

| | | | |
|---|--|---|--|
| <p>Buy</p> <p>EUR 100.00 (EUR 130.00)</p> <p>Price EUR 70.00</p> <p>Upside 42.9 %</p> | <p>Value Indicators: EUR</p> <p>DCF: 101.16</p> | <p>Share data:</p> <p>Bloomberg: GKS GR</p> <p>Reuters: GKSG</p> <p>ISIN: DE0007571424</p> | <p>Description:</p> <p>Leading software company for stationary retailers</p> |
| | <p>Market Snapshot: EUR m</p> <p>Market cap: 144.4</p> <p>No. of shares (m): 1.9</p> <p>EV: 158.5</p> <p>Freefloat MC: 57.0</p> <p>Ø Trad. Vol. (30d): 56.85 th</p> | <p>Shareholders:</p> <p>Freefloat 39.5 %</p> <p>GK Software Holding 49.6 %</p> <p>SAP 5.3 %</p> <p>Rainer Gläß 3.3 %</p> <p>Stephan Kronmüller 2.3 %</p> | <p>Risk Profile (WRe): 2018e</p> <p>Beta: 1.6</p> <p>Price / Book: 3.8 x</p> <p>Equity Ratio: 36 %</p> <p>Net Fin. Debt / EBITDA: 1.4 x</p> <p>Net Debt / EBITDA: 1.7 x</p> |

Revenues in line; Earnings fall short

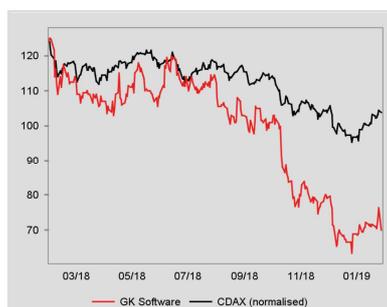
GK Software announced key figures for FY 2018 on 27.01.2018. According to the announcement, revenue is to come in at between EUR 103m and EUR 106m (WRe, old: EUR 105m) and EBITDA between EUR 4m and EUR 7m (WRe, old: 12.2m). Revenue thus met the target but earnings fell far short.

The reasons for this were, besides a slightly weaker licences' share of revenue, mainly product development costs that occurred at short notice. A total of EUR 14m was invested in the further development and new development of mobile applications and the use of artificial intelligence in retail (Artificial Intelligence for Retail - "AIR") and booked as costs.

The surprising earnings shortfall could also suggest here that, evidently, considerable capacities from the productive areas were tied up in development tasks. Considering that these costs were not yet anticipated in Q3 it would seem to be, to a significant extent, a matter of unplanned expenditure. Normally costs of this kind involve adjustments for customers' special requests in the context of customer acquisition and the initial project. In conversation with the management it became clear that it was a matter of the fulfilment of special requests by customers, including a very important US customer. The US market, successfully addressed by the company in 2018 for the first time on a very large scale with three new customers, offers GK the potential for considerable revenue growth in the next years. From a strategic point of view, it seems understandable that special developments are carried out for important reference customers, even if these are unnecessary for the standard processes. Prospectively, the beginning of 2019 (Q1, Q2) will still be affected by this expenditure.

The level of reported revenue and the very successful addressing of the US market underline, however, the very positive long-term development. The EBITA margin target of 15% originally anticipated for 2018 for GK Retail (2019e: 95% of the revenue) is, therefore, now only estimated for 2020 (WRe). Together with realignment of the risk adjustment in the DCF model (beta rises from 1.4 to 1.6), a new price target of EUR 100 (130) is derived. **The GK software share continues to be rated at Buy with a price target of EUR 100.**

| Changes in Estimates: | | | | Comment on Changes: | | | |
|-------------------------|-------------|---------|-------------|---------------------|-------------|--------|---|
| FY End: 31.12. in EUR m | 2018e (old) | + / - | 2019e (old) | + / - | 2020e (old) | + / - | |
| Sales | 105.0 | -1.0 % | 120.7 | -1.0 % | 138.9 | -1.0 % | <ul style="list-style-type: none"> Development costs lead to a postponement of the margin improvements expected for 2019 to 2020 and beyond. Revenue expectations will be only slightly adjusted. |
| EBITDA | 12.2 | -52.2 % | 19.4 | -37.9 % | 26.5 | -1.0 % | |
| EBIT | 7.2 | -87.1 % | 13.8 | -53.1 % | 20.0 | -1.0 % | |
| EPS | 0.0 | -97.9 % | 0.0 | -54.2 % | 0.0 | -1.0 % | |



Rel. Performance vs CDAX:

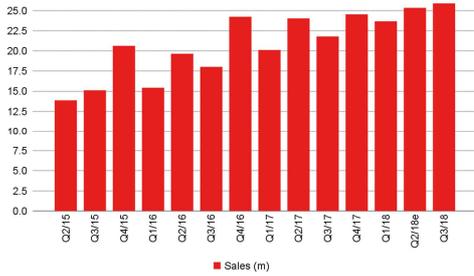
| | |
|---------------------|---------|
| 1 month: | -5.5 % |
| 6 months: | -25.4 % |
| Year to date: | -5.5 % |
| Trailing 12 months: | -28.0 % |

Company events:

| | |
|----------|---------|
| 26.04.19 | FY 2018 |
| 30.05.19 | Q1 |
| 20.06.19 | AGM |
| 29.08.19 | Q2 |

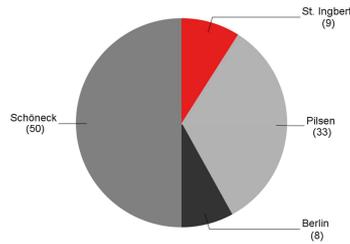
| FY End: 31.12. in EUR m | CAGR (17-20e) | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|-------------------------|---------------|--------|--------|--------|--------|---------|--------|--------|
| Sales | 15.0 % | 44.6 | 62.6 | 77.3 | 90.5 | 104.0 | 119.6 | 137.5 |
| Change Sales yoy | | 5.1 % | 40.3 % | 23.5 % | 17.0 % | 15.0 % | 15.0 % | 15.0 % |
| Gross profit margin | | 89.6 % | 87.6 % | 90.6 % | 90.6 % | 90.6 % | 90.6 % | 90.6 % |
| EBITDA | 44.1 % | 0.0 | 2.2 | 7.8 | 8.8 | 5.8 | 12.1 | 26.3 |
| Margin | | 0.1 % | 3.5 % | 10.1 % | 9.7 % | 5.6 % | 10.1 % | 19.1 % |
| EBIT | 58.3 % | -3.0 | -1.3 | 3.9 | 5.0 | 0.9 | 6.5 | 19.8 |
| Margin | | -6.8 % | -2.0 % | 5.1 % | 5.5 % | 0.9 % | 5.4 % | 14.4 % |
| Net income | 52.6 % | -1.9 | -1.5 | 2.8 | 3.9 | 0.1 | 4.4 | 13.8 |
| EPS | 52.6 % | -0.99 | -0.79 | 1.50 | 2.05 | 0.05 | 2.30 | 7.28 |
| EPS adj. | 52.6 % | -0.99 | -0.79 | 1.50 | 2.05 | 0.05 | 2.30 | 7.28 |
| DPS | - | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 |
| Dividend Yield | | n.a. | n.a. | n.a. | n.a. | 0.7 % | 0.7 % | 0.7 % |
| FCFPS | | -1.15 | 0.20 | 0.63 | 3.70 | -3.29 | -1.64 | 3.52 |
| FCF / Market cap | | -3.4 % | -0.3 % | 1.4 % | 3.9 % | -4.3 % | -2.1 % | 4.6 % |
| 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 | 26.7 x | 13.2 x | 5.9 x |
| EV / EBIT | | n.a. | n.a. | 24.8 x | 36.7 x | 166.0 x | 24.7 x | 7.8 x |
| P / E | | n.a. | n.a. | 30.8 x | 46.0 x | n.a. | 33.2 x | 10.5 x |
| P / E adj. | | n.a. | n.a. | 30.8 x | 46.0 x | n.a. | 33.2 x | 10.5 x |
| FCF Potential Yield | | 1.6 % | 2.8 % | 7.3 % | 4.5 % | 3.7 % | 6.5 % | 13.4 % |
| Net Debt | | -7.4 | 8.8 | 10.5 | 3.7 | 10.0 | 14.1 | 8.3 |
| ROCE (NOPAT) | | n.a. | n.a. | 8.1 % | 10.6 % | 1.5 % | 8.7 % | 23.5 % |
| Guidance: | n.a. | | | | | | | |

Sales development
in EUR m



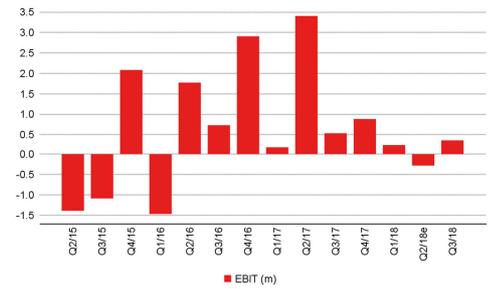
Source: Warburg Research

Employees per location
2018e; in %



Source: Warburg Research

EBIT development
in EUR m



Source: Warburg Research

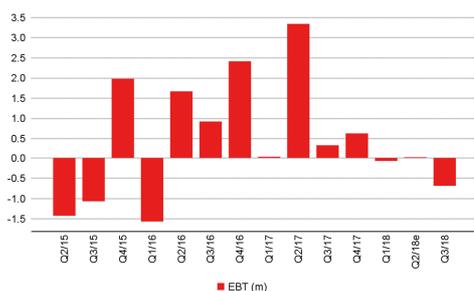
Company Background

- 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

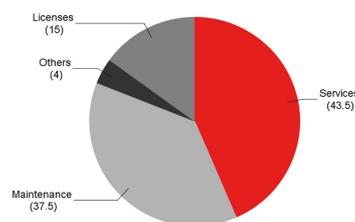
- The structural advantages of GK Software are compelling:
- GK Software's leading solution is completely Java-based, which makes it lean, platform independent and means it can be operated on the existing customer infrastructure.
- For many retail projects, GK competitors tend to undercalculate their 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



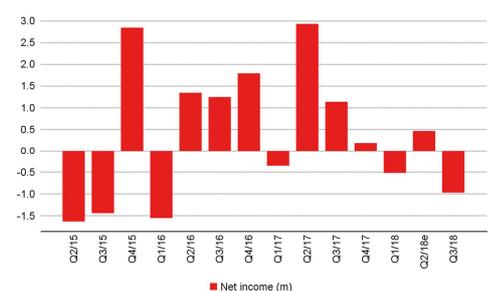
Source: Warburg Research

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 | 104.0 | 119.6 | 137.5 | 149.9 | 158.9 | 168.4 | 178.6 | 189.3 | 200.6 | 212.7 | 225.4 | 236.7 | 248.5 | 2.5 % |
| Sales change | 15.0 % | 15.0 % | 15.0 % | 9.0 % | 6.0 % | 6.0 % | 6.0 % | 6.0 % | 6.0 % | 6.0 % | 6.0 % | 5.0 % | 5.0 % | |
| EBIT | 0.9 | 6.5 | 19.8 | 22.5 | 25.4 | 28.6 | 30.4 | 32.2 | 34.1 | 36.2 | 38.3 | 40.2 | 42.2 | 17.0 % |
| EBIT-margin | 0.9 % | 5.4 % | 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 % | 1.0 % |
| NOPAT | 0.7 | 4.6 | 14.1 | 16.0 | 18.1 | 20.3 | 21.6 | 22.8 | 24.2 | 25.7 | 27.2 | 28.6 | 30.0 | |
| Depreciation | 4.9 | 5.6 | 6.5 | 7.5 | 7.9 | 8.4 | 7.1 | 5.7 | 6.0 | 2.1 | 2.3 | 2.4 | 2.5 | 1.0 % |
| 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 | 1.0 % |
| Change in Liquidity from | | | | | | | | | | | | | | |
| - Working Capital | 3.0 | 2.9 | 3.4 | 2.3 | 1.7 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 2.4 | 2.1 | 2.2 | 1.0 % |
| - Capex | 8.2 | 10.2 | 10.2 | 9.0 | 7.9 | 8.4 | 5.4 | 5.7 | 4.0 | 2.1 | 2.3 | 2.4 | 2.5 | |
| Capex in % of Sales | 7.9 % | 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 | 29 |
| Free Cash Flow (WACC Model) | -5.7 | -2.9 | 6.9 | 10.8 | 16.4 | 18.6 | 21.5 | 20.9 | 24.2 | 23.5 | 24.9 | 26.5 | 27.9 | |
| PV of FCF | -5.7 | -2.7 | 5.7 | 8.1 | 11.2 | 11.5 | 12.0 | 10.6 | 11.1 | 9.8 | 9.4 | 9.1 | 8.7 | 115 |
| share of PVs | -1.25 % | | | 47.59 % | | | | | | | | | | 53.66 % |

Model parameter

| | | | |
|--------------------------|----------------|---------------------|-------------|
| Derivation of WACC: | | Derivation of Beta: | |
| Debt ratio | 0.00 % | Financial Strength | 1.60 |
| Cost of debt (after tax) | 4.2 % | Liquidity (share) | 1.60 |
| Market return | 7.00 % | Cyclicality | 1.60 |
| Risk free rate | 1.50 % | Transparency | 1.60 |
| | | Others | 1.60 |
| WACC | 10.30 % | Beta | 1.60 |

Valuation (m)

| | | | |
|----------------------------|------------|------------------------------|---------------|
| Present values 2030e | 99 | | |
| Terminal Value | 115 | | |
| Financial liabilities | 32 | | |
| Pension liabilities | 2 | | |
| Hybrid capital | 0 | | |
| Minority interest | 0 | | |
| Market val. of investments | 0 | | |
| Liquidity | 12 | No. of shares (m) | 1.9 |
| Equity Value | 191 | Value per share (EUR) | 101.16 |

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 |
| 1.78 | 11.3 % | 81.57 | 82.76 | 84.02 | 85.35 | 86.76 | 88.26 | 89.85 | 1.78 | 11.3 % | 73.96 | 77.76 | 81.56 | 85.35 | 89.15 | 92.95 | 96.74 |
| 1.69 | 10.8 % | 88.29 | 89.70 | 91.19 | 92.77 | 94.44 | 96.22 | 98.13 | 1.69 | 10.8 % | 80.67 | 84.70 | 88.73 | 92.77 | 96.80 | 100.83 | 104.86 |
| 1.65 | 10.6 % | 91.96 | 93.49 | 95.11 | 96.83 | 98.66 | 100.61 | 102.70 | 1.65 | 10.6 % | 84.34 | 88.51 | 92.67 | 96.83 | 100.99 | 105.15 | 109.32 |
| 1.60 | 10.3 % | 95.85 | 97.51 | 99.28 | 101.16 | 103.17 | 105.31 | 107.61 | 1.60 | 10.3 % | 88.26 | 92.56 | 96.86 | 101.16 | 105.46 | 109.76 | 114.06 |
| 1.55 | 10.1 % | 99.98 | 101.80 | 103.73 | 105.79 | 108.00 | 110.35 | 112.89 | 1.55 | 10.1 % | 92.45 | 96.90 | 101.35 | 105.79 | 110.24 | 114.69 | 119.14 |
| 1.51 | 9.8 % | 104.38 | 106.37 | 108.49 | 110.75 | 113.17 | 115.78 | 118.58 | 1.51 | 9.8 % | 96.94 | 101.54 | 106.15 | 110.75 | 115.36 | 119.96 | 124.57 |
| 1.42 | 9.3 % | 114.10 | 116.48 | 119.04 | 121.79 | 124.75 | 127.94 | 131.40 | 1.42 | 9.3 % | 106.92 | 111.88 | 116.84 | 121.79 | 126.75 | 131.70 | 136.66 |

- 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 | 3.8 x | 3.4 x | 2.6 x |
| Book value per share ex intangibles | 11.68 | 2.03 | 4.18 | 7.02 | 8.59 | 11.21 | 19.06 |
| 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 | 26.7 x | 13.2 x | 5.9 x |
| EV / EBIT | n.a. | n.a. | 24.8 x | 36.7 x | 166.0 x | 24.7 x | 7.8 x |
| EV / EBIT adj.* | n.a. | n.a. | 24.8 x | 36.7 x | 166.0 x | 24.7 x | 7.8 x |
| P / FCF | n.a. | n.a. | 73.7 x | 25.5 x | n.a. | n.a. | 21.7 x |
| P / E | n.a. | n.a. | 30.8 x | 46.0 x | n.a. | 33.2 x | 10.5 x |
| P / E adj.* | n.a. | n.a. | 30.8 x | 46.0 x | n.a. | 33.2 x | 10.5 x |
| Dividend Yield | n.a. | n.a. | n.a. | n.a. | 0.7 % | 0.7 % | 0.7 % |
| FCF Potential Yield (on market EV) | 1.6 % | 2.8 % | 7.3 % | 4.5 % | 3.7 % | 6.5 % | 13.4 % |

*Adjustments made for: -

Consolidated profit & loss

| In EUR m | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sales | 44.6 | 62.6 | 77.3 | 90.5 | 104.0 | 119.6 | 137.5 |
| Change Sales yoy | 5.1 % | 40.3 % | 23.5 % | 17.0 % | 15.0 % | 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 | 1.0 | 1.2 | 1.4 |
| Total Sales | 45.1 | 63.1 | 77.7 | 90.5 | 105.0 | 120.8 | 138.9 |
| Material expenses | 5.2 | 8.3 | 7.7 | 8.5 | 10.8 | 12.4 | 14.3 |
| Gross profit | 40.0 | 54.9 | 70.0 | 81.9 | 94.2 | 108.4 | 124.6 |
| <i>Gross profit margin</i> | <i>89.6 %</i> | <i>87.6 %</i> | <i>90.6 %</i> |
| Personnel expenses | 28.7 | 39.7 | 47.7 | 57.8 | 68.6 | 76.5 | 77.0 |
| Other operating income | 2.2 | 1.7 | 1.8 | 5.2 | 5.2 | 6.6 | 7.6 |
| Other operating expenses | 13.4 | 14.7 | 16.3 | 20.5 | 25.0 | 26.3 | 28.9 |
| Unfrequent items | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| EBITDA | 0.0 | 2.2 | 7.8 | 8.8 | 5.8 | 12.1 | 26.3 |
| <i>Margin</i> | <i>0.1 %</i> | <i>3.5 %</i> | <i>10.1 %</i> | <i>9.7 %</i> | <i>5.6 %</i> | <i>10.1 %</i> | <i>19.1 %</i> |
| Depreciation of fixed assets | 0.9 | 1.0 | 1.1 | 1.4 | 1.6 | 1.8 | 2.1 |
| EBITA | -0.9 | 1.2 | 6.7 | 7.4 | 4.3 | 10.3 | 24.2 |
| Amortisation of intangible assets | 1.2 | 1.5 | 1.8 | 2.2 | 3.1 | 3.6 | 4.1 |
| Goodwill amortisation | 0.9 | 1.0 | 1.0 | 0.2 | 0.2 | 0.2 | 0.3 |
| EBIT | -3.0 | -1.3 | 3.9 | 5.0 | 0.9 | 6.5 | 19.8 |
| <i>Margin</i> | <i>-6.8 %</i> | <i>-2.0 %</i> | <i>5.1 %</i> | <i>5.5 %</i> | <i>0.9 %</i> | <i>5.4 %</i> | <i>14.4 %</i> |
| EBIT adj. | -3.0 | -1.3 | 3.9 | 5.0 | 0.9 | 6.5 | 19.8 |
| 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 |
| EBT | -3.0 | -1.4 | 3.5 | 4.3 | 0.1 | 6.2 | 19.5 |
| <i>Margin</i> | <i>-6.7 %</i> | <i>-2.2 %</i> | <i>4.5 %</i> | <i>4.8 %</i> | <i>0.1 %</i> | <i>5.1 %</i> | <i>14.2 %</i> |
| Total taxes | -1.1 | 0.1 | 0.6 | 0.5 | 0.0 | 1.8 | 5.7 |
| Net income from continuing operations | -1.9 | -1.5 | 2.8 | 3.9 | 0.1 | 4.4 | 13.8 |
| Income from discontinued operations (net of tax) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net income before minorities | -1.9 | -1.5 | 2.8 | 3.9 | 0.1 | 4.4 | 13.8 |
| Minority interest | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net income | -1.9 | -1.5 | 2.8 | 3.9 | 0.1 | 4.4 | 13.8 |
| <i>Margin</i> | <i>-4.2 %</i> | <i>-2.4 %</i> | <i>3.7 %</i> | <i>4.3 %</i> | <i>0.1 %</i> | <i>3.7 %</i> | <i>10.1 %</i> |
| Number of shares, average | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| EPS | -0.99 | -0.79 | 1.50 | 2.05 | 0.05 | 2.30 | 7.28 |
| EPS adj. | -0.99 | -0.79 | 1.50 | 2.05 | 0.05 | 2.30 | 7.28 |

*Adjustments made for:

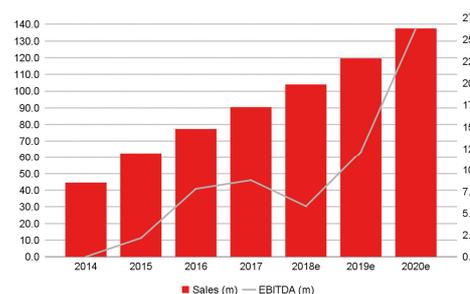
Guidance: n.a.

Financial Ratios

| | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Total Operating Costs / Sales | 101.1 % | 97.4 % | 90.4 % | 90.3 % | 95.4 % | 90.9 % | 81.9 % |
| Operating Leverage | n.a. | -1.4 x | n.a. | 1.6 x | -5.4 x | 39.3 x | 13.8 x |
| EBITDA / Interest expenses | 0.3 x | 6.7 x | 12.2 x | 11.2 x | 6.5 x | 40.3 x | 87.6 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 % | 985.4 % | 21.8 % | 6.9 % |
| Sales per Employee | 105,677 | 145,313 | 175,985 | 201,806 | 227,483 | 256,476 | 289,164 |

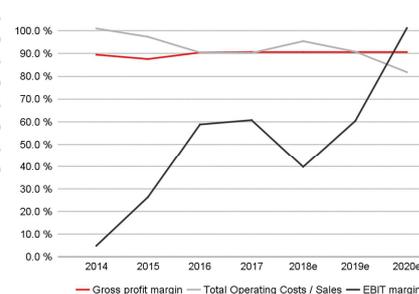
Sales, EBITDA

in EUR m

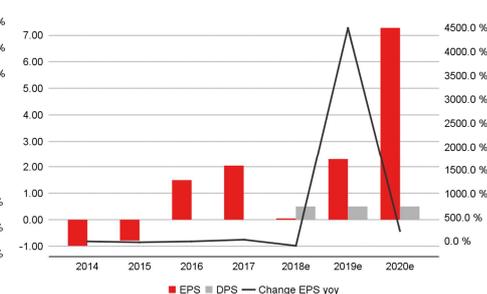


Operating Performance

in %



Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

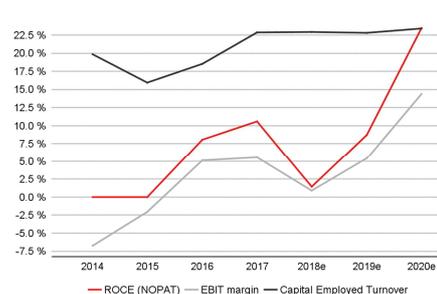
Consolidated balance sheet

| In EUR m | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|---|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| Assets | | | | | | | |
| Goodwill and other intangible assets | 8.5 | 25.2 | 23.8 | 25.4 | 22.4 | 20.9 | 18.9 |
| thereof other intangible assets | 2.9 | 20.2 | 18.8 | 21.4 | 18.6 | 17.3 | 15.6 |
| thereof Goodwill | 5.5 | 5.0 | 5.0 | 4.0 | 3.8 | 3.6 | 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 |
| Fixed assets | 13.4 | 30.9 | 32.7 | 39.6 | 42.9 | 47.5 | 51.2 |
| 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 | 20.4 | 23.4 | 26.9 |
| Liquid assets | 10.2 | 7.4 | 6.0 | 30.5 | 24.2 | 20.1 | 25.9 |
| Other short-term assets | 10.7 | 15.2 | 13.7 | 17.8 | 17.8 | 17.8 | 17.8 |
| Current assets | 31.2 | 36.8 | 38.9 | 67.0 | 64.1 | 63.2 | 72.7 |
| Total Assets | 44.7 | 67.7 | 71.6 | 106.6 | 106.9 | 110.7 | 124.0 |
| Liabilities and shareholders' equity | | | | | | | |
| 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 | 0.1 | 3.5 | 16.4 |
| Other equity components | 10.4 | 8.9 | 11.3 | 16.3 | 16.2 | 16.3 | 16.3 |
| Shareholders' equity | 30.6 | 29.0 | 31.7 | 38.7 | 38.7 | 42.2 | 55.1 |
| Minority interest | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total equity | 30.6 | 29.0 | 31.7 | 38.7 | 38.7 | 42.2 | 55.1 |
| 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 |
| Liabilities | 14.1 | 38.7 | 39.9 | 67.9 | 68.2 | 68.5 | 68.9 |
| Total liabilities and shareholders' equity | 44.7 | 67.7 | 71.6 | 106.6 | 106.9 | 110.7 | 124.0 |

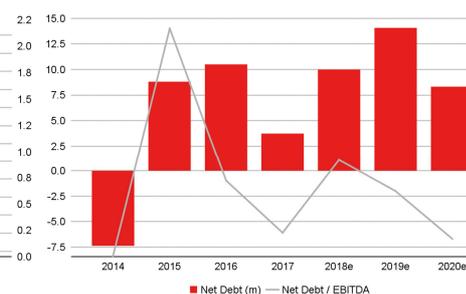
Financial Ratios

| | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|---|---------|---------|---------|--------|---------|---------|--------|
| Efficiency of Capital Employment | | | | | | | |
| Operating Assets Turnover | 3.4 x | 4.5 x | 3.0 x | 3.0 x | 2.6 x | 2.5 x | 2.4 x |
| Capital Employed Turnover | 1.9 x | 1.7 x | 1.8 x | 2.1 x | 2.1 x | 2.1 x | 2.2 x |
| ROA | -13.9 % | -4.9 % | 8.6 % | 9.8 % | 0.2 % | 9.2 % | 27.0 % |
| Return on Capital | | | | | | | |
| ROCE (NOPAT) | n.a. | n.a. | 8.1 % | 10.6 % | 1.5 % | 8.7 % | 23.5 % |
| ROE | -5.8 % | -5.0 % | 9.3 % | 11.1 % | 0.2 % | 10.8 % | 28.4 % |
| Adj. ROE | -5.8 % | -5.0 % | 9.3 % | 11.1 % | 0.2 % | 10.8 % | 28.4 % |
| Balance sheet quality | | | | | | | |
| Net Debt | -7.4 | 8.8 | 10.5 | 3.7 | 10.0 | 14.1 | 8.3 |
| Net Financial Debt | -9.0 | 7.3 | 8.8 | 1.8 | 8.1 | 12.2 | 6.4 |
| Net Gearing | -24.1 % | 30.3 % | 33.1 % | 9.6 % | 25.8 % | 33.3 % | 15.1 % |
| Net Fin. Debt / EBITDA | n.a. | 337.6 % | 112.8 % | 21.0 % | 139.1 % | 100.8 % | 24.5 % |
| Book Value / Share | 16.2 | 15.4 | 16.8 | 20.3 | 20.3 | 22.2 | 29.0 |
| Book value per share ex intangibles | 11.7 | 2.0 | 4.2 | 7.0 | 8.6 | 11.2 | 19.1 |

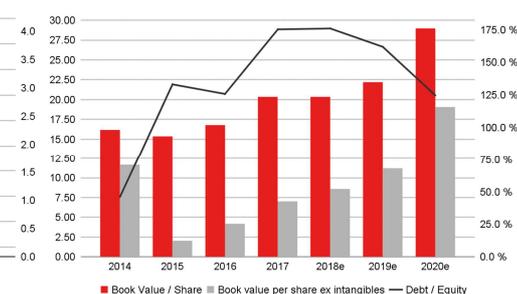
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Consolidated cash flow statement

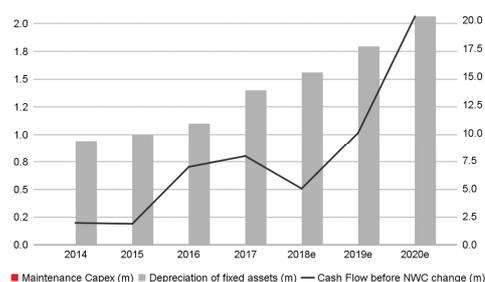
| In EUR m | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|--|-------------|--------------|-------------|-------------|-------------|--------------|--------------|
| Net income | -1.9 | -1.5 | 2.8 | 3.9 | 0.1 | 4.4 | 13.8 |
| Depreciation of fixed assets | 0.9 | 1.0 | 1.1 | 1.4 | 1.6 | 1.8 | 2.1 |
| 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 | 3.1 | 3.6 | 4.1 |
| 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 |
| Cash Flow before NWC change | 1.9 | 1.9 | 6.9 | 7.9 | 5.0 | 10.0 | 20.3 |
| 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 | -2.7 | -3.0 | -3.5 |
| 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 | -3.0 | -2.9 | -3.4 |
| Net cash provided by operating activities [1] | -0.4 | 2.2 | 3.6 | 15.2 | 1.9 | 7.1 | 16.9 |
| 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 |
| Net cash provided by investing activities [2] | -1.6 | -18.6 | -5.0 | -9.3 | -8.2 | -10.2 | -10.2 |
| 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 |
| Net cash provided by financing activities [3] | -1.6 | 12.6 | -2.1 | 19.1 | 0.0 | -1.0 | -1.0 |
| Change in liquid funds [1]+[2]+[3] | -3.6 | -3.9 | -3.5 | 25.1 | -6.3 | -4.1 | 5.7 |
| Effects of exchange-rate changes on cash | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cash and cash equivalent at end of period | 10.2 | 6.4 | 2.8 | 27.9 | 24.2 | 20.1 | 25.9 |

Financial Ratios

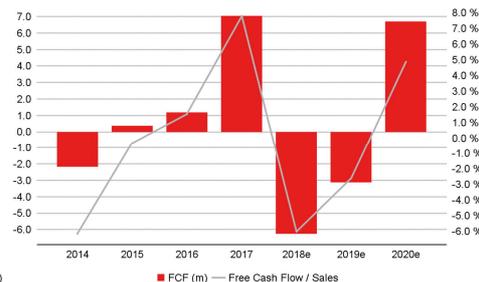
| | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|--------------------------------------|---------|---------|---------|---------|----------|---------|---------|
| Cash Flow | | | | | | | |
| FCF | -2.2 | 0.4 | 1.2 | 7.0 | -6.3 | -3.1 | 6.7 |
| Free Cash Flow / Sales | -6.2 % | -0.3 % | 1.5 % | 7.8 % | -6.0 % | -2.6 % | 4.9 % |
| Free Cash Flow Potential | 1.2 | 2.1 | 7.2 | 8.3 | 5.8 | 10.3 | 20.6 |
| Free Cash Flow / Net Profit | 147.0 % | 13.3 % | 42.0 % | 180.8 % | -648.1 % | -71.4 % | 48.4 % |
| Interest Received / Avg. Cash | 1.3 % | 2.5 % | 2.2 % | 0.7 % | 0.4 % | 0.0 % | 0.0 % |
| Interest Paid / Avg. Debt | 7.4 % | 4.1 % | 4.3 % | 3.3 % | 2.8 % | 0.9 % | 0.9 % |
| Management of Funds | | | | | | | |
| Investment ratio | 5.3 % | 3.8 % | 3.1 % | 9.0 % | 7.9 % | 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 % | 167.7 % | 181.8 % | 158.0 % |
| Avg. Working Capital / Sales | 23.0 % | 13.1 % | 16.1 % | 18.1 % | 16.8 % | 17.1 % | 17.2 % |
| Trade Debtors / Trade Creditors | 562.7 % | 600.2 % | 819.6 % | 964.6 % | 971.4 % | 975.0 % | 960.7 % |
| Inventory Turnover | 4.4 x | 5.0 x | 6.4 x | 8.6 x | 6.8 x | 6.9 x | 6.8 x |
| Receivables collection period (days) | 75 | 73 | 85 | 71 | 72 | 71 | 71 |
| Payables payment period (days) | 116 | 93 | 105 | 79 | 71 | 70 | 71 |
| Cash conversion cycle (Days) | 6 | -123 | 23 | -1 | 26 | 29 | 32 |

CAPEX and Cash Flow

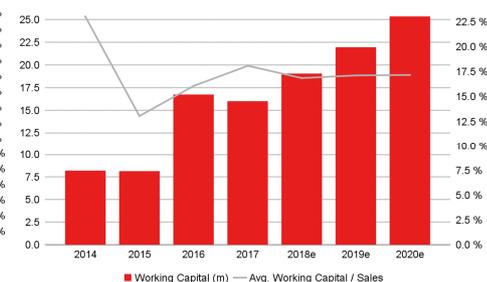
in EUR m



Free Cash Flow Generation



Working Capital



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

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| | | |
|-----|--------------------------|---|
| -B- | Buy: | The price of the analysed financial instrument is expected to rise over the next 12 months. |
| -H- | Hold: | The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months. |
| -S- | Sell: | The price of the analysed financial instrument is expected to fall over the next 12 months. |
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| Rating | Number of stocks | % of Universe |
|------------------|------------------|---------------|
| Buy | 134 | 66 |
| Hold | 58 | 28 |
| Sell | 5 | 2 |
| Rating suspended | 7 | 3 |
| Total | 204 | 100 |

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 | 31 | 74 |
| Hold | 9 | 21 |
| Sell | 0 | 0 |
| Rating suspended | 2 | 5 |
| Total | 42 | 100 |

PRICE AND RATING HISTORY GK SOFTWARE AS OF 29.01.2019


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