

October 18th, 2016

Europa | Germany | Auto Supplier

DR. KALLIWODA
RESEARCH GmbH

Update

BUY

Target Price: EUR 40.0

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

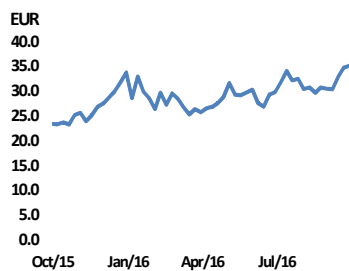
Last Price: 37.2
 High Low
 Price 52 W.: 37.5 20.5
 Market Cap. (EURm) 168.4
 No. of Shares (in m) 4.5

Shareholders

Klaus-Dieter Frers 50.0%
 Free Float 50.0%

Dividend	in EUR	in %
2011	0.3	4.2%
2012	0.4	3.8%
2013	0.3	2.4%
2014	0.3	1.8%
2015	0.2	0.5%

1-year Chart



Analyst

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paragon AG

New strategic partnership for Voltabox US; capital increase oversubscribed in October.

- During the first six months of 2016, paragon AG reported revenues growth of 9.4% y/y to € 48.8m, mainly due to the development in the acoustic and electromobility divisions. As expected, the temporary costs for the start of several series productions and the new hired staff (personal expenses ratio up 1%) lowered EBIT and net income respectively from € 3.8m to € 3.5m and from € 1.9m to € 0.7m in H1/16. Thus, the EBIT margin correspond at 7.2% of total revenues (vs. H1/15: 8.6%). However the company confirmed the target figures for FY2016 (revenues 8% y/y and EBIT margin 9%).
- In June 2016, Voltabox Texas Inc. announced the strategic partnership with a leading mining equipment and service supplier Joy Global Inc. As initial stage of the cooperation, Voltabox will develop smart lithium-ion technology batteries with a better performance and cost advantages for Joy Global underground mining equipment. This agreement represents a step forward for Voltabox long term earnings growth, with revenues expected starting from FY2018.
- The acoustic division grew the revenues by 16.8% y/y to € 8.9m in H1/16 mainly because of the increased output quantity in premium hands-free microphone vario-mic. The sensor and the cockpit divisions grew correspondingly by 3.9% and 0.5%, while as with the products' lifecycle the body kinematics division decreased sales by 36.9%. Excellent growth was recorded in the electromobility business, up 235.2% y/y to € 4.5m (vs. H1/15: €1.3) mainly due to the production of large battery systems for trolley buses and the modules for forklift trucks. Voltabox now accounts for 9.3% of total turnover (vs. H1/15: 3.0%).
- At the beginning of October 2016, paragon successfully completed a capital increase placing around 0.41m new shares. This was oversubscribed three-and-a-half-time at the price of € 32.5 per every new share and therefore the gross issue proceeds of roughly € 13.4m (share capital up 10% to € 4.5m). The raised funds should be employed to finance and push ahead the electromobility business and other target projects in the traditional segments. In our valuation we have considered uncertainty in the macroeconomics scenario and in the single productions. However taking into account the dynamic growth in the lithium-ion batteries, sensors and acoustics businesses, we have improved our revenues estimates for paragon (revenues CAGR 17% 2016E-2018E) and thus our target price per share to € 40.0 (previous € 35.4).

Key Figures

EURm	2012	2013	2014	2015	2016E	2017E
Net sales	70.4	73.9	79.0	95.0	102.0	121.3
EBITDA	11.8	12.5	10.5	14.2	16.4	20.8
EBIT	7.8	7.9	6.2	7.8	9.4	12.5
Net income	4.6	3.9	2.8	3.4	4.1	6.0
EPS	1.1	1.0	0.7	0.8	0.9	1.3
BVPS	3.2	3.9	4.2	4.7	8.0	9.2
RoE	40.6%	27.3%	16.8%	18.6%	14.6%	15.5%
EBIT margin	11.0 %	10.7 %	7.9 %	8.2 %	9.2 %	10.3 %
P/E	33.0x	38.8x	55.2x	45.0x	41.4x	27.9x
P/BVPS	11.7x	9.6x	8.9x	8.2x	4.7x	4.1x
EV/EBITDA	18.1x	17.1x	20.3x	15.0x	13.0x	10.3x

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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 the fair value of €40.0 per share.

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%
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 10/2016)							
in EUR m							
Net sales	2016E	2017E	2018E	2019E	2020E	2021E	2022E
	102.0	121.3	139.6	153.6	165.2	173.2	176.6
(y-o-y change)	7.4%	18.9%	15.1%	10.0%	7.6%	3.2%	2.1%
EBIT	9.4	12.5	15.9	17.4	18.5	19.4	19.7
(EBIT margin)	8.2%	9.2%	10.3%	10.3%	10.3%	10.3%	10.3%
NOPLAT	6.3	8.3	10.6	12.1	13.0	13.6	13.8
+ Depreciation and Amortization	7.0	8.2	9.5	8.9	9.1	9.5	9.7
= Net operating cash flow	13.3	16.5	20.1	21.1	22.1	23.1	23.5
- Total investments (Capex and WC)	-14.8	-14.0	-9.7	-6.9	-6.2	-5.9	-5.0
Capital expenditure	-14.0	-11.8	-7.6	-5.3	-4.9	-5.0	-4.6
Working capital	-0.8	-2.2	-2.1	-1.6	-1.3	-0.9	-0.4
= Free cash flow (FCF)	-1.5	2.6	10.4	14.2	15.8	17.1	18.5
PV of FCF's	-1.4	2.4	9.0	11.4	11.9	12.0	12.1
PV of FCFs in explicit period	57.2						
PV of FCFs in terminal period	157.3						
Enterprise value (EV)	214.5						
+ Net cash / - net debt	-45.5						
+ Investitionen / - Minderheiten	0.0						
Shareholder value	169.0						
Number of shares outstanding (m)	4.5						
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	60.0%						
Share of debt	40.0%						
Fair value per share in € (today)	37.3						
Fair value per share in € (in 12 months)	40.0						

Sensitivitätsanalyse		Terminal EBIT-Marge						
		7.3%	8.3%	9.3%	10.3%	11.3%	12.3%	13.3%
WACC	4.1%	80.7	92.4	104.0	115.7	127.3	139.0	150.6
	5.1%	51.8	59.1	66.4	73.7	81.0	88.3	95.6
	6.1%	37.2	42.3	47.5	52.7	57.8	63.0	68.2
	7.1%	28.3	32.2	36.1	40.0	43.9	47.8	51.7
	8.1%	22.3	25.4	28.5	31.5	34.6	37.7	40.7
	9.1%	18.0	20.5	23.0	25.4	27.9	30.4	32.9

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4 Turnover

In H1/16 the company from Delbrück maintained its dynamic growth recording an increase in sales of 9.4% to € 48.8m. The sensor business division (35.8% of total turnover) grew sales by 3.9% to € 17.5m as with the increased take-rates of optional extras that include paragon sensors in current vehicle models. Largely because of the premium hands-free microphone vario-mic, the acoustic business rose sales by 16.8% y/y to € 8.9m. The Cockpit division increased sales by 0.5% y/y to € 16.2m as with the launch of smartphone cradle for motorcycles. As a result of the product lifecycle the body kinematics division lowered revenues by 36.9% y/y, however new productions are expected in 2017 in this segment. Strongly running was the electromobility business which grew revenues from € 1.3m to € 4.5m, up 235.2% y/y, due to the large battery systems for use in trolley buses and the modules for forklift trucks.

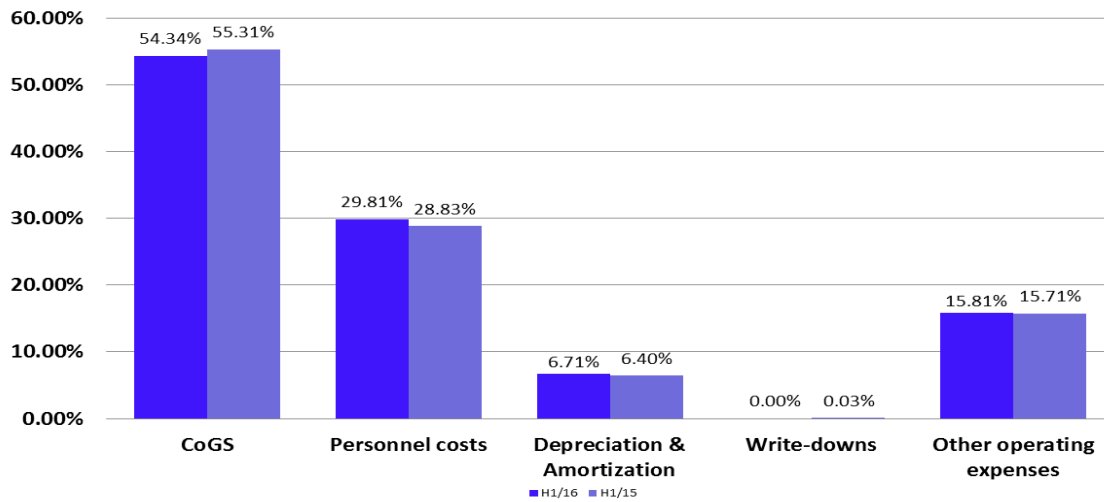
Figures in H1/2016

in EURm	H1/16	H1/15	Change
Net sales	48.82	44.62	9.4%
EBITDA	6.80	6.70	1.5%
<i>EBITDA-Marge</i>	13.9%	15.0%	
EBIT	3.52	3.84	-8.3%
<i>EBIT margin</i>	7.2%	8.6%	
Net income	0.67	1.89	-64.7%
<i>Net margin</i>	1.4%	4.2%	

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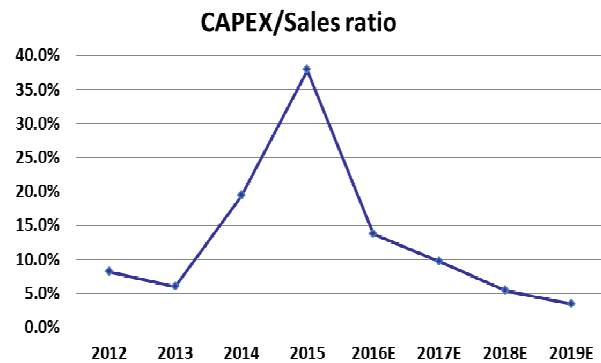
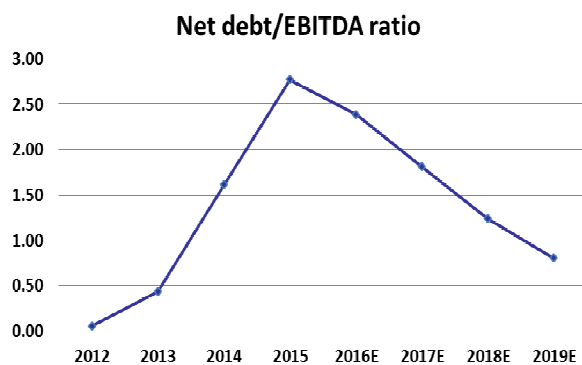
The cost of materials increased disproportionately low compared to revenues (7.5% y/y to 26.5m), which despite higher own work capitalized y/y, led to the gross profit to 29.1m up 9.4% (margin enhanced from 51.9% to 52.3%). With operational growth and development in the new divisions, the personal expenses increased by 13.1% y/y to € 14.6m (29.8% of total sales). Although EBITDA enhanced by 1.3% to € 6.8m, the increase in depreciation and amortization by 14.6% offset the group EBIT that lowered from € 3.8m to € 3.5m. As with higher net financial expenses (up €0.4m) and taxes (up 0.4m), net income reduced from € 1.89m to € 0.67m in H1/16.

Group Profitability



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In order to finance new projects and given the favorable interest rates, in the reporting period paragon has increased its total debt to € 54.4m (non-current debt up € 12.2m and short term debt up € 5.6m), and thus the net debt accounted for €45.5m. The interest coverage ratio was 2.3x while the net ratio (total debt/total assets) was 56% in H1/16. We have estimated a decrease in the net debt/EBIDA (6.7x in H1/16) and in the capex/sales ratios for the next fiscal years as follow:

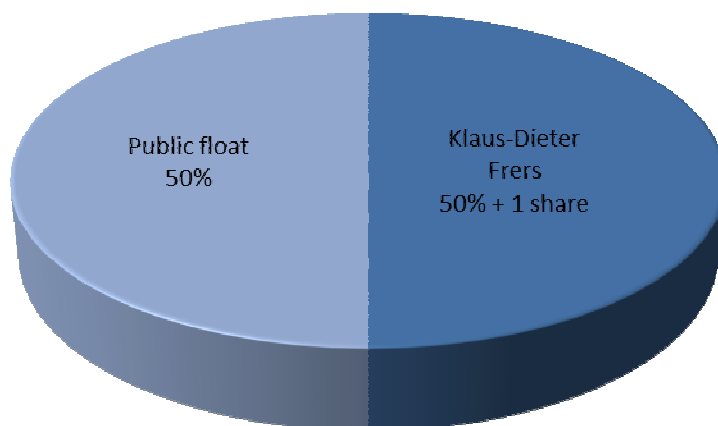


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Outlook

The company forecasts of 8% revenues growth for FY2016 appear realistic, even because at the end of H1/16 paragon has already achieved 97.5% of the customer order volumes required to reach this performance. Among the different divisions the most growing was once more the electromobility business in the period under review, which we have estimated to be the company growth driver also for the year 2016E and 2017E. Moreover, the agreement signed with Joy Global Inc., leading mining equipment and service supplier should boost revenues from 2018 in this division. In our model we have forecasted also positive development in the sensors and acoustics divisions in the medium-term. The € 13.4m collected in the recent capital increase are expected to be used in further investments in business development, which should therefore improve paragon long term earnings and profitability. We have released the new target price of € 40.0 pershare.

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
Net sales	70.45	73.88	79.04	94.99	102.00	121.30
Change in inventories	0.57	0.26	0.79	1.44	1.12	0.90
Capitalised assets	2.03	1.68	5.15	12.75	8.95	10.85
other operating income	2.02	1.10	1.35	3.18	3.24	3.30
Total Output	75.05	76.91	86.33	112.37	115.31	136.35
Cost of goods sold	-36.95	-36.27	-41.85	-55.52	-55.93	-66.27
Gross profit	38.10	40.64	44.48	56.85	59.38	70.09
Personnel costs	-18.85	-19.60	-21.76	-26.31	-29.40	-36.68
Depreciation & Amortization	-3.89	-4.31	-4.27	-6.29	-7.04	-8.25
Write-downs	-0.14	-0.27	-0.02	-0.11	0.00	0.00
Other operating expenses	-7.45	-8.54	-12.20	-16.33	-13.54	-12.61
EBIT	7.78	7.92	6.25	7.81	9.40	12.54
Net financial results	-1.08	-1.49	-1.96	-2.79	-3.32	-3.39
EBT	6.70	6.43	4.29	5.02	6.08	9.15
Income taxes	-2.07	-2.49	-1.51	-1.62	-2.02	-3.11
Minority interests	0.00	0.00	0.00	0.00	0.00	0.00
Net income / loss	4.64	3.95	2.78	3.40	4.06	6.04
EPS	1.13	0.96	0.67	0.83	0.90	1.33
Change y-o-y						
Net sales	n.a	4.87%	6.98%	20.18%	7.38%	18.92%
Total Output	n.a	2.47%	12.25%	30.16%	2.62%	18.25%
Cost of goods sold	n.a	-1.85%	15.39%	32.66%	0.74%	18.49%
Gross profit	n.a	6.67%	9.45%	27.80%	4.46%	18.02%
Personnel costs	n.a	3.98%	10.98%	20.92%	11.77%	24.74%
Depreciation & Amortization	n.a	10.91%	-1.02%	47.55%	11.84%	17.20%
Other operating expenses	n.a	14.59%	42.85%	33.92%	-17.06%	-6.87%
EBIT	n.a	1.88%	-21.13%	24.95%	20.36%	33.48%
Net financial results	n.a	38.35%	31.68%	42.05%	19.02%	2.26%
EBT	n.a	-3.99%	-33.36%	17.12%	21.11%	50.52%
Income taxes	n.a	20.34%	-39.15%	7.01%	24.64%	54.40%
Net income / loss	n.a	-14.82%	-29.71%	22.63%	19.42%	48.59%
EPS	n.a	-14.82%	-29.71%	22.63%	8.57%	48.59%
Share in total revenues						
Net sales	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Total Output	106.54 %	104.10 %	109.23 %	118.29 %	113.05 %	112.41 %
Cost of goods sold	-52.45 %	-49.09 %	-52.95 %	-58.44 %	-54.83 %	-54.63 %
Gross profit	54.09 %	55.01 %	56.28 %	59.85 %	58.22 %	57.78 %
Personnel costs	-26.76 %	-26.54 %	-27.53 %	-27.69 %	-28.83 %	-30.24 %
Depreciation & Amortization	-5.51 %	-5.83 %	-5.40 %	-6.62 %	-6.90 %	-6.80 %
Write-downs	-0.19 %	-0.36 %	-0.02 %	-0.12 %	0.00 %	0.00 %
Other operating expenses	-10.58 %	-11.56 %	-15.43 %	-17.19 %	-13.28 %	-10.40 %
EBIT	11.04 %	10.72 %	7.91 %	8.22 %	9.21 %	10.34 %
Net financial results	-1.53 %	-2.02 %	-2.48 %	-2.93 %	-3.25 %	-2.80 %
EBT	9.51 %	8.71 %	5.42 %	5.29 %	5.96 %	7.55 %
Income taxes	-2.93 %	-3.36 %	-1.91 %	-1.70 %	-1.98 %	-2.57 %
Minority interests	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Net income / loss	6.58 %	5.34 %	3.51 %	3.58 %	3.98 %	4.98 %

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7 Balance Sheet

Balance Sheet - paragon AG						
in mEUR	Fiscal year					
	2012	2013	2014	2015	2016E	2017E
Assets						
Cash and cash equivalents	14.08	17.65	13.26	8.45	14.86	14.73
Inventories	7.31	7.47	6.91	11.22	11.30	13.39
Trade accounts and notes receivables	1.79	6.04	9.76	10.38	11.14	13.25
Other current assets	2.20	1.95	2.40	2.81	3.67	3.64
Current assets	25.39	33.10	32.34	32.86	40.97	45.01
Property, plant and equipment	13.54	12.98	20.18	34.55	39.35	42.57
Sonstige immaterielle Vermögenswerte	4.91	5.60	9.44	23.96	26.14	26.44
Firmenwert	0.00	0.00	0.00	0.77	0.77	0.77
Other assets	0.12	0.25	0.47	0.41	0.44	0.53
Deferred tax assets	0.00	0.00	0.00	0.00	0.00	0.00
Non-current assets	18.58	18.83	30.08	59.69	66.70	70.30
Total assets	43.97	51.94	62.42	92.55	107.68	115.31
Liabilities						
Trade payables	3.04	3.36	6.12	10.72	10.79	12.79
Other liabilities	8.13	5.91	4.54	7.04	1.53	3.40
Short-term financial debt	2.39	2.86	5.50	9.34	16.00	14.83
Provisions	0.30	0.06	0.09	0.02	0.02	0.14
Current liabilities	13.86	12.18	16.24	27.12	28.34	31.15
Long-term financial debt	12.26	20.21	24.71	38.53	38.03	37.53
Special benefits	2.09	1.50	1.27	1.18	1.22	1.46
Pension obligations	2.73	1.22	1.88	2.09	1.84	2.18
Deferred tax liabilities	0.00	0.94	1.12	3.51	1.94	1.21
Other non-current liabilities	0.00	0.00	0.00	0.72	0.00	0.00
Long-term liabilities	17.08	23.86	28.98	46.03	43.03	42.38
Total liabilities	30.94	36.04	45.23	73.15	71.37	73.54
Shareholders equity	13.03	15.89	17.20	19.40	36.30	41.77
Minority interests	0.00	0.00	0.00	0.00	0.00	0.00
Total equity and liabilities	43.97	51.94	62.42	92.55	107.68	115.31

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8 Cash Flow Statement

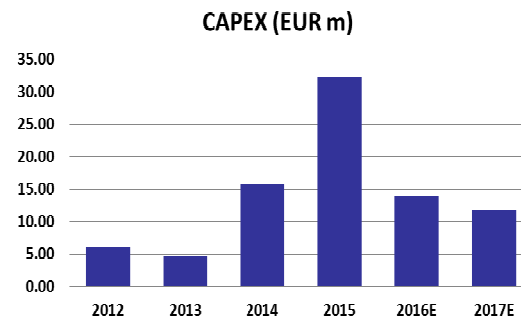
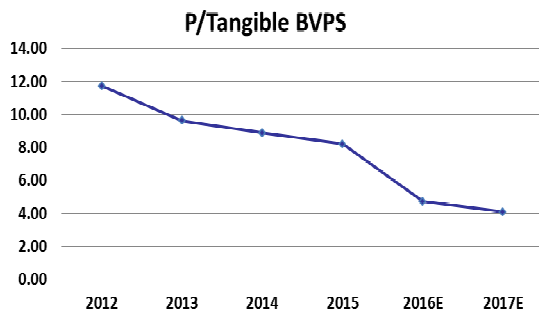
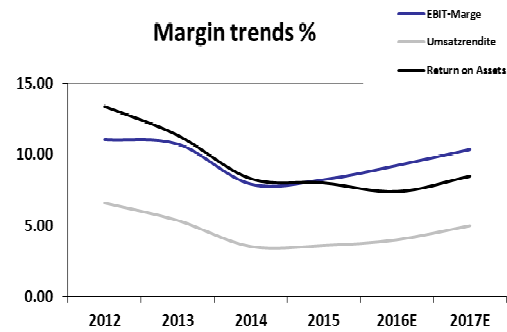
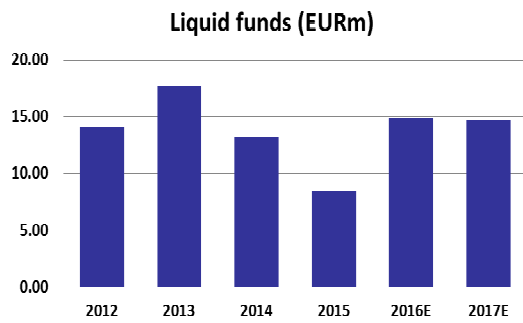
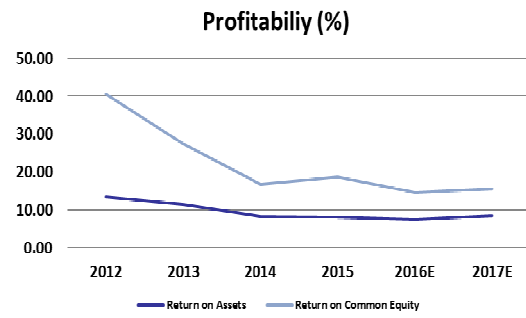
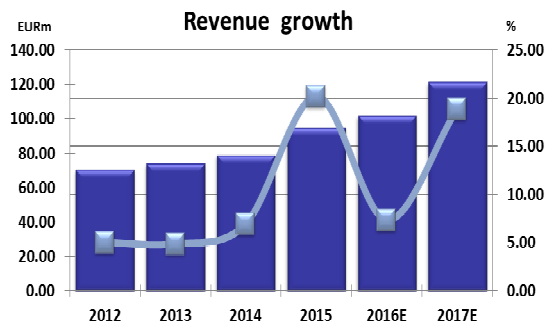
Cash Flow statement - paragon AG						
in mEUR	Fiscal year					
	2012	2013	2014	2015	2016E	2017E
Net income	4.6	3.9	2.8	3.4	4.1	6.0
Depreciation & Amortisation	3.9	4.3	4.3	6.3	7.0	8.2
Others	-0.9	0.9	0.3	3.5	-1.6	-0.6
Change of working capital	-1.8	-4.1	-0.4	-0.3	-0.8	-2.2
Increase (-), decrease (+) in inventories	-0.4	-0.2	0.6	-4.3	-0.1	-2.1
Increase (-), decrease (+) in trade receivables	-1.3	-4.2	-3.7	-0.6	-0.8	-2.1
Increase (+), decrease (-) in trade payable	0.0	0.3	2.8	4.6	0.1	2.0
Others wc positions	0.0	0.0	0.0	0.0	0.0	0.0
Net operating cash flow	5.8	5.1	6.9	12.9	8.0	9.3
Cash flow from investing	-6.2	-4.8	-15.7	-32.3	-14.0	-11.8
Free cash flow	-0.3	0.3	-8.7	-19.5	-6.0	-2.5
Cash flow from financing	-0.9	3.3	4.3	14.7	12.4	2.4
Change in cash	-1.2	3.6	-4.4	-4.8	6.4	-0.1
Cash, start of the year	15.3	14.1	17.6	13.3	8.5	14.9
Cash, end of the year	14.1	17.6	13.3	8.5	14.9	14.7

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9 Ratios

Fiscal year	2012	2013	2014	2015	2016E	2017E
Gross margin	50.8%	52.8%	51.5%	50.6%	51.5%	51.4%
EBITDA margin	15.7%	16.3%	12.2%	12.6%	14.3%	15.2%
EBIT margin	10.4%	10.3%	7.2%	6.9%	8.2%	9.2%
Net margin	6.2%	5.1%	3.2%	3.0%	3.5%	4.4%
Return on equity (ROE)	40.6%	27.3%	16.8%	18.6%	14.6%	15.5%
Return on assets (ROA)	13.4%	11.3%	8.3%	8.0%	7.4%	8.5%
Return on capital employed (ROCE)	17.9%	12.2%	8.8%	8.1%	7.9%	9.8%
Net debt (in EURm)	0.6	5.4	16.9	39.4	39.2	37.6
Net gearing	4.4%	34.1%	98.5%	203.1%	107.9%	90.1%
Equity ratio	29.6%	30.6%	27.6%	21.0%	33.7%	36.2%
Current ratio	183.2%	271.8%	199.1%	121.2%	144.6%	144.5%
Quick ratio	114.6%	194.4%	141.8%	69.4%	91.7%	89.8%
Net interest cover	7.2	5.3	3.2	2.8	2.8	3.7
Net debt/EBITDA	0.05	0.43	1.61	2.77	2.38	1.81
CAPEX/Sales	8.2%	6.0%	19.4%	37.8%	13.7%	9.7%
Working capital/Sales	0.2%	8.4%	10.7%	7.0%	13.5%	11.6%

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