principles. Amounts not yet recorded in the balance sheet arise from actuarial gains and losses due to changes in inventory and differences between the assumptions made and actual developments. Actuarial gains and losses occurring in the reporting period are recognized in full directly in equity within other comprehensive income. The service cost is shown under personnel expenses. The interest cost included in pension expenses is recorded in the financial result.

Other Provisions

Other provisions are recognized in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets, when paragon has a legal or constructive present obligation to third parties as a result of a past event that is likely to lead to an outflow of resources. Provisions are measured based on a best estimate of the expenditure needed to discharge the liability. Reimbursement claims are not offset against these amounts. Each situation is evaluated separately to determine the probability that pending proceedings will be successful or to qualify the possible amount of the payment obligations. In each case, the most probable settlement amount has been taken into account. Noncurrent provisions have been measured at their discounted settlement amount as of the balance sheet date.

Due to the uncertainty associated with these evaluations, the actual settlement obligation or the actual outflow of resources may deviate from the original estimates and, accordingly, from the amounts of the provisions made. In addition, estimates may change based on subsequent new information, which may have a substantial impact on the future earnings position.

Government Grants

Government grants are recognized in accordance with IAS 20 Accounting for Government Grants and Disclosure of Government Assistance and shown in the balance sheet under noncurrent liabilities. In accordance with IAS 20, government grants are recognized only if there is reasonable assurance that the conditions attached to them will be complied with and that the grants will be received. Government grants are accounted for as a deferred liability and released to income over the average useful life of the assets subsidized. The grants are released to income over the expected assumed useful life of the assets subsidized and credited to other operating income.

Recognition of Income and Expenses

Income is recognized when it is probable that economic benefits will flow to paragon and the amount of the income can be measured reliably. Income is measured at the fair value of the consideration received. Sales tax and other levies are not included. If transactions provide for a declaration of acceptance on the part of the purchaser, the related revenue is only recognized once such a declaration has been issued. If the sale of products and services includes multiple delivery and service components (multiple element arrangements), such as varying remuneration agreements in the form of prepayments, milestone payments and similar payments, a review takes place to ascertain whether revenue should be recognized separately for partial sales at different points in time. Contractually agreed prepayments and other nonrecurring payments are deferred reported in profit or loss over the period during which the contractually agreed service is performed.

Income from the sale of products is recognized once the significant risks and rewards associated with ownership of the products sold have been transferred to the purchaser. This normally occurs upon shipment of the products, consistent with the agreements entered into with customers. Revenue is shown after the deduction of discounts, rebates and returns.

Interest expenses for the bonds are measured by means of the effective interest method. Operating expenses are recorded in profit and loss when the relevant services are rendered or when the expenses are incurred.

Borrowing Costs

Borrowing costs are recognized as an expense in the period in which they are incurred. They are capitalized if they fulfill the requirements of a qualifying asset in accordance with IAS 23 Borrowing Costs. In capitalizing borrowing costs, a weighted average of the borrowing costs for such loans of the company is used. Borrowing costs of € 1,175 thousand were capitalized for the first time in fiscal year 2018.

(10) Use of Estimates and Assumptions

The preparation of the consolidated financial statements in accordance with IFRS requires assumptions and estimates to be made that impact the assets and liabilities recorded, the disclosure of contingent liabilities as of the balance sheet date and the presentation of income and expenses during the period under review. If actual events deviate from these estimates, this could have a positive or negative impact on the assets, financial position and earnings.

When applying the accounting policies, the following estimates and assumptions were made that significantly influenced the amounts contained in the financial statements:

Measurement of the Fair Values of the Assets Acquired and Liabilities Assumed in Business Combinations

The fair values as well as the allocation of acquisition costs to the assets acquired and liabilities assumed were determined on the basis of experience and estimates regarding future cash inflows. The actual cash inflows may differ from the estimated amounts.

Goodwill

As described in the accounting principles, the Group tests goodwill for impairment once a year and when there are any indications that the value of goodwill may be impaired. This involves estimating the recoverable amount of the cash generating unit. This corresponds to the higher of fair value less costs of disposal and value in use. When determining the value in use, adjustments and estimates have to be made concerning the forecast and discounting of future cash flows. Although the Management Board believes that the assumptions used to determine the recoverable amount are appropriate, unforeseeable changes in these assumptions could lead to an impairment loss that could have a sustained negative influence on the assets, financial position and earnings.

Capitalized Development Costs

In order to measure capitalized development costs, assumptions have been made about the amount of anticipated future cash flows from assets, about the discount rates to be used and about the period of time during which these assets will generate anticipated future cash flows. The assumptions made regarding the timing and amount of future cash flows are based on expectations of the future development of the order backlog from those customers with whom development projects are being conducted. The duration of normal use corresponds to the estimated useful economic life. Since January 1, 2018, this has been valued individually.

Inventories

In specific cases, inventories are measured based on anticipated revenue less the estimated costs to completion and the estimated selling costs required. Actual revenue and the actual costs to completion may deviate from anticipated amounts.

Information about the measurement discounts can be found in the comments on inventories in the previous section 8.

Other Assets and Liabilities

Assumptions and estimates are also necessarily made when calculating allowances for doubtful receivables, when estimating contingent liabilities and other provisions, and when determining the fair value of long-lived assets included in property, plant and equipment and intangible assets.

In individual cases, actual values may deviate from the assumptions and estimates made, requiring an adjustment of the carrying amounts of the assets or liabilities concerned.

Deferred Tax Assets

Deferred tax assets are only recorded if a positive tax result is expected in future periods and as a result their realization appears sufficiently assured. In addition, there are estimation uncertainties regarding the reversal effects under IAS 12.29 a (ii). The actual taxable income situation in future periods may deviate from the estimate made at the time the deferred tax assets were recognized.

Provision for Pensions

Expenses arising from defined benefit plans are calculated using actuarial valuation reports. The actuarial valuation reports are based on assumptions concerning discount rates, expected revenue from plan assets, future wage and salary increases, mortality rates and future pension increases. These estimates are subject to significant uncertainty due to the long-term nature of these plans.

The valuation as of December 31, 2018, was discounted using the expected long-term market rate of interest of 1.74% (prior year: 1.50%). The valuation of provisions for pensions is based on the actuarial guideline tables "2005 G" by Prof. Dr. Klaus Heubeck.

The remaining assumptions used in the actuarial valuation were a salary growth rate of 0% from 2009 onwards and pension growth of 2.00%, as in the prior year.

Other Provisions

The recognition and measurement of other provisions was based on the estimated probability of the future outflow of benefits and on experience values, and on the facts and circumstances known as of the balance sheet date. The subsequent actual outflow of benefits may therefore differ from the amount recorded within other provisions as of the balance sheet date.

Contingent Liabilities

The recognition of an identified contingent liability within the scope of a purchase price allocation is based upon assumptions which the Management Board arrives at on the basis of the information available as of the date of acquisition.

Legal Risks

From time to time, paragon Group companies may become parties to legal disputes. Management regularly analyzes the latest information available for these cases and, where necessary, recognizes provisions to cover probable obligations, including the estimated amount of associated legal costs. External attorneys are consulted in the process of making these assessments. In determining the need for provisions, the Management Board accounts for the probability of an unfavorable outcome and whether the obligation can be measured with sufficient reliability. The filing of a lawsuit, the formal assertion of a claim or the presence of a disclosure for legal dispute in the notes does not automatically mean that a provision for the respective risk is appropriate.

Revenue

The Management Board makes discretionary decisions regarding the classification of the transaction price to performance obligations. The transaction prices are allocated to performance obligations on the basis of the relative individual sale prices.

(11) Revenue

Revenue consists of the proceeds from sales of products and services less any sales reductions. The revenues for the period under review amounted to € 187,383 thousand (prior year: € 124,823 thousand). Of this, € 134,659 thousand (prior year: € 90,189 thousand) was generated domestically, and € 52,724 thousand (prior year: € 34,634 thousand) abroad.

Revenue is classified on the basis of operating segments and realized over time or at a certain point in time. paragon has the following strategic operating segments Electronics, Mechanics and Electromobility.

tracts. Revenue in this segment was recognized in the fiscal year on a time and period basis. Revenue is recognized upon delivery and transfer of control to the customer. Period-related revenues result from order developments agreed in advance within the framework of long-term production and supply orders. Payment terms customary in the industry are used without significant financing components. Variable consideration is generally not available.

The Electromobility segment is part of the activities of the Voltabox AG subgroup. The focus is on selected industrial submarkets characterized by the replacement of lead-acid batteries or diesel emergency power generators by modern lithium-ion battery systems. Voltabox develops, produces and distributes these systems independently. Relevant submarkets are above all local public transport, intralogistics and mining applications. Voltabox is increasingly engaged in standardized mass applications such as starter batteries for motorcycles and motor sports, battery packs for pedelecs and electric drive systems. Revenues in this segment were recognized in the fiscal year on a time and period basis. Revenue is recognized upon delivery and transfer of control to the customer. Period-related revenues result from order developments agreed in

2018 in € thousands	Electronics	Mechanics	Electromobility	Total
Time-related realization	85,518	31,638	61,590	178,746
Period-related realization	0	3,339	5,298	8,637
Total segments	**85,518**	**34,977**	**66,888**	**187,383**

Due to the modified retrospective initial application of IFRS 15, no comparative figures are available for fiscal year 2017.

In the Electronics segment, the core focus is on the automotive sector. As a direct supplier to the automotive industry, paragon generates revenue for leading German and international automobile manufacturers. The Electronics segment's portfolio includes innovative air quality management, modern display systems, connectivity solutions and high-end acoustic systems. Revenue in this segment was realized at specific times during the fiscal year. Revenue is recognized upon delivery and transfer of control to the customer. Payment terms customary in the industry are used without significant financing components. Variable consideration is generally not available.

In the Mechanics segment, paragon also acts as a direct supplier to the automotive industry. paragon generates sales through individually developed mechanics as part of long-term series supply con-

advance within the framework of long-term production and supply orders. Payment terms customary in the industry are used without significant financing components. Variable consideration is generally not available.

As of December 31, 2018, trade receivables amounted to € 70,713 thousand (December 31, 2017: € 32,662 thousand; January 1, 2018: € 32,662 thousand) and contractual assets amounted to € 8 thousand (December 31, 2017: € 0 thousand; January 1, 2018: € 127 thousand), while contractual liabilities amounted to € 0 thousand (December 31, 2017: € 0 thousand; January 1, 2018: € 0 thousand).

Other revenue of € 16,214 thousand (prior year: € 8,768 thousand) was generated from development services and other revenue of € 0 thousand (prior year: € 2,000 thousand) from the sale of sales rights in the reporting period.

(12) Other Operating Income

Other operating income mainly consists of the following items:

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Advance payments and compensation payments	2,927	0
Currency translation differences	1,388	182
Reversal of other provisions	710	45
Income from the use of company cars by employees	523	388
Disposal of fixed assets	388	143
Reversal of risk provisions	206	0
Income from the reversal of grants	88	88
Rental income	38	38
Investment subsidies	0	0
Other	929	495
Total:	**7,197**	**1,379**

Expense allowances and other non-regular income relate to payments from two customers in the amount of € 1,500 thousand and € 1,427 thousand, respectively.

(13) Other Own Work Capitalized

For development projects that meet the requirements of IAS 38.21 and IAS 38.57 in the reporting period and for which project-related development costs have been capitalized, the capitalized development costs have been recognized in other own work capitalized. The amounts capitalized are recognized under intangible assets. Other own work capitalized also includes costs incurred in manufacturing testing equipment.

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Project-related development costs	15,103	15,772
Manufacturing cost of testing equipment	553	616
Other own work capitalized	**15,656**	**16,388**

(14) Cost of Materials

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Raw materials and supplies	101,949	69,510
Cost of purchased services	3,982	1,716
Cost of materials	**105,931**	**71,226**

(15) Personnel Expenses

Personnel expenses amounted to € 52,155 thousand in the reporting period (prior year: € 35,262 thousand) and consist of the following:

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Wages and salaries	38,656	25,241
Social security contributions / pension expenses	6,547	4,323
Expenses for temporary employees	6,952	5,698
Personnel expenses	**52,155**	**35,262**

The number of employees, including temporary employees, has changed as follows in comparison to the prior year:

	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Salaried employees	648	451
Wage-earning employees	491	357
Total number of employees	**1,139**	**808**

(16) Other Operating Expenses

Other operating expenses mainly relate to the following items:

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
External services	3,497	3,048
IT and telephone	3,006	1,354
Legal and consulting costs	2,917	959
Building rents and costs	2,691	1,438
Insurance and leases	2,569	1,151
Freight and packaging costs	1,624	704
Maintenance	1,214	1,013
Energy costs	983	1,121
Advertising and marketing costs	787	709
Vehicle costs	634	959
Asset disposals	1,620	0
Other taxes	0	54
Other	9,549	7,644
Total:	**31,091**	**20,154**

(17) Depreciation and Amortization

A breakdown of depreciation of property, plant and equipment, and amortization of intangible assets, can be found in the consolidated statement of noncurrent assets.

(18) Financial Result

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Financial income	**6**	**13**
Interest income	6	13
Financial expenses	**-4,228**	**-4,396**
Other financial and interest expenses	- 4,228	- 4,396
Financial result	**-4,222**	**-4,383**

Other financial and interest expenses include interest expenses to banks of € 4,102 thousand (prior year: € 3,457 thousand).

Net income from financial instruments is summarized below, with a breakdown for different measurement categories. The carrying amounts for the measurement categories are indicated in section 38.

In € thousands	2018
Financial assets	
Valued at amortized costs	6
At fair value through profit or loss	0
	6
Financial liabilities	
Valued at amortized costs	4,185
At fair value through profit or loss	37
	4,222

Net income from financial instruments includes netted interest revenues and expenses, measurements at fair value, currency translation, valuation allowances and disposal effects. Net income includes effective interest expenses on financial instruments measured at amortized cost in the amount of € 460 thousand (2017: € 262 thousand).

(19) Income Taxes

Domestic deferred taxes were calculated as of December 31, 2018, at a combined income tax rate of 30.0% (prior year: 30.0%). This includes a corporate tax rate of 15% and a solidarity surcharge of 5.5%. The income tax rate also reflects trade taxes, taking into account the breakdown of the trade tax assessment rates among the municipalities in which the company's branches are located. The deferred taxes for Voltabox Inc. were calculated as of December 31, 2018, at a combined income tax rate of 27.6% (prior year: 27.6%). In China, a combined income tax rate of 34.6% (prior year: 34.6%) was applied.

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Current taxes	**525**	**- 107**
Current domestic taxes	525	- 107
Current foreign taxes	0	0
Deferred taxes	**6,720**	**5,106**
Deferred domestic taxes	5,652	3,194
Deferred foreign taxes	1,068	1,912
Income taxes	**7,245**	**4,999**

Current taxes include corporate income tax and trade tax refunds for prior years in the current fiscal year.

As of the end of the reporting period, of deferred tax assets in the amount of € 2,193 thousand (prior year: € 3,503 thousand), € 2,193 thousand (prior year: € 3,503 thousand) relates to Germany and € 0 thousand (prior year: € 0 thousand) relates to other countries. As of the end of the reporting period, of deferred tax liabilities in the amount of € 24,015 thousand (prior year: € 14,255 thousand), € 23,841 thousand (prior year: € 14,255 thousand) relates to Germany and € 174 thousand (prior year: € 0 thousand) relates to other countries.

Deferred tax assets and liabilities were recognized for the following items:

In € thousands	Dec. 31, 2018		Dec. 31, 2017	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	0	23,163	0	16,362
Property, plant and equipment	253	0	267	0
Receivables and other assets	0	1,182	281	188
Pension provisions	588	0	680	0
Bonds	0	373	0	500
Liabilities	0	0	0	105
Losses carried forward	2,011	0	2,556	-2,799
Deferred tax assets and liabilities	**2,852**	**24,718**	**3,784**	**14,356**
Netting	-659	-659	-101	-101
Deferred tax assets and liabilities after netting	**2,193**	**24,059**	**3,683**	**14,255**

An amount of deferred taxes of € 64 thousand (prior year: € 3 thousand) arising on pension provisions was recorded directly in equity within the revaluation reserve. This also corresponds to the amount of deferred tax assets in other comprehensive income.

Dividends to be paid by paragon GmbH & Co. KGaA in Germany in the future have no impact on the tax burden of paragon GmbH & Co. KGaA.

The following table shows a reconciliation between the actual tax expense and the expected tax expense, calculated as the product of accounting profit multiplied by the applicable tax rates in accordance with IAS 12.81 (c).

In € thousands	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Earnings before taxes	**10,610**	**1,032**
Calculatory tax expense at a tax rate of 30.0% (prior year: 30.0%)	3,183	310
Valuation allowance on deferred taxes	1,099	2,230
Non-recognition of deferred taxes	2,692	1,993
Tax rate change	0	451
Other	271	375
Actual tax expenses	**7,245**	**4,999**

The calculated tax expense is determined by multiplying the tax rate by the income calculated for tax purposes.

Deferred taxes of € 2,168 thousand from the allocation of IPO costs to the capital reserve with no effect on income were recorded.

(20) Earnings per Share

Basic earnings per share are calculated by dividing the result for the reporting period which is attributable to the owners of paragon GmbH & Co. KGaA by the weighted average number of shares issued. The weighted average number of shares issued in the reporting period was 4,526,266 (prior year: 4,526,266).

Based on the result for the period which is attributable to the owners of paragon GmbH & Co. KGaA in the amount of € 2,334 thousand (prior year: € -1,362 thousand) basic earnings per share amount to € 0.52 (prior year: € -0.30).

The diluted earnings per share are calculated by adjusting the weighted average number of shares issued by the number of potentially dilutive shares.

Stock option plans generally result in a potential dilution of earnings per share. There were no share option rights to acquire paragon GmbH & Co. KGaA shares outstanding during the fiscal year from January 1 to December 31, 2018.

(21) Intangible Assets

Capitalized Development Costs

The changes in and analysis of intangible assets, property, plant and equipment and financial assets is shown in the consolidated statement of noncurrent assets. A description of investments made can be found in the management report.

Intangible assets include development costs of € 52,412 thousand (prior year: € 45,815 thousand). Total development costs in the period amounted to € 24,925 thousand (prior year: € 16,825 thousand). This includes internal development costs of € 14,991 thousand (prior year: € 15,772 thousand) capitalized as intangible assets in the reporting period.

Amortization of these internal development costs in the reporting period amounted to € 4,333 thousand (prior year: € 2,680 thousand). The depreciation period for development projects is between four and seven years from the start of series production. On the basis of an individual assessment, the amortization period for development projects is between 4 and 7 years beginning from the ready for use date.

The capitalized development costs were subject to an impairment test in accordance with IAS 36. The recoverable amount of a specific project represents the fair value of the project determined on the basis of recent information on the marketability of the project. The impairment loss in accordance with IAS 36 totaled € 1,048 thousand in the reporting period (prior year: € 5 thousand).

The recoverable amount of internally generated intangible assets is determined based on the calculation of the value-in-use using estimated cash flows, which are in turn derived from sales forecasts adopted by the Management Board. The sales forecasts cover a period of five years. A growth rate is determined for each product based on market analyses. A risk-adjusted discount factor of 4% is applied to the estimated cash flows.

(22) Goodwill

In accordance with IFRS 3 Business Combinations and the two standards revised in this respect, namely IAS 36 Impairment of Assets and IAS 38 Intangible Assets, goodwill and internally generated intangible assets whose production is not yet complete are subject to regular impairment tests.

This involves goodwill and internally generated intangible assets whose production is not yet complete being tested for potential impairment once a year. In addition, the impairment test is also to be performed more frequently should any events or changes in circumstances indicate that a potential impairment has occurred.

The impairment tests performed at the paragon Group involve comparing the residual carrying amounts of individual cash-generating units (CGUs) with their respective recoverable amounts, i.e., the higher of their fair value less costs to sell and their value in use. Where the carrying amount of the cash-generating unit is higher than its recoverable amount, an impairment loss is recognized in the amount of the respective difference. The recoverable amount is determined by calculating the value in use by means of the discounted cash flow method. The cash flows used to calculate the value in use are determined on the basis of management's medium-term planning. These budgets are based on past experience and on expectations as to future market developments, taking account of strategic and operative measures already initiated to manage the respective business field. The detailed planning period is usually a period of five years.

The cost of capital is calculated as the weighted average of equity and debt capital costs (weighted average cost of capital – WACC). Equity costs are derived from a peer group analysis of the relevant market sector, i.e., information that can be obtained from capital markets. To account for the different return and risk profiles of our different fields of activity, we calculate individual cost of capital rates for our companies (CGUs). The weighted average cost of capital, i.e., WACC before taxes used to discount cash flows, amounted to 4.0% (prior year: 4.0%). The growth rate following the detailed planning period is 1%.

In € thousands	2018	2017
SpereDesign GmbH	843	843
paragon movasys GmbH	6,567	6,567
paragon SemVox	16,130	0
LPG / ETON	335	0
Accurante	4,122	0
Concurrent	2,398	0

(23) Property, Plant and Equipment

Depreciation in the reporting period amounted to € 6,915 thousand (prior year: € 4,999 thousand). Land and buildings are subject to property charges as collateral for long-term bank loans.

Certain items of movable noncurrent assets are financed by finance leases. Generally, these leases have terms of four to five years. The corresponding payment obligations for future lease installments are recognized as liabilities. The net carrying amount of assets capitalized under financial leases amounted to € 1,176 thousand as of December 31, 2018 (prior year: € 2,077 thousand). The corresponding payment obligations for future lease installments amounted to € 1,797 thousand (prior year: € 2,469 thousand) and are recognized as liabilities at their present value. The capitalized assets under finance leases wholly relate to technical plants and machinery. The majority of these lease arrangements provide for the transfer of ownership without further payments after full settlement of all obligations during the basic lease period (full amortization). No firm agreements have been entered into concerning the further use of the leased assets following expiry of the basic lease period. Nevertheless, paragon assumes that the leased assets can be acquired at a favorable price after the basic lease period has expired or may continue to be used at a favorable lease rate.

Advance payments for machinery and equipment amounting to € 2,365 thousand were made in the reporting year (prior year: € 553 thousand).

The loss on disposal of property, plant and equipment amounted to € 1,633 thousand (prior year: € 432 thousand).

(24) Scope of Consolidation and Financial Assets

The figures for the revenues of newly acquired subsidiaries relate to the period since they have belonged to the Group.

Company	Year of acuqisition/ foundation	Share-holding	Currency	Renvenue 2018	Revenue 2017
Subsidiary					
KarTec GmbH, Forchheim	2013	100,00%	EUR		87
Automotive Technology Co. Ltd., Shanghai	2013	100,00%	EUR	295	185
Voltabox of Texas, Inc., Austin	2013	100,00%	EUR	9,082	3,380
Voltabox AG, Delbrück	2014	60,03%	EUR	57,434	24,619
SphereDesign GmbH, Bexbach	2015	100,00%	EUR	6,118	5,107
productronic GmbH, Delbrück	2015	100,00%	EUR	64,450	65,758
paragon Automotive Co., Ltd., KunShan	2015	100,00%	EUR	2,850	1,988
paragon movasys GmbH, Landsberg am Lech	2017	100,00%	EUR	30,176	1,723
Nordhagen Immobilien GmbH, Delbrück	2018	100,00%	EUR	0	
paragon semvox GmbH, Saarbrücken	2018	100,00%	EUR	1,222	
paragon electroacoustic GmbH, Neu-Ulm	2018	100,00%	EUR	1,163	
ETON Soundsysteme GmbH, Neu-Ulm	2018	100,00%	EUR	437	
ACCURATE - Smart Battery Solutions- GmbH, Korntal-Münchingen	2018	60,03%	EUR	2,199	
Voltabox Kunshan, Co. Ltd, KunShan	2018	60,03%	EUR	0	
Participation					
Bilster Berg Drive Resort GmbH & Co. KG	2013	€ 120,000			

The share capital of KarTec GmbH, Forchheim, was acquired in fiscal year 2013. In fiscal year 2018 KarTec GmbH was merged with paragon movasys GmbH. KartTec GmbH reported equity of € 27 thousand and a net income of € 9 thousand in fiscal year 2017.

paragon Automotive Technology Co. Ltd., Shanghai commenced operations in 2013. In the annual financial statements as of December 31, 2018, the company reported equity of € 43 thousand (prior year: € 35 thousand) and a net profit of € 8 thousand (prior year: € 7 thousand).

Voltabox of Texas, Inc., Austin, was formed in fiscal year 2013. Since 2014, the company has been responsible for manufacturing and marketing activities for the Electromobility segment in the U.S. market. Voltabox AG holds 100% of the shares in Voltabox of Texas, Inc., which is in turn a subsidiary of paragon GmbH & Co. KGaA. In the annual financial statements as of December 31, 2018, the company reported equity of € -16,032 thousand (prior year: € -10,553 thousand) and a net loss of € -4,835 thousand (prior year: € -5,195 thousand).

paragon GmbH & Co. KGaA holds 60.03% of the shares in Voltabox AG. paragon GmbH & Co. KGaA and Voltabox AG entered into a profit and loss transfer agreement on April 23, 2014, taking effect as of January 1, 2015. Through the conversion of Voltabox Deutschland GmbH into Voltabox AG and the admission of minority shareholders through the IPO as of October 13, 2017, this agreement ended pursuant to Section 307 of the German Stock Corporation Act (AktG) on December 31, 2017. The net loss for the year reported in the annual financial statements as of December 31, 2018, amounting to € 0 thousand, was transferred to paragon GmbH & Co. KGaA (prior year: € 9,930 thousand). The company reported equity of € 152,538 thousand as of December 31, 2018 (prior year: € 149,905 thousand). The company reported a net income of € 2,633 thousand as of December 31, 2018.

paragon GmbH & Co. KGaA acquired the entire share capital of SphereDesign GmbH, Bexbach, effective from January 1, 2015. This company is an established development service provider and system supplier to the automotive industry in the control and display element sector. paragon GmbH & Co. KGaA and Sphere Design GmbH entered into a profit and loss transfer agreement effective as of January 1, 2016. In the annual financial statements as of December 31, 2018, the company reported equity of € 274 thousand (prior year: € 274 thousand).

productronic GmbH, Delbrück, was formed on November 25, 2015. The object of the company is to manufacture electronic and mechanical components, particularly for use in automobile production. paragon GmbH & Co. KGaA holds 100% of the shares in productronic GmbH. There is a profit and loss transfer agreement between paragon GmbH & Co. KGaA and productronic GmbH. In the annual financial statements as of December 31, 2018, the company reported equity of € 7,819 thousand (prior year: € 7,819 thousand).

paragon Automotive (KunShan) Co., Ltd. was formed on September 15, 2015. The object of the company is to manufacture and market paragon products for the Chinese market. Production activities at the new plant in the "German Industrial Park" were launched on November 4, 2015. paragon GmbH & Co. KGaA holds 100% of the shares in paragon Automotive (KunShan) Co., Ltd. In the annual financial statements as of December 31, 2018, the company reported equity of € -1,612 thousand (prior year: € 1,324 thousand) and a net loss of € -2,810 thousand (prior year: € -896 thousand).

Under a notarized agreement dated November 24, 2017, paragon GmbH & Co. KGaA acquired the entire share capital of paragon movasys GmbH, Landsberg am Lech. The acquisition was effective (profit participation rights) from January 1, 2017. This company is an established development service provider and system supplier to the automotive industry in the kinematics sector. The purchase price was paid in full on November 24, 2017.

In the annual financial statements as of December 31, 2018, the company reported equity of € 2,270 thousand (prior year: € 1,978 thousand) and net income of € 290 thousand (prior year: € 743 thousand).

paragon GmbH & Co. KGaA established Nordhagen Immobilien GmbH, Delbrück, in fiscal year 2018. The company is involved in the purchase, construction, sale and management of property. In the annual financial statements as of December 31, 2018, the company reported equity of € 1 thousand and net loss of € -24 thousand.

In fiscal year 2018, paragon GmbH & Co. KGaA acquired SemVox GmbH, Saarbrücken, which was subsequently renamed paragon semvox GmbH. In the annual financial statements as of December 31, 2018, the company reported equity of € -2,677 thousand and net income of € 901 thousand.

paragon GmbH & Co. KGaA acquired LPG Lautsprecher-Produktions-Gesellschaft mbH, Neu-Ulm, on November 1, 2018, which was subsequently renamed paragon electroacoustic GmbH. In the annual financial statements as of December 31, 2018, the company reported equity of € 2,455 thousand and net income of € 68 thousand.

paragon GmbH & Co. KGaA acquired ETON Soundsysteme GmbH, Neu-Ulm, on November 1, 2018. In the annual financial statements as of December 31, 2018, the company reported equity of € 1,046 thousand and net income of € 215 thousand from the time of initial consolidation.

As of April 1, 2018, Voltabox of Texas, Inc. acquired all of the shares in Concurrent Design, Inc. (Texas). As of December 31, 2018, the company reported equity of € 117 thousand and net income of € 37 thousand for the year. Voltabox AG acquired ACCURATE – Smart Battery Solutions- GmbH, Korntal-Münchingen, on September 1, 2018. In the annual financial statements as of December 31, 2018, the company reported equity of € -76 thousand and net income of € 812 thousand.

Voltabox AG established Voltabox Kunshan, Co. Ltd, Kunshan, in fiscal year 2018. In the annual financial statements as of December 31, 2018, the company reported equity of € 409 thousand and net loss of € -75 thousand.

In addition, paragon GmbH & Co. KGaA holds a limited partnership interest with a capital share of € 100 thousand in the limited partnership Bilster Berg Drive Resort GmbH & Co. KG, whose registered office is in Bad Driburg, Germany. This was acquired on September 19, 2013, for a price of € 120 thousand.

There is a profit and loss transfer agreement between paragon GmbH & Co. KGaA, SphereDesign GmbH and productronic GmbH.

The profit and loss transfer agreement with Voltabox AG ended on December 31, 2017.

(25) Inventories

Inventories consist of the following:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Raw materials and supplies	25,591	9,242
Unfinished and finished goods and work in progress	29,872	7,870
Advance payments on inventories	3,464	232
Inventories	**58,927**	**17,344**

There was no extraordinary impairment on inventories in the reporting period or in the prior year. In addition, no reversals were recognized in the reporting period, as in the prior year. Inventories with a carrying value of € 3,108 thousand (prior year: € 858 thousand) were written down in the reporting period, primarily relating to salvage inventories and inventories of spare parts. At the balance sheet date, inventories of € 0 thousand served as collateral for liabilities (prior year: € 0 thousand).

(26) Trade Receivables

The carrying amount of trade receivables is derived as follows:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Trade receivables Gross	70,829	32,933
Less valuation allowances	-116	-271
Trade receivables	**70,713**	**32,662**

Trade receivables are assigned within the scope of factoring whenever this is possible and desired by the Management Board. As of the reporting date, there are no receivables which will be assigned within the scope of factoring in the following reporting year. For this reason, trade receivables have been allocated to the measurement category AC under IFRS 9.

The maturity structure of trade receivables for which no impairment allowances have been recorded as of the balance sheet date is as follows:

In € thousands	Carrying amout	thereof neither impaired nor past due	thereof past due but not impaired, as follows			
Dec. 31, 2018			0 - 30 days	30 - 60 days	60 - 90 days	> 90 days
Trade receivables	70,648	60,860	3,208	2,250	728	3,602
Dec. 31, 2017			0 - 30 days	30 - 60 days	60 - 90 days	> 90 days
Trade receivables	32,631	23,440	6,958	563	483	1,187

There were no indications as of the balance sheet date that debtors with receivables that are neither impaired nor overdue will fail to meet their payment obligations.

Based on this information, the movement on allowances against receivables was as follows:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Impaired receivables before allowances for losses	**181**	**302**
Allowances for losses	-116	-271
Impaired receivables after allowances for losses	**65**	**31**

The expense arising on recording impairment losses and on derecognition of trade receivables is reported within other operating expenses. Income from receipts for derecognized receivables is reported under other operating income. There were no write-downs or derecognition of other financial assets in the reporting period or in the prior year.

(27) Other Current Assets

Other current assets consist of the following:

In € thousands	Dec. 31, 2018 AC	Dec. 31, 2018 FVPL	Dec. 31, 2018 FVOCI	Dec. 31, 20177
Other current assets				
Purchase price retention related to factoring arrangements	912	0	0	1,280
Deferred income	784	0	0	284
Creditors with debit balances	458	0	0	765
Contractual assets	7,327	0	0	0
Other assets	4,583	0	0	1,877
Other current assets	**14,064**	**0**	**0**	**4,206**

The overdue amounts included in other current assets as of the balance sheet date were as follows:

In € thousands	Carrying amout	thereof neither impaired nor past due	thereof past due but not impaired, as follows			
Dec. 31, 2018			0 - 30 days	30 - 60 days	60 - 90 days	> 90 days
Other current assets	14,064	14,064	0	0	0	0
Dec. 31, 2017			0 - 30 days	30 - 60 days	60 - 90 days	> 90 days
Other current assets	4,206	4,206	0	0	0	0

As of December 31, 2018, there were no indications that significant amounts included in other current assets would not be collectible.

(28 Cash and Cash Equivalents

Cash on hand and bank deposits are recognized at their nominal amounts. Cash and cash equivalents include € 25 thousand (prior year: € 35 thousand) in cash on hand and € 41,827 thousand (prior year: € 145,791 thousand) in bank deposits. Cash and cash equivalents include an insolvency payout account with a value of € 0 thousand (€ 37 thousand). The account is under the sole power of disposal of the former insolvency administrator. Changes in cash and cash equivalents are presented in the consolidated cash flow statement.

(29) Equity

The changes in the individual components of equity for the fiscal year from January 1 to December 31, 2017, and for the reporting period from January 1 to December 31, 2018, are presented in the consolidated statement of changes in equity.

Share Capital

The share capital of paragon GmbH & Co. KGaA totaled € 4,526 thousand as of December 31, 2018 (prior year: € 4,526 thousand) and is divided into 4,526,266 bearer shares with a notional value of € 1.00 each.

Conditional Capital

Conditional Capital 2017/I Pursuant to the Resolution by the Annual General Meeting on May 10, 2017

A resolution was passed by the Annual General Meeting on May 10, 2017 to revoke the Conditional Capital 2012/I and 2012/II. The resolution passed by the Annual General Meeting on May 10, 2017 authorized the Management Board of paragon GmbH & Co. KGaA, with the consent of the Supervisory Board to issue on one or more occasions bearer or registered bonds with warrants and/or convertible bonds or a combination of these instruments (hereinafter also jointly the "bonds") with a total nominal amount of up to € 150,000,000.00 and with a term of up to 10 years and to grant the holders or creditors (hereinafter jointly the "holders") of bonds with warrants and convertible bonds conversion rights or options for up to a total of 2,263,133 new no-par-value shares of the company, as stipulated in the terms of these bonds in the period up to and including May 9, 2022. The bonds may be issued in return for a cash payment or contribution in kind, particularly investments in other companies. Bonds with warrants may be issued in return for a contribution in kind where the warrant terms stipulate that the option price for each share in the company is payable in cash in full upon exercise. The bond terms may also establish a conversion or option obligation for bearers at the end of the term or on a different date or stipulate the right of the company to grant the bearers of these bonds shares in the company in whole or in part instead of the payment of the amount due upon maturity of bonds which include a conversion or option right (this includes maturity due to termination).

The bond terms may stipulate that, in the event of conversion or the exercise of an option or fulfillment of the conversion or option obligations, the company may, at its discretion, either issue new shares out of conditional capital (in particular, the new Conditional Capital 2017/I which will be created in connection with this authorization), but may also exclusively or, at the company's discretion, alternatively grant shares in the company out of authorized capital or out of treasury shares of the company or a Group company which are currently held or are yet to be acquired.

The conditional capital increase serves exclusively to grant shares to holders or creditors of convertible bonds and/or bonds with options that are issued by the company (or by a Group company as defined in Section 18 of the German Stock Corporation Act (AktG), in which the company has a shareholding of at least 90%) pursuant to the authorization by the Annual General Meeting on May 10, 2017, against contributions in cash or in kind until May 9, 2022. In accordance with the respective terms and conditions for convertible bonds and bonds with options, the conditional capital increase also serves to issue shares to holders of convertible bonds and/or bonds with options subject to conversion or option obligations.

There was no increase in subscribed capital as a result of the exercise of options under the company's stock option plan in the reporting period.

Authorized Capital

Authorized Capital 2017/I Pursuant to the Resolution by the Annual General Meeting on May 10, 2017

The resolution passed by the Annual General Meeting on May 10, 2017 authorized the revocation of the Authorized Capital 2016/I. By resolution of the Annual General Meeting on May 10, 2017, the Management Board was authorized, with the consent of the Supervisory Board, to increase the company's subscribed capital on one or more occasions, by up to € 2,263,133.00 until May 9, 2022, by issuing up to 2,263,133 new no-par-value shares in exchange for contributions in cash and/or in kind (Authorized Capital 2017/I). Shareholders are to be granted a subscription right. The statutory subscription right may also be granted by having the new shares taken over by a banking consortium with the obligation to offer the shares indirectly to shareholders for subscription pursuant to Section 186 (5) of the German Stock Corporation Act (AktG). The Management Board is however authorized, with the consent of the Supervisory Board, to exclude the statutory subscription rights of shareholders in the cases specified in Section 5 (6) of the Articles of Association as updated in May 2017.

Capital Reserve

The capital reserve amounted to € 15,165 thousand as of December 31, 2018 (prior year: € 15,165 thousand). Pursuant to Sections 207 et seq. of the German Stock Corporation Act (AktG) concerning capital increases from capital reserve and based on a resolution adopted by the Annual General Meeting on May 9, 2012, the company's share capital was increased by transferring an amount of € 1,029 thousand from the capital reserve as reported in the balance sheet as of December 31, 2011.

The capital reserve increased in the fiscal year 2016 by € 12,715 thousand to € 15,165 thousand as a result of the successful placement of 411,478 new no-par-value shares under partial utilization of the authorized capital approved by the Annual General Meeting on April 27, 2016.

In order to comply with the requirement to recognize actuarial gains and losses from provisions for pensions directly in equity in accordance with the revised IAS 19 Employee Benefits, actuarial losses in the amount of € 802 thousand have been reclassified to the revaluation reserve. In the reporting period, an amount of 113 thousand net of deferred taxes (prior year: € -7 thousand) was recognized in the revaluation reserve. The currency differences resulting from the translation of the financial statements prepared in foreign currencies and from consolidation were offset against equity in accordance with the requirements of IAS 21. Under the item currency differences, a currency loss of a net investment in the foreign subsidiary Voltabox of Texas Inc. amounting to € 1,139 thousand (prior year: € 1,667 thousand) is reported with no effect on income.

Dividends

A proposal will be submitted to the Annual General Meeting that a dividend of € 0.25 per share be paid for the period ending on December 31, 2018. The distribution volume will amount to € 1,132 thousand.

Minority Interests

Due to the IPO of Voltabox AG on October 13, 2017, information about the company's shares has been included in the consolidated financial statements for the first time. Minority interests have been measured for the first time on the basis of the consolidated financial statements of Voltabox AG as of November 30, 2017. As of Dec. 31, 2017, minority interests amounted to € 60,796. In the fiscal year, consolidated net income of € 913 thousand (prior year: € 1,932 thousand) was allocated to minority interests. This is composed of a consolidated result of € 1,031 (prior year: € 1,719) and other result of € -118 (prior year: € 213). Minority interests as of Dec. 31, 2018 amount to € 61,709. The effect of the profit and loss transfer agreement attributable to minority interests is included in the statement of changes in equity.

(30) Liabilities from Finance Leases

Liabilities under finance leases, which mainly relate to technical equipment, are recognised at present value or amortised cost in accordance with IAS 17. The repayment portion shown can be derived as follows:

In € thousands	Remaining term < 1 year	Remaining between 1 and 5 years	Remaining > 5 years	Dec. 31, 2018	Dec. 31, 2017
Minimum lease payments	900	965	0	1,865	2,574
Future interest payments	- 39	- 28	0	- 67	- 105
Liabilities from finance lease (repayment portion)	**861**	**937**	**0**	**1,798**	**2,469**
thereof reported under noncurrent liabilities				937	1,402
thereof reported under current liabilities				861	1,067

(31) Liabilities to Banks

Current and noncurrent liabilities to banks totaled € 58,957 thousand (prior year: € 20,938 thousand), and collateral for liabilities to banks was provided in the amount of € 58,957 thousand (prior year: € 20,938 thousand).

Liabilities to banks are secured by property charges for loan liabilities in the amount of € 23,365 thousand (prior year: € 16,600 thousand) and by charges over property, plant and equipment of € 5,200 thousand (prior year: € 4,202 thousand).

Liabilities to banks mature as follows:

In TEUR	Remaining term < 1 year	Remaining between 1 and 5 years	Remaining > 5 years	Dec. 31, 2018	Dec. 31, 2017
Liabilities to banks	**41,378**	**10,847**	**6,732**	**58,957**	**20,938**
thereof reported under noncurrent liabilities				17,579	16,350
thereof reported under current liabilities				41,378	4,588

There is no exposure to interest rate risk for the loans with fixed interest rates. Loans with floating interest rates (€ 3,280 thousand) are subject to interest rate risk (see note 17 Interest Rate Risks).

The liabilities have been assigned to the IFRS 9 measurement category AC.

(32) Bonds

On June 28, 2017, the company issued a non-subordinated and unsecured bearer bond with a nominal value of € 50,000 thousand. The bond is listed and traded on the Open Market of the Frankfurt Stock Exchange (WKN: A2GSB8). The term bond has a term from July 05, 2017, to July 5, 2022. The transaction costs of € 1,713 thousand incurred in connection with the two placements are being amortized over the term of the bond using the effective interest method in accordance with IAS 39.47. The carrying amount of the bond at the balance sheet date amounted to € 49,881 thousand and the pro rata interest expense in the fiscal year 2017 amounts to € 2,565 thousand.

The bonds have been assigned to the IFRS 9 measurement category AC.

(33) Pension Provisions

paragon recognizes a provision for a defined benefit pension plan in accordance with the revised IAS 19 Employee Benefits. This relates to a single contractual commitment to the payment of a fixed amount from age 65 based on an individual contract arrangement. In addition to this existing pension agreement, a new commitment was made in fiscal year 2005. This involves a single contractual commitment to payments from age 65, the amount of which is based on length of employment and salary level. Provisions exist for pension commitments to members of the Management Board. In accordance with a resolution approved by the Supervisory Board on August 31, 2009, a portion of provisions for pensions amounting to € 794 thousand and the corresponding plan assets of € 1,425 thousand were transferred to HDI Gerling Pensionsfonds in fiscal year 2010. In accordance with a resolution approved by the Supervisory Board on December 10, 2013, another partial transfer of provisions for pensions to Allianz Pensionsfonds AG was effected in the amount of € 1,453 thousand during fiscal year 2013.

An actuarial gain of € 113 thousand was recognized in other comprehensive income (prior year: loss of € -7 thousand).

The actuarial calculations are based on the following assumptions:

In Percent	Dec. 31, 2018	Dec. 31, 2017
Discount rates	1.74	1.50
Expected return on plan assets	0.00	0.00
Salary increase (recommitment based on individual contracts until 2009, 0% thereafter)	0.00	0.00
Pension increase	2.00	2.00
Fluctuation	0.00	0.00

Actuarial gains or losses may arise from increases or decreases in the present value of the defined benefit obligations. These may be brought about by, among other things, changes in calculation parameters and changes in estimates of the risks related to the pension obligations, and may impact on the level of equity. The net pension provisions have been calculated as follows:

Present value of the defined benefit obligation:

In € thousands	Dec. 31, 2018	31.12.2017
Present value of defined benefit obligation at beginning of year	3,470	2,516
First consolidation of paragon movasys GmbH - not affecting income -	0	703
Service costs	- 84	203
Interest expense	38	38
Actuarial gains (-), losses (+)	- 113	10
Present value of defined benefit obligation as of record date	**3,311**	**3,470**

The actuarial losses incurred in fiscal year 2017 were recognized directly in equity in the revaluation reserve in accordance with the revised IAS 19. Changes in demographic assumptions had no effect on the level of actuarial losses in the reporting year.

Net amount of defined benefit obligation recognized for which there are no corresponding plan assets:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Present value of defined benefit obligation	3,311	3,470
Less fair value of plan assets	426	469
Unfunded defined benefit obligation as of record date	**2,885**	**3,001**

The net value developed as follows:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Unfunded defined benefit obligation at beginning of year	3,001	2,516
Pension expense	- 3	241
Actuarial gains (-), losses (+)	- 113	10
First consolidation of paragon movasys GmbH - not affecting income -	0	234
Unfunded defined benefit obligation as of record date	**2,885**	**3,001**

The following amounts have been recognized in the consolidated statement of comprehensive income:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Service costs	- 84	203
Interest expense	38	38
Losses from settlements	0	0
Actuarial gains (-), losses (+)	- 113	10
Pension expense/-income	**- 159**	**251**

The actuarial gains and losses in the reporting year and prior years were classified in full to other comprehensive income.

In past years the financing status, consisting of the present value of all pension commitments and the fair value of plan assets, changed as follows:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Present value of defined benefit obligation	3,311	3,470
Less fair value of plan assets	426	469
Unfunded defined benefit obligation as of record date	2,885	**3,001**

Disclosures on sensitivities and risks:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
DBO as of Dec. 31, 2018 interest rate 1.49% (prior year: 1.25%)	2,714	3,114
DBO as of Dec. 31, 2018 interest rate 1.99% (prior year: 1.75%)	2,518	2,895
DBO as of Dec. 31, 2018 pension increase 1.75% (prior year: 1.75%)	2,520	2,898
DBO as of Dec. 31, 2018 pension increase 2.25% (prior year: 2.25%)	2,711	3,110

Salary increase sensitivities have not been disclosed as there have been no such salary increases since the 2010 service period. There are no material extraordinary or company-specific risks in connection with the provisions for pensions reported.

(34) Other Liabilities

Other liabilities consist of following items:

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Other current liabilities		
Financial liabilities		
Deferred Income	6,390	5,220
Purchase price liabilities for company acquisitions (discounted)	4,344	0
Old debt measured at insolvency ratio	0	37
Other liabilities	2,589	780
Liabilities from other taxes	3,235	3,606
Other liabilities	**16,558**	**9,643**

Deferrals mainly contain personnel-related obligations.

Other liabilities mature as follows:

In € thousands	Remaining term < 1 year	Remaining between 1 and 5 years	Remaining > 5 years	Dec. 31, 2018	Dec. 31, 2017
Other liabilities	**12,214**	**4,344**	**0**	**16,558**	**9,643**
thereof reported under noncurrent liabilities				4,344	0
thereof reported under current liabilities				12,214	9,643

Other liabilities are allocated to the IFRS9 measurement category AC.

(35) Special Item for Investment Grants

This represents investment grants recorded as deferred income in accordance with IAS 20. An amount of € 88 thousand (prior year: € 88 thousand) was amortized in the reporting period. The Group received government assistance of € 0 thousand (prior year: € 0 thousand) in the reporting period and disclosed a special item for investment grants of € 917 thousand (prior year: € 1,005 thousand) as a noncurrent liability in the consolidated balance sheet.

(36) Other Provisions

Other provisions are all due within one year. Other provisions developed as follows:

In € thousands	01.01. 2018	Acqui-sition	IUtili-zation	Re versal	Ad-dition	Dec. 31, 2018
Guarantees and goodwill	220	11	220	0	568	579
Other Pro-visions	220	11	220	0	568	579

(37) Income Tax Liabilities

This item relates exclusively to liabilities for trade tax and corporate income tax in respect of prior reporting periods.

(38) Additional Disclosures on Financial Instruments

This section provides a summary overview of paragon's financial instruments. The following overview summarizes the carrying amounts of the financial instruments included in the consolidated financial statements according to the measurement categories of IFRS 9:

In € thousands	Dec. 31, 2018	Jan. 1, 2018
Financial assets		
Valued at amortized costs	128,217	182,784
Valued at fair value through profit or loss	0	0
Valued at fair value through equity	326	326
	128,543	**183,110**
Financial liabilities		
Valued at amortized costs	150,426	113,471
Valued at fair value through profit or loss	4,710	0
	155,136	**113,471**

paragon did not make any reclassifications between these categories in fiscal year 2018.

The carrying amounts and fair values of current and noncurrent financial assets were as of the balance sheet date:

	Dec. 31, 2018					
	AC		FVPL		FVOCI	
In € thousands	BW	FV	BW	FV	BW	FV
ASSETS						
Liquid funds	41,841	41,841	0	0	0	0
Trade receivables	70,713	70,713	0	0	0	0
Other assets	15,662	15,662	0	0	0	0
Shareholdings	0	0	326	326	0	0
Total assets	**128,217**	**128,217**	**326**	**326**	**0**	**0**
LIABILITIES						
Liabilities to banks	58,957	56,154	0	0	0	0
Bonds	49,881	48,883	0	0	0	0
Finance Lease	1,798	1,798	0	0	0	0
Trade payables	28,242	28,242	0	0	0	0
Other liabilities	11,548	11,548	4,710	4,710	0	0
Total liabilities	**150,426**	**146,625**	**4,710**	**4,710**	**0**	**0**

	Jan. 1, 2018					
	AC		FVPL		FVOCI	
In € thousands	BW	FV	BW	FV	BW	FV
ASSETS						
Liquid funds	145,826	145,826	0	0	0	0
Trade receivables	32,662	32,662	0	0	0	0
Other assets	4,296	4,296	0	0	0	0
Shareholdings	0	0	326	326	0	0
Total assets	**182,784**	**182,784**	**326**	**326**	**0**	**0**
LIABILITIES						
Liabilities to banks	20,938	18,614	0	0	0	0
Bonds	62,929	66,138	0	0	0	0
Finance Lease	2,469	2,469	0	0	0	0
Trade payables	17,492	17,492	0	0	0	0
Other liabilities	9,643	9,643	0	0	0	0
Total liabilities	**113,471**	**114,356**	**0**	**0**	**0**	**0**

The previous year's figures from the 2017 Annual Report are presented below in accordance with IAS 39. Due to the insignificant effects, a reconciliation from IAS 39 to IFRS 9 has been dispensed with.

	Dec. 31, 2017			
	Cash reserve		Loans and receivables	
In € thousands	BW	FV	BW	FV
ASSETS				
Liquid funds	145,826	145,826		
Trade receivables	0	0	32,662	32,662
Other assets	0	0	4,206	4,206
Positive fair values of derivative financial instruments	0	0	0	0
Financial assets	0	0	0	0
Total assets	**145,826**	**145,826**	**36,868**	**36,868**
EQUITY AND LIABILITIES				
Bonds	0	0	62,929	66,138
Liabilities to banks	0	0	20,938	18,614
Finance Lease	0	0	2,469	2,469
Trade payables	0	0	17,492	17,492
Other liabilities	0	0	9,643	9,643
Total equity and liabilities	**0**	**0**	**113,471**	**114,356**

paragon does not hold any cash collateral and does not implement any offsetting in the balance sheet. Derivative financial instruments, balances and liabilities to banks are reported gross in the consolidated balance sheet.

Within the scope of factoring, paragon pledges a sight deposit for the benefit of the factoring bank. This account safeguards Voltabox AG's validity guarantee for sold receivables. In the event of insolvency, other account balances with credit institutions can be offset against any balances and liabilities between the respective counterparties. At the present time, Voltabox neither has a legal right of set-off nor intends to settle on a net basis.

There are no significant potential offsetting situations involving the relevant parties in the event of insolvency.

paragon has not provided any financial assets as collateral for financial liabilities. Voltabox does not hold any collateral in relation to financial assets.

paragon distinguishes between collectible and doubtful or non-performing and uncollectible financial assets. Collectible financial assets are impaired based on the 12 month expected credit losses. Doubtful or non-performing financial assets are impaired in the amount of the lifetime expected credit loss. Uncollectible receivables are recorded as disposals. A receivable is considered to be non-performing (definition of default) when there is a strong indication that a debtor will not fulfill its payment obligations to paragon.

Asset quality and the maximum default risk for the financial assets measured at amortized cost are summarized below, on the basis of the aforementioned categories:

Dec. 31, 2018 € thousands	Credit quality	Usage	Gross carrying amount	Valuation allowance	Net carrying amount
Other receivables	Recoverable	12-month ECL	15,661	0	15,661
	Recoverable	12-month ECL	0	0	0
	Distressed	lifetime ECL	0	0	0
			15,661	**0**	**15,661**
Trade receivables	simplified approach	lifetime ECL	70,829	-116	70,713
	Distressed	lifetime ECL	0	0	0
			70,829	**-116**	**70,713**
Liquid funds	Recoverable	12-month ECL	41,841	0	41,841
	Recoverable	12-month ECL	0	0	0
	Distressed	lifetime ECL	0	0	0
			41,841	**0**	**41,841**

Jan. 1, 2018 € thousands	Credit quality	Usage	Gross carrying amount	Valuation allowance	Net carrying amount
Other receivables	Recoverable	12-month ECL	4,296	0	4,296
	Recoverable	12-month ECL	0	0	0
	Distressed	lifetime ECL	0	0	0
			4,296	**0**	**4,296**
Trade receivables	simplified approach	lifetime ECL	32,933	-271	32,662
	Distressed	lifetime ECL	0	0	0
			32,933	**-271**	**32,662**
Liquid funds	Recoverable	12-month ECL	145,826	0	145,826
	Recoverable	12-month ECL	0	0	0
	Distressed	lifetime ECL	0	0	0
			145,826	**0**	**145,826**

paragon recognizes valuation allowances for loans and other receivables while taking into consideration past events and expectations regarding the future development of credit risk. There has been no change in the methods used to measure valuation allowances since the prior year.

The balance of valuation allowances developed as follows:

€ thousands		
Jan. 1, 2018		271
Adjustments due to changes in creditworthiness parameters	Increase from revaluation of receivables	0
	Reduction due to reversals	0
Adjustments due to changes in the gross amount of the assets	Reduction due to derecognition of assets	-271
	Increase due to the capitalization of assets	116
Dec. 31, 2018		116

Trade receivables include a receivable from an individual customer of € 47,919 thousand (prior year: € 19,533 thousand). No defaults are expected from this. The Group uses external credit ratings for this purpose. The receivable is hedged in partial amounts.

Cash and cash equivalents comprise cash on hand and bank deposits. paragon only deposits cash and cash equivalents with banks with the highest level of creditworthiness and default probabilities close to zero. On grounds of materiality, the valuation allowance has not been reported. In the event of a significant increase in the probability of default, the Group companies are required to withdraw cash and cash equivalents without delay. For this reason, cash and cash equivalents are allocated to the collectible (12-month ECL) or uncollectible (lifetime ECL) category. The change in the carrying amounts of uncollectible cash and cash equivalents is attributable to currency translation.

In accordance with the simplified approach under IFRS 9.5.5.15, valuation allowances on trade receivables are measured consistently on the basis of the lifetime expected credit losses.

The extension of payment terms with the customer Triathlon in fiscal year 2018 resulted in an increase in the relevance of counterparty default risks for trade receivables compared to the previous year. The Group assigns appropriate significance to the relevance of this risk position, even though there has been no increase in the underlying individual risks. This relevance of the counterparty default risk in general remains unchanged in the 2018 financial year and is expected to decrease in the following fiscal year.

For the calculation of the valuation allowance, the receivables are divided up into risk categories and assigned different loss rates. Receivables are written off where a debtor is in serious financial difficulties and there is no prospect of collection.

The companies of the paragon Group determine the risk of default on the basis of individual methods, taking into consideration duration-specific as well as operating segment-specific risks. The companies rely on information such as data from the Schufa credit bureau, historical default rates and customer-specific forward-looking credit risk analyses. paragon GmbH & Co. KGaA does not have any significant amount of overdue assets.

(39) Management of Risks Associated with Financial Instruments

Market price fluctuations can involve substantial cash flow and profit risks for paragon. Changes in exchange rates and interest rates influence business operations as well as investing and financing activities. In order to optimize the Group's financial resources, the risks associated with changes in interest rates and exchange rates are analyzed on an ongoing basis and used to manage and supervise current business and financial market activities. These risks are managed with the assistance of derivative financial instruments.

Fluctuations in currency exchange rates and interest rates can result in significant profit and cash flow risks. Accordingly, paragon centralizes these risks as far as possible and manages them in a proactive manner, which includes making use of derivative financial instruments. The management of these risks within the overall risk management system is a core responsibility of paragon GmbH & Co. KGaA's Management Board.

paragon has implemented an internal sensitivity analysis system based on a variety of risk analysis and risk management methods. The use of sensitivity analyses enables the Group to identify risk positions within the segments. Sensitivity analyses quantify the risks that can arise within given assumptions when certain parameters are changed in a defined range. They include the following assumptions:

- An appreciation of the euro against all foreign currencies by 10 percentage points
- A parallel shift in interest rate curves of 100 basis points (one percentage point)

The potential effects of the sensitivity analysis are estimates and are based on the assumption that the supposed negative market changes will occur. The actual effects may differ significantly if market developments deviate from assumptions made.

Foreign Currency Risks

Due to the international nature of its operations, paragon's ongoing business operations are exposed to foreign currency risk. The company uses derivative financial instruments to limit these risks. Exchange rate fluctuations can lead to undesirable earnings and liquidity fluctuations. For paragon, the risk arises on foreign currency positions and possible changes in the relevant exchange rates. The uncertainty involved in future trends is referred to as exchange rate risk. paragon limits this risk by primarily settling purchases and sales of merchandise and services in the respective local currencies.

The sensitivity to potential fluctuations in foreign currency exchange rates is determined by aggregating the net currency positions of the operating business that are not denominated in the Group's functional currency. Sensitivity is calculated by simulating a 10% depreciation of the euro in relation to all foreign currencies. The simulated appreciation of the euro would have resulted in a change in future payment inflows in the amount of € 414 thousand as of December 31, 2018 (prior year: € -238 thousand). To the extent that future purchases are not hedged against currency exchange risks, a depreciation of the euro against other currencies would have a negative effect on the financial position and earnings as the Group's purchases in foreign currencies exceed its foreign currency cash inflows.

The following table provides an overview of the net foreign currency exchange risk by currency as of December 31, 2018:

In € thousands	Dec. 31, 2018		Dec. 31, 2017	
	USD	Other	USD	Other
Transaction-related currency risk				
Currency risk from balance sheet items	1,167	264	-2,215	-37
Currency risk from pending transactions	0	0	0	0
	1,167	264	-2,215	-37
Items economically hedged by derivatives	0	0	0	0
Net exposure to currency risk	**1,167**	**264**	**-2 ,215**	**-37**
Change in currency exposure from 10% appreciation of the euro	117	26	-234	-4

Interest Rate Risks

Interest rate risk refers to any change in interest rates that impacts earnings or equity. Interest rate risk primarily arises in connection with financial liabilities.

The interest-bearing financial liabilities mainly have fixed interest rates. Accordingly, changes in the interest rate would only have an effect if the financial instruments were recorded at fair value. As this is not the case, the financial instruments with fixed interest rates are not subject to interest rate risks within the meaning of IFRS 7.

The interest rate risks associated with variable-rate financial liabilities are measured using cash flow sensitivity techniques. The paragon Group had variable-rate financial liabilities of € 3,239 thousand as of December 31, 2018 (prior year: € 3,239 thousand). A change in interest rates (+1%/-1%) is associated with the following cash flow risk:

In € thousands	Dec. 31, 2018		Dec. 31, 2017	
	+ 1%	- 1%	+ 1%	- 1%
Cash flow risk				
from financial instruments with floating interest rates	-32	32	-32	32

Liquidity Risks

Liquidity risk, i.e., the risk that paragon might not be able to meet its payment obligations as they fall due, is managed by means of flexible cash management. As of December 31, 2018, paragon had cash and cash equivalents of € 41,841 thousand (prior year: € 145,826 thousand). Unused credit lines totaling € 35,650 thousand were available as of December 31, 2018 (prior year: € 18,000 thousand). In addition to the instruments providing assurance of liquidity described above, the Group follows developments on financial markets on an ongoing basis in order to take advantage of attractive financing opportunities as they become available.

The following table shows the maturity date of installments, maturity repayments and interest arising on the financial liabilities recorded in the balance sheet as of December 31, 2018:

In € thousands	2019	2020 – 2023	2024 and thereafter
Non-derivative financial liabilities			
Liabilities from bonds	0	57,875	0
Liabilities to banks	41,378	9,456	5,320
Liabilities from finance leases	861	937	0
Trade payables	28,242	0	0
Other financial liabilities	11,548	4,710	0
Non-derivative financial liabilities	**82,029**	**72,978**	**5,320**

The net liquidity and net borrowing are derived from the sum of cash and cash equivalents less liabilities to banks and liabilities under finance leasing arrangements as shown in the balance sheet.

In TEUR	Dec. 31, 2018	Dec. 31, 2017
Cash and cash equivalents	41,841	145,826
Total liquidity	**41,841**	**145,826**
Current financial liabilities and current portion of noncurrent financial liabilities	42,239	19,018
Noncurrent financial liabilities	68,397	67,317
Total financial liabilities	**110,636**	**86,335**
Net debt	**-68,795**	**59,491**

Credit Risks

Credit risk is defined as the financial loss that arises when a contract partner fails to meet its payment obligations. The maximum risk of default is therefore equal to the positive fair value of the respective interest rate instruments. The effective monitoring and control of credit risk is a core task of the risk management system. paragon performs credit checks for all customers requiring credit limits exceeding predefined amounts. The Group monitors credit risk on an ongoing basis.

(40) Capital Management

The primary goal of capital management is to maintain an appropriate equity ratio. The capital structure is managed and adapted to changing economic conditions. No significant changes in capital management goals, methods or processes were made in the fiscal year up to December 31, 2018.

Capital management refers exclusively to paragon GmbH & Co. KGaA's equity as reported in the balance sheet. Changes in equity are shown in the statement of changes in equity.

paragon was not required to comply with any financial covenants by the terms of agreements made with banks providing loan capital during the reporting period up to December 31, 2018.

(41) Commitments, Contingent Assets, Contingent Liabilities and Other Financial Obligations

There were no commitments or off-balance sheet contingent assets or contingent liabilities as of December 31, 2018. Other financial liabilities are as follows:

In € thousands	Remaining term < 1 year	Remaining between 1 and 5 years	Remaining > 5 years	Dec. 31, 2018	Dec. 31, 2017
Purchase commitments	129,033	31	0	129,064	54,253
Tenancy obligations	1,423	5,081	7,099	13,603	2,421
Other obligations	4,321	3,046	0	7,367	6,254
Other financial obligations	**134,777**	**8,158**	**7,099**	**150,034**	**62,928**

The purchase commitments include purchase order items from noncurrent assets and inventories.

(42) Consolidated Statement of Movements on Noncurrent Assets

Consolidated Statement of Movements on Noncurrent Assets as of Dec. 31, 2018

	ACQUISITION COSTS							DEPRECIATION, AMORTIZATION AND IMPAIRMENT LOSSES							CARRYING AMOUNTS	
In € thousands	Jan. 1, 2018	Change currency	Additions	Additions from company acquisition	Disposals	Reclassific-ations	Dec. 31, 2018	Jan. 1, 2018	Change currency	Additions	Additions from company acquisition	Impairments according to IAS 36/38	Disposals	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018
Intangible assets																
Licences, patents, software, customer list	35,568	-918	11,098	17,311	0	136	63,195	22,499	5	3,162	0	0	0	25,666	13,070	37,529
Capitalized development costs	52,834	-1,577	15,656	0	1,789	0	65,124	7,315	16	4,333	0	1,048	0	12,712	45,518	52,412
Goodwill	7,410	-181	0	23,166	0	0	30,395	0	0	0	0	0	0	0	7,410	30,395
Advance payments made or intangible assets	1,439	0	432	0	0	-124	1,747	0	0	0	0	0	0	0	1,439	1,747
Total intangible assets	**97,251**	**-2,676**	**27,186**	**40,477**	**1,789**	**12**	**160,461**	**29,814**	**21**	**7,495**	**0**	**1,048**	**0**	**38,378**	**67,437**	**122,038**
Property, plant and equipment																
Land and buildings	33,736	277	481	15	0	12,349	46,858	10,625	11	1,193	0	0	0	11,829	23,110	35,029
Technical equipment and machinery	34,694	12	2,005	156	261	1,819	38,425	25,698	64	4,385	0	0	252	29,895	8,996	8,530
Other plant, office furniture and equipment	16,567	236	1,108	504	0	412	18,827	12,866	18	1,337	0	0	-4	14,225	3,700	4,602
Advance payments	553	0	18,025	0	1,620	-14,592	2,366	0	1	0	0	0	0	1	553	2,365
Total property, plant and equipment	**85,549**	**525**	**21,619**	**675**	**1,881**	**-12**	**106,476**	**49,189**	**94**	**6,915**	**0**	**0**	**248**	**55,950**	**36,360**	**50,526**
Financial assets																
Equity investments	326	0	0	0	0	0	326	0	0	0	0	0	0	0	326	326
Total financial assets	**326**	**0**	**0**	**0**	**0**	**0**	**326**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**326**	**326**
Total	**183,126**	**-1,207**	**47,211**	**41,807**	**3,669**	**0**	**267,269**	**79,003**	**115**	**14,410**	**0**	**1,048**	**248**	**94,328**	**104,123**	**172,935**

Note: Rounding differences of +/- one unit (€ thousands) may occur in tables.

Consolidated Statement of Movements on Noncurrent Assets as of Dec. 31, 2017

	ACQUISITION COSTS							DEPRECIATION, AMORTIZATION AND IMPAIRMENT LOSSES							CARRYING AMOUNTS	
In € thousands	Jan. 1, 2017	Change currency	Additions	Additions from company acquisition	Disposals	Reclassific-ations	Dec. 31, 2017	Jan. 1, 2017	Change currency	Additions	Additions from company acquisition	Impairments according to IAS 36/38	Disposals	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2017
Intangible assets																
Licences, patents, software, customer list	22,900	-44	777	10,928	0	1,312	35,873	20,840	2	1,365	292	0	0	22,499	2,061	13,374
Capitalized development costs	37,132	-374	15,771	0	0	0	52,529	4,207	77	3,026	0	5	0	7,315	32,926	45,214
Goodwill	843	0	0	6,567	0	0	7,410	0	0	0	0	0	0	0	843	7,410
Advance payments made or intangible assets	2,201	0	549	0	0	-1,312	1,439	0	0	0	0	0	0	0	2.201	1,439
Total intangible assets	**63,077**	**-418**	**17,097**	**17,495**	**0**	**0**	**97,251**	**25,046**	**79**	**4,391**	**292**	**5**	**0**	**29,814**	**38,031**	**67,437**
Property, plant and equipment																
Land and buildings	30,623	-793	223	256	0	3,427	33,736	9,395	-45	1,069	206	0	0	10,625	21,228	23,110
Technical equipment and machinery	32,324	-34	806	422	802	1,978	34,694	22,815	-100	2,999	367	0	383	25,698	9,510	8,996
Other plant, office furniture and equipment	13,675	-45	1,128	1,457	142	494	16,567	10,946	112	932	1,014	0	139	12,866	2,728	3,700
Advance payments	3,913	0	2,547	2	10	-5,899	553	0	0	0	0	0	0	0	3,913	553
Total property, plant and equipment	**80,535**	**-872**	**4,705**	**2,136**	**954**	**0**	**85,549**	**43,157**	**-32**	**4,999**	**1,587**	**0**	**522**	**49,189**	**37,378**	**36,360**
Financial assets																
Equity investments	326	0	0	0	0	0	326	0	0	0	0	0	0	0	326	326
Total financial assets	**326**	**0**	**0**	**0**	**0**	**0**	**326**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**326**	**326**
Total	**143,938**	**-1,290**	**21,802**	**19,631**	**954**	**0**	**183,126**	**68,203**	**47**	**9,390**	**1,880**	**5**	**522**	**79,003**	**75,735**	**104,123**

Note: Rounding differences of +/- one unit (€ thousands) may occur in tables.

(43) Notes to the Consolidated Cash Flow Statement

The consolidated cash flow statement shows the cash flows within a given fiscal year in order to present information about movements in the company's cash and cash equivalents in accordance with IAS 7 Statement of Cash Flows. The consolidated cash flow statement has been prepared pursuant to the indirect method as defined in IAS 7.18 (b). Cash flows are classified separately as cash flows from operating activities, cash flows from investing activities and cash flows from financing activities.

The current cash inflows and outflows resulting from the factoring agreement entered into have been allocated to the cash flow from operating activities.

The cash and cash equivalents shown in the consolidated cash flow statement include all cash and cash equivalents reported in the balance sheet that are available for use at short notice.

In € thousands	Dec. 31, 2018	Dec. 31, 2017
Bank deposits	41,404	145,791
Cash on hand	26	35
Cash and cash equivalents	**41,430**	**145,826**

Cash and cash equivalents include an insolvency payout account with a value of € 0 thousand (prior year: € 37 thousand). The account is under the sole power of disposal of the former insolvency administrator.

(44) Segment Reporting

Starting in 2017, the Group's business activities are allocated to and reported as three operating segments on a recurring basis based on the requirements of IFRS 8. The "Electronics" operating segment includes paragon GmbH & Co. KGaA's activities for the development and sale of sensors, microphones and instruments, primarily for the automotive industry, together with the Sphere-Design GmbH and the paragon Kunshan Co., Ltd businesses. This operating segment generated segment revenue of € 93,790 thousand in 2018 (prior year: € 94,863 thousand) (of which € 85,518 thousand with third parties (prior year: € 90,799 thousand)). The operating segment's EBIT amounted to € 10,547 thousand (prior year: € 8,088 thousand). The companies paragon electroacoustic GmbH, ETON Soundsysteme GmbH, paragon semvox GmbH and Nordhagen Immobilien GmbH are allocated to the "Electronics" segment.

The "Electromobility" operating segment includes the activities of manufacturing battery systems and battery management systems for various industries within Voltabox AG and Voltabox of Texas Inc. This operating segment generated segment revenue of € 66,907 thousand in 2018 (prior year: € 27,274 thousand (thereof € 66,888 thousand with third parties (prior year: € 24,694 thousand)). The operating segment's EBIT amounted to € 5,609 thousand (prior year: € -44 thousand). The companies ACCURATE – Smart Battery Systems - GmbH, Voltabox of Kunshan Co. Ltd. and Concurrent Design, Inc. are allocated to the "Electric Mobility" segment.

The Mechanics operating segment includes paragon GmbH & Co. KGaA's activities in developing and marketing electromechanical components for the automotive industry and the mechanical manufacturing of the paragon Group's products at productronic GmbH. In 2018, it generated segment revenue of € 80,480 thousand (prior year: € 74,058 thousand) (thereof € 34,977 with third parties (prior year € 9,330 thousand)). The operating segment's EBIT amounted to € -748 thousand (prior year: € 1,167 thousand). The company paragon movasys GmbH is allocated to the "Mechanics" segment.

The various legal entities within the paragon Group enter into supply agreements with one another. Invoices for such supplies are raised on the same basis as with third parties, including an appropriate margin. Internal revenue primarily arises with productronic GmbH, as this company is responsible for all manufacturing processes within the Group, and with paragon GmbH & Co. KGaA, which is responsible for development work and central coordinating activities. This includes, among other things, central purchasing arrangements, human resources and commercial management activities to the extent that these activities are not performed by the individual entities, as well as the Group's central management function. Also included are rentals paid by subsidiaries for the use of land, buildings, plant and other equipment owned by paragon GmbH & Co. KGaA. Charges made between the operating segments are based on the utilization made of the respective items charged. Segment assets and segment liabilities are presented on the same basis.

In € thousands	2018 Electronics	Mechanics	Electromoblity*	Eliminations	Group
Revenue from third parties	85,518	34,977	66,888	0	187,383
Revenue intersegment	8,272	45,503	19	- 53,794	0
Operating segment revenue	**93,790**	**80,480**	**66,907**	**- 53,794**	**187,383**
Changes in inventory, other operating income, capitalized development costs	18,027	9,009	12,711	- 7,663	32,084
Expenses from intersegment accounting	- 45,520	- 11,982	- 3,379	60,881	0
Cost of materials, personnel expenses and other operating expenses	- 46,305	- 76,224	- 66,648	0	- 189,177
Segment EBITDA	19,992	1,283	9,591	- 576	30,290
Depreciation (incl. amortization)	- 9,445	- 2,031	- 3,982	0	- 15,458
Operating segment EBIT	**10,547**	**- 748**	**5,609**	**- 576**	**14,832**
Group financial result	n. a.	n. a.	n. a.	n. a.	- 4,222
Group earnings before taxes	**n. a.**	**n. a.**	**n. a.**	**n. a.**	**10,610**
Assets	226,953	37,307	209,301	- 111,268	362,293
Investments (CAPEX)	29,092	6,150	13,563	0	48,805
Liabilities	- 168,861	- 33,962	- 57,612	75,941	- 184,494

* The Electromobility segment includes 39.97% minority interests.

In € thousands	2017 Electronics	Mechanics	Electromoblity*	Eliminations	Group
Revenue from third parties	90,799	9,330	24,694	0	124,823
Revenue intersegment	4,064	64,728	2,580	- 71,372	0
Operating segment revenue	**94,863**	**74,058**	**27,274**	**- 71,372**	**124,823**
Changes in inventory, other operating income, capitalized development costs	13,547	6,728	4,018	- 7,664	16,629
Expenses from intersegment accounting	- 63,443	- 8,790	- 3,009	75,241	0
Cost of materials, personnel expenses and other operating expenses	- 30,297	- 70,448	- 25,897	0	- 126,642
Segment EBITDA	14,670	1,548	2,386	- 3,795	14,809
Depreciation (incl. amortization)	- 6,583	- 382	- 2,430	0	- 9,395
Operating segment EBIT	**8,088**	**1,166**	**- 44**	**- 3,795**	**5,415**
Group financial result	n. a.	n. a.	n. a.	n. a.	- 4,383
Konzernergebnis vor Steuern	**n. a.**	**n. a.**	**n. a.**	**n. a.**	**1,032**
Assets	268,350	173,589	148,509	- 286,175	304,273
Investments (CAPEX)	10,424	4,748	6,630	0	21,802
Liabilities	- 236,900	- 156,071	- 10,923	286,163	- 117,731

* The Electromobility segment includes 39.97% minority interests.

Information on Geographical Areas

The following table shows a geographical analysis of the Group's revenue with external customers. The revenues generated with external customers for the purposes of the geographical analysis is based on the location of the registered head office of the respective external customer.

In € thousands	Domestic		EU		Rest of the world		Total	
	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2018	Jan. 1 – Dec. 31, 2017
Revenue	134,659	90,189	39,673	29,210	13,050	5,423	187,383	124,823

Information About Transactions with Key Customers

In fiscal year 2018, three groups of companies exceeded the threshold of 10% in the revenue share according to IFRS 8.34. Of these, one group of companies, which is to be regarded as one customer because of its joint control, had a revenue share of 33.9%. Another group of companies, which is to be regarded as one customer due to its joint control, had a revenue share of 24.2%. Another group of companies, which is to be regarded as one customer due to its joint control, had a revenue share of 10.1%.

(45) Directors and Officers

In the period from January 1 to December 31, 2018, the Management Board of paragon GmbH & Co. KGaA comprised Klaus Dieter Frers (Chairman), Dr. Stefan Schwehr and Dr. Matthias Schöllmann. The three managing directors have been employed by the general partner paragon GmbH since August 1, 2018.

The Supervisory Board comprised the following persons:

Name	Occupation	Membership in Supervisory Boards and Other Supervisory Committees
Prof. Dr. Lutz Eckstein Chairman	Univ.-Prof. Dr. Ing., Head of the Chair and Institute for AutomotiveEngineering (ika), RWTH Aachen University	Supervisory Board mandates: • ATC GmbH, Aldenhoven (member) Further mandates: • Chairman of the Advisory Board of Forschungsgesellschaft Kraftfahrwesen Aachen mbH (fka) • Member of the Advisory Council for Vehicle and Traffic Engineering (VDI-FVT) • VOSS Holding GmbH & Co. KG., Wipperfürth (Member of the Advisory Board) • Driving Innovation GmbH, Aachen (Managing Director)
Hermann Börnemeier	Diplom Finanzwirt und Tax Advisor, Managing Director of Treu-Union Treuhandgesellschaft mbH	Supervisory Board mandates: • Voltabox AG, Delbrück (member)
Walter Schäfers	Attorney, Partner at Societät Schäfers Rechtsanwälte und Notare	

(46) Related Party Disclosures

Related parties as defined in IAS 24 Related Party Disclosures include members of the Management Board, the Supervisory Board and their immediate families as well as affiliated companies.

Treu-Union Treuhandgesellschaft mbH, Steuerberatungsgesellschaft, Paderborn, rendered services totaling € 135 thousand under an ongoing agreement in fiscal year 2018 (prior year: € 71 thousand). Hermann Börnemeier, a member of the Supervisory Board of paragon GmbH & Co, KGaA, is also managing director of the above company.

In fiscal year 2018, Societät Schäfers, Rechtsanwälte & Notare, Paderborn, rendered services in the amount of € 0 thousand (prior year: € 0 thousand). Mr. Schäfers, a member of the Supervisory Board at paragon GmbH & Co. KGaA, is also a partner in this company.

A building with a carrying amount of € 1,238 thousand was sold to Frers Grundstücksverwaltungs GmbH & Co. KG in the year under review.

In fiscal year 2018, Forschungsgesellschaft Kraftfahrwesen mbH Aachen rendered development services totaling € 3 thousand (prior year: € 35 thousand). Professor Dr. Eckstein, a member of the Supervisory Board at paragon GmbH & Co. KGaA, is the Chairman of the Advisory Board of this company.

Members of the Supervisory Board held 4,000 shares (prior year: 4,000) out of a total of 4,526,266 shares as of the balance sheet date.

Members of the Management Board held 2,269,004 shares (prior year: 2,265,676) from a total of 4,526,266 shares (prior year: 4,526,266) as of the balance sheet date. Mr. Klaus Dieter Frers held 2,263,134 shares as of the balance sheet date and thus holds a majority of more than 50% of the limited partnership capital of the Company. He is the ultimate controlling party in accordance with IAS 24.18a.

Payments in the amount of € 5 thousand (prior year: € 9 thousand) 9were made to Artega GmbH & Co. KG in 2018 under a cooperation agreement, mainly for services. Development services were sold to Artega GmbH at a book value of € 1,788. Artega GmbH is solely owned by Klaus Dieter Frers.

As of the balance sheet date, performance guarantees with a maximum amount of € 153 thousand had been provided by Mr. Frers with respect to paragon GmbH & Co. KGaA's liabilities to banks (prior year: € 153 thousand). Related commission in the amount of € 2 thousand was paid in the year under review.

Mrs Frers is employed as Head of Communication. She is employed at arm's length conditions (according to XING Salary Survey 2018). The annual remuneration amounts to € 149 thousand and is comparable with adequate positions in the company.

We refer to the consolidated financial statements of Voltabox AG in respect of the related party disclosures for the members of the Management Board of Voltabox AG as well as the members of the Supervisory Board of Voltabox AG, Mr. Frers (Supervisory Board Chairman), Prof. Dr. Winter and Mr. Börnemeier.

The outstanding balances for related parties were immaterial as of the reporting date.

We refer to Section D.4 “Financial assets” for further disclosures of transactions between paragon and its affiliated companies.

The remuneration report is presented in the management report.

(47) Share Based Remuneration

The Stock Option Program 2012 expired on May 8, 2017. No stock options were granted under the stock option program 2012 in the year under review.

(48) Auditor's Fee

The total fee charged by the auditor Baker Tilly GmbH & Co. KG, Wirtschaftsprüfungsgesellschaft in the reporting period from January 1 to December 31, 2018 amounts to € 300 thousand (prior year: € 390 thousand). € 235 thousand (prior year: € 190 thousand) of this fee was paid for audit services, € 65 thousand (prior year: € 181 thousand) for other assurance services and € 0 thousand (prior year: € 19 thousand) for other services. The fee for audit services relates mainly to the audit of the annual financial statements and the consolidated financial statements according to IFRS as well as the audit review of the half-year report of several financial statements of paragon GmbH & Co. KGaA and Voltabox AG. The fee for other assurance services relates to the review of the profit forecast and the work in connection with the issue of a Comfort Letter.

(49) Risk Management

The Company's risk management is described in the management report.

(50) Application of the Exemption Provisions of Section 264 (3) of the German Commercial Code (HGB)

The following fully consolidated domestic subsidiaries make use of some of the exemption provisions for the year under review:

- productronic GmbH, Delbrück
- Sphere Design GmbH, Bexbach

(51) Declaration Pursuant to Section 160 (1) No. 8 of the German Stock Corporation Act (AktG)

Voting Right Notifications

In the year under review, the company received the following notifications pursuant to Section 26 (1) of the German Securities Trading Act (WpHG) that require disclosure in accordance with Section 160 (1) No. 8 of the German Stock Corporation Act (AktG):

- Oddo BHF Asset Management SAS notified the Company that the 3 percent threshold had been exceeded as of Jan. 15, 2018. Accordingly, the share of voting rights in the Company on this date amounted to 3.03 percent (137,115 voting rights).
- Oddo BHF Asset Management SAS has notified the Company that its holdings fell below the 3 percent threshold on Oct. 25, 2018. Accordingly, the share of voting rights in the Company on this day amounted to 2.98 percent (134,668 voting rights).
- HANSAINVEST Hanseatische Investment-GmbH informed the Company that its holdings fell below the 3 percent threshold as of Nov. 19, 2018. Accordingly, the share of voting rights in the Company on this day amounted to 2.95 percent (133,340 voting rights).

Directors Dealings

In the year under review, the company received the following notifications on own-account transactions of executives pursuant to Art. 19 of the Market Abuse Regulation (EU) No. 596/2014 (MAR):

- Dr. Matthias Schöllmann advised the Company on the purchase of 400 shares of the Company on Dec. 20, 2018 at a price of € 17.64 with an aggregated volume of € 7,056.
- Dr. Matthias Schöllmann advised the Company on the purchase of 400 shares of the Company on Dec. 20, 2018 at a price of € 17.66 with an aggregated volume of € 7,064.
- Dr. Matthias Schöllmann advised the Company on the purchase of 300 shares of the Company on Dec. 20, 2018 at a price of € 17.60 with an aggregated volume of € 5,280.
- Dr. Matthias Schöllmann advised the Company on the purchase of 300 shares of the Company on Dec. 20, 2018 at a price of € 17.64 with an aggregated volume of € 5,292.
- Dr. Matthias Schöllmann advised the Company on the purchase of 300 shares of the Company on Dec. 20, 2018 at a price of € 17.50 with an aggregated volume of € 5,250.
- Dr. Matthias Schöllmann advised the Company on the purchase of 300 shares of the Company on Dec. 20, 2018 at a price of € 17.66 with an aggregated volume of € 5,298.
- Dr. Matthias Schöllmann advised the Company on the purchase of 200 shares of the Company on Dec. 20, 2018 at a price of € 17.60 with an aggregated volume of € 3,520.
- Dr. Matthias Schöllmann advised the Company on the purchase of 200 shares of the Company on Dec. 20, 2018 at a price of € 17.60 with an aggregated volume of € 3,520.
- Dr. Matthias Schöllmann advised the Company on the purchase of 200 shares of the Company on Dec. 20, 2018 at a price of € 17.64 with an aggregated volume of € 3,528.
- Dr. Matthias Schöllmann advised the Company on the purchase of 200 shares of the Company on Dec. 20, 2018 at a price of € 17.64 with an aggregated volume of € 3,528.
- Dr. Matthias Schöllmann advised the Company on the purchase of 100 shares of the Company on Dec. 20, 2018 at a price of € 17.56 with an aggregated volume of € 1,756.

Corporate Governance Declaration

The Declaration of Conformity with the German Corporate Governance Code (GCGC) required under Section 161 of the German Stock Corporation Act (AktG) was most recently submitted on Mar. 1, 2019, and is available to shareholders on a permanent basis on the company's website (https://www.paragon.ag/).

Delbrück, March 27, 2019

paragon GmbH & Co. KGaA

The Management

Klaus Dieter Frers
Chairman

Dr. Matthias Schöllmann

Dr. Stefan Schwehr

Independent Auditor's Report

Independent Auditor's Report

paragon GmbH & Co. KGaA, Delbrück, Germany

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND THE COMBINED MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of paragon GmbH & Co. KGaA and its subsidiaries (the Group), which comprises the consolidated balance sheet as of December 31, 2018, the consolidated statement of comprehensive income (incl. the consolidated income statement), the consolidated statement of changes in equity and the consolidated cash flow statement for the fiscal year starting January 1 and ending December 31, 2018, as well as the notes to the consolidated financial statements, including a summary of important accounting policies. We have also audited the combined management report of paragon GmbH & Co. KGaA for the fiscal year from January 1 to December 31, 2018.

In our opinion, based on the findings of our audit,

- the enclosed consolidated financial statements comply with IFRS as adopted by the EU and the additional requirements pursuant to Section 315e (1) of the German Commercial Code (HGB), and provide a true and fair view of the net assets and financial position of the Group as of December 31, 2018, as well as its earnings for the fiscal year starting January 1 and ending December 31, 2018, in accordance with these requirements.

- The enclosed combined management report provides a suitable view of the Group's position. The combined management report is consistent with the consolidated financial statements, complies with all statutory regulations and suitably presents the opportunities and risks of future development. Our audit opinion regarding the combined management report does not cover the contents of the corporate governance statement pursuant to Section 315d in conjunction with Section 289f (2) and (5) HGB.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any objections to the regularity of the consolidated financial statements and the combined management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and the combined management report in accordance with Section 317 HGB and the EU Audit Regulation (no. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities according to those requirements are further described in the "Auditor's Responsibility for the Audit of the Consolidated Financial Statements and the Combined Management Report" section of our auditor's report. We are independent of the Group companies in accordance with the requirements of European law and German commercial law and professional rules of conduct, and we have fulfilled our other German professional responsibilities in compliance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided any non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from January 1 to December 31, 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

Our presentation of these key audit matters has the following structure:

1. Specific matter and problem
2. Audit approach and findings
3. Further information

I. Acquisition of subsidiaries

1. In fiscal year 2018, the company acquired 82.0% of the shares in paragon semvox GmbH, 100.0% of the shares in paragon electroacoustic GmbH, 100% of the shares in ACCURATE - Smart Battery Systems – GmbH and 100.0% of the shares in Concurrent Design, Inc. Due to the significant overall effects of these transactions on the Group's net assets and financial position, acquisitions were particularly important for the purpose of our audit.

2. Within the scope of our audit of these company acquisitions, we initially inspected and reviewed the underlying contractual agreements and reconciled the purchase price paid in return for the shares received with the proofs of payments that we received. For the company acquisitions, we audited the preliminary purchase price allocations by reviewing the initial data applied for the remeasurement of assets and liabilities as well as the underlying assumptions. Our audit activities have not given rise to any objections regarding the balance-sheet recognition of these company acquisitions.

3. The company's key disclosures regarding the effects of its acquisition of subsidiaries are provided in the notes to the consolidated financial statements, in sections "7) Scope of consolidation" and "24) Financial assets."

II. Measurement of Capitalized Development Costs

1. As of December 31, 2018, the Group has reported capitalized development work in its balance sheet as intangible assets in the amount of € 52,412 thousand. Due to the significant overall effects of this item on the Group's net assets and earnings and the complexity of accounting and measurement, the capitalized development costs were particularly important for the purpose of our audit.

2. Within the scope of our audit of the capitalized development costs, on a test basis we conducted disclosure-related audit activities and a system audit in order to review the measurement of capitalized development costs. We reviewed the methodological approach applied in the measurement of capitalized development costs and evaluated this calculation in terms of its amount. For this purpose, for the selected samples the project documentation was analyzed, discussions were held with the project manager responsible and the related planned profit contribution calculation was analyzed. Our audit activities have not given rise to any objections regarding the balance-sheet recognition of the development work capitalized.

3. The company's key disclosures concerning the effects of the capitalization of development costs are included in the notes to the consolidated financial statements, mainly in the following sections: "(9) Description of Accounting Policies and Measurement Methods – Intangible Assets," "(10) Use of Estimates and Assumptions – Capitalized Development Costs," "(13) Other Own Work Capitalized" and "(21) Intangible Assets."

Other Information

The company's legal representatives and Supervisory Board are responsible for the other information. This other information comprises the declaration provided in the section "Corporate Governance Statement Pursuant to Section 315d in Conjunction With Section 289f (1) of the German Commercial Code (HGB)" and in the "Sustainability Report" in the combined management report, as a component of the combined management report whose contents have not been audited.

This other information likewise includes the remaining parts of the Annual Report, with the exception of the audited consolidated financial statements, the audited combined management report and our auditor's report, and also

- the assurance provided by the company's legal representatives under Section 264 (2) sentence 3 HGB concerning the annual financial statements and the assurance under Section 289 (1) sentence 5 HGB regarding the combined management report,

- the corporate governance report pursuant to no. 3.10 of the German Corporate Governance Code and

- other sections of the Annual Report of paragon GmbH & Co. KGaA, Delbrück, for the fiscal year ending December 31, 2018, which did not require auditing.

Our audit opinions on the consolidated financial statements and the combined management report do not cover this other information, and consequently we do not express an audit opinion or any other form of audit conclusion thereon.

In connection with our audit, our responsibility is to read this other information and, in so doing, to consider whether this other information

- is materially inconsistent with the consolidated financial statements, the combined management report or our knowledge obtained in the audit, or

- otherwise appears to be materially misstated.

Responsibility of the Company's Legal Representatives and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

The company's legal representatives are responsible for the preparation of the consolidated financial statements that comply with the IFRS as adopted by the EU as well as the German supplementary statutory regulations applicable under Section 315e (1) HGB in all significant respects and for ensuring that the consolidated financial statements provide a true and fair view of the net assets, financial position and earnings of the Group in accordance with these provisions. In addition, the company's legal representatives are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the company's legal representatives are responsible for assessing the Group's ability to continue as a going concern. They are also responsible for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the company's legal representatives are responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the company's legal representatives are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and the combined management report.

Auditor's Responsibility for the Audit of the Consolidated Financial Statements and the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German generally accepted standards for the audit of financial statements promulgated by IDW will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users made on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement in the consolidated financial statements and the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures relevant to the audit of the combined management report, in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the company's legal representatives and the reasonableness of estimates made by the company's legal representatives and related disclosures.

- Draw conclusions regarding the appropriateness of the company's legal representatives' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events such that the consolidated financial statements give a true and fair view of the net assets, financial position and earnings of the Group in compliance with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and the combined management report. We are responsible for the direction, supervision and performance of the audit of the consolidated financial statements. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law and the view of the Group's position that it provides.

- Perform audit procedures regarding the prospective information presented by the company's legal representatives in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the company's legal representatives as a basis for the prospective information, and evaluate whether this prospective information has been properly derived from these assumptions. We do not express a separate audit opinion on this prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We discuss with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and discuss with them any relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

On the basis of the matters discussed with the persons charged with governance, we determine the matters that were of most significance in the audit of the consolidated financial statements for the current period under review and are therefore the key audit matters. We describe these matters in our auditor's report unless any law or other regulation precludes public disclosure of this matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Further Information Pursuant to Article 10 of the EU Audit Regulation

We were elected as the auditor of the consolidated financial statements by the Annual General Meeting held on May 8, 2018. We were engaged by the Supervisory Board on December 19, 2018. We have audited the consolidated financial statements of paragon GmbH & Co. KGaA without interruption since fiscal year 2013.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the Supervisory Board pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

GERMAN PUBLIC ACCOUNTANT RESPONSIBLE FOR THE AUDIT

The public accountant responsible for conducting the audit is Christoph Tyralla.

Düsseldorf, March 27, 2019

Baker Tilly GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft
(Düsseldorf)

Thomas Gloth	Christoph Tyralla
German public accountant	German public accountant

Declaration by the Legal Representatives

We declare that to the best of our knowledge and in accordance with the applicable accounting principles, the consolidated financial statements give a true and fair view of the assets, financial position and earnings of the Group, and that the combined management report presents the development of business, including the business results and the position of the Group, in such a way that a true and fair view is conveyed and the significant opportunities and risks of the Group's foreseeable development are described.

Klaus Dieter Frers
Chairman

Dr. Matthias Schöllmann

Dr. Stefan Schwehr

Financial Calendar

January 10/11, 2019	**ODDO BHF Forum, Lyon**
February 19/20, 2019	**ODDO BHF German Conference, Frankfurt am Main**
April 1, 2019	**Annual Report – Consolidated Financial Statements 2018**
April 3-5, 2019	**Bankhaus Lampe German Conference, Baden-Baden**
May 13, 2019	**Interim Release as of March 31, 2019 – First Quarter**
May 13/14, 2019	**Equity Forum Spring Conference, Frankfurt am Main**
May 15, 2019	**Annual General Meeting, Delbrück**
June 12, 2019	**quirin Champions Conference, Frankfurt am Main**
August 22, 2019	**Interim Report as of June 30, 2019 – First Half Year**
November 14, 2019	**Interim Release as of September 30, 2019 – Nine Months**
November 25-27, 2019	**Eigenkapitalforum, Frankfurt am Main**

IMPRINT

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