

<b>Buy</b>  <b>EUR 130.00</b> (EUR 139.00)  Price <b>EUR 77.40</b> <b>Upside 68.0 %</b>	<b>Value Indicators:</b> EUR DCF: 130.60	<b>Share data:</b> Bloomberg: GKS GR Reuters: GKSG ISIN: DE0007571424	<b>Description:</b> Leading software company for stationary retailers
	<b>Market Snapshot:</b> EUR m Market cap: 146.3 No. of shares (m): 1.9 EV: 151.9 Freefloat MC: 57.8 Ø Trad. Vol. (30d): 85.25 th	<b>Shareholders:</b> Freefloat 39.5 % GK Software Holding 49.6 % SAP 5.3 % Rainer Gläß 3.3 % Stephan Kronmüller 2.3 %	<b>Risk Profile (WRe):</b> 2018e Beta: 1.4 Price / Book: 3.4 x Equity Ratio: 39 % Net Fin. Debt / EBITDA: 0.3 x Net Debt / EBITDA: 0.5 x

## Licences remain critical to success

<b>Stated Figures Q3/2018:</b>  in EUR m	<table border="1"> <thead> <tr> <th></th> <th>Q3/18</th> <th>Q3/18e</th> <th>Q3/17</th> <th>yoy</th> <th>9M/18</th> <th>9M/17</th> <th>yoy</th> </tr> </thead> <tbody> <tr> <td><b>Sales</b></td> <td>25.9</td> <td>29.0</td> <td>218</td> <td>18.8%</td> <td>74.9</td> <td>65.9</td> <td>13.6%</td> </tr> <tr> <td><b>EBITDA</b></td> <td>1.4</td> <td>4.0</td> <td>14</td> <td>13%</td> <td>3.8</td> <td>6.7</td> <td>-43.1%</td> </tr> <tr> <td><i>margin</i></td> <td>5.6%</td> <td>13.8%</td> <td>6.5%</td> <td></td> <td>5.1%</td> <td>10.2%</td> <td></td> </tr> </tbody> </table>		Q3/18	Q3/18e	Q3/17	yoy	9M/18	9M/17	yoy	<b>Sales</b>	25.9	29.0	218	18.8%	74.9	65.9	13.6%	<b>EBITDA</b>	1.4	4.0	14	13%	3.8	6.7	-43.1%	<i>margin</i>	5.6%	13.8%	6.5%		5.1%	10.2%		<b>Comment on Figures:</b> <ul style="list-style-type: none"> <li>The figures presented by GK Software for the first nine months and third quarter of 2018 respectively fell short of expectations.</li> <li>The reason for this was, again, a lack of licence revenues and postponed orders with low volume.</li> </ul>
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In every fiscal year to date, the fourth quarter has been of exceptional importance for GK Software as the classical client in the retail sector tends to renew its licences in Q4 in the framework of its budgeting processes. At the same time the realisation of the licence revenue for GK takes place at the time of contract finalisation. The combination of these two effects mean that, especially in FY 2018, the success of the fiscal year depends on the fourth quarter amid very low visibility. While the Q3 result probably did not turn out to be quite as weak as stated owing to minor postponement effects, the lion's share of the earnings will nevertheless be generated by licences in Q4. Especially based on the successful sales agreement with SAP, high licence revenues are expected. However, from today's perspective, a cautious approach seems sensible (see below). Strategically, GK's positioning remains excellent. This can be seen, for one, in the categorisation of the solution "SAP Omnichannel by GK" as leading (Forrester), but mainly in the regular acquisition of new customers especially in North America. Additionally, it managed to equip a subsidiary of Walmart (India) with GK solutions for the first time, which increases the chance of working with the North American unit.

GK recently underlined its target of becoming a leading supplier in North America in the billion-dollar market for retail solutions.

**Based on reduced forecasts, the GK share continues to be rated Buy. The price target amounts to EUR 130 (139).**

<b>Changes in Estimates:</b> FY End: 31.12. in EUR m	<table border="1"> <thead> <tr> <th></th> <th>2018e (old)</th> <th>+ / -</th> <th>2019e (old)</th> <th>+ / -</th> <th>2020e (old)</th> <th>+ / -</th> </tr> </thead> <tbody> <tr> <td><b>Sales</b></td> <td>110.0</td> <td>-4.5 %</td> <td>126.5</td> <td>-4.5 %</td> <td>145.5</td> <td>-4.5 %</td> </tr> <tr> <td><b>EBITDA</b></td> <td>15.5</td> <td>-21.5 %</td> <td>21.6</td> <td>-10.1 %</td> <td>29.2</td> <td>-9.3 %</td> </tr> <tr> <td><b>EBIT</b></td> <td>10.3</td> <td>-29.9 %</td> <td>15.7</td> <td>-12.2 %</td> <td>22.4</td> <td>-10.7 %</td> </tr> <tr> <td><b>EPS</b></td> <td>0.0</td> <td>-37.2 %</td> <td>0.0</td> <td>-13.7 %</td> <td>0.0</td> <td>-11.7 %</td> </tr> </tbody> </table>		2018e (old)	+ / -	2019e (old)	+ / -	2020e (old)	+ / -	<b>Sales</b>	110.0	-4.5 %	126.5	-4.5 %	145.5	-4.5 %	<b>EBITDA</b>	15.5	-21.5 %	21.6	-10.1 %	29.2	-9.3 %	<b>EBIT</b>	10.3	-29.9 %	15.7	-12.2 %	22.4	-10.7 %	<b>EPS</b>	0.0	-37.2 %	0.0	-13.7 %	0.0	-11.7 %	<b>Comment on Changes:</b> <ul style="list-style-type: none"> <li>For 2018 and the coming years, the share of software licence revenue is expected to be lower than initially assumed (WRe).</li> <li>Furthermore, on an after-tax basis, the costs for the convertible bond have already been fully recognised, in contrast to the assumption (WRe), and additionally the financial result achievable from free cash is expected to be lower than anticipated (WRe). These adjustments, however, have no effect on the price target (DCF).</li> </ul>
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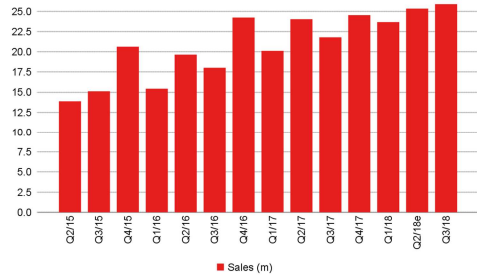


<b>Rel. Performance vs CDAX:</b>	
1 month:	-6.8 %
6 months:	-19.6 %
Year to date:	-19.8 %
Trailing 12 months:	-18.9 %

<b>Company events:</b>	

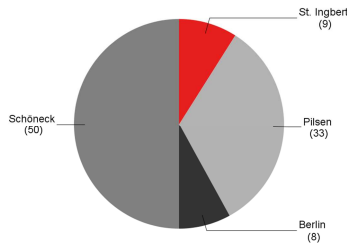
FY End: 31.12. in EUR m	CAGR (17-20e)	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
<b>Sales</b>	15.4 %	44.6	62.6	77.3	90.5	105.0	120.8	138.9
Change Sales yoy		5.1 %	40.3 %	23.5 %	17.0 %	16.1 %	15.0 %	15.0 %
Gross profit margin		89.6 %	87.6 %	90.6 %	90.6 %	90.6 %	90.6 %	90.6 %
<b>EBITDA</b>	44.6 %	0.0	2.2	7.8	8.8	12.2	19.4	26.5
Margin		0.1 %	3.5 %	10.1 %	9.7 %	11.6 %	16.1 %	19.1 %
<b>EBIT</b>	58.8 %	-3.0	-1.3	3.9	5.0	7.2	13.8	20.0
Margin		-6.8 %	-2.0 %	5.1 %	5.5 %	6.9 %	11.4 %	14.4 %
<b>Net income</b>	53.1 %	-1.9	-1.5	2.8	3.9	4.6	9.6	14.0
<b>EPS</b>	53.1 %	-0.99	-0.79	1.50	2.05	2.40	5.02	7.35
<b>EPS adj.</b>	53.1 %	-0.99	-0.79	1.50	2.05	2.40	5.02	7.35
<b>DPS</b>	-	0.00	0.00	0.00	0.00	0.50	0.50	0.50
Dividend Yield		n.a.	n.a.	n.a.	n.a.	0.6 %	0.6 %	0.6 %
<b>FCFPS</b>		-1.15	0.20	0.63	3.70	-0.96	1.06	3.57
<b>FCF / Market cap</b>		-3.4 %	-0.3 %	1.4 %	3.9 %	-1.2 %	1.4 %	4.6 %
<b>EV / Sales</b>		1.6 x	1.2 x	1.3 x	2.0 x	1.5 x	1.3 x	1.1 x
<b>EV / EBITDA</b>		n.a.	33.7 x	12.5 x	20.9 x	12.5 x	7.8 x	5.5 x
<b>EV / EBIT</b>		n.a.	n.a.	24.8 x	36.7 x	21.1 x	11.0 x	7.3 x
<b>P / E</b>		n.a.	n.a.	30.8 x	46.0 x	32.3 x	15.4 x	10.5 x
<b>P / E adj.</b>		n.a.	n.a.	30.8 x	46.0 x	32.3 x	15.4 x	10.5 x
<b>FCF Potential Yield</b>		1.6 %	2.8 %	7.3 %	4.5 %	6.7 %	10.2 %	14.3 %
<b>Net Debt</b>		-7.4	8.8	10.5	3.7	5.6	4.5	-1.3
<b>ROCE (NOPAT)</b>		n.a.	n.a.	8.1 %	10.6 %	11.3 %	18.6 %	23.7 %
<b>Guidance:</b>	n.a.							

**Sales development**  
in EUR m



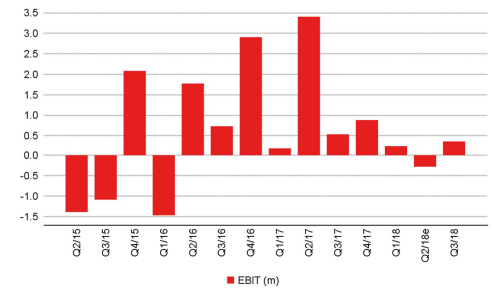
Source: Warburg Research

**Employees per location**  
2018e; in %



Source: Warburg Research

**EBIT development**  
in EUR m



Source: Warburg Research

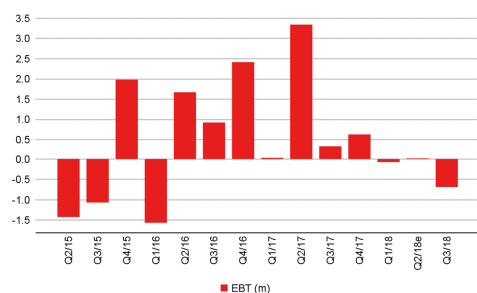
## Company Background

- GK Software is the leading software supplier for retailers.
- As well as standard processes, GK Software solutions facilitate special requirements such as bonus programmes, the recording of fiscal details and the seamless integration in back-end solutions.
- The business activities of GK Software divides into two segments - the sale of product licences and the corresponding services.

## Competitive Quality

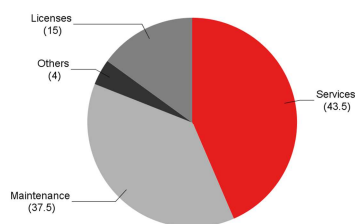
- The structural advantages of GK Software are compelling:
- GK Software's leading solution is completely Java-based, which makes it lean, platform independent and means it can be operated on the existing customer infrastructure.
- For many retail projects, GK competitors tend to undercalculate their bids and as a consequence are unable to complete the project on time and within budget.
- GK has outstanding reference clients (Hornbach, Kaufhof, Douglas, Netto, Tchibo, T-Punkt, Thalia, JYSK Nordic...)
- At the same time, GK Software's personnel costs are, depending on the location, often about 20% below those of a similar project team of a large system integrator.

**EBT development**  
in EUR m



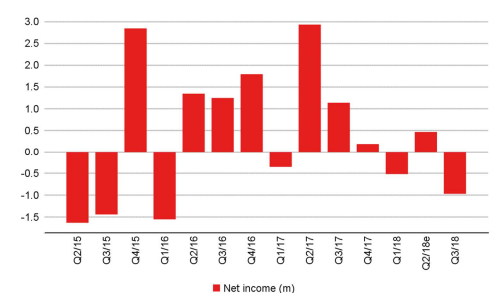
Source: Warburg Research

**Sales by segments**  
2018e; in %



Source: Warburg Research

**Net income development**  
in EUR m



Source: Warburg Research

## DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	
Sales	105.0	120.8	138.9	151.4	160.4	170.1	180.3	191.1	202.6	214.7	227.6	239.0	250.9	
Sales change	16.1 %	15.0 %	15.0 %	9.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	5.0 %	5.0 %	2.5 %
EBIT	7.2	13.8	20.0	22.7	25.7	28.9	30.6	32.5	34.4	36.5	38.7	40.6	42.7	
EBIT-margin	6.9 %	11.4 %	14.4 %	15.0 %	16.0 %	17.0 %	17.0 %	17.0 %	17.0 %	17.0 %	17.0 %	17.0 %	17.0 %	
Tax rate (EBT)	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	
NOPAT	5.1	9.8	14.2	16.1	18.2	20.5	21.8	23.1	24.4	25.9	27.5	28.8	30.3	
Depreciation	4.9	5.7	6.5	7.6	8.0	8.5	7.2	5.7	6.1	2.1	2.3	2.4	2.5	
in % of Sales	4.7 %	4.7 %	4.7 %	5.0 %	5.0 %	5.0 %	4.0 %	3.0 %	3.0 %	1.0 %	1.0 %	1.0 %	1.0 %	
Changes in provisions	0.0	0.0	0.0	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	3.1	3.0	3.5	2.3	1.7	1.8	1.9	2.0	2.1	2.2	2.4	2.1	2.2	
- Capex	8.2	10.2	10.2	9.1	8.0	8.5	5.4	5.7	4.1	2.1	2.3	2.4	2.5	
Capex in % of Sales	7.8 %	8.5 %	7.4 %	6.0 %	5.0 %	5.0 %	3.0 %	3.0 %	2.0 %	1.0 %	1.0 %	1.0 %	1.0 %	
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Free Cash Flow (WACC Model)	-1.3	2.2	7.0	10.9	16.6	18.8	21.7	21.1	24.4	23.7	25.1	26.8	28.1	29
PV of FCF	-1.2	2.0	5.7	8.2	11.3	11.7	12.4	11.1	11.7	10.4	10.1	9.9	9.5	146
share of PVs	2.50 %			41.06 %										56.44 %

## Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	0.00 %	Financial Strength	1.40
Cost of debt (after tax)	4.2 %	Liquidity (share)	1.30
Market return	7.00 %	Cyclicality	1.50
Risk free rate	1.50 %	Transparency	1.50
		Others	1.30
<b>WACC</b>	<b>9.20 %</b>	<b>Beta</b>	<b>1.40</b>

## Valuation (m)

Present values 2030e	113		
Terminal Value	146		
Financial liabilities	32		
Pension liabilities	2		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	22	No. of shares (m)	1.9
<b>Equity Value</b>	<b>247</b>	<b>Value per share (EUR)</b>	<b>130.60</b>

## Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		1.75 %	2.00 %	2.25 %	2.50 %	2.75 %	3.00 %	3.25 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.58	10.2 %	104.14	105.81	107.59	109.48	111.50	113.66	115.97	1.58	10.2 %	96.80	101.03	105.25	109.48	113.71	117.93	122.16
1.49	9.7 %	112.86	114.86	117.00	119.28	121.73	124.36	127.19	1.49	9.7 %	105.67	110.21	114.74	119.28	123.82	128.36	132.89
1.45	9.5 %	117.67	119.86	122.21	124.73	127.43	130.35	133.50	1.45	9.5 %	110.60	115.31	120.02	124.73	129.44	134.15	138.86
1.40	9.2 %	122.81	125.22	127.81	130.60	133.59	136.83	140.35	1.40	9.2 %	115.90	120.80	125.70	130.60	135.49	140.39	145.29
1.35	9.0 %	128.32	130.98	133.85	136.93	140.26	143.88	147.81	1.35	9.0 %	121.63	126.73	131.83	136.93	142.03	147.13	152.23
1.31	8.7 %	134.24	137.19	140.36	143.79	147.51	151.55	155.96	1.31	8.7 %	127.84	133.16	138.47	143.79	149.11	154.42	159.74
1.22	8.2 %	147.52	151.15	155.08	159.36	164.04	169.16	174.80	1.22	8.2 %	141.93	147.74	153.55	159.36	165.17	170.99	176.80

- GK has been able to grow strongly in recent years and, last but not least, convince in terms of profitability
- The technological leadership position and the cooperation with SAP form a good basis for further growth
- This leading position in the world provides considerable scope for sales and earnings

Valuation	2014	2015	2016	2017	2018e	2019e	2020e
Price / Book	2.6 x	2.2 x	2.8 x	4.6 x	3.4 x	2.8 x	2.3 x
Book value per share ex intangibles	11.68	2.03	4.18	7.02	10.96	16.28	24.27
EV / Sales	1.6 x	1.2 x	1.3 x	2.0 x	1.5 x	1.3 x	1.1 x
EV / EBITDA	n.a.	33.7 x	12.5 x	20.9 x	12.5 x	7.8 x	5.5 x
EV / EBIT	n.a.	n.a.	24.8 x	36.7 x	21.1 x	11.0 x	7.3 x
EV / EBIT adj.*	n.a.	n.a.	24.8 x	36.7 x	21.1 x	11.0 x	7.3 x
P / FCF	n.a.	n.a.	73.7 x	25.5 x	n.a.	73.0 x	21.7 x
P / E	n.a.	n.a.	30.8 x	46.0 x	32.3 x	15.4 x	10.5 x
P / E adj.*	n.a.	n.a.	30.8 x	46.0 x	32.3 x	15.4 x	10.5 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	0.6 %	0.6 %	0.6 %
FCF Potential Yield (on market EV)	1.6 %	2.8 %	7.3 %	4.5 %	6.7 %	10.2 %	14.3 %

\*Adjustments made for: -

### Consolidated profit & loss

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
<b>Sales</b>	<b>44.6</b>	<b>62.6</b>	<b>77.3</b>	<b>90.5</b>	<b>105.0</b>	<b>120.8</b>	<b>138.9</b>
Change Sales yoy	5.1 %	40.3 %	23.5 %	17.0 %	16.1 %	15.0 %	15.0 %
Increase / decrease in inventory	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Own work capitalised	0.5	0.5	0.4	0.0	1.1	1.2	1.4
<b>Total Sales</b>	<b>45.1</b>	<b>63.1</b>	<b>77.7</b>	<b>90.5</b>	<b>106.1</b>	<b>122.0</b>	<b>140.3</b>
Material expenses	5.2	8.3	7.7	8.5	10.9	12.6	14.4
<b>Gross profit</b>	<b>40.0</b>	<b>54.9</b>	<b>70.0</b>	<b>81.9</b>	<b>95.1</b>	<b>109.4</b>	<b>125.8</b>
<i>Gross profit margin</i>	<i>89.6 %</i>	<i>87.6 %</i>	<i>90.6 %</i>	<i>90.6 %</i>	<i>90.6 %</i>	<i>90.6 %</i>	<i>90.6 %</i>
Personnel expenses	28.7	39.7	47.7	57.8	64.6	71.2	77.8
Other operating income	2.2	1.7	1.8	5.2	5.8	6.6	7.6
Other operating expenses	13.4	14.7	16.3	20.5	24.2	25.4	29.2
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBITDA</b>	<b>0.0</b>	<b>2.2</b>	<b>7.8</b>	<b>8.8</b>	<b>12.2</b>	<b>19.4</b>	<b>26.5</b>
<i>Margin</i>	<i>0.1 %</i>	<i>3.5 %</i>	<i>10.1 %</i>	<i>9.7 %</i>	<i>11.6 %</i>	<i>16.1 %</i>	<i>19.1 %</i>
Depreciation of fixed assets	0.9	1.0	1.1	1.4	1.6	1.8	2.1
<b>EBITA</b>	<b>-0.9</b>	<b>1.2</b>	<b>6.7</b>	<b>7.4</b>	<b>10.6</b>	<b>17.6</b>	<b>24.4</b>
Amortisation of intangible assets	1.2	1.5	1.8	2.2	3.2	3.6	4.2
Goodwill amortisation	0.9	1.0	1.0	0.2	0.2	0.2	0.3
<b>EBIT</b>	<b>-3.0</b>	<b>-1.3</b>	<b>3.9</b>	<b>5.0</b>	<b>7.2</b>	<b>13.8</b>	<b>20.0</b>
<i>Margin</i>	<i>-6.8 %</i>	<i>-2.0 %</i>	<i>5.1 %</i>	<i>5.5 %</i>	<i>6.9 %</i>	<i>11.4 %</i>	<i>14.4 %</i>
<b>EBIT adj.</b>	<b>-3.0</b>	<b>-1.3</b>	<b>3.9</b>	<b>5.0</b>	<b>7.2</b>	<b>13.8</b>	<b>20.0</b>
Interest income	0.2	0.2	0.1	0.1	0.1	0.0	0.0
Interest expenses	0.1	0.3	0.6	0.8	0.9	0.3	0.3
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBT</b>	<b>-3.0</b>	<b>-1.4</b>	<b>3.5</b>	<b>4.3</b>	<b>6.4</b>	<b>13.5</b>	<b>19.7</b>
<i>Margin</i>	<i>-6.7 %</i>	<i>-2.2 %</i>	<i>4.5 %</i>	<i>4.8 %</i>	<i>6.1 %</i>	<i>11.2 %</i>	<i>14.2 %</i>
Total taxes	-1.1	0.1	0.6	0.5	1.9	3.9	5.7
<b>Net income from continuing operations</b>	<b>-1.9</b>	<b>-1.5</b>	<b>2.8</b>	<b>3.9</b>	<b>4.6</b>	<b>9.6</b>	<b>14.0</b>
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income before minorities</b>	<b>-1.9</b>	<b>-1.5</b>	<b>2.8</b>	<b>3.9</b>	<b>4.6</b>	<b>9.6</b>	<b>14.0</b>
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income</b>	<b>-1.9</b>	<b>-1.5</b>	<b>2.8</b>	<b>3.9</b>	<b>4.6</b>	<b>9.6</b>	<b>14.0</b>
<i>Margin</i>	<i>-4.2 %</i>	<i>-2.4 %</i>	<i>3.7 %</i>	<i>4.3 %</i>	<i>4.4 %</i>	<i>7.9 %</i>	<i>10.1 %</i>
Number of shares, average	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<b>EPS</b>	<b>-0.99</b>	<b>-0.79</b>	<b>1.50</b>	<b>2.05</b>	<b>2.40</b>	<b>5.02</b>	<b>7.35</b>
EPS adj.	-0.99	-0.79	1.50	2.05	2.40	5.02	7.35

\*Adjustments made for:

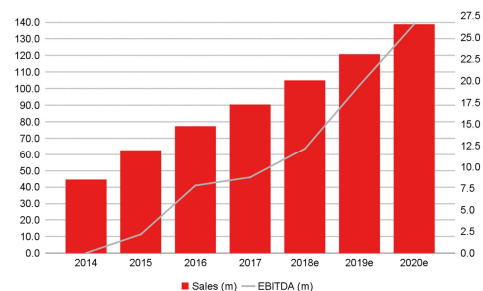
**Guidance: n.a.**

### Financial Ratios

	2014	2015	2016	2017	2018e	2019e	2020e
Total Operating Costs / Sales	101.1 %	97.4 %	90.4 %	90.3 %	89.4 %	84.9 %	81.9 %
Operating Leverage	n.a.	-1.4 x	n.a.	1.6 x	2.8 x	6.0 x	3.0 x
EBITDA / Interest expenses	0.3 x	6.7 x	12.2 x	11.2 x	13.5 x	64.8 x	88.4 x
Tax rate (EBT)	37.4 %	-8.5 %	18.1 %	10.5 %	29.0 %	29.0 %	29.0 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	20.8 %	10.0 %	6.8 %
Sales per Employee	105,677	145,313	175,985	201,806	229,670	258,942	291,945

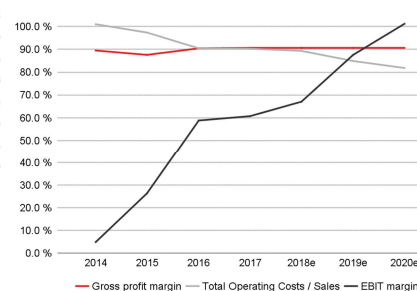
### Sales, EBITDA

in EUR m

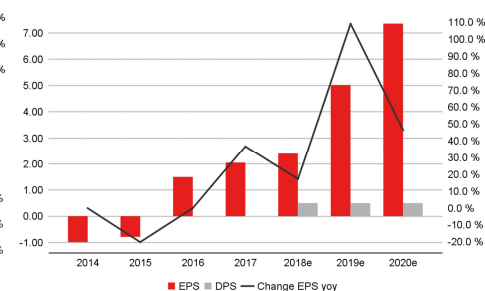


### Operating Performance

in %



### Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

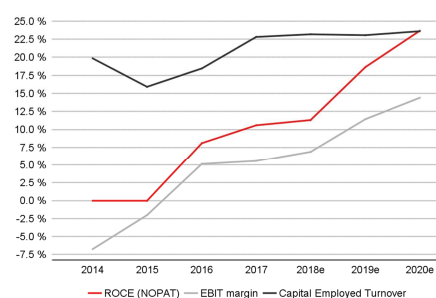
## Consolidated balance sheet

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
<b>Assets</b>							
Goodwill and other intangible assets	8.5	25.2	23.8	25.4	22.3	20.8	18.7
thereof other intangible assets	2.9	20.2	18.8	21.4	18.5	17.3	15.5
thereof Goodwill	5.5	5.0	5.0	4.0	3.8	3.5	3.3
Property, plant and equipment	5.0	5.8	8.9	14.2	20.5	26.5	32.3
Financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Fixed assets</b>	<b>13.4</b>	<b>30.9</b>	<b>32.7</b>	<b>39.6</b>	<b>42.8</b>	<b>47.4</b>	<b>51.1</b>
Inventories	1.2	1.7	1.2	1.0	1.6	1.8	2.1
Accounts receivable	9.2	12.6	18.0	17.7	20.5	23.6	27.2
Liquid assets	10.2	7.4	6.0	30.5	28.6	29.7	35.6
Other short-term assets	10.7	15.2	13.7	17.8	17.8	17.8	17.8
<b>Current assets</b>	<b>31.2</b>	<b>36.8</b>	<b>38.9</b>	<b>67.0</b>	<b>68.6</b>	<b>73.0</b>	<b>82.7</b>
<b>Total Assets</b>	<b>44.7</b>	<b>67.7</b>	<b>71.6</b>	<b>106.6</b>	<b>111.4</b>	<b>120.3</b>	<b>133.8</b>
<b>Liabilities and shareholders' equity</b>							
Subscribed capital	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Capital reserve	18.2	18.2	18.5	20.5	20.5	20.5	20.5
Retained earnings	0.0	0.0	0.0	0.0	4.6	13.2	26.2
Other equity components	10.4	8.9	11.3	16.3	16.2	16.2	16.3
Shareholders' equity	30.6	29.0	31.7	38.7	43.2	51.8	64.9
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total equity</b>	<b>30.6</b>	<b>29.0</b>	<b>31.7</b>	<b>38.7</b>	<b>43.2</b>	<b>51.8</b>	<b>64.9</b>
Provisions	4.1	6.0	3.6	3.7	3.7	3.7	3.7
thereof provisions for pensions and similar obligations	1.7	1.5	1.7	1.9	1.9	1.9	1.9
Financial liabilities (total)	1.1	14.7	14.8	32.3	32.3	32.3	32.3
thereof short-term financial liabilities	0.3	3.2	5.8	10.3	10.3	10.3	10.3
Accounts payable	1.6	2.1	2.2	1.8	2.1	2.4	2.8
Other liabilities	7.2	15.9	19.3	30.0	30.0	30.0	30.0
<b>Liabilities</b>	<b>14.1</b>	<b>38.7</b>	<b>39.9</b>	<b>67.9</b>	<b>68.2</b>	<b>68.5</b>	<b>68.9</b>
<b>Total liabilities and shareholders' equity</b>	<b>44.7</b>	<b>67.7</b>	<b>71.6</b>	<b>106.6</b>	<b>111.4</b>	<b>120.3</b>	<b>133.8</b>

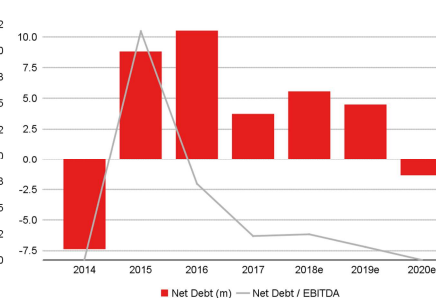
## Financial Ratios

	2014	2015	2016	2017	2018e	2019e	2020e
<b>Efficiency of Capital Employment</b>							
Operating Assets Turnover	3.4 x	4.5 x	3.0 x	3.0 x	2.7 x	2.5 x	2.4 x
Capital Employed Turnover	1.9 x	1.7 x	1.8 x	2.1 x	2.2 x	2.1 x	2.2 x
ROA	-13.9 %	-4.9 %	8.6 %	9.8 %	10.7 %	20.2 %	27.4 %
<b>Return on Capital</b>							
ROCE (NOPAT)	n.a.	n.a.	8.1 %	10.6 %	11.3 %	18.6 %	23.7 %
ROE	-5.8 %	-5.0 %	9.3 %	11.1 %	11.2 %	20.1 %	24.0 %
Adj. ROE	-5.8 %	-5.0 %	9.3 %	11.1 %	11.2 %	20.1 %	24.0 %
<b>Balance sheet quality</b>							
Net Debt	-7.4	8.8	10.5	3.7	5.6	4.5	-1.3
Net Financial Debt	-9.0	7.3	8.8	1.8	3.7	2.6	-3.2
Net Gearing	-24.1 %	30.3 %	33.1 %	9.6 %	12.9 %	8.7 %	-2.1 %
Net Fin. Debt / EBITDA	n.a.	337.6 %	112.8 %	21.0 %	30.2 %	13.4 %	n.a.
Book Value / Share	16.2	15.4	16.8	20.3	22.7	27.2	34.1
Book value per share ex intangibles	11.7	2.0	4.2	7.0	11.0	16.3	24.3

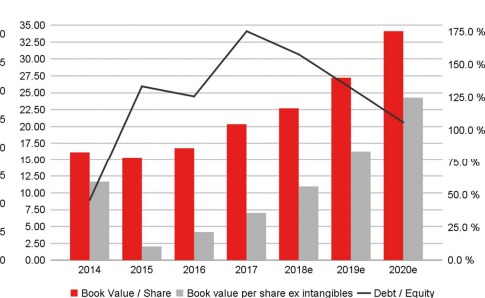
### ROCE Development



### Net debt in EUR m



### Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

### Consolidated cash flow statement

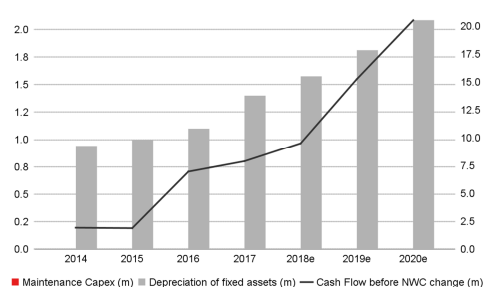
In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Net income	-1.9	-1.5	2.8	3.9	4.6	9.6	14.0
Depreciation of fixed assets	0.9	1.0	1.1	1.4	1.6	1.8	2.1
Amortisation of goodwill	0.9	1.0	1.0	0.2	0.2	0.2	0.3
Amortisation of intangible assets	1.2	1.5	1.8	2.2	3.2	3.6	4.2
Increase/decrease in long-term provisions	0.8	0.7	0.2	0.2	0.0	0.0	0.0
Other non-cash income and expenses	0.0	-0.8	0.0	0.0	0.0	0.0	0.0
<b>Cash Flow before NWC change</b>	<b>1.9</b>	<b>1.9</b>	<b>6.9</b>	<b>7.9</b>	<b>9.5</b>	<b>15.2</b>	<b>20.5</b>
Increase / decrease in inventory	-0.1	-0.1	0.5	0.2	-0.6	-0.2	-0.3
Increase / decrease in accounts receivable	-0.4	-0.4	-5.4	0.3	-2.8	-3.1	-3.6
Increase / decrease in accounts payable	-0.2	-0.2	-3.6	0.2	0.3	0.3	0.4
Increase / decrease in other working capital positions	-1.6	1.0	5.2	6.6	0.0	0.0	0.0
Increase / decrease in working capital (total)	-2.3	0.3	-3.4	7.3	-3.1	-3.0	-3.5
<b>Net cash provided by operating activities [1]</b>	<b>-0.4</b>	<b>2.2</b>	<b>3.6</b>	<b>15.2</b>	<b>6.4</b>	<b>12.2</b>	<b>17.0</b>
Investments in intangible assets	-1.2	-1.2	-1.2	-0.3	-0.3	-2.4	-2.4
Investments in property, plant and equipment	-1.1	-1.1	-1.1	-7.9	-7.9	-7.9	-7.9
Payments for acquisitions	0.0	-16.8	0.0	0.0	0.0	0.0	0.0
Financial investments	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
Income from asset disposals	0.3	0.0	-2.6	-1.1	0.0	0.0	0.0
<b>Net cash provided by investing activities [2]</b>	<b>-1.6</b>	<b>-18.6</b>	<b>-5.0</b>	<b>-9.3</b>	<b>-8.2</b>	<b>-10.2</b>	<b>-10.2</b>
Change in financial liabilities	-1.2	13.6	0.1	17.5	0.0	0.0	0.0
Dividends paid	-0.5	0.0	0.0	0.0	0.0	-1.0	-1.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	-1.0	-2.2	1.6	0.0	0.0	0.0
<b>Net cash provided by financing activities [3]</b>	<b>-1.6</b>	<b>12.6</b>	<b>-2.1</b>	<b>19.1</b>	<b>0.0</b>	<b>-1.0</b>	<b>-1.0</b>
<b>Change in liquid funds [1]+[2]+[3]</b>	<b>-3.6</b>	<b>-3.9</b>	<b>-3.5</b>	<b>25.1</b>	<b>-1.8</b>	<b>1.1</b>	<b>5.8</b>
Effects of exchange-rate changes on cash	0.0	0.1	0.0	0.0	0.0	0.0	0.0
<b>Cash and cash equivalent at end of period</b>	<b>10.2</b>	<b>6.4</b>	<b>2.8</b>	<b>27.9</b>	<b>28.6</b>	<b>29.7</b>	<b>35.6</b>

### Financial Ratios

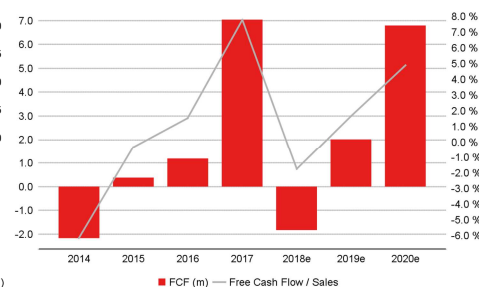
	2014	2015	2016	2017	2018e	2019e	2020e
<b>Cash Flow</b>							
FCF	-2.2	0.4	1.2	7.0	-1.8	2.0	6.8
Free Cash Flow / Sales	-6.2 %	-0.3 %	1.5 %	7.8 %	-1.7 %	1.7 %	4.9 %
Free Cash Flow Potential	1.2	2.1	7.2	8.3	10.3	15.5	20.8
Free Cash Flow / Net Profit	147.0 %	13.3 %	42.0 %	180.8 %	-40.0 %	21.1 %	48.6 %
Interest Received / Avg. Cash	1.3 %	2.5 %	2.2 %	0.7 %	0.3 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	7.4 %	4.1 %	4.3 %	3.3 %	2.8 %	0.9 %	0.9 %
<b>Management of Funds</b>							
Investment ratio	5.3 %	3.8 %	3.1 %	9.0 %	7.8 %	8.5 %	7.4 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	77.6 %	68.6 %	61.4 %	215.8 %	166.1 %	180.0 %	156.5 %
Avg. Working Capital / Sales	23.0 %	13.1 %	16.1 %	18.1 %	16.7 %	17.1 %	17.2 %
Trade Debtors / Trade Creditors	562.7 %	600.2 %	819.6 %	964.6 %	976.2 %	983.3 %	971.4 %
Inventory Turnover	4.4 x	5.0 x	6.4 x	8.6 x	6.8 x	7.0 x	6.9 x
Receivables collection period (days)	75	73	85	71	71	71	71
Payables payment period (days)	116	93	105	79	70	70	71
Cash conversion cycle (Days)	6	-123	23	-1	26	29	32

### CAPEX and Cash Flow

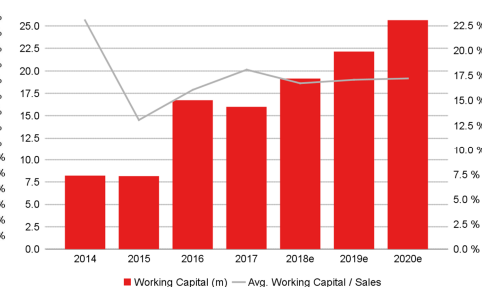
in EUR m



### Free Cash Flow Generation



### Working Capital



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

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-B-	<b>Buy:</b>	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	<b>Hold:</b>	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	<b>Sell:</b>	The price of the analysed financial instrument is expected to fall over the next 12 months.
“-“	<b>Rating suspended:</b>	The available information currently does not permit an evaluation of the company.

**WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING**

Rating	Number of stocks	% of Universe
Buy	131	64
Hold	65	32
Sell	3	1
Rating suspended	7	3
<b>Total</b>	<b>206</b>	<b>100</b>

**WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING ...**

... taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	33	72
Hold	11	24
Sell	0	0
Rating suspended	2	4
<b>Total</b>	<b>46</b>	<b>100</b>

**PRICE AND RATING HISTORY GK SOFTWARE AS OF 05.12.2018**


Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.

**EQUITIES**

**Roland Rapelius** +49 40 3282-2673  
Head of Equities rrapelius@mmwarburg.com

**RESEARCH**

**Michael Heider** +49 40 309537-280  
Head of Research mheider@warburg-research.com

**Henner Rüschemier** +49 40 309537-270  
Head of Research hrueschemier@warburg-research.com

**Jonas Blum** +49 40 309537-240  
Small/Mid Cap Research jblum@warburg-research.com

**Christian Cohrs** +49 40 309537-175  
Industrials & Transportation ccohrs@warburg-research.com

**Felix Ellmann** +49 40 309537-120  
Software, IT fellmann@warburg-research.com

**Jörg Philipp Frey** +49 40 309537-258  
Retail, Consumer Goods jfrey@warburg-research.com

**Marius Fuhrberg** +49 40 309537-185  
Financial Services mfuhrberg@warburg-research.com

**Ulrich Huwald** +49 40 309537-255  
Health Care, Pharma uhuwald@warburg-research.com

**Thilo Kleibauer** +49 40 309537-257  
Retail, Consumer Goods tkleibauer@warburg-research.com

**Eggert Kuls** +49 40 309537-256  
Engineering ekuls@warburg-research.com

**Marina Manas Cháfer** +49 40 309537-254  
Renewables, Small/Mid Cap mmanaschafer@warburg-research.com

**Andreas Pläsier** +49 40 309537-246  
Banks, Financial Services aplaesier@warburg-research.com

**Jochen Reichert** +49 40 309537-130  
Telco, Internet, Media jreichert@warburg-research.com

**Franz Schall** +49 40 309537-230  
Automobiles, Car Suppliers fschall@warburg-research.com

**Malte Schaumann** +49 40 309537-170  
Technology mschaumann@warburg-research.com

**Patrick Schmidt** +49 40 309537-125  
Leisure, Internet pschmidt@warburg-research.com

**Oliver Schwarz** +49 40 309537-250  
Chemicals, Agriculture oschwarz@warburg-research.com

**Cansu Tatar** +49 40 309537-248  
Cap. Goods ctatar@warburg-research.com

**Marc-René Tonn** +49 40 309537-259  
Automobiles, Car Suppliers mtonn@warburg-research.com

**Robert-Jan van der Horst** +49 40 309537-290  
Technology rvanderhorst@warburg-research.com

**Andreas Wolf** +49 40 309537-140  
Software, IT awolf@warburg-research.com

**INSTITUTIONAL EQUITY SALES**

**Klaus Schilling** +49 40 3282-2664  
Head of Equity Sales, Germany kschilling@mmwarburg.com

**Tim Beckmann** +49 40 3282-2665  
United Kingdom tbeckmann@mmwarburg.com

**Lyubka Bogdanova** +49 69 5050-7411  
Ireland, Poland, Australia lbogdanova@mmwarburg.com

**Jens Buchmüller** +49 69 5050-7415  
Scandinavia, Austria jbuchmueller@mmwarburg.com

**Alexander Eschweiler** +49 40 3282-2669  
Germany aeschweiler@mmwarburg.com

**Matthias Fritsch** +49 40 3282-2696  
United Kingdom mfritsch@mmwarburg.com

**Michael Kriszun** +49 40 3282-2695  
United Kingdom mkriszun@mmwarburg.com

**Sanjay Oberoi** +49 69 5050-7410  
United Kingdom soberoi@mmwarburg.com

**Simon Pallhuber** +49 69 5050-7414  
Switzerland, France spallhuber@mmwarburg.com

**Angelika Flegler** +49 69 5050-7417  
Roadshow/Marketing aflegler@mmwarburg.com

**Juliane Willenbruch** +49 40 3282-2694  
Roadshow/Marketing jwillenbruch@mmwarburg.com

**SALES TRADING**

**Oliver Merckel** +49 40 3282-2634  
Head of Sales Trading omerckel@mmwarburg.com

**Elyaz Dust** +49 40 3282-2702  
Sales Trading edust@mmwarburg.com

**Michael Ilgenstein** +49 40 3282-2700  
Sales Trading milgenstein@mmwarburg.com

**Bastian Quast** +49 40 3282-2701  
Sales Trading bquast@mmwarburg.com

**Jörg Treptow** +49 40 3282-2658  
Sales Trading jtreptow@mmwarburg.com

**Jan Walter** +49 40 3282-2662  
Sales Trading jwalter@mmwarburg.com

**MACRO RESEARCH**

**Carsten Klude** +49 40 3282-2572  
Macro Research cklude@mmwarburg.com

**Dr. Christian Jasperneite** +49 40 3282-2439  
Investment Strategy cjasperneite@mmwarburg.com

**Our research can be found under:**

Warburg Research [research.mmwarburg.com/en/index.html](http://research.mmwarburg.com/en/index.html)  
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**For access please contact:**

**Andrea Schaper** +49 40 3282-2632  
Sales Assistance aschaper@mmwarburg.com

**Kerstin Muthig** +49 40 3282-2703  
Sales Assistance kmuthig@mmwarburg.com