

## NanoFocus AG

Date: 07/16/2015

Recommendation		Buy	as of	-
<b>before:</b>				
Target price (EUR)		5.50		
Price (Xetra) (EUR)		4.40		
	07/15/15	5:22 PM		
Share price potential		25%		

Company data	
Sector	Industrial measurement technology
Market segment	Entry Standard
ISIN	DE0005400667
Reuters	N2FGn.DE
Bloomberg	N2F

Share data	
Shares (m)	3.300
Freefloat	48.2%
Market cap. (EURm)	14.5
∅ Trading Volume	4,015
52W High	07/06/15 EUR4.69
52W Low	12/04/14 EUR2.65

Events	
Q2 figures	08/28/2015
German Equity Forum	11/23/2015 to 11/25/2015

	Performance	
	absolut	related to:
		DAX
1 month	10.3%	3.8%
3 months	25.7%	28.6%
6 months	21.5%	5.3%
12 months	25.7%	5.7%

Index weighting	
Entry Standard All Share	0.6%

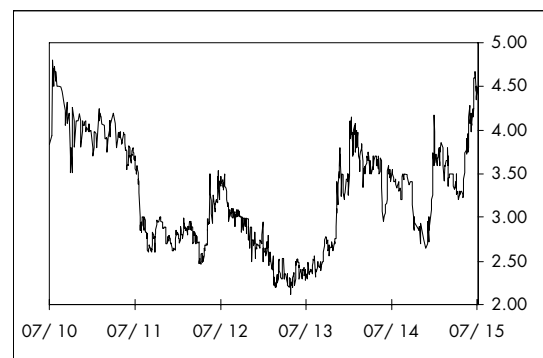
## Clear profit in 2014 - serial production has started

- ⇒ 2014 was a record year for NanoFocus - both regarding sales of EUR11.2m (8.2; our forecast: 11.1) and EBIT of EUR+0.4m (-1.2; our forecast: +0.4).
- ⇒ In our opinion, NanoFocus is developing towards a system supplier in industrial production control generating economies of scale. In addition to the EPCOS co-operation, another product should reach serial production in the semiconductor segment shortly. Also, there will soon be a decision of a major customer regarding the development of a fully-automated  $\mu$ surf cylinder (prototype ready at the end of 2015).
- ⇒ Accordingly, NanoFocus would have three products in serial production in 2016 which clearly raises predictability. Due to some projects growth will be slightly weaker in 2015. With sales of EUR3.7m (4.6) we expect seasonally an EBIT loss of EUR -1.3m (-0.6; very strong H1 2014) in H1 2015. We expect a strong increase in sales and earnings in 2016. The strong growth will result in additional need for capital, in our opinion. We reaffirm our positive rating for the NanoFocus share (price target of EUR5.50 (before: 4.20)) and still recommend to Buy.

	2012	2013	2014	2015E	2016E	2017E
Sales	8.9	8.2	11.2	12.0	15.4	17.5
Sales growth	8.7%	-8.5%	37.2%	7.1%	27.8%	13.7%
EBIT	0.3	-1.2	0.4	0.4	1.0	1.5
EBIT margin	3.0%	neg.	3.3%	3.2%	6.7%	8.6%
Net income	0.1	-1.4	0.7	0.2	0.8	1.2
Net margin	1.7%	neg.	6.1%	1.9%	5.3%	7.0%
EPS	0.05	-0.47	0.23	0.07	0.25	0.37
DPS	0.00	0.00	0.00	0.00	0.00	0.00
Net financial debt/EBITDA	-0.5	-	0.8	0.8	0.6	0.6
Net Gearing	-0.1	0.1	0.1	0.1	0.1	0.1
Free cash flow (FCF)	-0.4	-1.1	-0.6	-0.5	-0.5	0.0
FCF per share	-0.14	-0.37	-0.19	-0.15	-0.17	0.01
EV / sales	0.9	1.0	1.0	1.2	0.9	0.8
EV / EBITDA	8.5	neg.	10.5	12.3	9.4	6.8
EV / EBIT	30.1	neg.	31.5	37.5	13.7	9.4
EV / FCF	neg.	neg.	neg.	neg.	neg.	675.2
P/E ratio	57.4	neg.	15.2	62.2	17.7	11.9
P/B ratio	0.9	0.9	1.1	1.3	1.3	1.1
Dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Figures in EURm except EPS, DPS and FCF per share (EUR), PERs based on average share prices

Source: Independent Research, NanoFocus AG



Source: NanoFocus AG, Bloomberg

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## Valuation

*Rising EBIT margin reflects increasing scalability*

*WACC of 9.7%*

### Three-stage DCF model

In our three-stage discounted cash flow model (DCF model) we have employed our specific forecasts in our detailed planning period until and including 2017 (before: 2015). As of 2018 (before: 2016) we undertake a trend analysis. Until 2018, we have assumed a decline in sales growth to 7.5%. The EBIT margin rises to 13.0% until 2019 (before: 2018). This reflects the fact that we expect NanoFocus to generate significant economies of scale with concrete projects in the semiconductor and automotive segments thus changing from an R&D-driven towards a manufacturing company (inline production). Two projects in the semiconductor segment are in or will enter serial production in 2015. In 2016, we expect a boost from the full automation of the  $\mu$ surf cylinder. In phase III (terminal value) we expect the free cash flow to grow 2.0% along with inflation.

We calculate a WACC of 9.7%. The relatively high figure is owed to the beta of 1.5 (risk-free interest rate of 3.0% assumed) that reflects the volatility and risk of the business model (small company; still R&D driven). On the other hand, we have assumed an equity ratio of 85% (at market value) in the long-term target capital structure as NanoFocus has relatively

DCF model										
EURm	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E
Sales	12.0	15.4	17.5	18.8	20.2	21.7	23.3	25.1	27.0	28.3
Growth y/y	7.1%	27.8%	13.7%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	5.0%
EBIT margin	3.2%	6.7%	8.6%	10.8%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%
<b>EBIT</b>	<b>0.4</b>	<b>1.0</b>	<b>1.5</b>	<b>2.0</b>	<b>2.6</b>	<b>2.8</b>	<b>3.0</b>	<b>3.3</b>	<b>3.5</b>	<b>3.7</b>
- Income taxes	0.0	0.0	0.0	-0.1	-0.2	-0.5	-0.9	-0.9	-1.0	-1.1
+ Amortisation and depreciation	0.8	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
+/- Change in long-term provisions	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
+/- Others	-0.6	-0.4	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
<b>Gross operating cash flow</b>	<b>0.4</b>	<b>1.1</b>	<b>1.8</b>	<b>2.5</b>	<b>3.3</b>	<b>3.2</b>	<b>3.1</b>	<b>3.3</b>	<b>3.7</b>	<b>3.9</b>
-/+ Change in net working capital	-0.4	-1.1	-0.9	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7
-/+ Investments in fixed assets	-0.4	-0.5	-0.7	-0.7	-0.7	-0.8	-0.8	-0.9	-1.0	-0.9
<b>Free cash flow</b>	<b>-0.3</b>	<b>-0.4</b>	<b>0.2</b>	<b>1.3</b>	<b>2.0</b>	<b>1.8</b>	<b>1.7</b>	<b>1.8</b>	<b>2.1</b>	<b>2.2</b>
<b>Present values</b>	<b>-0.3</b>	<b>-0.3</b>	<b>0.2</b>	<b>0.9</b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>
Total present values	6.5									
Terminal value	12.0									
Value of operating business	18.4									
+ Cash and cash equivalents	1.7									
- Financial debt	-1.9									
<b>Fair market value of equity</b>	<b>18.2</b>									
Number of shares outstanding (m)	3.300									
<b>Fair value per share (EUR)</b>	<b>5.53</b>									

in % of total value: 65%

Model parameters / entity DCF model					
Target capital structure:	Equity:	85%	Financial debt:	15%	
Risk-free rate:	3.0%	Beta:	1.5	Risk prem. Debt:	4.0%
		Risk prem.:	5.0%	Tax shield:	30.0%
		Cost of equity:	10.5%	Cost of debt:	4.9%
Growth FCF:	2.0%	WACC:	9.7%	Date:	07/16/15

Source: Independent Research

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		Discount rate (WACC)			
		9.2%	<b>9.7%</b>	10.2%	10.7%
Growth (TV)	<b>2.0%</b>	6.15	<b>5.53</b>	5.09	4.69
	2.5%	6.36	5.80	5.31	4.89
	3.0%	6.74	6.11	5.57	5.11
	3.5%	7.19	6.48	5.87	5.36

Source: Independent Research

low financial debt. We have assumed a debt interest rate of 7.0% before tax and 4.9% after tax, based on the interest rates for the loans already granted (between 5.9% and 6.3%) and the credit line.

### Clearly higher fair value

We have calculated a fair value of equity of EUR18.2m (before: 12.7). This is owed to the extension of the detailed planning period until 2017 (before: 2015) with higher sales and margin forecasts compared to the former trend analysis. On the other hand, we have taken into account the inflow of capital of a gross EUR1.0m (0.300m shares at EUR3.20 each) from the capital increase performed at the end of April 2015. Based on 3.300m (before: 3.000) shares we have calculated a fair value per share of EUR5.53 (before: 4.24).

### Valuation multiples should further improve

Based on the fair value, the share is still highly valued with an EV/EBIT of 48.6 and a P/E ratio of 78.1 for 2015 - due to the gradual launch of high volume products. Starting in 2016 we expect a clear improvement of these figures. On the one hand, the economies of scale from serial production should show effect. Also, NanoFocus benefits from the planned phase-out of the goodwill amortisation as of 2016 (EURO.3m p.a.). On the other hand, there will be one-off expenses of EURO.4m for moving into the new corporate building (based on the fair value: EV/EBIT 2016: 17.8; P/E ratio 2016: 22.3; EV/EBIT 2017: 12.2; P/E ratio 2017: 15.0). It must further be considered that the share is valued with a price-to-book ratio 2015 and 2016 of 1.3 each and thus only slightly above its book value (that anyhow is lower due to the goodwill amortisation of EUR3.5m since 2004 according to the German Commercial Code than that of companies that produce their balance under IFRS rules) despite the strong increase in the share price lately. This is rather unusual for a growth share like NanoFocus.

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*Fair value of EUR5.53 per share (before: 4.24)*

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*Share is trading only slightly above book value, at the moment*

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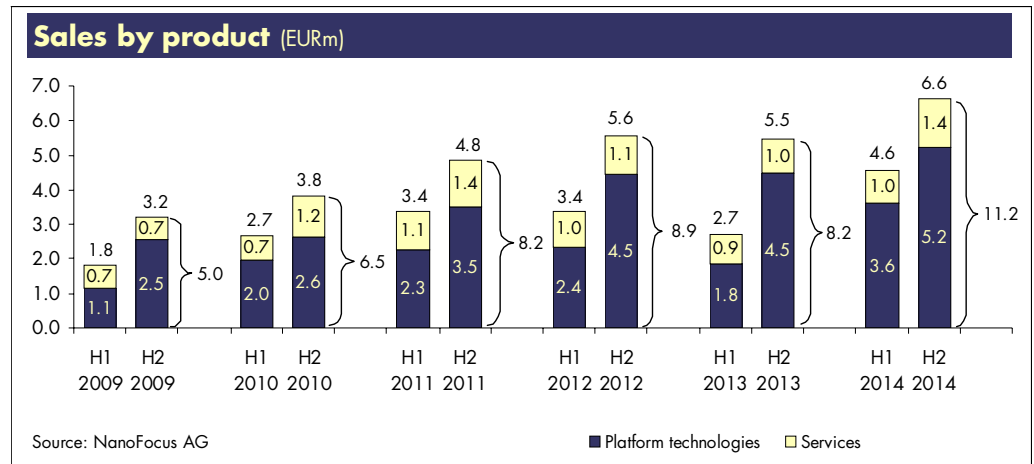
## Financial, balance sheet and income analysis

### Income analysis

Record sales in 2014

#### Double-digit million EUR of sales for the first time

NanoFocus has generated record sales of EUR11.2m (8.2; our forecast: 11.1) in 2014. After project delays in the preceding year - this is owed to a strong H1 and peak sales in H2 2014.



First product in inline manufacturing at Epcos

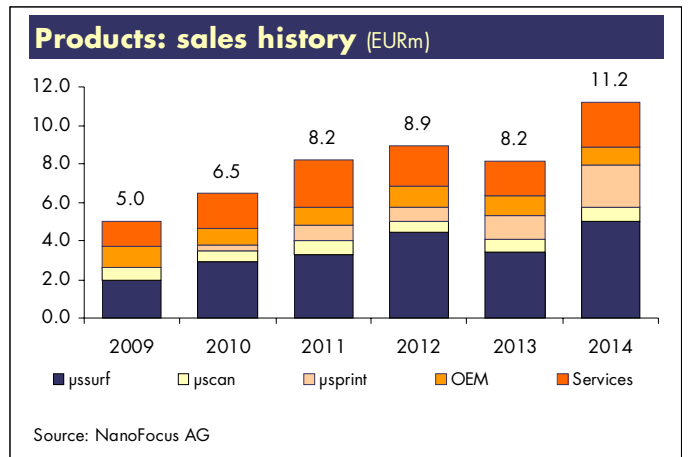
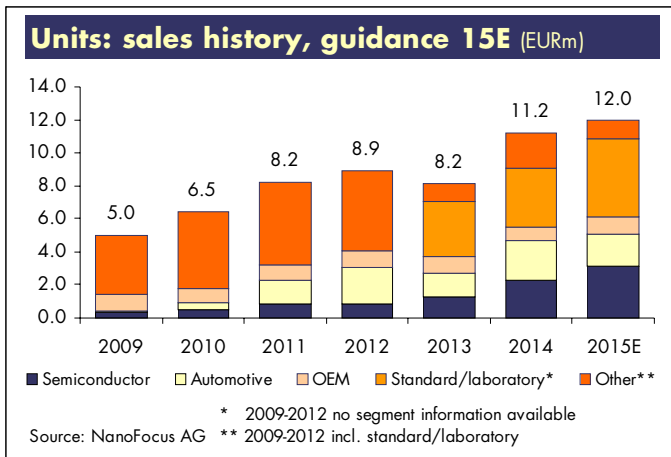
#### Semiconductor and automotive segments drive growth

On the industry side, the semiconductor segment is standing out with sales of EUR2.3m (1.3), which on product level is accompanied by a sales push of  $\mu$ sprint to EUR2.2m (1.2). In 2014, NanoFocus managed to introduce serial production at Epcos for the first time (construction of the prototype and delivery of the first devices used in serial production). Sales in the automotive segment climbed to EUR2.3m (1.5). Sales were driven by the high

Unit:	EURm	H2 2013			FY 2013		
		Reported	Reported	IR forecast	Reported	Reported	IR forecast
<b>Financial year:</b>	Dec. 31	<b>5.5</b>	<b>6.6</b>	<b>6.5</b>	<b>8.2</b>	<b>11.2</b>	<b>11.1</b>
<b>Accounting standard:</b>	*HGB						
<b>Sales</b>							
growth yoy		-1.5%	21.5%	19.5%	-8.5%	37.2%	35.9%
<b>Total operating performance</b>		<b>5.8</b>	<b>7.2</b>	<b>7.1</b>	<b>9.0</b>	<b>12.1</b>	<b>12.0</b>
growth yoy		-0.2%	25.2%	22.9%	-6.8%	34.6%	33.2%
<b>EBIT</b>		<b>0.3</b>	<b>1.0</b>	<b>1.1</b>	<b>-1.2</b>	<b>0.4</b>	<b>0.4</b>
EBIT margin		5.3%	15.3%	16.1%	neg.	3.3%	3.7%
<b>Net income</b>		<b>0.2</b>	<b>1.5</b>	<b>1.1</b>	<b>-1.4</b>	<b>0.7</b>	<b>0.3</b>
as percentage of sales		3.8%	22.3%	16.6%	neg.	6.1%	2.6%
<b>Earnings per share (EUR)</b>		<b>0.07</b>	<b>0.49</b>	<b>0.36</b>	<b>-0.47</b>	<b>0.23</b>	<b>0.10</b>

Source: Independent Research (IR); NanoFocus AG \*HGB = German Commercial Code

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*Standard/laboratory segment with stabilised sales*

demand for the μsurf cylinder. NanoFocus has also won three new clients in 2014, Daimler, General Motors (GM) and Opel. The standard/laboratory segment has achieved the turnaround with sales of EUR3.5m (3.3). According to CFO Sorg, the restructuring of distribution has already contributed a rising number of client requests.

*Book profit from spin-off of mikroskin*

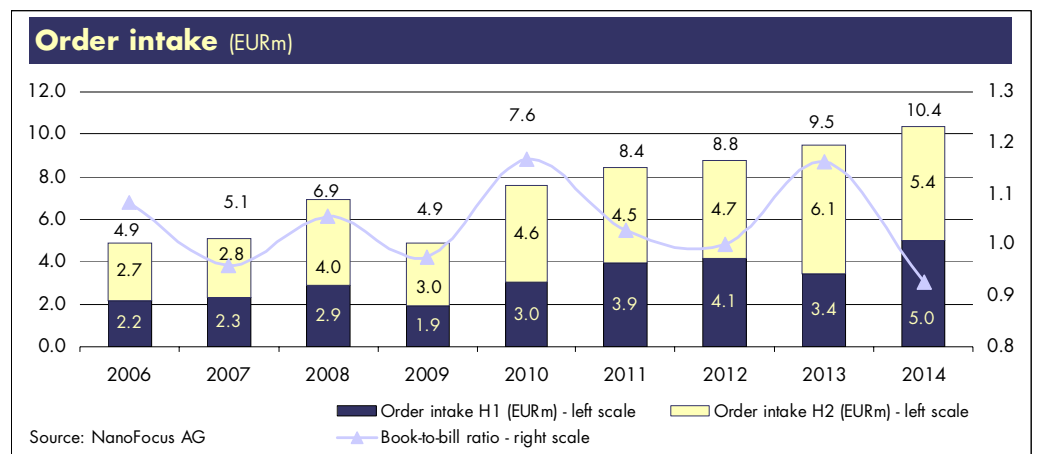
**Significant economies of scale for the first time**

EBIT of EUR+0.4m (-1.2; our forecast: +0.4) shows the scalability of the business model for the first time, in our opinion. On an adjusted level (without capitalised services and goodwill amortisation) NanoFocus has also reached the break-even at EUR0.0m (-1.5) in 2014. The ratio of operating costs (staff and other expenses) to sales is on the lowest level since 2008 with 68%. On the net level (EUR+0.7m (-1.4; our forecast: +0.3)) NanoFocus benefited from a book profit of EUR1.0m from the spin-off of mikroskin GmbH.

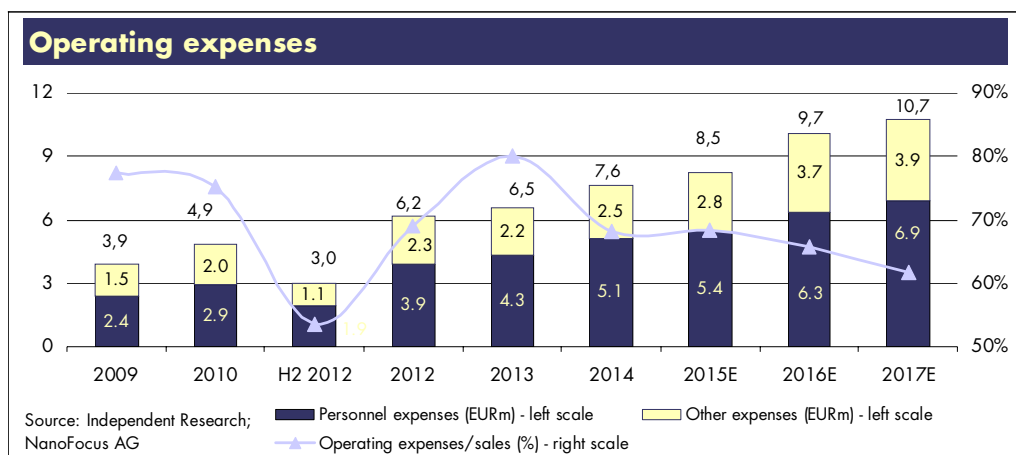
*Second product in serial production expected soon*

**Growth trend should accelerate in 2016**

In 2015, NanoFocus expects sales of between EUR11.2 and EUR12.0m (our forecast: 12.0 (before: 13.1)) and an EBIT margin of 3-5% (our forecast: 3.2% (before: 6.3%) which corresponds to an EBIT of EUR0.4m (before: 0.8)). Currently, a prototype for a second semiconductor client is in acceptance testing. We expect a successful acceptance. In the automotive segment there will shortly be a decision of a major client regarding the development



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*Important decision regarding the full automation of the  $\mu$ surf cylinder coming up*

of the fully-automated  $\mu$ surf cylinder. Here, NanoFocus is currently in M&A negotiations so that the prototype could already be delivered in Q4 2015. The development of the following product generation should cause a dent in growth of the preceding model in 2015. Also, follow-up orders of the second semiconductor project could partly show up in sales as early as 2016. This lowers expectations for 2015. As of 2016, growth should accelerate (sales: +28%).

*Clearly double-digit EBIT margin expected in the mid-term*

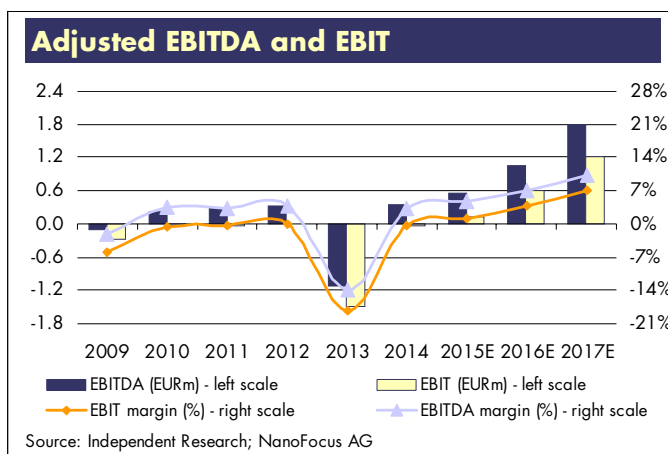
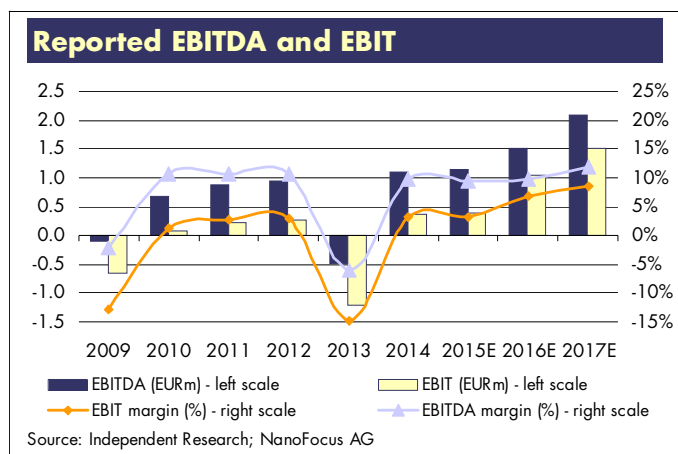
**Economies of scale and phase-out of goodwill amortisation**

In 2016, we expect a leap of EBIT to EUR1.0m (2015E: 0.4). This is owed to economies of scale. Also, as of 2016, the goodwill amortisation will be discontinued (EURO.3m p.a.). On the other hand, there will be moving expenses of EURO.4m in 2016. In the mid-term, we consider a clear double-digit EBIT margin (2017E: 8.6%) realistic.

*Predictability increases with the start of serial production*

**Development from an R&D-driven towards a manufacturing company**

In total, NanoFocus should have installed three products suitable for inline production in serial production with clients in 2016. This clearly raises visibility and predictability (there partly are frame contracts). This potential becomes visible, when it is considered that client Volkswagen alone has over 100 production sites for engines globally that can use the fully-automated  $\mu$ surf cylinder, according to NanoFocus. In addition, the unit price for devices that can be used inline is clearly higher at EURO.7-1.0m (so far: about 0.4).



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**Financial analysis**

**Still solid equity ratio**

*Equity ratio of 65%*

NanoFocus retains its high equity ratio with 65% on December 31, 2014 (December 31, 2013: 72%). The slight decrease is owed to an increased balance sheet total of EUR14.3m on December 31, 2014 (December 31, 2013: 11.8). On the asset side, this results from increased inventories and receivables (among other from NanoFocus Inc.) and the increased valuation of the divested mikroskin GmbH (about EUR2m). The offsetting positions on the liabilities side are increased trade payables and higher debt (issue of a convertible bond).

**Again positive cash flow**

*Net financial debt increased, as had been expected*

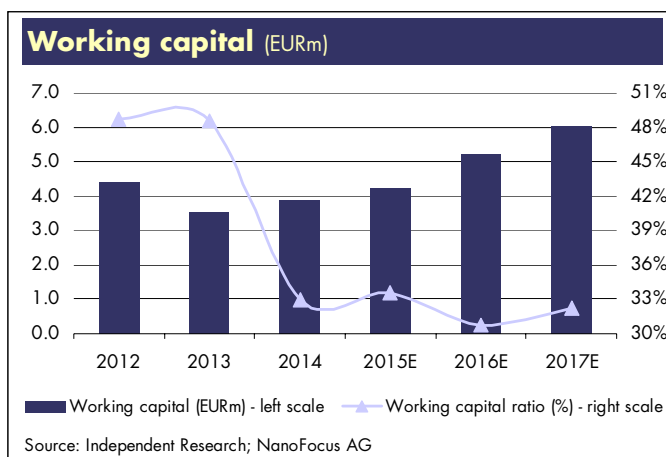
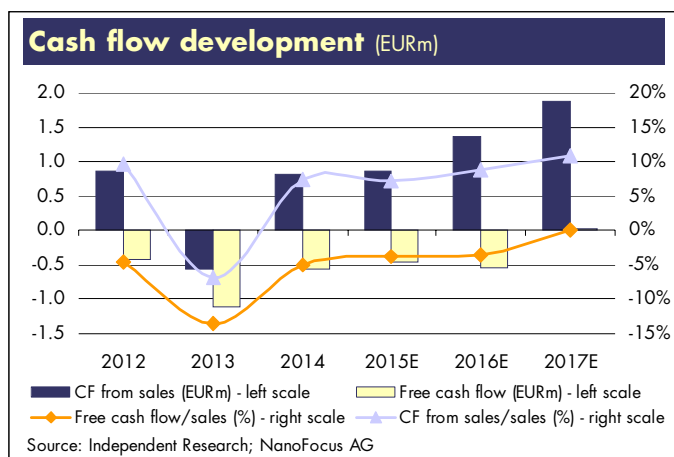
With the clearly improved earnings power, the cash flow from sales of EUR+0.8m (-0.6) and the operating cash flow of EUR+0.3m (-0.3) were positive again. With regard to own work capitalised (capitalised R&D costs; stated in the cash flow from investment activities), the cash flow from sales would have amounted to EUR+0.1m (-1.2) and the operating cash flow to EUR-0.4m (-1.0). The cash flow still reflects the high investment activities of NanoFocus, especially in R&D. Accordingly, net financial debt has increased to EUR1.1m on December 31, 2014 (December 31, 2013: 0.6), as had been expected.

**Further growth investments expected**

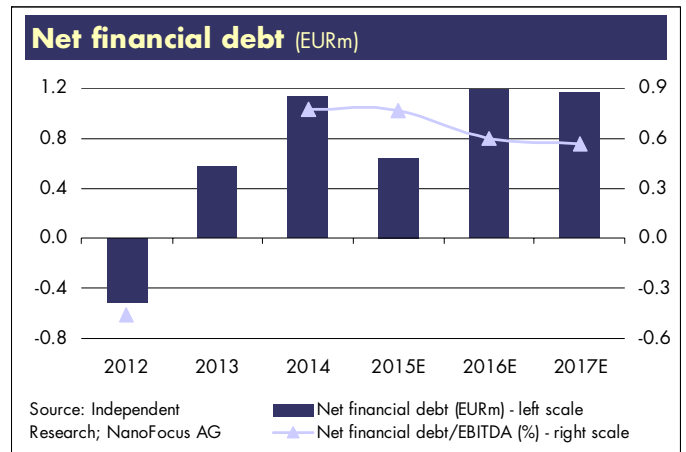
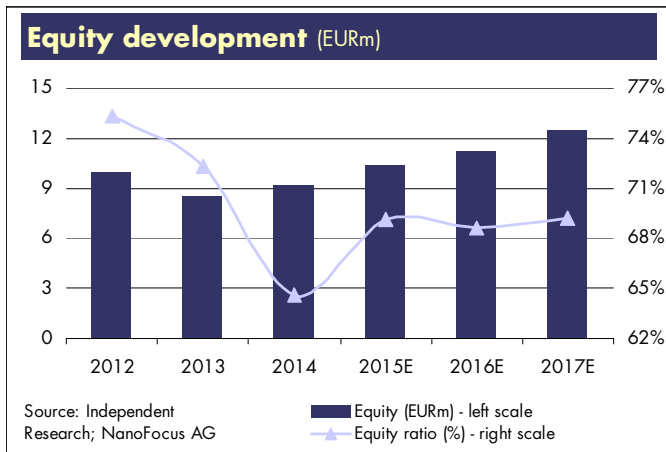
*Investments in prototypes, partnerships, working capital and production*

Growth financing remains on the agenda. In our opinion, four points call for special attention:

- Pre-financing of prototypes and new products  
In 2015, NanoFocus has a capital demand for the prototype development of the fully automated  $\mu$ surf cylinder (estimates: EURO.7m).
- M&A activities (e.g. full automatisation of  $\mu$ surf cylinder)  
At the moment, NanoFocus is considering takeovers - for speeding up the development of the fully automated  $\mu$ surf cylinder, amongst others. This might call for further investments.
- Investments in working capital  
We expect working capital investments of EUR2.2m in 2015-2017. On the one hand, this is owed to the expansion of production volume as part of the newly introduced serial production. On the other, sales per device are increasing. Due to the high volatility, the capital demanded over the year can vary strongly.



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*Negative free cash flows expected until 2016*

*Liquidity strengthened already*

*Expansion of bank financing targeted*

- Expansion of production  
At the beginning of 2016, NanoFocus will move into a new head office in Oberhausen with clearly higher production capacities (floor space: 2,800 (so far: 1,700) sqm). The site was specifically erected to the demands of NanoFocus and is rented to save capital (construction costs paid by the local real estate developer). However, we expect increased investments from the expansion of production capacities.
- In total, we still expect negative free cash flows in 2015 and 2016 of EUR-0.5m each. These estimates are subject to a certain volatility - depending on the investments into the working capital (own production vs. partly outsourcing) and the possible far-reaching cooperation regarding the fully automated  $\mu$ surf cylinder.

### Growth financing remains on the agenda

The expected cash flow development, the seasonality with a strong financing demand towards the middle of the year (EUR 1.5-2.0m estimated), the planned repayment of loans (EUR 0.3m in 2015) and the liquidity of EUR 0.8m on December 31, 2014 (December 31, 2013: 0.3) show, that growth financing remains on the agenda of NanoFocus. The already achieved strengthening of the liquidity is noteworthy:

- Suspension of restricted cash of EUR 0.5 lately
- The convertible bond 2014/2019 of EUR 1.35m issued in February 2014
- The payment of EUR 0.7m received for the manufacturing of a prototype
- The capital increase by a gross EUR 1.0m (issue of 0.300m shares at EUR 3.20 each) in April 2015

Also, NanoFocus is currently in negotiations with banks about an extension of credit lines. Due to the clearly improved financial key figures 2014 and the positive track record (steady reduction of bank loans by a cumulated EUR 1.7m since the peak at the end of 2010) we identify good opportunities to expand bank financing.

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**Income Statement**

	Unit: EURm						
Financial year:	Dec. 31	2012	2013	2014	2015E	2016E	2017E
Accounting standard:	HGB						
<b>Sales</b>		<b>8.9</b>	<b>8.2</b>	<b>11.2</b>	<b>12.0</b>	<b>15.4</b>	<b>17.5</b>
Change in inventory		-0.1	0.1	-0.1	0.0	0.0	0.0
Own work capitalised		0.6	0.6	0.7	0.6	0.4	0.3
Other operating income		0.2	0.1	0.2	0.2	0.3	0.2
<b>Total operating performance</b>		<b>9.6</b>	<b>9.0</b>	<b>12.1</b>	<b>12.8</b>	<b>16.1</b>	<b>18.0</b>
Cost of materials		-2.5	-2.9	-3.4	-3.5	-4.5	-5.2
<b>Gross profit</b>		<b>7.1</b>	<b>6.1</b>	<b>8.7</b>	<b>9.4</b>	<b>11.6</b>	<b>12.9</b>
Personnel expenses		-3.9	-4.3	-5.1	-5.4	-6.3	-6.9
Other operating expenses		-2.3	-2.2	-2.5	-2.8	-3.7	-3.9
<b>EBITDA</b>		<b>0.9</b>	<b>-0.5</b>	<b>1.1</b>	<b>1.2</b>	<b>1.5</b>	<b>2.1</b>
Depreciation and amortisation		-0.7	-0.7	-0.7	-0.8	-0.5	-0.6
<b>EBIT</b>		<b>0.3</b>	<b>-1.2</b>	<b>0.4</b>	<b>0.4</b>	<b>1.0</b>	<b>1.5</b>
Financial results		-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
<b>EBT</b>		<b>0.2</b>	<b>-1.3</b>	<b>0.2</b>	<b>0.3</b>	<b>0.9</b>	<b>1.4</b>
Extraordinary expenses		0.0	0.0	1.0	0.0	0.0	0.0
Income taxes and other taxes		0.0	-0.1	-0.6	0.0	-0.1	-0.2
Minority interests		0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income</b>		<b>0.1</b>	<b>-1.4</b>	<b>0.7</b>	<b>0.2</b>	<b>0.8</b>	<b>1.2</b>
Weighted average number of shares (m)		2.915	3.000	3.000	3.194	3.300	3.300
<b>Earnings per share (EUR)</b>		<b>0.05</b>	<b>-0.47</b>	<b>0.23</b>	<b>0.07</b>	<b>0.25</b>	<b>0.37</b>
Dividends per share (EUR)		0.00	0.00	0.00	0.00	0.00	0.00

Source: Independent Research; NanoFocus AG

**Income Statement** (positions in % of sales)

	Unit: in %						
Financial year:	Dec. 31	2012	2013	2014	2015E	2016E	2017E
Accounting standard:	HGB						
<b>Sales</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Change in inventory		-1.1%	0.8%	-0.7%	0.0%	0.0%	0.0%
Own work capitalised		6.9%	7.9%	6.6%	4.9%	2.9%	1.7%
Other operating income		2.1%	1.3%	2.0%	2.0%	1.8%	1.4%
<b>Total operating performance</b>		<b>108.0%</b>	<b>110.0%</b>	<b>107.9%</b>	<b>106.9%</b>	<b>104.7%</b>	<b>103.1%</b>
Cost of materials		-28.5%	-35.8%	-30.0%	-29.0%	-29.2%	-29.5%
<b>Gross profit</b>		<b>79.5%</b>	<b>74.1%</b>	<b>77.9%</b>	<b>77.9%</b>	<b>75.5%</b>	<b>73.6%</b>
Personnel expenses		-43.6%	-52.9%	-45.5%	-45.0%	-41.3%	-39.5%
Other operating expenses		-25.3%	-27.2%	-22.6%	-23.3%	-24.3%	-22.2%
<b>EBITDA</b>		<b>10.6%</b>	<b>-5.9%</b>	<b>9.8%</b>	<b>9.6%</b>	<b>9.8%</b>	<b>11.9%</b>
Depreciation and amortisation		-7.6%	-8.9%	-6.5%	-6.4%	-3.1%	-3.3%
<b>EBIT</b>		<b>3.0%</b>	<b>-14.8%</b>	<b>3.3%</b>	<b>3.2%</b>	<b>6.7%</b>	<b>8.6%</b>
Financial results		-0.9%	-0.7%	-1.3%	-1.0%	-0.8%	-0.8%
<b>EBT</b>		<b>2.1%</b>	<b>-15.5%</b>	<b>2.0%</b>	<b>2.2%</b>	<b>6.0%</b>	<b>7.8%</b>
Extraordinary expenses		0.0%	0.0%	9.1%	0.0%	0.0%	0.0%
Income taxes and other taxes		-0.4%	-1.6%	-5.0%	-0.3%	-0.6%	-0.9%
Minority interests		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Net income</b>		<b>1.7%</b>	<b>-17.1%</b>	<b>6.1%</b>	<b>1.9%</b>	<b>5.3%</b>	<b>7.0%</b>

Source: Independent Research; NanoFocus AG

Please notice the advice regarding possible conflicts of interests as well as the disclaimer at the end of this document

<b>Balance sheet</b>							
	<b>Unit:</b> EURm						
	<b>Financial year:</b> Dec. 31	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>
	<b>Accounting standard:</b> HGB						
Capital subscribed not paid in		0.0	0.0	0.0	0.0	0.0	0.0
Expenditures for start-up and expansion of business operations		0.0	0.0	0.0	0.0	0.0	0.0
Intangible assets		3.0	3.0	2.2	2.4	2.8	3.0
Property, plant and equipment		0.5	0.5	0.5	0.5	0.5	0.7
Financial assets		0.1	0.1	2.1	2.1	2.1	2.1
<b>Total non-current assets</b>		<b>3.6</b>	<b>3.6</b>	<b>4.8</b>	<b>5.0</b>	<b>5.4</b>	<b>5.9</b>
Inventories		2.6	2.9	3.2	3.4	4.2	4.9
Receivables and other assets		3.4	3.2	4.2	4.5	5.1	5.7
Trade receivables		2.6	1.9	2.2	2.4	3.0	3.5
Other current receivables/assets		0.9	1.4	2.1	2.1	2.1	2.2
Securities		0.0	0.0	0.0	0.0	0.0	0.0
Cash and cash equivalents		1.8	0.3	0.8	0.9	0.3	0.2
<b>Total current assets</b>		<b>7.9</b>	<b>6.4</b>	<b>8.2</b>	<b>8.8</b>	<b>9.6</b>	<b>10.8</b>
Deferred expenses and accrued income		0.1	0.1	0.1	0.2	0.2	0.2
Deferred tax assets		1.7	1.7	1.1	1.1	1.1	1.1
<b>Total assets</b>		<b>13.2</b>	<b>11.8</b>	<b>14.3</b>	<b>15.1</b>	<b>16.4</b>	<b>18.0</b>
Subscribed capital		3.0	3.0	3.0	3.3	3.3	3.3
Capital reserve		6.1	6.1	6.1	6.8	6.8	6.8
Retained earnings related to deferred taxes		1.2	1.2	1.2	1.2	1.2	1.2
Capital contributions		0.0	0.0	0.0	0.0	0.0	0.0
Profit/loss carried forward		0.0	0.0	0.0	0.0	0.0	0.0
Retained earnings		0.0	0.0	0.0	0.0	0.0	0.0
Net income		-0.4	-1.8	-1.1	-0.9	0.0	1.2
<b>Total equity</b>		<b>9.9</b>	<b>8.5</b>	<b>9.2</b>	<b>10.4</b>	<b>11.2</b>	<b>12.5</b>
Investment grants to non-current assets		0.0	0.0	0.0	0.0	0.0	0.0
<b>Provisions</b>		<b>0.3</b>	<b>0.3</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>
Financial liabilities		1.3	0.9	1.9	1.6	1.4	1.3
Advanced payments received		0.0	0.2	0.1	0.1	0.1	0.1
Trade payables		0.8	1.0	1.5	1.5	1.9	2.2
Liabilities to affiliated companies		0.0	0.0	0.0	0.0	0.0	0.0
Other liabilities		0.3	0.1	0.5	0.5	0.6	0.6
<b>Total liabilities</b>		<b>2.4</b>	<b>2.3</b>	<b>3.9</b>	<b>3.6</b>	<b>4.0</b>	<b>4.3</b>
Deferred income and accrued expenses		0.0	0.0	0.0	0.0	0.0	0.1
Deferred tax liabilities		0.5	0.7	0.5	0.5	0.5	0.5
<b>Total equity and liabilities</b>		<b>13.2</b>	<b>11.8</b>	<b>14.3</b>	<b>15.1</b>	<b>16.4</b>	<b>18.0</b>

Source: Independent Research; NanoFocus AG

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**Balance sheet** (Positions in % of balance sheet total)

Unit: Financial year: Accounting standard:	in % Dec. 31 HGB	2012	2013	2014	2015E	2016E	2017E
Capital subscribed not paid in		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Expenditures for start-up and expansion of business operations		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intangible assets		22.5%	25.3%	15.5%	16.0%	17.2%	16.8%
Property, plant and equipment		3.6%	4.3%	3.3%	3.0%	3.1%	4.0%
Financial assets		1.1%	1.2%	14.9%	14.1%	13.0%	11.8%
<b>Total non-current assets</b>		<b>27.1%</b>	<b>30.8%</b>	<b>33.7%</b>	<b>33.2%</b>	<b>33.2%</b>	<b>32.7%</b>
Inventories		19.6%	24.5%	22.6%	22.5%	25.9%	27.1%
Receivables and other assets		26.0%	27.2%	29.6%	29.9%	31.4%	31.8%
Trade receivables		19.5%	15.8%	15.2%	16.0%	18.2%	19.4%
Other current receivables/assets		6.4%	11.5%	14.4%	13.9%	13.1%	12.4%
Securities		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash and cash equivalents		14.0%	2.8%	5.4%	6.1%	1.6%	1.0%
<b>Total current assets</b>		<b>59.6%</b>	<b>54.5%</b>	<b>57.6%</b>	<b>58.5%</b>	<b>58.9%</b>	<b>60.0%</b>
Deferred expenses and accrued income		0.6%	0.6%	1.0%	1.0%	1.2%	1.3%
Deferred tax assets		12.7%	14.2%	7.7%	7.3%	6.7%	6.1%
<b>Total assets</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Subscribed capital		22.7%	25.4%	21.0%	21.9%	20.1%	18.3%
Capital reserve		46.5%	51.9%	43.0%	45.2%	41.5%	37.8%
Retained earnings related to deferred taxes		8.8%	9.9%	8.1%	7.7%	7.1%	6.5%
Capital contributions		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Profit/loss carried forward		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Retained earnings		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net income		-2.7%	-14.9%	-7.5%	-5.6%	-0.2%	6.6%
<b>Total equity</b>		<b>75.3%</b>	<b>72.3%</b>	<b>64.6%</b>	<b>69.2%</b>	<b>68.6%</b>	<b>69.2%</b>
Investment grants to non-current assets		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Provisions</b>		<b>2.3%</b>	<b>2.5%</b>	<b>4.3%</b>	<b>3.2%</b>	<b>3.3%</b>	<b>3.5%</b>
Financial liabilities		9.8%	7.6%	13.3%	10.4%	8.9%	7.5%
Advanced payments received		0.0%	1.6%	0.6%	0.6%	0.6%	0.6%
Trade payables		5.8%	8.7%	10.3%	9.9%	11.7%	12.5%
Liabilities to affiliated companies		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other liabilities		2.4%	1.2%	3.2%	3.2%	3.5%	3.5%
<b>Total liabilities</b>		<b>18.0%</b>	<b>19.1%</b>	<b>27.3%</b>	<b>24.0%</b>	<b>24.7%</b>	<b>24.1%</b>
Deferred income and accrued expenses		0.2%	0.3%	0.3%	0.3%	0.3%	0.3%
Deferred tax liabilities		4.2%	5.7%	3.6%	3.4%	3.1%	2.8%
<b>Total equity and liabilities</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Independent Research; NanoFocus AG

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**Cash flow statement**

<b>Unit:</b> EURm							
<b>Financial year:</b> Dec. 31		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>
<b>Accounting standard:</b> HGB							
Net income		0.1	-1.4	0.7	0.2	0.8	1.2
+/- Loss/gain on the disposal of PP&E		0.0	0.0	0.0	0.0	0.0	0.0
+ Depreciation and amortisation		0.7	0.7	0.7	0.8	0.5	0.6
+/- Own work capitalised		0.0	0.0	0.0	0.0	0.0	0.0
+/- Changes in provisions		0.0	0.0	0.0	-0.1	0.1	0.1
+/- Other non-cash expenses/income		0.0	0.1	-0.6	0.0	0.0	0.0
<b>Cash flow from sales activities</b>		<b>0.9</b>	<b>-0.6</b>	<b>0.8</b>	<b>0.9</b>	<b>1.4</b>	<b>1.9</b>
-/+ Changes in inventories, receivables/other current assets		-0.2	-0.1	-1.5	-0.4	-1.5	-1.2
+/- Changes in payables and other liabilities		-0.3	0.3	1.0	0.1	0.5	0.4
+/- Gain/loss from extraordinary items		0.0	0.0	0.0	0.0	0.0	0.0
<b>Cash flow from operating activities</b>		<b>0.4</b>	<b>-0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.4</b>	<b>1.0</b>
+ Proceeds from sale of assets		0.0	0.0	0.0	0.0	0.0	0.0
- Expenses for purchase of assets		-0.2	-0.2	-0.1	-0.4	-0.5	-0.7
- Own work capitalised		-0.6	-0.6	-0.7	-0.6	-0.4	-0.3
<b>Cash flow from investing activities</b>		<b>-0.9</b>	<b>-0.8</b>	<b>-0.9</b>	<b>-0.9</b>	<b>-0.9</b>	<b>-1.0</b>
+ Proceeds from equity increases		0.6	0.0	0.0	1.0	0.0	0.0
+ Proceeds from finance lease		-0.1	0.0	0.0	0.0	0.0	0.0
-/+ Repayments of/proceeds from financial liabilities		-0.5	-0.4	1.0	-0.3	-0.1	-0.1
<b>Cash flow from financial activities</b>		<b>0.0</b>	<b>-0.4</b>	<b>1.0</b>	<b>0.6</b>	<b>-0.1</b>	<b>-0.1</b>
<b>Change in financial position</b>		<b>-0.4</b>	<b>-1.5</b>	<b>0.4</b>	<b>0.2</b>	<b>-0.7</b>	<b>-0.1</b>
Other non-cash items		0.0	0.0	0.0	0.0	0.0	0.0
Financial position - start of period		2.2	1.8	0.3	0.8	0.9	0.3
<b>Financial position - end of period</b>		<b>1.8</b>	<b>0.3</b>	<b>0.8</b>	<b>0.9</b>	<b>0.3</b>	<b>0.2</b>

Source: Independent Research; NanoFocus AG

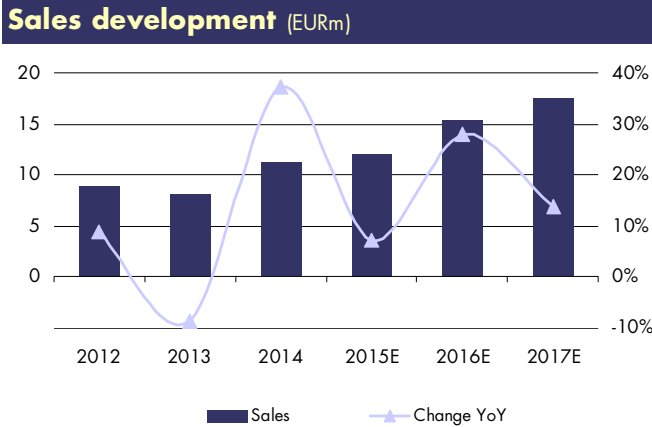
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## Key figures

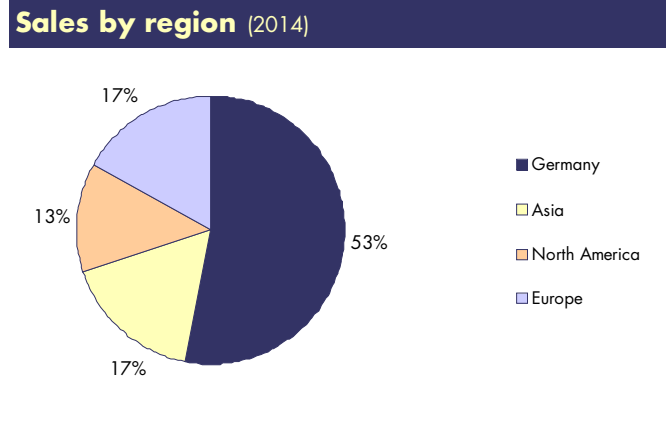
Financial year: Accounting standard:	Dec. 31 HGB	2012	2013	2014	2015E	2016E	2017E
<b>Growth rates</b>							
Sales growth		8.7%	-8.5%	37.2%	7.1%	27.8%	13.7%
EBITDA growth		8.7%	-	-	4.6%	31.3%	37.9%
EBIT growth		21.1%	-	-	3.6%	173.0%	45.4%
EBT growth		63.4%	-	-	17.8%	250.6%	49.4%
EPS growth		130.3%	-	-	-69.0%	250.6%	48.5%
<b>Margins</b>							
EBITDA margin		10.6%	neg.	9.8%	9.6%	9.8%	11.9%
EBIT margin		3.0%	neg.	3.3%	3.2%	6.7%	8.6%
EBT margin		2.1%	neg.	2.0%	2.2%	6.0%	7.8%
Net margin		1.7%	neg.	6.1%	1.9%	5.3%	7.0%
<b>Yield analysis</b>							
ROI		1.1%	-11.2%	5.2%	1.5%	5.2%	7.1%
ROCE		2.7%	-17.6%	2.5%	3.7%	9.3%	11.9%
ROE before taxes		1.9%	-13.7%	2.5%	2.7%	8.5%	11.5%
ROE after taxes		1.6%	-15.1%	7.7%	2.3%	7.6%	10.3%
ROIC		1.9%	-12.7%	1.9%	2.8%	7.4%	9.9%
<b>Balance sheet analysis</b>							
Equity ratio		75.3%	72.3%	64.6%	69.2%	68.6%	69.2%
Equity/non-current assets ratio		2.8	2.3	1.9	2.1	2.1	2.1
Equity + non-current debt/non-current assets ratio		3.1	2.5	2.3	2.4	2.4	2.4
Asset intensity		27.1%	30.8%	33.7%	33.2%	33.2%	32.7%
Inventory turnover		3.4	3.0	3.7	3.6	4.0	3.8
Receivables turnover		3.3	3.7	5.6	5.2	5.7	5.4
Days of sales outstanding		110.0	99.1	65.7	69.6	64.0	67.7
Working capital/sales ratio		48.7%	48.6%	33.0%	33.6%	30.7%	32.2%
Days of payables outstanding		132.8	112.0	135.3	154.8	138.6	147.4
<b>Debt ratios</b>							
Net financial debt		-0.5	0.6	1.1	0.6	1.2	1.2
Net financial debt/EBITDA		-0.5	-	0.8	0.8	0.6	0.6
Net Gearing		-0.1	0.1	0.1	0.1	0.1	0.1
EBITDA interest coverage		9.3	-	6.8	7.0	9.9	13.9
EBIT interest coverage		2.6	-	2.3	2.3	6.8	10.0
<b>Cash flow analysis</b>							
Free cash flow (FCF)		-0.4	-1.1	-0.6	-0.5	-0.5	0.0
FCF/sales		-4.7%	-13.6%	-5.1%	-3.9%	-3.6%	0.1%
FCF/net income		-282.6%	-	-83.7%	-206.4%	-66.7%	1.7%
FCF per share (EUR)		-0.14	-0.37	-0.19	-0.15	-0.17	0.01
FCF yield		-4.9%	-14.4%	-5.5%	-3.3%	-3.8%	0.1%
Capex		0.2	0.2	0.1	0.4	0.5	0.7
Capex /depreciation		71.8%	42.5%	38.4%	83.2%	99.5%	124.9%
Capex/sales		2.7%	1.9%	1.3%	2.9%	3.1%	4.1%
<b>Valuation multiples</b>							
EV / sales		0.9	1.0	1.0	1.2	0.9	0.8
EV / EBITDA		8.5	neg.	10.5	12.3	9.4	6.8
EV / EBIT		30.1	neg.	31.5	37.5	13.7	9.4
EV / FCF		neg.	neg.	neg.	neg.	neg.	675.2
P/E		57.4	neg.	15.2	62.2	17.7	11.9
P/B		0.9	0.9	1.1	1.3	1.3	1.1
P/CF		19.9	neg.	32.6	29.3	39.0	14.0
P/S		1.0	0.9	0.9	1.2	0.9	0.8
Dividend yield		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Independent Research; NanoFocus AG

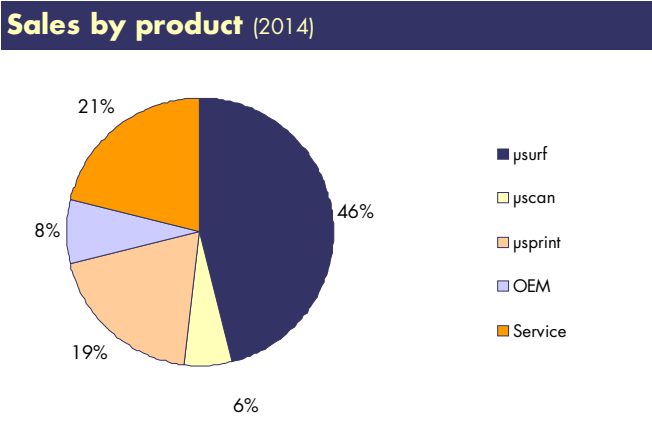
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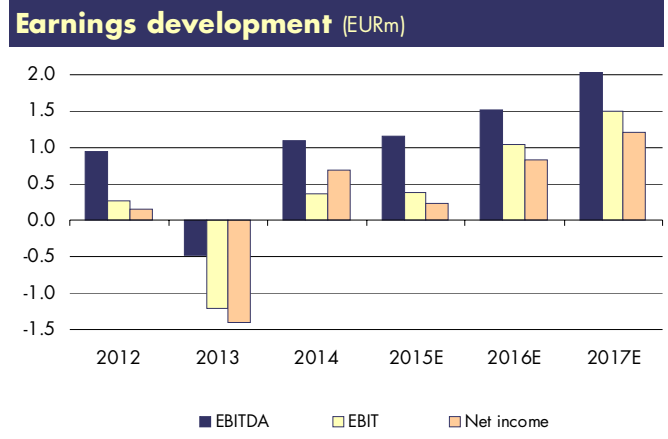
⇒ After a weak FY 2013 NanoFocus returned to growth in 2014 - especially because of a strong automotive industry.  
 ⇒ Especially as of 2016 we expect strong growth due to serial production.



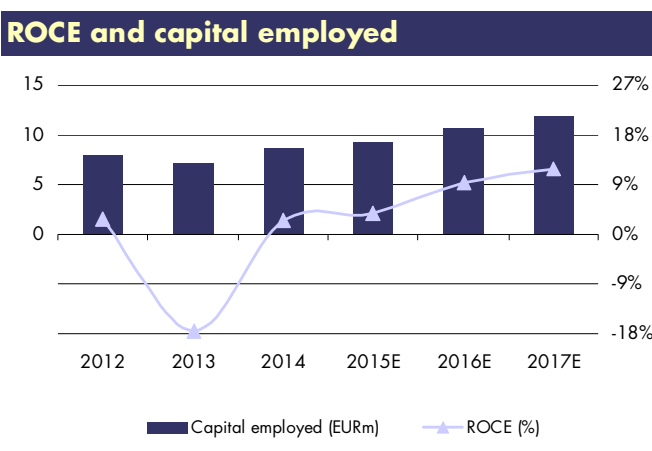
⇒ NanoFocus generates more than half of its sales in Germany.  
 ⇒ Because of strong growth in the semiconductor segment (e.g. customer Samsung) the Asian business gained in importance.



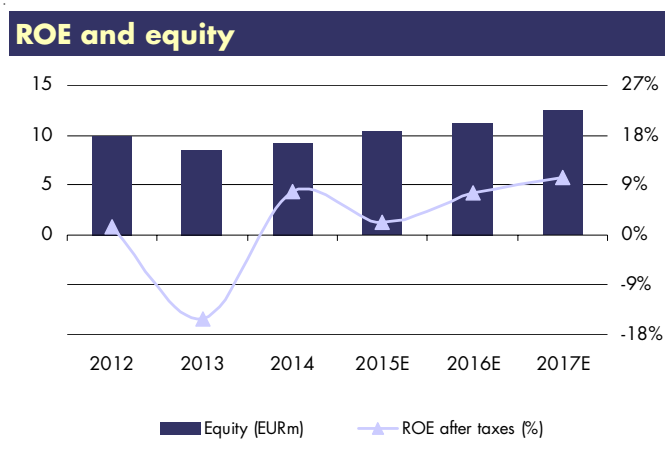
⇒ The µsurf technology is still dominating sales. Growth is driven by the automotive industry (µsurf cylinder).  
 ⇒ Due to the semiconductor industry, µsprint becomes more important.



⇒ The loss reported in 2013 was surprising to us (unexpected low sales level).  
 ⇒ Along with the change towards a producing company economies of scale should gradually gain in importance.



⇒ Due to the loss in 2013 the ROCE was negative.  
 ⇒ Due to increasing economies of scale and no more goodwill amortisation as of 2016 the ROCE should rise above the cost of capital.



⇒ CAGR of equity from 2012 to 2017E: about +5%  
 ⇒ In line with the successively increasing profitability the ROE should improve as well. The ROE 2017E (10.3%) should already be close to the cost of capital.

Source: Independent Research; NanoFocus AG

Please notice the advice regarding possible conflicts of interests as well as the disclaimer at the end of this document

## Disclaimer

### Recommendations concerning particular shares (starting December 18, 2009)

- Buy: According to our assessment, the stock will rise by at least 15% in absolute terms within a 6-month period.
- Hold: According to our assessment, the stock will rise by between 0% and 15% in absolute terms within a 6-month period.
- Sell: According to our assessment, the stock will decline in absolute terms within a 6-month period.

### Recommendations concerning particular shares (until December 17, 2009)

- Buy: According to our assessment, the stock will rise by at least 15% in absolute terms within a 6-month period.
- Accumulate: According to our assessment, the stock will rise by between 0% and 15% in absolute terms within a 6-month period.
- Reduce: According to our assessment, the stock will decline by between 0% and 15% in absolute terms within a 6-month period.
- Sell: According to our assessment, the stock will decline by least 15% in absolute terms within a 6-month period.

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##### Analyses of shares:

In valuing companies standard and accepted valuation methods (amongst others the Discounted Cash Flow Method (DCF Method), Peer-Group Analysis) are applied. Under the DCF Method the net value of the issuer is calculated, which represents the sum of the discounted company results, i.e. the net present value of the issuer's future net cash flows. The net value is therefore determined with reference to the company's anticipated future results and the discount rate applied. Under the Peer-Group Analysis Method issuers quoted on the Stock Exchange are valued with reference to the comparison of valuation multiples (e.g. price/earnings ratio, price/book value, enterprise value/sales, enterprise value/EBITDA, enterprise value/EBIT). Comparability of the valuation multiples is primarily determined by business activity and economic prospects.

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<b>Issuer</b>	<b>Conflicts of interest</b>
<b>NanoFocus AG</b>	<b>5, 6</b>

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