

February 1st, 2017

Europa | Germany | Auto Supplier

DR. KALLIWODA

RESEARCH GmbH

Update

BUY

Target Price: EUR 51

Industry: Automotive Supplier
 Country: Germany
 ISIN: DE0005558696
 Bloomberg: PGNG.DE
 Reuters: PGN GR
 Website: www.paragon.ag

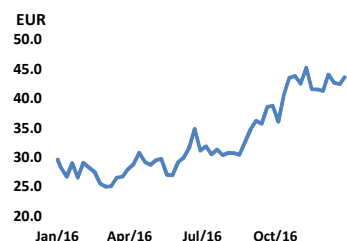
Last Price: 42.55
 High Low
 Price 52 W.: 48.03 22.82
 Market Cap. (EURm) 192.59
 No. of Shares (in m) 4.53

Shareholders

Klaus-Dieter Frers 50.01%
 Free Float 49.99%

Dividend	in EUR	in %
2011	0.25	4.20%
2012	0.35	3.81%
2013	0.25	2.38%
2014	0.25	1.76%
2015	0.16	0.50%

1-year Chart



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paragon AG

Partnership with KUKA for the supply of batteries in automated guided vehicles has boosted our forecasts

- With revenues growth of 9.4% in Q3/16 to € 24.9m, paragon is on track to achieve the annual target figures. The electromobility business (Voltabox) grew revenues by 9.9% q/q to € 2.4m (9.9% of group turnover). The cockpit division, main growth driver in the revenues mix q/q, enhanced revenues by 14.6% to € 9.0m q/q. As with the new acquired customers such as the Chinese manufacturers Changan, GAC Group and Geely sales in the sensors business were up 7.7% q/q. Due to the Chinese pollution difficulties, paragon air quality sensors represent an excellent selling point for automotive manufactures. Although the increase in personal costs resulting from the expansion of the business, consolidated EBIT rose from € 0.7 to € 1.6m, >100%q/q.
- In October Voltabox Deutschland signed an agreement with KUKA Roboter GmbH. Voltabox will provide compact NMC battery packs (nickel-manganese-cobalt-oxide) for automated guided vehicles. The latter are used inside car body production facilities (e.g. transport the car body through all stages of the process). KUKA is a leading global provider of intelligent automation solutions and has a turnover of about € 2.1 billion. Revenues from this partnership are expected in FY2017.
- After the capital fund raising executed last October 2016 paragon increased by 10% the share capital. The management wisely collected new liquid funds to invest them in the electromobility business development riding the growing momentum and in the launch of new products in the other divisions (e.g. the high request particle sensor). Overall, investments in 2016 are expected to reach the amount of € 20.0m. We noted that on an annual basis, paragonOCFs improved from € 6.6m to € 8.4m +27.6% y/y largely because the change in inventories.
- The electromobility division is likely to be the main growth driver still for the four quarters 2016 and for the FY2017. In the guidance the management expect more significant contribution in the automotive divisions' sensors, acoustics and cockpit starting from 2018. We have revised up our target figures estimating the revenues CAGR 20.9% (2016E-2018E) and the EBIT margin on average 9.2% (2016E-2018E) and our target price therefore came at € 51.0 (previous € 40.0) to reflect the potential of Voltabox.

Key Figures

EURm	2012	2013	2014	2015	2016E	2017E	2018E
Net sales	70.4	73.9	79.0	95.0	102.0	122.4	149.2
EBITDA	11.8	12.5	10.5	14.2	15.8	20.7	25.8
EBIT	7.8	7.9	6.2	7.8	8.7	12.4	15.6
Net income	4.6	3.9	2.8	3.4	3.9	6.1	8.0
EPS	1.1	1.0	0.7	0.8	0.9	1.3	1.8
BVPS	3.2	3.9	4.2	4.7	8.0	9.2	10.7
RoE	40.6%	27.3%	16.8%	18.6%	13.9%	15.6%	17.8%
EBIT margin	11.0 %	10.7 %	7.9 %	8.2 %	8.5 %	10.1 %	10.5 %
P/E	33.0x	38.8x	55.2x	45.0x	43.7x	27.7x	21.0x
P/BVPS	11.7x	9.6x	8.9x	8.2x	4.8x	4.1x	3.5x
EV/EBITDA	18.1x	17.1x	20.3x	15.0x	13.6x	10.3x	8.3x

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1 Company Profile

paragon AG was founded in 1988 as an electronics manufacturer. The company's headquarters are located in Delbrück (North Rhine-Westphalia). Other Company's divisions are based in Suhl, St. Georgen, Bexbach and Nuremberg (production or development). The paragon AG has also finished to build a battery production plant in Texas (USA) and a factory in Kunshan (greater Suzhou region).

1.1 Products and Market Share

Founded as a contract manufacturer for electronics, paragon is now a pure Tier 1 automotive supplier. Its main focus relies on auto electronics for interior products to enhance the health, comfort, communication and efficiency. The product catalog includes more than 170 products with a capacity of over 15 million units produced per annum, in addition to its 250 patents owned.

Divisions		
Sensors	Acoustics	Electromobility
Air quality sensor AQS	Microphone	Energy Storage Powerpack
Air improvement system	Seatbelt microphone blet mic	Motor Controller MoDrive
Air treatment system		DC/DC Converter DCCon
Clutck travel sensor		Onboard Charger ChargeON
All gear sensor		
Start-stop sensor		
Cockpit	kinematics	
Interfaces	Aerodynamic	
Cradles & Consoles	Comfort	
cTablet docking station	Convertible tops	
Instruments	Safety	
Controls		
Reversing camera system		
Stepper Motors		

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Many of paragon's products own its unique features, such as the Voltabox battery systems, when they come to fruition in the enhancement of electromobility for commercial vehicles. The sensors, besides, can be softer and simultaneously faster gearshift, as well as for the vehicle manufacturer resulting in economic benefits, where a separate reverse gear sensor is no longer required.

1.2 Clients

paragon AG maintains long-term customer relationship, which is translated in the fact that its over 170 products are currently demanded by 23 customers for 172 vehicle models, where the largest automotive producers, Audi, VW, Daimler, BMW and Porsche, cover approximately about 77% of total sales (end of 2015). Even though the company is increasingly receiving new orders from new products and developed applications, such as CO² sensors, wireless charging products or new innovative belt microphones.

2 SWOT

Strengths	Weaknesses
<ul style="list-style-type: none"> • Combination of innovation and integration of force through company-wide culture of innovation with a focus in developing new products, while observing the product integration into the overall system for the automobile manufacturers; by First-Mover-Advantage and high success rate of bringing products to the market. Over 170 products and 250 patents. • Products with unique features in niche markets with high quantities in automated manufacturing. Therefore high margins and strong market position in several areas. • Direct supplier with many years of customer loyalty, knowing what customers want, means entry-market barriers. 	<ul style="list-style-type: none"> • High business risk due to strong sales focus on three German automotive manufacturers in the premium area, tempered by long-term customer relationships under contracts, all model series, and the relatively small dependence of premium manufacturers. • Low negotiating power with customers and suppliers in the low-selling environment of numerous competitors mitigated by the relatively higher willingness to pay the premium end-user customers. • Strong competition with high pressure to innovate, since more than half of key innovations are taking place in the field of electronics.
Opportunities	Risks
<ul style="list-style-type: none"> • Increasing use of paragon products in the compact and mid-range through new technologies and efficient production with a high degree of automation and economies of scale, eg. Air quality. • Growth and diversification through the field of electric mobility by expanding the customer base to smaller commercial vehicles in domestic and urban areas, where applications are already in use for electric mobility. With this regard, more distribution channels are sought. • Reduction of product-specific integration costs for the customer through development of applications to support the vehicle installation can be a significant competitive advantage. 	<ul style="list-style-type: none"> • Products are not expected to develop their potential and the number of units produced cannot cover the costs. paragon AG tries to avoid this by an intensive dialogue with automobile manufacturers. • Competitor may displace paragon of revenue-important market niches. • An unexpected slump in the automobile industry may lead to liquidity difficulties at paragon.

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3 Valuation

Our DCF model for paragon AG indicates a 12-month fair value of € 51.0 per share. Although some delays and one-time effects in 2016 in the electromobility business, we have estimated significant profitability contributions in the upcoming years from this division while the automotive divisions in our forecasts should impact more from 2018.

a. WACC

The discount rate was calculated by deriving the weighted cost of capital. We assumed that the target capital structure will not change in the subsequent business years. Figuring a risk prime follows the capital asset pricing model (CAPM) and covers in particular the systemic risks (market risk prime exp. company specific risk).

WACC assumptions	
Equity	
Long-term risk free rate	1.5%
Market risk premium	6.0%
Beta	1.50
Equity costs	10.5%
Debt	
Debt costs (before tax)	3.0%
Tax rate on debt interest	30.0%
Debt costs (after tax)	2.1%
Capital Structure	
Equity value	60.0%
Debt Value	40.0%
Gearing	66.8%
WACC	7.1%

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b. DCF

Discounted-Cash-Flow-Modell (Basis 01/2017)

in EUR m	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Net sales	102.0	122.4	149.2	173.8	197.3	211.2	216.1
(y-o-y change)	7.4%	20.0%	21.9%	16.5%	13.5%	7.1%	2.3%
EBIT	8.7	12.4	15.6	18.7	21.0	22.4	22.9
(EBIT margin)	8.5%	8.9%	9.4%	9.8%	9.8%	9.8%	9.8%
NOPLAT	6.0	8.2	10.4	13.1	14.7	15.7	16.0
+ Depreciation and Amortization	7.1	8.3	10.1	10.1	10.9	11.6	11.9
= Net operating cash flow	13.1	16.6	20.6	23.2	25.6	27.3	27.9
- Total investments (Capex and WC)	-20.8	-15.1	-11.3	-8.5	-8.6	-8.3	-7.2
Capital expenditure	-20.1	-15.0	-10.4	-6.4	-6.7	-7.1	-6.8
Working capital	-0.7	-0.1	-0.9	-2.1	-2.0	-1.2	-0.4
= Free cash flow (FCF)	-7.7	1.4	9.3	14.7	17.0	19.0	20.7
PV of FCFs	-7.6	1.3	7.9	11.7	12.6	13.2	13.5

PV of FCFs in explicit period	52.7
PV of FCFs in terminal period	208.4
Enterprise value (EV)	261.1
+ Net cash / - net debt	-45.5
+ Investitionen / - Minderheiten	0.0
Shareholder value	215.5
Number of shares outstanding (m)	4.5
WACC	
WACC	7.1%
Cost of equity	10.5%
Pre-tax cost of debt	3.0%
Normal tax rate	30.0%
After-tax cost of debt	2.1%
Share of equity	60.1%
Share of debt	39.9%
Fair value per share in € (today)	47.6
Fair value per share in € (in 12 months)	51.0

Sensitivitätsanalyse		Terminal EBIT-Marge						
		6.8%	7.8%	8.8%	9.8%	10.8%	11.8%	12.8%
WACC	4.1%	134.6	157.2	179.8	202.4	225.0	247.7	270.3
	5.1%	71.8	83.7	95.6	107.5	119.4	131.2	143.1
	6.1%	47.3	55.1	62.9	70.6	78.4	86.2	93.9
	7.1%	34.2	39.8	45.4	51.0	56.6	62.2	67.9
	8.1%	26.0	30.3	34.5	38.8	43.1	47.4	51.7
9.1%	20.3	23.7	27.1	30.5	33.9	37.3	40.7	

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4 Turnover

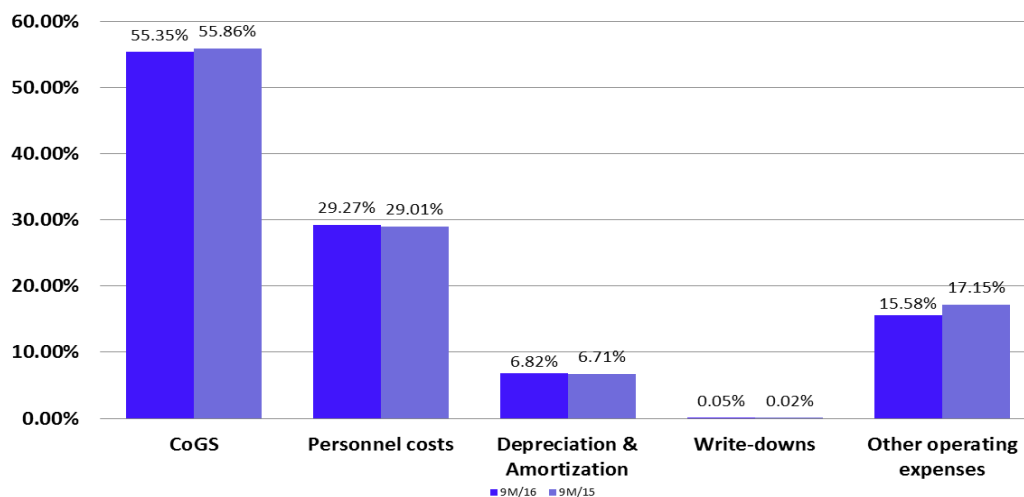
paragon growth continued in the third quarter with group revenues up 9.4% to € 73.7m in 9M/16 and driven by the electromobility division (Voltabox Deutschland and Texas) which rose by 96.8% y/y to € 6.9m. Main production in the e-mobility business was the battery modules for forklift trucks in the reporting period. In the sensors business the growth in take-rates of paragon sensors in current vehicles models improved revenues by 5.3% y/y to € 26.3m (35.8% of total turnover). The starting serial production for a new generation of cockpit instrument increased sales in the cockpit division by 5.2% or € 1.2m. As with the increased output quantity of the current version of the premium hands-free microphone payed, the sales in the acoustic business grew by 8.7% to 12.9m. In contrast, mainly because of the product life cycle the boy kinematics division slowdown by -19.9% to € 2.3m. However the latter is starting the production of drive systems for freely adjustable rear spoilers for optimized aeronautics.

Key facts in 9M/2016

in EURm	9M/16	9M/15	Change
Net sales	73.70	67.36	9.4%
EBITDA	10.16	9.12	11.5%
<i>EBITDA-Marge</i>	13.8%	13.5%	
EBIT	5.10	4.58	11.3%
<i>EBIT margin</i>	6.9%	6.8%	
Net income	0.82	1.85	-55.8%
<i>Net margin</i>	1.1%	2.7%	

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Group Profitability



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Compared to revenues, the costs of materials increased sub proportionally by 8.4% to € 40.8m and thus the input material ratio was 55.3% (vs. 9M/15: 55.9%). Including the own work capitalized, gross profit margin amounted to € 43.2m or 51.4% y/y. As with the development of new divisions and new hired, the personal expenses ratio rose by 0.3% y/y reaching 29.3% of total revenues. Unchanged y/y the other operating costs at € 11.5m while the depreciation and amortization reached € 5.1m (prior year € 4.5m). As result the EBIT increased by 11.3% to € 5.1m, the margin was 6.9% (prior year 6.8%). Due to higher net financial costs (from € 1.7m to € 2.4m) and tax expenses (from € 1.0m to € 1.9m) net income lowered to € 0.8m (prior year € 1.9m).

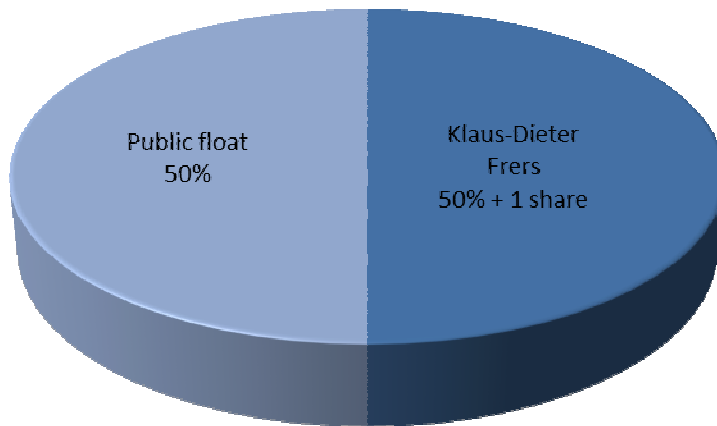
From January to September 2016 paragon total assets increased from € 86.4m to € 99.9m. The main reasons were (1) higher investments in property, plant and equipment, as with the business development of the new divisions and (2) the higher work capitalized due to new projects. On the liability side, we noted an increase in non-current borrowings (€ 15.8m vs. € 21.7m), current borrowing (€ 13.7m vs. € 15.5m) and trade payable (€ 10.6m vs. € 12.5m). Interest-bearing liabilities therefore rose to € 53.3m (prior year € 44.6m) and thus net debt reached € 45.3m (prior year € 34.5m).

In the same period, the cash flows from operating activities improved from € 6.6m to € 8.4m mainly because better inventories. Less cash payments for investments in property, plant and equipment led the cash flow from investments activities from € -25.3m to € -16.5m while € 8.4m less cash proceeds from borrowings reduced cash inflows from the financing activities to € 3.8m (prior year € 12.0m). In sum, cash at the end of the period decreased to € 4.2m from € 6.6m.

Outlook

Based on the recent development and the order backlog which include Joy Global (revenues starting 2018) and the new partnership on electric powertrain for automated power vehicles with KUKA Roboter GmbH in the e-mobility business, we have forecasted € 102m target revenues in 2016, € 122.4m in 2017 and hence we have improved our target price to 51.0€. We noted also in the acoustics division further improvements in sales of the hands-free microphone. Furthermore, the management expects a rise in demand for its technological products in the automotive divisions for health, comfort and efficiency with an impact in the figures starting from 2018. In the analysis have to be included the risks concerning the macroeconomic scenario and thus for the demand, and also related to the product development. However the investments in new plants (Votabox) and technologies seem to increase the chance for a better group profitability. We have found interesting that paragon e-mobility business, can rely on more than 60 specialists to develop and produces safe, high-performance lithium ion batteries for use in trolleybuses, forklift trucks, mining vehicles and autonomously guided vehicles. The raised fund during in the most recent capital increase might further boost the e-mobility and new products in high demand such as the particle sensors.

5 Shareholder's Structure



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6 Profit and Loss Statement

Profit and Loss statement - paragon AG							
	Fiscal year						
in mEUR	2012	2013	2014	2015	2016E	2017E	2018E
Net sales	70.45	73.88	79.04	94.99	102.00	122.40	149.21
<i>Change in inventories</i>	0.57	0.26	0.79	1.44	1.12	0.90	1.06
<i>Capitalised assets</i>	2.03	1.68	5.15	12.75	12.80	12.78	12.79
<i>other operating income</i>	2.02	1.10	1.35	3.18	3.24	3.30	3.36
Total Output	75.05	76.91	86.33	112.37	119.16	139.38	166.41
<i>Cost of goods sold</i>	-36.95	-36.27	-41.85	-55.52	-57.79	-67.74	-81.21
Gross profit	38.10	40.64	44.48	56.85	61.37	71.64	85.20
<i>Personnel costs</i>	-18.85	-19.60	-21.76	-26.31	-30.38	-37.49	-44.60
<i>Depreciation & Amortization</i>	-3.89	-4.31	-4.27	-6.29	-7.10	-8.32	-10.15
<i>Write-downs</i>	-0.14	-0.27	-0.02	-0.11	0.00	0.00	0.00
<i>Other operating expenses</i>	-7.45	-8.54	-12.20	-16.33	-15.21	-13.42	-14.82
EBIT	7.78	7.92	6.25	7.81	8.67	12.40	15.64
<i>Net financial results</i>	-1.08	-1.49	-1.96	-2.79	-3.07	-3.24	-3.62
EBT	6.70	6.43	4.29	5.02	5.60	9.16	12.03
<i>Income taxes</i>	-2.07	-2.49	-1.51	-1.62	-1.75	-3.08	-3.99
<i>Minority interests</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net income / loss	4.64	3.95	2.78	3.40	3.85	6.08	8.03
<i>EPS</i>	1.13	0.96	0.67	0.83	0.85	1.34	1.77
Change y-o-y							
<i>Net sales</i>	n.a	4.87%	6.98%	20.18%	7.38%	20.00%	21.90%
<i>Total Output</i>	n.a	2.47%	12.25%	30.16%	6.04%	16.97%	19.40%
<i>Cost of goods sold</i>	n.a	-1.85%	15.39%	32.66%	4.10%	17.21%	19.89%
<i>Gross profit</i>	n.a	6.67%	9.45%	27.80%	7.94%	16.74%	18.93%
<i>Personnel costs</i>	n.a	3.98%	10.98%	20.92%	15.50%	23.39%	18.96%
<i>Depreciation & Amortization</i>	n.a	10.91%	-1.02%	47.55%	12.81%	17.24%	21.90%
<i>Other operating expenses</i>	n.a	14.59%	42.85%	33.92%	-6.85%	-11.78%	10.41%
<i>EBIT</i>	n.a	1.88%	-21.13%	24.95%	11.04%	43.07%	26.11%
<i>Net financial results</i>	n.a	38.35%	31.68%	42.05%	10.05%	5.71%	11.57%
<i>EBT</i>	n.a	-3.99%	-33.36%	17.12%	11.59%	63.53%	31.25%
<i>Income taxes</i>	n.a	20.34%	-39.15%	7.01%	8.04%	76.26%	29.58%
<i>Net income / loss</i>	n.a	-14.82%	-29.71%	22.63%	13.28%	57.76%	32.10%
<i>EPS</i>	n.a	-14.82%	-29.71%	22.63%	2.98%	57.76%	32.10%
Share in total revenues							
<i>Net sales</i>	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	101.00 %
<i>Total Output</i>	106.54 %	104.10 %	109.23 %	118.29 %	116.82 %	113.87 %	111.53 %
<i>Cost of goods sold</i>	-52.45 %	-49.09 %	-52.95 %	-58.44 %	-56.66 %	-55.34 %	-54.43 %
<i>Gross profit</i>	54.09 %	55.01 %	56.28 %	59.85 %	60.16 %	58.53 %	57.11 %
<i>Personnel costs</i>	-26.76 %	-26.54 %	-27.53 %	-27.69 %	-29.79 %	-30.63 %	-29.89 %
<i>Depreciation & Amortization</i>	-5.51 %	-5.83 %	-5.40 %	-6.62 %	-6.96 %	-6.80 %	-6.80 %
<i>Write-downs</i>	-0.19 %	-0.36 %	-0.02 %	-0.12 %	0.00 %	0.00 %	0.00 %
<i>Other operating expenses</i>	-10.58 %	-11.56 %	-15.43 %	-17.19 %	-14.91 %	-10.96 %	-9.93 %
<i>EBIT</i>	11.04 %	10.72 %	7.91 %	8.22 %	8.50 %	10.13 %	10.48 %
<i>Net financial results</i>	-1.53 %	-2.02 %	-2.48 %	-2.93 %	-3.01 %	-2.65 %	-2.42 %
<i>EBT</i>	9.51 %	8.71 %	5.42 %	5.29 %	5.49 %	7.49 %	8.06 %
<i>Income taxes</i>	-2.93 %	-3.36 %	-1.91 %	-1.70 %	-1.71 %	-2.52 %	-2.68 %
<i>Minority interests</i>	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
<i>Net income / loss</i>	6.58 %	5.34 %	3.51 %	3.58 %	3.78 %	4.97 %	5.38 %

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7 Balance Sheet

Balance Sheet - paragon AG							
in mEUR	Fiscal year						
	2012	2013	2014	2015	2016E	2017E	2018E
Assets							
Cash and cash equivalents	14.08	17.65	13.26	8.45	10.98	12.75	13.10
Inventories	7.31	7.47	6.91	11.22	13.46	15.77	18.91
Trade accounts and notes receivables	1.79	6.04	9.76	10.38	10.48	10.40	11.04
Other current assets	2.20	1.95	2.40	2.81	5.10	6.12	7.46
Current assets	25.39	33.10	32.34	32.86	40.02	45.04	50.50
Property, plant and equipment	13.54	12.98	20.18	34.55	40.05	43.27	42.05
Sonstige immaterielle Vermögenswerte	4.91	5.60	9.44	23.96	31.34	34.84	36.34
Firmenwert	0.00	0.00	0.00	0.77	0.84	0.84	0.84
Other assets	0.12	0.25	0.47	0.41	0.44	0.53	0.65
Deferred tax assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-current assets	18.58	18.83	30.08	59.69	72.68	79.48	79.88
Total assets	43.97	51.94	62.42	92.55	112.69	124.52	130.38
Liabilities							
Trade payables	3.04	3.36	6.12	10.72	12.35	14.48	17.35
Other liabilities	8.13	5.91	4.54	7.04	3.57	7.96	9.70
Short-term financial debt	2.39	2.86	5.50	9.34	16.00	14.83	13.86
Provisions	0.30	0.06	0.09	0.02	0.02	0.14	0.17
Current liabilities	13.86	12.18	16.24	27.12	31.94	37.40	41.08
Long-term financial debt	12.26	20.21	24.71	38.53	38.03	37.53	31.03
Special benefits	2.09	1.50	1.27	1.18	1.22	1.47	1.79
Pension obligations	2.73	1.22	1.88	2.09	1.02	1.22	1.49
Deferred tax liabilities	0.00	0.94	1.12	3.51	4.39	5.26	6.42
Other non-current liabilities	0.00	0.00	0.00	0.72	0.00	0.00	0.00
Long-term liabilities	17.08	23.86	28.98	46.03	44.66	45.49	40.73
Total liabilities	30.94	36.04	45.23	73.15	76.60	82.89	81.81
Shareholders equity	13.03	15.89	17.20	19.40	36.10	41.64	48.58
Minority interests	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total equity and liabilities	43.97	51.94	62.42	92.55	112.69	124.52	130.38

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8 Cash Flow Statement

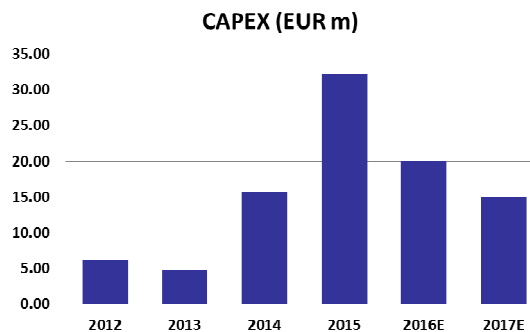
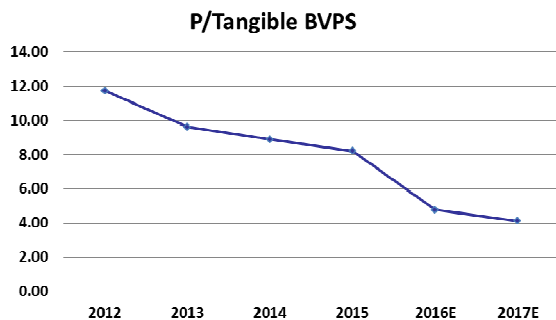
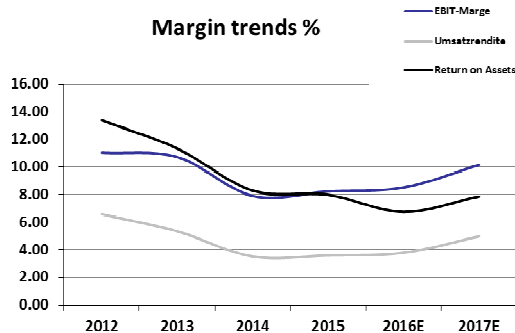
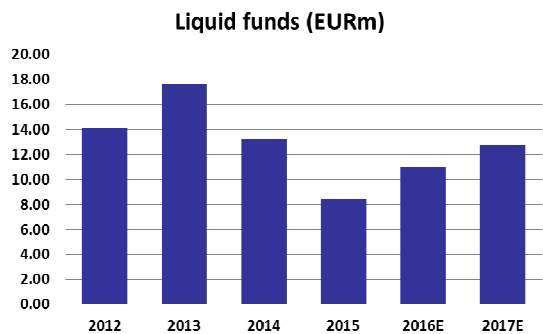
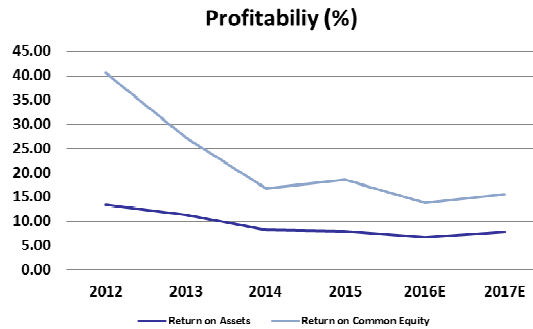
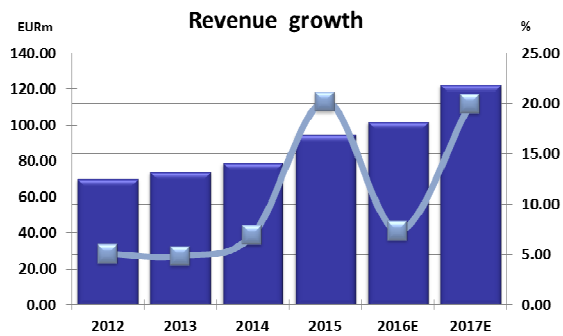
Cash Flow statement - paragon AG							
in mEUR	Fiscal year						
	2012	2013	2014	2015	2016E	2017E	2018E
Net income	4.6	3.9	2.8	3.4	3.9	6.1	8.0
Depreciation & Amortisation	3.9	4.3	4.3	6.3	7.1	8.3	10.1
Others	-0.9	0.9	0.3	3.5	0.9	1.0	1.2
Change of working capital	-1.8	-4.1	-0.4	-0.3	-0.7	-0.1	-0.9
Increase (-), decrease (+) in inventories	-0.4	-0.2	0.6	-4.3	-2.2	-2.3	-3.1
Increase (-), decrease (+) in trade receivables	-1.3	-4.2	-3.7	-0.6	-0.1	0.1	-0.6
Increase (+), decrease (-) in trade payable	0.0	0.3	2.8	4.6	1.6	2.1	2.9
Others wc positions	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Net operating cash flow	5.8	5.1	6.9	12.9	10.4	15.2	18.6
Cash flow from investing	-6.2	-4.8	-15.7	-32.3	-20.1	-15.0	-10.4
Free cash flow	-0.3	0.3	-8.7	-19.5	-9.6	0.1	8.1
Cash flow from financing	-0.9	3.3	4.3	14.7	12.2	1.6	-7.8
Change in cash	-1.2	3.6	-4.4	-4.8	2.5	1.8	0.3
Cash, start of the year	15.3	14.1	17.6	13.3	8.5	11.0	12.8
Cash, end of the year	14.1	17.6	13.3	8.5	11.0	12.8	13.1

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9 Ratios

Fiscal year	2012	2013	2014	2015	2016E	2017E	2018E	2019E
Gross margin	50.8%	52.8%	51.5%	50.6%	51.5%	51.4%	51.2%	49.9%
EBITDA margin	15.7%	16.3%	12.2%	12.6%	13.2%	14.9%	15.5%	15.1%
EBIT margin	10.4%	10.3%	7.2%	6.9%	8.5%	8.9%	9.4%	9.8%
Net margin	6.2%	5.1%	3.2%	3.0%	3.2%	4.4%	4.8%	5.5%
Return on equity (ROE)	40.6%	27.3%	16.8%	18.6%	13.9%	15.6%	17.8%	19.9%
Return on assets (ROA)	13.4%	11.3%	8.3%	8.0%	6.7%	7.9%	9.1%	10.7%
Return on capital employed (ROCE)	17.9%	12.2%	8.8%	8.1%	7.4%	9.4%	11.7%	14.2%
Net debt (in EURm)	0.6	5.4	16.9	39.4	43.0	39.6	31.8	19.5
Net gearing	4.4%	34.1%	98.5%	203.1%	119.3%	95.1%	65.5%	33.9%
Equity ratio	29.6%	30.6%	27.6%	21.0%	32.0%	33.4%	37.3%	42.6%
Current ratio	183.2%	271.8%	199.1%	121.2%	125.3%	120.4%	122.9%	137.4%
Quick ratio	114.6%	194.4%	141.8%	69.4%	67.2%	61.9%	58.7%	65.0%
Net interest cover	7.2	5.3	3.2	2.8	2.8	3.8	4.3	5.1
Net debt/EBITDA	0.05	0.43	1.61	2.77	2.73	1.91	1.23	0.68
CAPEX/Sales	8.2%	6.0%	19.4%	37.8%	19.7%	12.3%	7.0%	3.7%
Working capital/Sales	0.2%	8.4%	10.7%	7.0%	12.9%	8.1%	6.9%	7.0%

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