

## Analysis

## BUY

Price Target: 19,43 EUR

**Industry:** Automotive Supplier  
**Country:** Germany  
**WKN:** 555869  
**Reuters:** PGNNG.DE  
**Website:** www.paragon-online.de

**Curr. Price:** 10,40  
**High** **Low**  
**Price 52 W.:** 12,94 2,25  
**Market Cap. (Mill. EUR)** 42,79  
**No. of Shares (in Mill.)** 4,11

## Shareholders

**Freefloat** 48,68%  
**Klaus Dieter Frers** 51,32%

## Performance

**4 Weeks** -22,96%  
**13 Weeks** 103,92%  
**26 Weeks** -5,80%  
**52 Weeks** 383,72%  
**YTD** -8,37%

## Dividend

	in EUR	in %
2008	0,00	0%
2009	0,00	0%
2010e	0,00	0%
2011e	0,00	0%

## paragon AG

## Hits the ground running after having endured insolvency

- Having endured insolvency, paragon is growing again after November 2008's automobile crisis finally affected the company. Already before filing for insolvency and after two negative quarters the company had been operative profitable again. Between Banking Creditors only there was no agreement on new financing. Even in the course of insolvency all clients stayed faithful and continued placing orders. Here, the company's long-standing strong customer relationships with big international automotive manufacturers paid for themselves.
- paragon will make sales of about €60 m with a EBITDA margin of ca 15 percent, in business year 2010. After far-reaching restructuring (adapting number of employees, deconsolidation of subsidiary companies and closing of foreign branches), even before and during insolvency, in 2010 already new employees were engaged to be able to handle the strong demand. Here, paragon benefits from automobile industry's positive trend.
- The stock's value tripled in December and since then, has declined again slightly. The strong rise shows, that investors have discovered paragon's stock again and, that they have confidence in the company's positive future. However, concerning the share price, we find that there is still room for improvement (on base of the results estimated for 2010, the stock is rated with a EV/EBITDA of 5).
- In 2011, no large growth will be possible as in 2009 less new orders could be won, because of insolvency. These are missing in 2011. For 2012 and 2013 new orders have been generated in the past year, so here we will see 2-digit growth rates again.
- paragon has long-term contracts with large manufacturers and is among market leaders in his area. In case that automobile industry's upward trend should continue as expected, paragon would benefit from that. By efficient production of components these will be used increasingly even for vehicles in compact class, so paragon's number of items sold will rise.
- The fair value derived from our DCF model is €19,43. This corresponds to an upside potential of 87 percent compared with the actual exchange rate. Our judging is: "Buy".



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EUR m	2008	2009	2010E	2011E	2012E
Revenues	112,00	67,35	60,45	62,50	68,75
EBITDA	-53,54	-35,12	111,01	10,20	12,73
EBIT	-66,13	-40,52	106,03	6,00	7,73
Net Income e	-71,84	-46,69	104,53	3,47	4,73
EPS	-17,46	-11,35	0,87	0,84	1,15
BVPS	-13,17	-19,17	1,35	2,20	3,34
CFPS	3,27	1,16	0,05	2,24	2,09
RoE	NA	NA	0,65 %	0,38 %	0,34 %
RoS	-64,14 %	-69,32 %	172,91 %	5,55 %	6,88 %
EBIT margin	-59,04 %	-60,16 %	175,39 %	9,60 %	11,24 %

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## 1 Investment Case

paragon is the first exchange oriented joint-stock company in Germany, that has come out of insolvency without having harmed shareholders. The share price already has recovered in December 2010 clearly, but, in our opinion does not reflect the stock's fair price, yet. Already before and even meanwhile insolvency, paragon was capable to carry out numerous restructuring measures. Besides, the number of employees has been adapted and agencies abroad were closed. Several of the subsidiary companies were liquidated or handed over to investors. The large number of Banking Creditors, which had a great influence on failure of negotiations about financing before insolvency, was reduced to a local bank. Automotive industry's strong upward trend in 2010 provided that paragon was able to get back on its growth rate of pre-crisis' level. After automobile crisis had had full impact on paragon by the end of 2008 and in the beginning of 2009, the company was profitable again by Q2 of 2009. Long-standing customer relationships to big automotive manufacturers had endured even during insolvency and helped paragon to get through this enterprise crisis. Especially, relations to Volkswagen group were important, as this corporate client continued placing orders at paragon.

### *Automotive market continues growing*

If the automotive market should continue developing as good as expected, paragon would benefit from this trend. Higher sales figures at new vehicles mean higher sales for paragon by components sold. Contracts with clients are usually valid for at least one model generation, which means that they are of long duration. Most of the time, the subsequent generation is won by paragon as well. Because of the insolvency phase, paragon was unable to win as much contracts as would have been possible in 2009. These are missing for the growth in the current financial year. In 2010, an increasing number of contracts could be won, so 2012 and 2013 stronger growth with two-digit rates would be possible.

### *Innovations wanted*

Today's innovations in automotive sector are mainly provided by electronics. Exactly here, paragon is operating and has taken on the position of a leading innovator. Therefore, the company as well should be able to grow significantly as to expand client relationships with big international manufacturers.

### *Stock with strong momentum*

As paragon made the turn-around and promised positive numbers for 2010 and 2011, investors have rediscovered the share. In December 2010, it leaped forward and tripled its value after positive numbers had been announced. We find that there is still room for improvement, as we do believe that the market has not become aware of paragon's whole potential, yet. After having reached its maximum price of €13,79, the share fell slightly.

### *Attractive rating*

The current share price (€ 10,40) corresponds to a market capitalization of € 43 m. The current enterprise value is € 37 m. Management's Prognosis for 2010's EBITDA is € 9 m at least. In 2011, this value shall be exceeded securely. So, at the moment the share is rated with an EBITDA that is five times higher. This seems to be very low priced.

## 2 Company profile

paragon AG was founded in 1988 as an electronics manufacturer. In 1995, the product lineup was extended by the addition of sensors. As a consequence, paragon entered successfully into the market as an automotive supplier. Contract manufacturing in the field of electronic solutions was meanwhile abandoned. So that, paragon exclusively operates as a direct supplier for the automotive industry, today. The company is currently employing ca 300 collaborators.

paragon AG's share is listed in Prime Standard of German stock exchange since 2000. The place of business is in Delbruck, North Rhine-Westphalia. Subsidiary companies are in Suhl (Thuringia), Nuremberg (Bavaria) and St. Georgian (Baden-Wuerttemberg). The following survey shows the company's historical development:

- 1988 Foundation as an electronics manufacturer, Delbruck
- 1991 Plant for electronic services, Zella-Mehlis
- 1993 Starting development and production of sensors
- 1995 First paragon's air quality sensors in automotives
- 1998 Production of components for control elements
- 1999 Premiere for patents on acoustic sensors
- 2000 Initial public offering as paragon AG in Frankfurt on the Main
- 2003 Takeover of Bosch's division on air quality sensors
- 2004 Prelude for the business with indicating instruments
- 2005 Market entry on car media systems
- 2007 Initiation of the Spin-offs Artega® as a reference object
- Q4 2008 –  
Q1 2009 Difficulties because of financial crisis and crisis in automotive industry
- Q1 2009 Restructuring measures
- Q2 2009 Operative profitable again. But, no agreement on financing with banks
- 10/2009 Introduction of self-administered insolvency plan with extensive restructuring of the entire group
- 06/2010 End of insolvency
- 2010 Full concentration on automotive industry

Quelle: Unternehmen, Dr. Kalliwoda Research

### 3 Current development

paragon has the opportunity to start anew. Insolvency proceedings were cancelled on June 1<sup>st</sup> in 2010 and the annual reports, missing in the course of insolvency, have been prepared. Automotive industry's upswing in the past few months helped the company to survive this difficult phase and to get onto growth course again. To allow a classification of the current numbers, the past will shortly be described below.

#### *Financial crisis*

As known, automotive industry had significantly been affected by the worldwide financial and economic crisis. As a result of this development, paragon as well became a victim. This had the effect of the company hassling by the turn of the year from 2008 to 2009. Consequently, broad restructuring measures were initialized so that paragon was operative profitable again from Q2 of 2009 on. Negotiations with the more or less large number of Banking Creditors, about keeping the line of credit and liquidity supply, turned out to be difficult. Amongst others, dept claims had been sold by banks. So, paragon had to negotiate with demanding buyers without having contact with them before. Caused by this difficult situation no agreement could be reached, as participants on the round of negotiations kept on preventing a potential agreement.

#### *Insolvency proceedings*

As an agreement with Banking Creditors failed, paragon's management felt impelled to file for insolvency on October 5 in 2009 to aim for a self-administered insolvency plan. On January 1st in 2010, insolvency proceedings were opened and shortly afterwards paragon presented the final insolvency plan that was accepted at the creditor's meeting on April 16 in 2010. The distribution quota intended in the insolvency plan is 12.7 percent, compared to 61 percent, offered by paragon at negotiations with banks. On June 1<sup>st</sup> in 2010, insolvency proceedings were cancelled by Paderborn's local district court. One important reason for the success of restructuring might have been, that many clients stayed faithful during the phase of insolvency and continued placing orders. Thereby, it became obvious, that the company was worth reconstructing and the operative business could be continued profitably.

#### *After insolvency*

Even during ongoing insolvency paragon was able to benefit as well from the recovery of the global economy as from the automobile branch's boom that went along with it. Reinforced customer relations helped the company to work operative profitable. Even in times of restructuring. In the first quarter after cancelling insolvency (June 1<sup>st</sup> of 2010 until August 31 of 2010), it was possible to have sales increased of 16 percent in comparison to previous year's same period. Caused by an increasing demand for new vehicles numerous orders were predominant, as before, clients focused on refilling their storages.

In the first six months of the past fiscal year (June until November of 2010), paragon was able to have a sales increase of 10 percent. Even the result listed significant growth. The operating result climbed from €-2,0 m in the same period of the last year to €5,4 m. The EBITDA was €7,9 m, after an amount of €0,5 m before a year's time. The annual surplus was €4,1 m, which corresponds to a result per share of €1,00. This is the highest half-year result since initial public offering. Because of low fixed costs, paragon would be in profit zone even without an upswing in the industry. For ongoing business year we expect slight growth. Because of insolvency, paragon could acquire less new orders

as expected (existing orders and clients, however, remained). These new orders missing will become noticeable. For the following years, however, we expect 2-digit growth rates. As in 2010 new orders could be obtained. These will account for sales in 2012 and 2013.

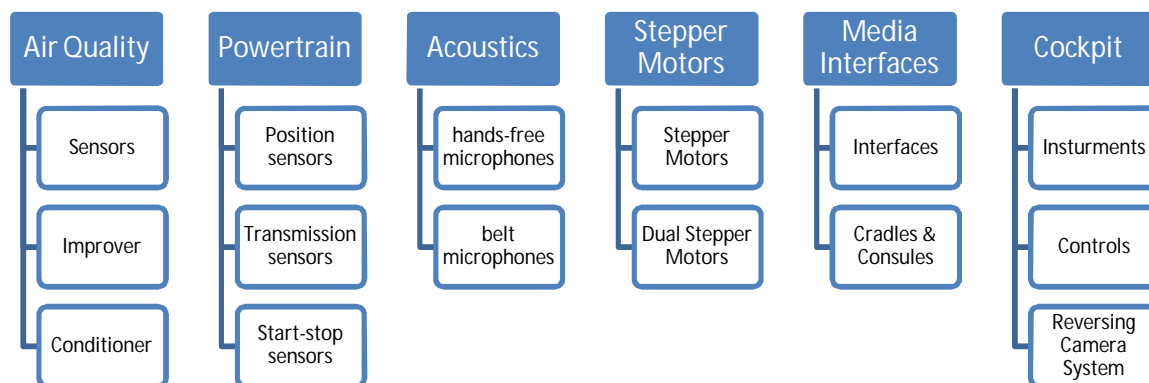
## 4 Corporate strategy

Founded as a contract manufacturer for electronics paragon is now a Tier-1 direct automotive supplier. As part of restructuring, the company split with all subsidiary companies and closed international branches. Even before crisis within the company, it was planned to separate with electronics' sector and to concentrate on the automotive industry. Major focus is on car electronics for the interior of a vehicle. paragon's supply contains products in the field of air quality, power train, acoustics, media interfaces and cockpit, which are all manufactured in location Suhl. The company's supply also contains stepper motors, which are developed and produced in St. Georgian. paragon develops its own products with numerous unique features. – The head office in Delbrück executes R&D for air quality, power train and acoustics, whereas, media interfaces and cockpit are developed in Nuremberg. By that, the company secures an innovation advance to other competitors (e.g. air quality sensors). As more than a half of the key innovations originate in the field of electronics, paragon on the one hand side is forced to present new innovations constantly. On the other hand side, therefore, the company has first-mover advantage and is not exposed to direct competition. paragon is market leader in many fields. With air quality sensors the company has a global market share of ca 85%. With stepper motors paragon is no. 2 worldwide. Also in the field of clocks and chronographs, the company belongs to market leaders as no. 3 worldwide. paragon is second largest player in Europe on media interfaces, cradles & consoles and microphones.

paragon is positioning itself as an innovative supplier constantly finding unique solutions. More than 250 patents, which belong to the company, are evidence for that. The focus thereby is on how paragon can make driving even more pleasant for the driver. This aspect even plays an important role in the strategy of big automotive manufacturers, as comfortable travelling is very important to end customers. Not to make own innovations only attractive for upper class and luxury class, paragon attaches great importance on efficient production during development. So, comfort and new trends can be made accessible to compact class's clients, too. For paragon, this implicates a broader reach and higher sales' potential. In the field of power train, the company cares moreover about products that are essential for the use of an automobile and, which can be used for any vehicle class.



## 4.1 Products



### *Air quality*

In the field of Air Quality, paragon develops and manufactures air quality sensors, air treatment systems and air quality improve systems to promote vehicle occupants' health and wellness. The Air Quality Sensor AQS reacts to an increase of harmful gases, e.g. in tunnels or in front of signal lights. Thereupon, air condition's recirculation air flaps are closed automatically. That avoids the entering of harmful substances. The Air Quality Improve system AQI purifies the air in the vehicle and binds respirable dust, gases as well as smells via small ions and reduces the germ load. Using micro-oxidation, the Air Quality Conditioner system AQC removes germs and bacteria emerging from the inside of the air condition.

**Air Quality Sensor AQS**



**Air Quality Improver AQI**



**Air Quality Conditioner AQC**



Source: Company

In the field of air quality paragon is global market leader by some distance (market share of ca 85 percent). Especially, in upper class and luxury class the systems have been used in the past. By now, however, the systems are used increasingly even in medium-class. We assume that they will be used in compact class as well. We are convinced that paragon will defend its no. 1 position. Many years of experience, continuous innovations and high distance between the company and other competitors suggest that.

### *Power train*

paragon offers sensor solutions for exact path measurement and position measurement included in various applications. That optimizes control systems and regulating systems of the power train. Position sensors as well as transmission sensors are part of that. Transmission sensors allow a non-contact transmission of the shift position to the transmission control system for automatic transmission and manual transmission. The start-stop sensor is used in start-stop systems. It detects the gear position and transmits it. The sensor is more cost-efficient than previous systems and requires less effort, as any other components do not have to be installed. Apart from that, sensor's signals can be used for further operations as for the rear view camera and the reversing light or for the acoustic backup signal. paragon's innovations lower costs and expense. We therefore assume, that it will be successful in the market. Recently, the company published the development of a new all-gear sensor for manual transmission that specifically will add to the product pipeline for the power train. paragon's all-gear sensor is able to detect which gear is engaged during the start of a switching operation. The sensor allows more soft and, at the same time, faster switching operations. Even the vehicle manufacturer benefits economically, because no separate reversing gear sensor is necessary. Competitive products cannot provide this advantage.

### *Acoustics*

In the field of Acoustics paragon fabricates different types of microphones for hands-free equipment. Thereby, paragon is trying to generate optimal voice quality. Tiny microphones have a high directivity and can be easily and unobtrusively installed in the vehicle's interior. With belt-mic, paragon has developed a unique worldwide seatbelt microphone. Here, the microphone is integrated into the seat belt. The voice signal is transmitted to the vehicle's communication system via wires woven into the belt. By that, the distance to the microphone is considerable smaller. This is why there is less swoosh and better voice quality. Audi already delivers paragon's seatbelt microphones in series.

#### **Hands-free microphone**

##### **integra-mic**



#### **Goosenec microphone**

##### **flex-mic**



#### **Seatbelt microphone**

##### **belt-mic**



Source: Company



### *Stepper motors*

paragon belongs to worldwide largest manufacturers of stepper motors for display instruments. These are used for operating clocks in vehicles and, therefore, have to be of high accuracy. Even Dual Stepper Motors belong to the product lineup. These are used for instruments with two independent hands.

#### **Dual Stepper Motors**



Source: Company

### *Media interfaces*

In the field of Media Interfaces paragon is specialized in two fields: Interfaces and Cradles & Consoles. The field of Interfaces as well contains wireless as cable based connection between mobile devices and the vehicle's environment. Mobile phones are coupled wirelessly to the vehicle's communication system via a Bluetooth interface. MP3 players can be connected to the vehicle via USB or iPod connector. With the increasing spread of smartphones, this field will grow continuously. paragon's answer to this trend is to offer other functions as Internet radio, WiFi and email. paragon is offering universal Cradles & Consoles for secure and easy handling of mobile devices as well as those specific for cell phones. Mobile telephones can be coupled to the vehicle's antenna via cradles, greatly lowering electromagnetic radiation within the interior while enhancing the quality of the connection. The cell phone's battery is charged at the same time.

### *Control elements*

For the group Cockpit, paragon produces instruments, control elements and a Reversing Camera System. The reversing camera's pictures are transmitted to a monitor in the storage bowl. Once the driver goes into reverse, camera and monitor are activated. In addition, the system is equipped with a microphone installed into the camera. paragon's product lineup in the group Instruments offers individual instruments for additional function, as well as clocks, stopwatches, compasses and entire instrument clusters for niche applications. The offer of Controls contains sensor buttons that can be switched or used as wheel and slider functions. These are integrated into complete control units for steering wheels, air conditioners, head units and other applications.

Single-Instrument



Controls



Reversing Camera System



Source: Company

## 4.2 Clients

Among paragon's clients are big international automotive manufacturers with whom the company cultivates long-term customer relationships. With a already particular long and intensive customer relationship existing, Volkswagen group is by far the biggest customer. Even during insolvency Volkswagen group continued placing orders. Concentrating the sale's major part on this client is a risk. The following automotive manufacturers belong to paragon's group of customers:



Source: Company

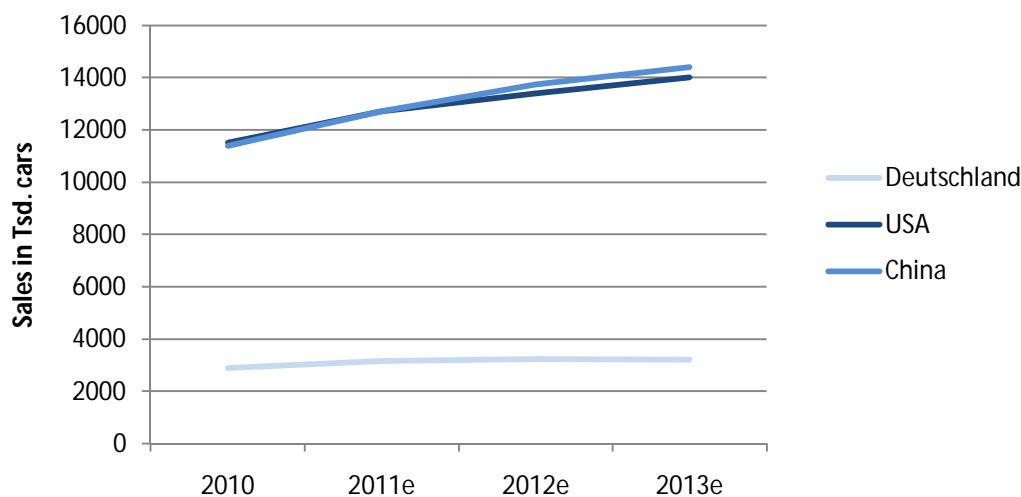
## 5 Market and Competition

paragon AG offers solutions in the field of automotive electronics. The company is characterized by a specialized product lineup and as a Tier 1 supplier. In addition to ventilation technology and sensors in the power train, it also sells stepper motors, communication technique and cockpit equipment. With Air Quality Sensor AQS paragon is world market leader.

### *Automotive market on growth course*

German automotive market is recovering after a sales slump in 2009. Supported by Germany's continuing positive economic development not, developments of commercial but also of private acquisition of automobiles are rising. German automotive sales, however, will stay under the pre-crisis' level and will be at €3,2 m in the coming years. USA's and China's number of sold vehicles is about four times higher. The highest growth rates are expected in China.

### Car Sales



Automobile supplier's sales are rising at the same time as those of car salesmen worldwide. According to management consultancy "Roland Berger" suppliers would have a sales growth of €150 bn by 2020. A bigger part of the growth is visible in China (€50 bn), as in Europe, USA and Japan.

Thereby, growth of the different automobile components varies. The following table shows growth assumptions for respective automobile components between 2008 until 2020:

	Triad			BRIC		Other
	EU	USA	Japan	China	BRI	
Interior	1,9	1,9	-1,6	11,0	6,3	3,7
Infotainment	0,5	0,9	-1,4	1,1	0,5	0,5

Data in Bill. EUR

Due to strong demand, automobile suppliers would have reached an EBIT margin of 6% on an average in 2010, according to analysis by "Roland Berger". This describes the highest value since years.

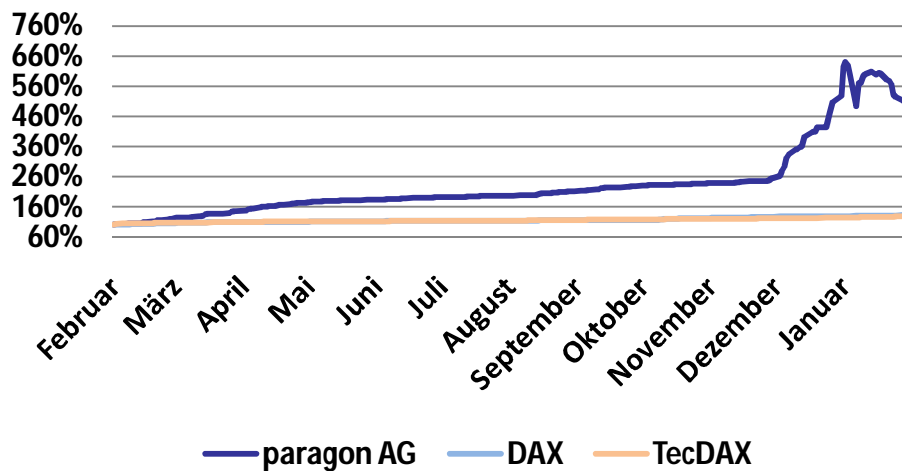
After vending of an American subsidiary company and other foreign branches paragon is concentrating increasingly on the home market where it is in a good position. paragon has contractual relationships with all European automobile manufacturers. As one of the less selling automobile suppliers, paragon has been asserting itself in a difficult market for years. Paragon is setting itself apart from its competitors by a niche policy and by having products of high quality with clear unique selling propositions and a high number of items. We see potential in research and development of new products. Vehicles will be more electrical in the future. As a supplier of electronic automobile components, paragon will benefit from that.

The market of electronic automobiles will grow increasingly in the coming years. paragon already developed a start-stop sensor particularly used for hybrid vehicles as well as an indication system for electric vehicles. Here, in the long run, there will be new growth opportunities for the company as a supplier of electronic vehicles.

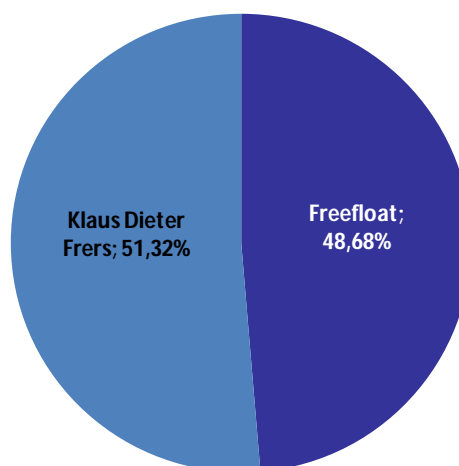
## 6 Stock

In the first half of the year, paragon's share had a performance of 191% (€4.10). In the second half of 2010, earnings per share still rose up to €12.95, corresponding to an annual performance of 474%. Since 2011 the price movement has stayed highly volatile. On January 5 (2011) it reached a new high of €12.79 (641% annual performance) and fell to €10,30 on February 2<sup>nd</sup> (2011). Since then, the share fluctuates around this level.

Stocktrend 2010/02 to 2011/02



Shareholder Structure



Source: Thomson Reuters

## 7 SWOT

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Strong market position in several fields (Air Quality Sensors, stepper motors, clocks and chronographs)</li> <li>- Strong customer relations with notable manufacturers</li> <li>- High capacity for innovation, thus often first mover-advantage</li> <li>- Numerous long-term contracts over at least one model series</li> <li>- Solid financing after balance sheet adjustment (self-ministered insolvency plan)</li> </ul>	<ul style="list-style-type: none"> <li>- Great dependence to single clients (Volkswagen group)</li> <li>- Relatively small-sized compared to competitors</li> <li>- Modest international representation</li> <li>- Highly dependant to growth in automotive industry</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>- Growth in automotive industry, especially in Asia</li> <li>- Paragon's components increasingly used in compact class and middle class, thus rising number of items</li> <li>- Majority of innovations driven by electronics</li> </ul>	<ul style="list-style-type: none"> <li>- Growth trend in automotive industry reduces</li> <li>- Suppliers under pricing pressure because of automotive manufacturers</li> <li>- High competition intensity in the field of automotive suppliers</li> <li>- Pressure to deliver new innovations constantly</li> </ul>



## 8 Financials

### 8.1 Profit- and Loss Statement

Profit & Loss Statement - paragon AG							
Figures in TEURO	Fiscal Year						
	2008	2009	2010E	2011E	2012E	2013E	2014e
Sales	112.003	67.349	60.450	62.500	68.750	74.938	78.684
Other operating income	5.118	3.156	106.864 <sup>1)</sup>	500	766	1.372	1.541
Increase or decrease in finished goods and work in progress	1.079	-5.853	350	100	300	100	300
Other own work capitalized	5.218	328	220	400	525	1.647	1.647
<b>Total operating performance</b>	<b>123.418</b>	<b>64.980</b>	<b>167.884</b>	<b>63.500</b>	<b>70.341</b>	<b>78.057</b>	<b>82.173</b>
Cost of materials	-63.513	-36.704	-32.249	-33.211	-35.750	-38.218	-40.129
<b>Gross profit</b>	<b>59.905</b>	<b>28.276</b>	<b>135.635</b>	<b>30.290</b>	<b>34.591</b>	<b>39.839</b>	<b>42.044</b>
<b>Adjusted Gross profit</b>			<b>34.705</b>				
Personnel expenses	-27.891	-20.421	-12.348	-12.688	-13.363	-13.489	-13.376
Depreciation and amortisation of property, plant and equipment	-12.591	-5.392	-4.985	-4.200	-5.000	-5.995	-6.295
Impairment of tangible and intangible assets	-62.503	-337	-125	0	0	0	0
Other operating expenses	-23.052	-42.642	-12.151	-7.400	-8.500	-11.990	-12.590
<b>Earnings before interest and taxes</b>	<b>-66.132</b>	<b>-40.516</b>	<b>106.026</b>	<b>6.002</b>	<b>7.728</b>	<b>8.365</b>	<b>9.783</b>
<b>Adjusted earnings before interest and taxes</b>			<b>5.096</b>				
Financial income	211	123	207	217	228	240	252
Finance costs	-8.423	-6.568	-703	-1.300	-1.250	-1.200	-1.100
<b>Net financing costs</b>	<b>-8.212</b>	<b>-6.445</b>	<b>-496</b>	<b>-1.083</b>	<b>-1.022</b>	<b>-960</b>	<b>-1.100</b>
<b>Earnings before taxes</b>	<b>-74.344</b>	<b>-46.961</b>	<b>105.530</b>	<b>4.919</b>	<b>6.706</b>	<b>7.405</b>	<b>8.935</b>
<b>Adjusted Earnings before taxes</b>			<b>4.600</b>				
Income taxes	2.508	274	-1.003	-1.451	-1.978	-2.184	-2.636
<b>Consolidated net income</b>	<b>-71.836</b>	<b>-46.687</b>	<b>104.527</b>	<b>3.468</b>	<b>4.728</b>	<b>5.220</b>	<b>FALSCH</b>
<b>Adjusted consolidated net income</b>			<b>3.597</b>				
<i>Earnings per share (basic)</i>	-17,46	-11,35	0,87	0,84	1,15	1,27	0,00
<i>Earnings per share (diluted)</i>	-17,46	-11,35	0,87	0,84	1,15	1,27	0,00
<i>Adjusted earnings per share (diluted)</i>			0,87				
			3443				
<b>Profit &amp; Loss (Year on Year)</b>							
Sales	2,9%	-39,9%	-10,2%	3,4%	10,0%	9,0%	5,0%
Other operating income	1,7%	-38,3%		-99,5%	53,1%	79,2%	12,3%
Increase or decrease in finished goods and work in progress				-71,4%	200,0%	-66,7%	200,0%
Other own work capitalized	-22,3%	-93,7%	-32,9%	81,8%	31,3%	213,8%	0,0%
<b>Total operating performance</b>	<b>2,4%</b>	<b>-47,3%</b>	<b>158,4%</b>	<b>-62,2%</b>	<b>10,8%</b>	<b>11,0%</b>	<b>5,3%</b>
Cost of materials	4,7%	-42,2%	-12,1%	3,0%	7,6%	6,9%	5,0%
<b>Gross profit</b>	<b>0,1%</b>	<b>-52,8%</b>	<b>379,7%</b>	<b>-77,7%</b>	<b>14,2%</b>	<b>15,2%</b>	<b>5,5%</b>
Personnel expenses	1,0%	-26,8%	-39,5%	2,7%	5,3%	0,9%	-0,8%
Depreciation and amortisation of property, plant and equipment	5,5%	-57,2%	-7,5%	-15,7%	19,0%	19,9%	5,0%
Impairment of tangible and intangible assets		-99,5%	-62,9%	-100,0%			
Other operating expenses	70,9%	85,0%	-71,5%	-39,1%	14,9%	41,1%	5,0%
<b>Earnings before interest and taxes</b>		<b>-38,7%</b>		<b>-94,3%</b>	<b>28,8%</b>	<b>8,2%</b>	<b>16,9%</b>
Financial income	-52,3%	-41,7%	68,3%	5,0%	5,0%	5,0%	5,0%
Finance costs	21,6%	-22,0%	-89,3%	84,9%	-3,8%	-4,0%	-8,3%
<b>Net financing costs</b>	<b>26,6%</b>	<b>-21,5%</b>	<b>-92,3%</b>	<b>118,3%</b>	<b>-5,6%</b>	<b>-6,0%</b>	<b>-11,7%</b>
<b>Earnings before taxes</b>		<b>-36,8%</b>		<b>-95,3%</b>	<b>36,3%</b>	<b>10,4%</b>	<b>20,7%</b>
Income taxes	16,5%	-89,1%		44,7%	36,3%	10,4%	20,7%
<b>Consolidated net income</b>		<b>-35,0%</b>		<b>-96,7%</b>	<b>36,3%</b>	<b>10,4%</b>	<b>-100,0%</b>
<b>Profit &amp; Loss (% of Revenues)</b>							
Sales	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Other operating income	4,6%	4,7%	176,8%	0,8%	1,1%	1,8%	2,0%
Increase or decrease in finished goods and work in progress	1,0%	-8,7%	0,6%	0,2%	0,4%	0,1%	0,4%
Other own work capitalized	4,7%	0,5%	0,4%	0,6%	0,8%	2,2%	2,1%
<b>Total operating performance</b>	<b>110,2%</b>	<b>96,5%</b>	<b>277,7%</b>	<b>101,6%</b>	<b>102,3%</b>	<b>104,2%</b>	<b>104,4%</b>
Cost of materials	-56,7%	-54,5%	-53,3%	-53,1%	-52,0%	-51,0%	-51,0%
<b>Gross profit</b>	<b>53,5%</b>	<b>42,0%</b>	<b>224,4%</b>	<b>48,5%</b>	<b>50,3%</b>	<b>53,2%</b>	<b>53,4%</b>
Personnel expenses	-24,9%	-30,3%	-20,4%	-20,3%	-19,4%	-18,0%	-17,0%
Depreciation and amortisation of property, plant and equipment	-11,2%	-8,0%	-8,2%	-6,7%	-7,3%	-8,0%	-8,0%
Impairment of tangible and intangible assets	-55,8%	-0,5%	-0,2%	0,0%	0,0%	0,0%	0,0%
Other operating expenses	-20,6%	-63,3%	-20,1%	-11,8%	-12,4%	-16,0%	-16,0%
<b>Earnings before interest and taxes</b>	<b>-59,0%</b>	<b>-60,2%</b>	<b>175,4%</b>	<b>9,6%</b>	<b>11,2%</b>	<b>11,2%</b>	<b>12,4%</b>
<b>Adjusted earnings before interest and taxes</b>			<b>8,4%</b>				
Financial income	0,2%	0,2%	0,3%	0,3%	0,3%	0,3%	0,3%
Finance costs	-7,5%	-9,8%	-1,2%	-2,1%	-1,8%	-1,6%	-1,4%
<b>Net financing costs</b>	<b>-7,3%</b>	<b>-9,6%</b>	<b>-0,8%</b>	<b>-1,7%</b>	<b>-1,5%</b>	<b>-1,3%</b>	<b>-1,1%</b>
<b>Earnings before taxes</b>	<b>-66,4%</b>	<b>-69,7%</b>	<b>174,6%</b>	<b>7,9%</b>	<b>9,8%</b>	<b>9,9%</b>	<b>11,4%</b>
Income taxes	2,2%	0,4%	-1,7%	-2,3%	-2,9%	-2,9%	-3,3%
<b>Consolidated net income</b>	<b>-64,1%</b>	<b>-69,3%</b>	<b>172,9%</b>	<b>5,5%</b>	<b>6,9%</b>	<b>7,0%</b>	<b>0,0%</b>

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## 8.2 Balance Sheet

Balance Sheet - paragon AG							
Figures in TEURO	Fiscal Year						
	2008	2009	2010E	2011E	2012E	2013E	2014e
<b>Assets</b>							
<u>Non-current assets</u>							
Intangible assets	6.061	5.020	3.190	3.190	3.190	2.988	2.188
Property, plant, equipment	19.898	15.763	13.747	14.545	14.685	13.826	12.813
Financial assets	180	180	180	180	180	180	181
Deferred taxes	447	367	500	438	435	458	444
<b>Total</b>	<b>26.586</b>	<b>21.330</b>	<b>17.617</b>	<b>18.353</b>	<b>18.490</b>	<b>17.451</b>	<b>15.626</b>
<u>Current Assets</u>							
Inventories	19.224	10.056	6.450	6.000	7.200	8.640	9.504
Receivables and other assets	4.375	4.640	5.884	6.000	6.120	6.242	6.367
Income tax assets	219	61	0	0	0	0	1
Securities	849	3.325	700	910	1.183	1.538	1.999
Cash, credit balances at banks	2.262	1.763	15.688	18.844	21.096	24.152	29.933
<b>Total</b>	<b>26.929</b>	<b>19.845</b>	<b>28.722</b>	<b>31.754</b>	<b>35.599</b>	<b>40.573</b>	<b>47.805</b>
<b>Total Assets</b>	<b>53.515</b>	<b>41.175</b>	<b>46.339</b>	<b>50.107</b>	<b>54.089</b>	<b>58.024</b>	<b>63.431</b>
<u>Shareholder's Equity</u>							
Share capital	4.115	4.115	4.115	4.115	4.115	4.115	4.115
Capital reserve	7.753	7.753	7.753	7.753	7.753	7.753	7.753
Loss carried forward	7.695	-87.749	-9.898	-6.301	-2.833	1.895	7.116
Consolidated net income/loss	-71.836	-3.004	3.597	3.468	4.728	5.220	FALSCH
Reserve for currency conversion	-1.905	0	0	0	0	0	1
<b>Total</b>	<b>-54.178</b>	<b>-78.885</b>	<b>5.567</b>	<b>9.035</b>	<b>13.763</b>	<b>18.984</b>	<b>18.985</b>
<u>Non-current provisions and liabilities</u>							
Non-current finance lease obligations	947	700	480	480	480	480	480
Non-current borrowings	21.659	7.223	20.201	19.901	20.610	20.118	20.118
Profit-participation certificates	22.610	0	0	0	0	0	1
Special item for investment grants	6.432	5.177	3.472	5.027	4.559	4.353	4.646
Deferred taxes	359	233	351	368	387	406	426
Pension provisions	623	334	639	532	502	557	530
Other non-current liabilities	0	0	0	0	0	0	0
<b>Total non-current provisions and liabilities</b>	<b>52.630</b>	<b>13.667</b>	<b>25.142</b>	<b>26.308</b>	<b>26.537</b>	<b>25.914</b>	<b>26.202</b>
<u>Current provisions and liabilities</u>							
Current provisions of finance lease obligations	470	388	476	490	505	520	536
Current borrowings and current portion of non-current borrowings	26.550	36.427	850	850	850	850	850
Profit-participation certificates	0	22.738	0	0	0	0	0
Trade payables	13.895	8.462	5.466	4.857	4.614	4.384	4.165
Other provisions	3.277	3.312	1.986	2.000	2.000	2.000	2.000
Income tax liabilities	1.778	787	851	1.000	1.000	1.000	1.000
Other current liabilities	9.093	34.279	6.000	6.000	6.000	6.000	6.000
<b>Total current provisions and liabilities</b>	<b>55.063</b>	<b>106.393</b>	<b>15.629</b>	<b>15.198</b>	<b>14.970</b>	<b>14.754</b>	<b>14.551</b>
<b>Total equity and liabilities</b>	<b>53.515</b>	<b>41.175</b>	<b>46.339</b>	<b>50.541</b>	<b>55.270</b>	<b>59.652</b>	<b>59.737</b>

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## 9 Valuation

### 9.1 DCF-Model

In order to determine the fair value, we established a three-stage discounted cash flow model and used market data for the peer group companies. All data are based on the consolidated financial statements.

Through discounting the operative free cash flows to the valuation date we accommodated the during the period valuation date. As the valuation date we chose 01.02. 2011. As far as non operating assets are concerned, their value was derived separately and added to the present value of the payouts.

Tying in with this, the phase of terminal value follows, for which we calculated with a growth rate of 3% p.a.

#### / Discounted Cash Flow-Modell (Basis 2/2011)

(m EUR)	Phase 1					
	2011e	2012e	2013e	2014e	2015e	2016e
<b>Revenues</b>	<b>62,50</b>	<b>68,75</b>	<b>74,94</b>	<b>78,68</b>	<b>82,62</b>	<b>86,75</b>
Rate of change	-	10%	9%	5%	5%	5%
<b>EBIT</b>	<b>6,00</b>	<b>7,73</b>	<b>8,37</b>	<b>9,78</b>	<b>10,71</b>	<b>11,75</b>
Rate of change	-	29%	8%	17%	9%	10%
Margin	9,6%	11,2%	11,2%	12,4%	13,0%	13,5%
Interest and Shareholding Income	-1,08	-1,02	-0,96	-0,85	-0,74	-0,62
<b>EBT</b>	<b>4,92</b>	<b>6,71</b>	<b>7,40</b>	<b>8,93</b>	<b>9,97</b>	<b>11,13</b>
Operational tax expenses	-1,45	-1,98	-2,18	-2,64	-2,94	-3,28
Effective Tax Rate (ex. Interest Income)	29,5%	29,5%	29,5%	29,5%	29,5%	29,5%
Depreciation and Amortization	4,20	5,00	6,00	6,29	6,61	6,94
Depreciation Ratio (% Revenues)	6,7%	7,3%	8,0%	8,0%	8,0%	8,0%
Changes in long-term provisions	-0,09	-0,03	0,06	-0,03	0,00	0,01
Proportion of Revenues	-0,1%	0,0%	0,1%	0,0%	0,0%	0,0%
Cash Flow-Business needs (change WC)	-0,31	-1,82	-2,13	-1,65	-1,87	-2,14
Working-Capital-Ratio (%Revenues)	-0,5%	-2,6%	-2,8%	-2,1%	-2,3%	-2,5%
Investments into fixed assets	-2,97	-3,27	-3,67	-4,04	-4,47	-4,94
Investments ratio (% Revenues)	-4,8%	-4,8%	-4,9%	-5,1%	-5,4%	-5,7%
Other	0,00	0,00	0,00	0,00	0,00	0,00
<b>Free Cash-Flow</b>	<b>4,30</b>	<b>4,60</b>	<b>5,47</b>	<b>6,87</b>	<b>7,30</b>	<b>7,71</b>

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## 9.2 WACC

The discount rate was calculated by deriving the weighted average cost of capital. We assume that the target capital structure will be improved in the subsequent business years.

WACC Assumptions	
<b>Growth Propositions</b>	
Long-Term growth rate / Inflation	3,0%
Assimilation Phase (from 2015)	5 Jahre
Revenue growth in the beginning	1,0%
Margin development (p.a.)	+1 BP
<b>Equity Cost</b>	
Long-Term risk-free rate	3,8%
Market Risk Premium	5,0%
Beta of the Company / Approximation	0,90
<b>Equity Cost</b>	<b>8,3%</b>
<b>Debt Cost</b>	
Debt Cost (before tax)	7,0%
Tax rate on Debt interest	30,0%
<b>Debt Cost (after tax)</b>	<b>4,9%</b>
Equity Value	43
Market Value of net debt	21
Gearing (Market Values)	49,2%
<b>WACC</b>	<b>7,18%</b>

Adjustments for debt to current interest were not made. Risk free profitability is based on the average profitability of the 30-year bond.

Figuring a risk prime follows the capital asset pricing model (CAPM) and covers in particular the systemic risks (market risk prime esp. company specific risk). The market risk prime in our model is based on publicized studies. The market risk primes that were figured in university research depend on the market, time and method and range between 5% and 8%.

The beta value we used to identify the company specific risk is based on the performance of the reference index DAX.

## 9.3 Fair Value – Sensitivities

Our derived fair value per share amounts to EUR 19.43. This implies an upside potential of 87% to the current share price (EUR 10.40). The modification of the action parameter in terminal value is shown below in the sensitivity analysis. It shows variance in our derived fair value in variant scenarios.

Sensitivity analysis		Fair value per share				
(EUR)		Discount rate				
β = 0,9		6,68%	6,93%	7,18%	7,43%	7,68%
Growth	2,0%	19,41	18,48	17,64	16,87	16,17
	2,5%	20,47	19,40	18,44	17,57	16,79
	3,0%	21,82	20,55	19,43	18,43	17,53
	3,5%	23,60	22,05	20,69	19,51	18,46
	4,0%	26,05	24,05	22,35	20,90	19,63

Sensitivity analysis		Market capitalization				
(Mio.EUR)		Discount rate				
β = 0,9		6,68%	6,93%	7,18%	7,43%	7,68%
Growth	2,0%	79,85	76,04	72,58	69,43	66,54
	2,5%	84,23	79,83	75,87	72,31	69,07
	3,0%	89,80	84,58	79,96	75,84	72,15
	3,5%	97,12	90,71	85,15	80,27	75,95
	4,0%	107,17	98,94	91,97	85,99	80,79

## 9.4 Peer group analysis

In our peer group analysis we only watch automobile suppliers that are listed at the German share market. Thereby, we concentrated on manufacturers some of which, at least, offer similar product solutions as paragon AG. For instance, Funkwerk has similar media products as paragon.

The assessment range fluctuates between €13,24 and €15,63. On the basis of 2011's EV/EBITDA we had a fair value of €14 per share. For 2012 we had a fair value of €14,67. On the basis of the market value, there is the highest fair value of €15,63. This is corresponding to an upside potential of 50,3 percent. From our peer group analysis the lowest fair value of €13,24 is calculated on the basis of 2012's EV/EBIT. Here is an existing upside potential of 27,3%.

Multiples - Peer Group									
Peer Group	EV/EBITDA		EV/EBIT		KGV		EBIT-Marge		KBV
	2011E	2012E	2011E	2012E	2011E	2012E	2011E	2012E	2009
Continental AG	5,6	5,1	9,1	8,0	10,3	8,1	8,9%	9,6%	2,3
ElringKlinger AG	8,0	7,2	12,5	10,8	16,5	14,1	16,5%	17,7%	4,0
Funkwerk AG	2,9	2,3	7,5	4,5	11,7	7,1	3,2%	5,0%	0,7
Grammer AG	3,8	3,4	6,5	5,5	7,8	6,3	4,2%	4,6%	1,1
LEONI AG	5,6	4,8	9,1	7,6	10,1	7,9	5,5%	6,2%	2,3
Renk AG	6,8	6,2	7,7	6,8	11,8	8,7	13,0%	11,5%	2,6
SAF-HOLLAND S.A.	6,2	5,0	8,3	6,4	8,2	4,8	7,4%	8,5%	8,7
TWINTec AG	4,2	2,7	5,2	5,6	6,4	7,0	8,7%	7,8%	1,1
Median	5,6	4,9	8,0	6,6	10,2	7,5	8,4%	8,9%	2,3
paragon	3,6	2,9	4,8	4,8	12,3	9,1	12,8%	11,2%	1,1
Discount (-)/Premium (+)	-34,9	-41,1	-40,2	-27,4	20,7	21,1	51,7	26,8	-50,3
<b>Valuation range:</b>		<b>13,24 EUR bis 15,63 EUR</b>							

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Source: Thomson Reuters, Dr. Kalliwoda Research

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<b>ACCUMULATE</b>	On a basis of our prognoses the stock should have a performance of between 5% and 10% in the following 12 months.
<b>HOLD</b>	On a basis of our prognoses the stock should have a performance of between minus 5% and plus 5% in the following 12 months.
<b>REDUCE</b>	On a basis of our prognoses the stock should have an underperformance of between minus 5% and minus 10%.
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- b) were involved in an emission of investments that is object of this study;
- c) hold a net-sale position of the shares of the analyzed business of at least 1 percent of the share capital;
- d) have serviced the analyzed investments based on any contract with the emitter on the stock exchange or in the market.

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