

Hold		Value Indicators:	EUR	Share data:		Description:	
Hold		DCF:	69.74	Bloomberg:	GKS GR	Leading software company for	or.
				Reuters:	GKSG	stationary retailers	"
EUR <b>70.00</b>	(EUR 56.00)			ISIN:	DE0007571424		
		Market Snapshot:	EUR m	Shareholders:		Risk Profile (WRe):	2016e
_ ;		Market cap:	132.0	Freefloat	39.5 %	Beta:	1.5
Price	EUR 69.85	No. of shares (m):	1.9	GK Software Holding	49.6 %	Price / Book:	4.2 x
Upside	0.2 %	EV:	131.0	SAP	5.3 %	Equity Ratio:	45 %
		Freefloat MC:	52.1	Rainer Gläß	3.3 %	Net Fin. Debt / EBITDA:	0.4 x
		Ø Trad. Vol. (30d):	6.34 th	Stephan Kronmüller	2.3 %	Net Debt / EBITDA:	0.6 x

## Strong 2016; Prospects look promising

Figures Q4/2	2016:								Comment on Figures:
in M io . EUR	Q4/16	Q4/16e	Q4/15	yoy	2016	2016e	2015	уоу	On 05.04.17 GK Software AG presented preliminary figures for Q
Umsatz	24,2	22,9	20,6	17,5%	77,3	76,0	62,6	23,5%	FY 2016.  These figures reflected positive development in all areas (lice)
EBITDA	3,8	3,0	2,9	28,5%	7,8	7,0	2,2	258,9%	services and maintenance) and exceeded the expectations (WRe).
Marge	15,6%	12,9%	14,2%		10,1%	9,2%	3,5%		()

- A clear increase in all categories of revenue formed the basis for the growth in the fiscal year. Together with SAP, GK managed to gain eight new customers in Europe, the US and Central America for the new solution OmniPOS, showing once again how successful the cooperation with SAP is proving to be, also on the revenue front.
- OmniPOS is a cloud solution, first presented officially at the start of 2016. The first project in Ireland and the UK has already been completely rolled out and work has started on three further projects with installations in the US and Switzerland. Additionally, more SAP customers have opted for the cloud solution developed by GK, Central Pricing Engine.
- Another reason for the improvement in earnings was, as well as the licence revenues, the clear improvement in revenues in the services business area. Here, GK benefited from the structural measures, already put in place in 2015 (see Comment dated 30.11.2015)

These developments offer a basis for another increase in the forecasts. The share continues to be rated Hold with a price target of EUR 70 (EUR 56).

Changes in E	stimates:					
FY End: 31.12. in EUR m	2016e (old)	+ / -	2017e (old)	+ / -	2018e (old)	+/-
Sales	76.0	1.8 %	83.6	1.7 %	92.0	1.7 %
EBITDA	7.0	11.7 %	11.7	1.7 %	15.6	1.7 %
EBIT	3.1	24.1 %	7.4	1.7 %	11.3	1.7 %
EPS	0.0	24.8 %	0.0	1.8 %	0.0	1.9 %

### Comment on Changes:

- On the basis of the growth shown, the forecasts for 2017 and beyond are raised slightly. Additionally, a higher pace of growth is being assumed in the long term (DCF) as the cooperation with SAP will probably continue to make a dynamic contribution to revenue growth.
- Together with a roll-over effect this results, once again, in an increase in the price target.

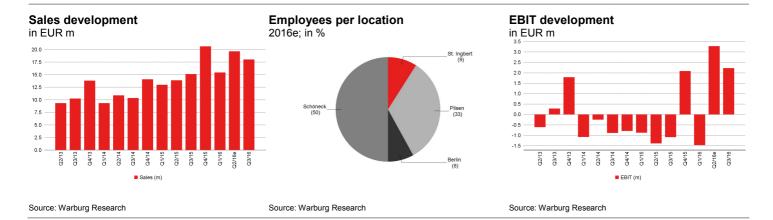


Rel. Performance vs	CDAX:
1 month:	7.0 %
6 months:	11.1 %
Year to date:	10.1 %
Trailing 12 months:	46.1 %
_	

Company events:	
27.04.17	FY 2016
30.05.17	Q1
22.06.17	AGM
30.08.17	Q2

FY End: 31.12.	CAGR							
in EUR m	(15-18e)	2012	2013	2014	2015	2016e	2017e	2018e
Sales	14.3 %	28.4	42.5	44.6	62.6	77.3	85.1	93.6
Change Sales yoy		-10.5 %	49.4 %	5.1 %	40.3 %	23.5 %	10.0 %	10.0 %
Gross profit margin		99.8 %	91.3 %	89.6 %	87.6 %	90.0 %	90.0 %	90.0 %
EBITDA	94.1 %	2.9	3.3	0.0	2.2	7.8	11.9	15.9
Margin		10.1 %	7.9 %	0.1 %	3.5 %	10.1 %	14.0 %	17.0 %
EBIT	-	8.0	1.0	-3.0	-1.3	3.9	7.6	11.5
Margin		2.8 %	2.5 %	-6.8 %	-2.0 %	5.0 %	8.9 %	12.3 %
Net income	-	0.7	0.6	-1.9	-1.5	2.7	5.3	8.1
EPS	-	0.38	0.34	-0.99	-0.79	1.41	2.81	4.29
EPS adj.	-	0.38	0.34	-0.99	-0.79	1.41	2.81	4.29
DPS	-	0.00	0.25	0.00	0.00	0.50	0.50	0.50
Dividend Yield		n.a.	0.8 %	n.a.	n.a.	0.7 %	0.7 %	0.7 %
FCFPS		0.57	-0.31	-1.15	0.20	2.28	3.43	5.04
FCF / Market cap		1.5 %	-1.0 %	-3.4 %	-0.3 %	3.3 %	4.9 %	7.2 %
EV / Sales		2.2 x	1.1 x	1.6 x	1.2 x	1.8 x	1.5 x	1.3 x
EV / EBITDA		22.4 x	13.6 x	n.a.	33.7 x	17.5 x	11.0 x	7.7 x
EV / EBIT		81.4 x	43.3 x	n.a.	n.a.	35.3 x	17.3 x	10.6 x
P/E		101.4 x	91.7 x	n.a.	n.a.	49.5 x	24.9 x	16.3 x
P / E adj.		101.4 x	91.7 x	n.a.	n.a.	49.5 x	24.9 x	16.3 x
FCF Yield Potential		4.2 %	6.6 %	1.6 %	2.8 %	4.9 %	7.4 %	10.3 %
Net Debt		-5.1	-10.5	-7.4	8.8	4.5	-1.0	-9.6
ROCE (NOPAT)		3.0 %	2.9 %	n.a.	n.a.	7.4 %	15.1 %	23.8 %
Guidance:	n.a.							



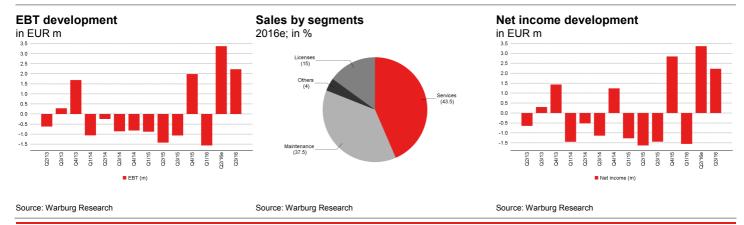


## **Company Background**

- 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 exisiting 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, Doublas, 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.





DCF model														
	Detaile	d forecas	t period				7	ransition	al period					Term. Value
Figures in EUR m	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	
Sales	77.3	85.1	93.6	102.0	111.2	120.1	127.3	134.9	143.0	151.6	160.7	168.7	177.1	
Sales change	23.5 %	10.0 %	10.0 %	9.0 %	9.0 %	8.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	5.0 %	5.0 %	2.5 %
EBIT	3.9	7.6	11.5	13.3	16.7	18.0	19.1	20.2	21.4	22.7	24.1	25.3	26.6	
EBIT-margin	5.0 %	8.9 %	12.3 %	13.0 %	15.0 %	15.0 %	15.0 %	15.0 %	15.0 %	15.0 %	15.0 %	15.0 %	15.0 %	
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	2.7	5.4	8.2	9.4	11.8	12.8	13.6	14.4	15.2	16.1	17.1	18.0	18.9	
Depreciation	3.9	4.3	4.4	5.1	5.6	6.0	5.1	4.0	4.3	1.5	1.6	1.7	1.8	
in % of Sales	5.1 %	5.1 %	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	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	0.8	1.7	1.5	16.3	0.3	-0.1	-0.8	1.7	1.8	1.9	2.0	1.8	1.9	
- Capex	1.5	1.5	1.5	3.1	3.3	3.6	3.8	4.0	2.9	1.5	1.6	1.7	1.8	
Capex in % of Sales	1.9 %	1.7 %	1.6 %	3.0 %	3.0 %	3.0 %	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)	4.4	6.5	9.6	-6.0	13.7	15.3	15.7	12.7	14.9	14.3	15.1	16.2	17.0	18
PV of FCF	4.5	6.1	8.2	-4.6	9.7	9.9	9.2	6.8	7.2	6.3	6.1	6.0	5.7	80
share of PVs		11.68 %						38.53	3 %					49.80 %

Model parameter				Valuation (m)			
Derivation of WACC:		Derivation of Beta:		Present values 2028e	81		
				Terminal Value	80		
Debt ratio	0.00 %	Financial Strength	1.50	Financial liabilities	15		
Cost of debt (after tax)	4.2 %	Liquidity (share)	1.50	Pension liabilities	1		
Market return	7.00 %	Cyclicality	1.50	Hybrid capital	0		
Risk free rate	1.50 %	Transparency	1.60	Minority interest	0		
		Others	1.50	Market val. of investments	0		
				Liquidity	-14	No. of shares (m)	1.9
WACC	9.86 %	Beta	1.52	Equity Value	132	Value per share (EUR)	69.74

Sensitivity	Value pe	r Share	(EUR)

		Terminal (	Growth								Delta EBIT	-margin					
Beta	WACC	1.75 %	2.00 %	2.25 %	2.50 %	2.75 %	3.00 %	3.25 %	Beta	WACC	-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.70	10.9 %	55.88	56.76	57.68	58.66	59.70	60.80	61.98	1.70	10.9 %	49.91	52.83	55.74	58.66	61.58	64.49	67.41
1.61	10.4 %	60.55	61.58	62.67	63.84	65.08	66.41	67.83	1.61	10.4 %	54.52	57.63	60.73	63.84	66.95	70.05	73.16
1.57	10.1 %	63.09	64.22	65.42	66.69	68.05	69.51	71.08	1.57	10.1 %	57.06	60.27	63.48	66.69	69.90	73.11	76.32
1.52	9.9 %	65.81	67.03	68.34	69.74	71.24	72.85	74.58	1.52	9.9 %	59.78	63.10	66.42	69.74	73.06	76.39	79.71
1.47	9.6 %	68.70	70.04	71.48	73.01	74.66	76.44	78.35	1.47	9.6 %	62.70	66.14	69.58	73.01	76.45	79.89	83.33
1.43	9.4 %	71.78	73.26	74.84	76.53	78.35	80.32	82.44	1.43	9.4 %	65.83	69.39	72.96	76.53	80.10	83.67	87.23
1.34	8.9 %	78.62	80.41	82.33	84.41	86.65	89.09	91.74	1.34	8.9 %	72.84	76.70	80.55	84.41	88.26	92.12	95.97

- In addition to decent daily rates, software companies like GK normally generate high license revenues
- As a rule, this leads to high double-digit margins
- However, delays in the completion of projects und high structural expenses are burdening the company

## **GK Software**



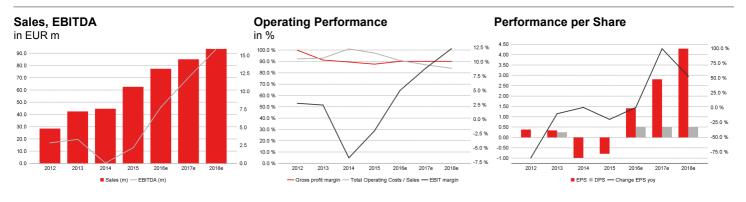
Valuation							
	2012	2013	2014	2015	2016e	2017e	2018e
Price / Book	2.4 x	1.7 x	2.6 x	2.2 x	4.2 x	3.7 x	3.1 x
Book value per share ex intangibles	9.67	12.44	11.68	2.03	4.74	8.54	13.67
EV / Sales	2.2 x	1.1 x	1.6 x	1.2 x	1.8 x	1.5 x	1.3 x
EV / EBITDA	22.4 x	13.6 x	n.a.	33.7 x	17.5 x	11.0 x	7.7 x
EV / EBIT	81.4 x	43.3 x	n.a.	n.a.	35.3 x	17.3 x	10.6 x
EV / EBIT adj.*	81.4 x	43.3 x	n.a.	n.a.	35.3 x	17.3 x	10.6 x
P/FCF	68.2 x	n.a.	n.a.	n.a.	30.6 x	20.4 x	13.9 x
P/E	101.4 x	91.7 x	n.a.	n.a.	49.5 x	24.9 x	16.3 x
P / E adj.*	101.4 x	91.7 x	n.a.	n.a.	49.5 x	24.9 x	16.3 x
Dividend Yield	n.a.	0.8 %	n.a.	n.a.	0.7 %	0.7 %	0.7 %
Free Cash Flow Yield Potential	4.2 %	6.6 %	1.6 %	2.8 %	4.9 %	7.4 %	10.3 %
*Adjustments made for: -							



Consolidated profit & loss							
In EUR m	2012	2013	2014	2015	2016e	2017e	2018
Sales	28.4	42.5	44.6	62.6	77.3	85.1	93.0
Change Sales yoy	-10.5 %	49.4 %	5.1 %	40.3 %	23.5 %	10.0 %	10.0 %
Increase / decrease in inventory	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Own work capitalised	0.7	0.4	0.5	0.5	0.8	0.9	0.9
Total Sales	29.0	42.8	45.1	63.1	78.1	85.9	94.5
Material expenses	0.7	4.1	5.2	8.3	8.5	9.4	10.3
Gross profit	28.4	38.8	40.0	54.9	69.6	76.6	84.2
Gross profit margin	99.8 %	91.3 %	89.6 %	87.6 %	90.0 %	90.0 %	90.0 %
Personnel expenses	19.8	25.6	28.7	39.7	46.3	48.1	51.0
Other operating income	1.7	2.5	2.2	1.7	2.3	2.1	2.3
Other operating expenses	7.4	12.3	13.4	14.7	17.8	18.7	19.6
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	2.9	3.3	0.0	2.2	7.8	11.9	15.9
Margin	10.1 %	7.9 %	0.1 %	3.5 %	10.1 %	14.0 %	17.0 %
Depreciation of fixed assets	0.6	0.8	0.9	1.0	1.2	1.3	1.4
EBITA	2.2	2.6	-0.9	1.2	6.7	10.6	14.5
Amortisation of intangible assets	1.4	1.5	1.2	1.5	2.0	2.6	2.8
Goodwill amortisation	0.0	0.0	0.9	1.0	0.8	0.5	0.2
EBIT	0.8	1.0	-3.0	-1.3	3.9	7.6	11.5
Margin	2.8 %	2.5 %	-6.8 %	-2.0 %	5.0 %	8.9 %	12.3 %
EBIT adj.	0.8	1.0	-3.0	-1.3	3.9	7.6	11.5
Interest income	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Interest expenses	0.2	0.2	0.1	0.3	0.3	0.3	0.3
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	0.8	0.9	-3.0	-1.4	3.8	7.5	11.4
Margin	2.9 %	2.2 %	-6.7 %	-2.2 %	4.9 %	8.8 %	12.2 %
Total taxes	0.1	0.3	-1.1	0.1	1.1	2.2	3.3
Net income from continuing operations	0.7	0.6	-1.9	-1.5	2.7	5.3	8.1
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	0.7	0.6	-1.9	-1.5	2.7	5.3	8.1
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	0.7	0.6	-1.9	-1.5	2.7	5.3	8.1
Margin	2.4 %	1.4 %	-4.2 %	-2.4 %	3.5 %	6.2 %	8.7 %
Number of shares, average	1.8	1.8	1.9	1.9	1.9	1.9	1.9
EPS	0.38	0.34	-0.99	-0.79	1.41	2.81	4.29
EPS adj.	0.38	0.34	-0.99	-0.79	1.41	2.81	4.29
*Adjustments made for:							

Guidance: n.a.

Financial Ratios							
	2012	2013	2014	2015	2016e	2017e	2018e
Total Operating Costs / Sales	92.1 %	93.0 %	101.1 %	97.4 %	90.9 %	87.0 %	84.0 %
Operating Leverage	8.4 x	0.7 x	n.a.	-1.4 x	n.a.	9.6 x	5.2 x
EBITDA / Interest expenses	14.9 x	14.9 x	0.3 x	6.7 x	26.0 x	39.7 x	53.0 x
Tax rate (EBT)	17.6 %	35.5 %	37.4 %	-8.5 %	29.0 %	29.0 %	29.0 %
Dividend Payout Ratio	0.0 %	74.5 %	0.0 %	0.0 %	35.3 %	17.8 %	11.7 %
Sales per Employee	70,022	102,535	105,677	145,313	175,980	189,783	204,668

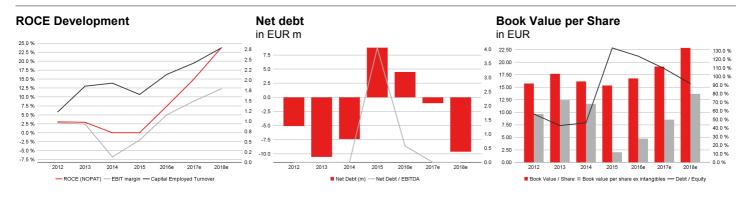


Source: Warburg Research Source: Warburg Research Source: Warburg Research



Consolidated balance sheet							
In EUR m	2012	2013	2014	2015	2016e	2017e	2018
Assets							
Goodwill and other intangible assets	10.9	9.9	8.5	25.2	22.7	20.0	17.4
thereof other intangible assets	4.5	3.5	2.9	20.2	18.5	16.3	13.8
thereof Goodwill	6.4	6.4	5.5	5.0	4.2	3.7	3.5
Property, plant and equipment	4.9	4.8	5.0	5.8	5.7	5.6	5.3
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	15.8	14.7	13.4	30.9	28.5	25.6	22.7
Inventories	1.0	1.0	1.2	1.7	1.2	1.3	1.4
Accounts receivable	11.6	13.1	9.2	12.6	14.4	16.3	17.9
Liquid assets	10.3	13.7	10.2	7.4	11.7	17.2	25.8
Other short-term assets	5.4	5.2	10.7	15.2	15.2	15.2	15.2
Current assets	28.3	33.0	31.2	36.8	42.4	50.0	60.3
Total Assets	44.1	47.7	44.7	67.7	70.9	75.6	82.9
Liabilities and shareholders' equity							
Subscribed capital	1.8	1.9	1.9	1.9	1.9	1.9	1.9
Capital reserve	14.4	18.2	18.2	18.2	18.2	18.2	18.2
Retained earnings	0.0	0.0	0.0	0.0	2.7	7.1	14.2
Other equity components	12.0	13.4	10.4	8.9	8.9	9.0	8.9
Shareholders' equity	28.2	33.4	30.6	29.0	31.7	36.2	43.2
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	28.2	33.4	30.6	29.0	31.7	36.2	43.2
Provisions	4.6	3.5	4.1	6.0	6.0	6.0	6.0
thereof provisions for pensions and similar obligations	1.7	0.9	1.7	1.5	1.5	1.5	1.5
Financial liabilities (total)	3.5	2.3	1.1	14.7	14.7	14.7	14.7
thereof short-term financial liabilities	2.2	1.3	0.3	3.2	3.2	3.2	3.2
Accounts payable	8.0	1.0	1.6	2.1	2.6	2.9	3.1
Other liabilities	6.9	7.6	7.2	15.9	15.9	15.9	15.9
Liabilities	15.9	14.3	14.1	38.7	39.2	39.5	39.7
Total liabilities and shareholders' equity	44.1	47.7	44.7	67.7	70.9	75.6	82.9

Financial Ratios							
	2012	2013	2014	2015	2016e	2017e	2018e
Efficiency of Capital Employment							
Operating Assets Turnover	1.8 x	2.5 x	3.4 x	4.5 x	5.3 x	5.2 x	5.3 x
Capital Employed Turnover	1.2 x	1.9 x	1.9 x	1.7 x	2.1 x	2.4 x	2.8 x
ROA	4.3 %	4.1 %	-13.9 %	-4.9 %	9.4 %	20.7 %	35.7 %
Return on Capital							
ROCE (NOPAT)	3.0 %	2.9 %	n.a.	n.a.	7.4 %	15.1 %	23.8 %
ROE	2.4 %	2.0 %	-5.8 %	-5.0 %	8.8 %	15.6 %	20.4 %
Adj. ROE	2.4 %	2.0 %	-5.8 %	-5.0 %	8.8 %	15.6 %	20.4 %
Balance sheet quality							
Net Debt	-5.1	-10.5	-7.4	8.8	4.5	-1.0	-9.6
Net Financial Debt	-6.8	-11.5	-9.0	7.3	3.0	-2.5	-11.1
Net Gearing	-18.0 %	-31.5 %	-24.1 %	30.3 %	14.2 %	-2.9 %	-22.3 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	337.6 %	38.9 %	n.a.	n.a.
Book Value / Share	15.7	17.7	16.2	15.4	16.8	19.1	22.9
Book value per share ex intangibles	9.7	12.4	11.7	2.0	4.7	8.5	13.7



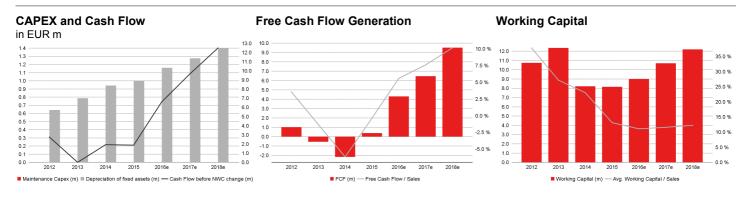
Source: Warburg Research Source: Warburg Research

Source: Warburg Research



Consolidated cash flow statement							
In EUR m	2012	2013	2014	2015	2016e	2017e	2018e
Net income	0.7	0.6	-1.9	-1.5	2.7	5.3	8.1
Depreciation of fixed assets	0.6	0.8	0.9	1.0	1.2	1.3	1.4
Amortisation of goodwill	0.0	0.0	0.9	1.0	8.0	0.5	0.2
Amortisation of intangible assets	1.4	1.5	1.2	1.5	2.0	2.6	2.8
Increase/decrease in long-term provisions	1.6	-1.7	0.8	0.7	0.0	0.0	0.0
Other non-cash income and expenses	-1.6	-1.1	0.0	-0.8	0.0	0.0	0.0
Cash Flow before NWC change	2.8	0.0	1.9	1.9	6.6	9.6	12.5
Increase / decrease in inventory	0.1	0.1	-0.1	-0.1	0.5	-0.1	-0.1
Increase / decrease in accounts receivable	2.4	2.4	-0.4	-0.4	-1.8	-1.9	-1.6
Increase / decrease in accounts payable	-2.2	-1.0	-0.2	-0.2	0.5	0.3	0.2
Increase / decrease in other working capital positions	0.0	0.0	-1.6	1.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	0.3	1.5	-2.3	0.3	-0.8	-1.7	-1.5
Net cash provided by operating activities [1]	3.1	1.6	-0.4	2.2	5.8	7.9	11.0
Investments in intangible assets	-0.9	-0.9	-1.2	-1.2	-0.3	-0.3	-0.3
Investments in property, plant and equipment	-1.1	-1.2	-1.1	-1.1	-1.1	-1.1	-1.1
Payments for acquisitions	0.0	0.0	0.0	-16.8	0.0	0.0	0.0
Financial investments	-0.4	0.0	-0.1	-0.1	0.0	0.0	0.0
Income from asset disposals	-1.6	1.2	0.3	0.0	0.0	0.0	0.0
Net cash provided by investing activities [2]	-4.0	-0.9	-1.6	-18.6	-1.5	-1.5	-1.5
Change in financial liabilities	-1.8	-1.2	-1.2	13.6	0.0	0.0	0.0
Dividends paid	-0.9	0.0	-0.5	0.0	0.0	-0.9	-0.9
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	3.8	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	-1.0	0.0	0.0	0.0
Net cash provided by financing activities [3]	-2.7	2.6	-1.6	12.6	0.0	-0.9	-0.9
Change in liquid funds [1]+[2]+[3]	-3.6	3.2	-3.6	-3.9	4.3	5.5	8.6
Effects of exchange-rate changes on cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash and cash equivalent at end of period	10.3	13.5	10.2	6.3	11.7	17.2	25.8

Financial Ratios							
	2012	2013	2014	2015	2016e	2017e	2018e
Cash Flow							
FCF	1.0	-0.6	-2.2	0.4	4.3	6.5	9.5
Free Cash Flow / Sales	3.6 %	-1.3 %	-6.2 %	-0.3 %	5.6 %	7.6 %	10.2 %
Free Cash Flow Potential	2.7	3.0	1.2	2.1	6.7	9.7	12.6
Free Cash Flow / Net Profit	149.7 %	-91.9 %	147.0 %	13.3 %	161.1 %	122.1 %	117.7 %
Interest Received / Avg. Cash	1.9 %	0.9 %	1.3 %	2.5 %	2.1 %	1.4 %	0.9 %
Interest Paid / Avg. Debt	4.4 %	7.8 %	7.4 %	4.1 %	2.0 %	2.0 %	2.0 %
Management of Funds							
Investment ratio	7.2 %	5.0 %	5.3 %	3.8 %	1.9 %	1.7 %	1.6 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	99.2 %	92.0 %	77.6 %	68.6 %	37.2 %	33.8 %	33.4 %
Avg. Working Capital / Sales	37.8 %	27.2 %	23.0 %	13.1 %	11.1 %	11.6 %	12.2 %
Trade Debtors / Trade Creditors	1379.5 %	1356.9 %	562.7 %	600.2 %	553.8 %	562.1 %	577.4 %
Inventory Turnover	0.7 x	3.9 x	4.4 x	5.0 x	7.1 x	7.2 x	7.4 x
Receivables collection period (days)	149	113	75	73	68	70	70
Payables payment period (days)	457	86	116	93	112	113	110
Cash conversion cycle (Days)	-252	-37	-52	-182	-222	-209	-193



Source: Warburg Research Source: Warburg Research Source: Warburg Research



### **LEGAL DISCLAIMER**

This research report ("investment recommendation" or "recommendation") was prepared by the Warburg Research GmbH, a fully owned subsidiary of the M.M.Warburg & CO (AG & Co.) KGaA and is passed on by the M.M.Warburg & CO (AG & Co.) KGaA. It contains selected information and does not purport to be complete. The report is based on publicly available information and data ("the information") believed to be accurate and complete. Warburg Research GmbH neither examines the information for accuracy and completeness, nor guarantees its accuracy and completeness. Possible errors or incompleteness of the information do not constitute grounds for liability of M.M.Warburg & CO (AG & Co.) KGaA or Warburg Research GmbH for damages of any kind whatsoever, and M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are not liable for indirect and/or direct and/or consequential damages. In particular, neither M.M.Warburg & CO (AG & Co.) KGaA nor Warburg Research GmbH are liable for the statements, plans or other details contained in these analyses concerning the examined companies, their affiliated companies, strategies, economic situations, market and competitive situations, regulatory environment, etc. Although due care has been taken in compiling this research report, it cannot be excluded that it is incomplete or contains errors. M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH, their shareholders and employees are not liable for the accuracy and completeness of the statements, estimations and the conclusions derived from the information contained in this document. Provided a research report is being transmitted in connection with an existing contractual relationship, i.e. financial advisory or similar services, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH shall be restricted to gross negligence and wilful misconduct. In case of failure in essential tasks, M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are liable for normal negligence. In any case, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH is limited to typical, expectable damages. This research report does not constitute an offer or a solicitation of an offer for the purchase or sale of any security. Partners, directors or employees of M.M.Warburg & CO (AG & Co.) KGaA, Warburg Research GmbH or affiliated companies may serve in a position of responsibility, i.e. on the board of directors of companies mentioned in the report. Opinions expressed in this report are subject to change without notice. All rights reserved.

### **COPYRIGHT NOTICE**

This work including all its parts is protected by copyright. Any use beyond the limits provided by copyright law without permission is prohibited and punishable. This applies, in particular, to reproductions, translations, microfilming, and storage and processing on electronic media of the entire content or parts thereof.

# DISCLOSURE ACCORDING TO §34B OF THE GERMAN SECURITIES TRADING ACT (WHPG), THE ORDINANCE ON THE ANALYSIS OF FINANCIAL INSTRUMENTS (FINANV) AND MAR INCL. COMMISSION DELEGATED REGULATION (EU) 2016/958

The valuation underlying the investment recommendation for the company analysed here is based on generally accepted and widely used methods of fundamental analysis, such as e.g. DCF Model, Free Cash Flow Potential, Peer Group Comparison or Sum of the Parts Model (see also <a href="http://www.mmwarburg.de/disclaimer/disclaimer/htm#Valuation">http://www.mmwarburg.de/disclaimer/disclaimer/htm#Valuation</a>). The result of this fundamental valuation is modified to take into consideration the analyst's assessment as regards the expected development of investor sentiment and its impact on the share price.

Independent of the applied valuation methods, there is the risk that the price target will not be met, for instance because of unforeseen changes in demand for the company's products, changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, tax rate etc. For investments in foreign markets and instruments there are further risks, generally based on exchange rate changes or changes in political and social conditions.

This commentary reflects the opinion of the relevant author at the point in time of its compilation. A change in the fundamental factors underlying the valuation can mean that the valuation is subsequently no longer accurate. Whether, or in what time frame, an update of this commentary follows is not determined in advance.

Additional internal and organisational arrangements to prevent or to deal with conflicts of interest have been implemented. Among these are the spatial separation of Warburg Research GmbH from M.M.Warburg & CO (AG & Co.) KGaA and the creation of areas of confidentiality. This prevents the exchange of information, which could form the basis of conflicts of interest for Warburg Research in terms of the analysed issuers or their financial instruments.

The analysts of Warburg Research GmbH do not receive a gratuity – directly or indirectly – from the investment banking activities of M.M.Warburg & CO (AG & Co.) KGaA or of any company within the Warburg Group.

All prices of financial instruments given in this investment recommendation are the closing prices on the last stock-market trading day before the publication date stated, unless another point in time is explicitly stated.

M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are subject to the supervision of the Federal Financial Supervisory Authority, BaFin. M.M.Warburg & CO (AG & Co.) KGaA is additionally subject to the supervision of the European Central Bank (ECB).

### **SOURCES**

All data and consensus estimates have been obtained from FactSet except where stated otherwise.



#### Additional information for clients in the United States

- 1. This research report (the "Report") is a product of Warburg Research GmbH, Germany, a fully owned subsidiary of M.M.Warburg & CO (AG & Co.) KGaA, Germany (in the following collectively "Warburg"). Warburg is the employer of the research analyst(s), who have prepared the Report. The research analyst(s) reside outside the United States and are not associated persons of any U.S. regulated broker-dealer and therefore are not subject to the supervision of any U.S. regulated broker-dealer.
- 2. The Report is provided in the United States for distribution solely to "major U.S. institutional investors" under Rule 15a-6 of the U.S. Securities Exchange Act of 1934.
- 3. Any recipient of the Report should effect transactions in the securities discussed in the Report only through J.P.P. Euro-Securities, Inc., Delaware.
- 4. J.P.P. Euro-Securities, Inc. does not accept or receive any compensation of any kind for the dissemination of the research reports from Warburg.

Reference in accordance with section 34b of the German Securities Trading Act (WpHG), the Ordinance on the Analysis of Financial Instruments (FinAnV), MAR and Commission Delegated Regulation (EU) regarding possible conflicts of interest with companies analysed:

- -1-Warburg Research, or an affiliated company, or an employee of one of these companies responsible for the compilation of the research, hold a share of more than 5% of the equity capital of the analysed company.
- -2-Warburg Research, or an affiliated company, within the last twelve months participated in the management of a consortium for an issue in the course of a public offering of such financial instruments, which are, or the issuer of which is, the subject of the investment recommendation.
- Companies affiliated with Warburg Research manage financial instruments, which are, or the issuers of which are, subject of the -3investment recommendation, in a market based on the provision of buy or sell contracts.
- MMWB, Warburg Research, or an affiliated company, reached an agreement with the issuer to provide investment banking and/or -4investment services and the relevant agreement was in force in the last 12 months or there arose for this period, based on the relevant agreement, the obligation to provide or to receive a service or compensation - provided that this disclosure does not result in the disclosure of confidential business information.
- The company compiling the analysis or an affiliated company had reached an agreement on the compilation of the investment -5recommendation with the analysed company.
- Companies affiliated with Warburg Research regularly trade financial instruments of the analysed company or derivatives of these. -6-
- -6a-Warburg Research, or an affiliated company, holds a net long position of more than 0.5% of the total issued share capital of the analysed company.
- -6b-Warburg Research, or an affiliated company, holds a net short position of more than 0.5% of the total issued share capital of the analysed company.
- -6c-The issuer holds shares of more than 5% of the total issued capital of Warburg Research or an affiliated company.
- -7-The company preparing the analysis as well as its affiliated companies and employees have other important interests in relation to the analysed company, such as, for example, the exercising of mandates at analysed companies.

This report has been made accessible to the company analysed.

Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
GK Software	5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE0007571424.htm



### **INVESTMENT RECOMMENDATION**

Investment recommendation: expected direction of the share price development of the financial instrument up to the given <u>price target</u> in the opinion of the analyst who covers this financial instrument.

-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.
<u>"_"</u>	Rating suspended:	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	117	60			
Hold	70	36			
Sell	8	4			
Rating suspended	1	1			
Total	196	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	27	73
Hold	7	19
Sell	2	5
Rating suspended	1	3
Total	37	100

### PRICE AND RATING HISTORY GK SOFTWARE AS OF 07.04.2017



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.



Roland Rapelius Head of Equities	40.40.0000.00=0		
nead of Equities	+49 40 3282-2673		
DECEADOU	rrapelius@mmwarburg.com		
RESEARCH	. 40, 40, 000507, 000	Andreas Blästen	. 40 40 000507 040
Michael Heider Head of Research	+49 40 309537-280 mheider@warburg-research.com	Andreas Pläsier Banks, Financial Services	+49 40 309537-246 aplaesier@warburg-research.com
Henner Rüschmeier Head of Research	+49 40 309537-270	Jochen Reichert Telco, Internet, Media	+49 40 309537-130
Lucas Boventer	hrueschmeier@warburg-research.com +49 40 309537-290	J. Moritz Rieser	jreichert@warburg-research.com +49 40 309537-260
Renewables, Internet, Media	lboventer@warburg-research.com	Real Estate	mrieser@warburg-research.com
Christian Cohrs Engineering, Logistics	+49 40 309537-175 ccohrs@warburg-research.com	Arash Roshan Zamir Cap. Goods, Renewables	+49 40 309537-155 aroshanzamir@warburg-research.com
Felix Ellmann	+49 40 309537-120	Malte Schaumann	+49 40 309537-170
Software, IT  Jörg Philipp Frey	fellmann@warburg-research.com +49 40 309537-258	Technology  Oliver Schwarz	mschaumann@warburg-research.com +49 40 309537-250
Retail, Consumer Goods	jfrey@warburg-research.com	Chemicals, Agriculture	oschwarz@warburg-research.com
Marie-Thérèse Grübner Small Cap Research	+49 40 309537-240 mgruebner@warburg-research.com	Marc-René Tonn Automobiles, Car Suppliers	+49 40 309537-259 mtonn@warburg-research.com
Ulrich Huwald	+49 40 309537-255	Björn Voss	+49 40 309537-254
Health Care, Pharma  Thilo Kleibauer	uhuwald@warburg-research.com +49 40 309537-257	Steel, Car Suppliers  Alexander Wahl	bvoss@warburg-research.com +49 40 309537-230
Retail, Consumer Goods	tkleibauer@warburg-research.com	Car Suppliers, Construction	awahl@warburg-research.com
Eggert Kuls Engineering	+49 40 309537-256 ekuls@warburg-research.com	Andreas Wolf Software, IT	+49 40 309537-140 awolf@warburg-research.com
Henrik Paganetty	+49 40 309537-185	Collinato, 11	anone warbarg recoardingsin
Telecommunications	hpaganetty@warburg-research.com		
INSTITUTIONAL EQUITY			
Holger Nass Head of Equity Sales, USA	+49 40 3282-2669 hnass@mmwarburg.com	Michael Kriszun United Kingdom	+49 40 3282-2695 mkriszun@mmwarburg.com
Klaus Schilling	+49 40 3282-2664	Marc Niemann	+49 40 3282-2660
Dep. Head of Equity Sales, GER  Tim Beckmann	kschilling@mmwarburg.com +49 40 3282-2665	Germany Sanjay Oberoi	mniemann@mmwarburg.com +49 69 5050-7410
United Kingdom	tbeckmann@mmwarburg.com	United Kingdom	soberoi@mmwarburg.com
Lyubka Bogdanova United Kingdom, Australia	+49 69 5050-7411 lbogdanova@mmwarburg.com	Simon Pallhuber Switzerland, France	+49 69 5050-7414 spallhuber@mmwarburg.com
Jens Buchmüller	+49 69 5050-7415	,	5,500
Scandinavia, Austria Paul Dontenwill	jbuchmueller@mmwarburg.com +49 40 3282-2666	Angelika Flegler	+49 69 5050-7417
USA, Poland, The Netherlands	pdontenwill@mmwarburg.com	Roadshow/Marketing	aflegler@mmwarburg.com
Matthias Fritsch United Kingdom	+49 40 3282-2696 mfritsch@mmwarburg.com	Juliane Willenbruch Roadshow/Marketing	+49 40 3282-2694 jwillenbruch@mmwarburg.com
SALES TRADING			, c
Oliver Merckel	+49 40 3282-2634	Bastian Quast	+49 40 3282-2701
Head of Sales Trading	omerckel@mmwarburg.com	Sales Trading	bquast@mmwarburg.com
Elyaz Dust Sales Trading	+49 40 3282-2702 edust@mmwarburg.com	<b>Jörg Treptow</b> Sales Trading	+49 40 3262-2658 jtreptow@mmwarburg.com
Michael Ilgenstein Sales Trading	+49 40 3282-2700 milgenstein@mmwarburg.com	Jan Walter Sales Trading	+49 40 3262-2662 jwalter@mmwarburg.com
MACRO RESEARCH	milgenstein@mmwarburg.com	Jaies Hauling	jwaiter@mmwarburg.com
Carsten Klude	+49 40 3282-2572	Dr. Christian Jasperneite	+49 40 3282-2439
Macro Research	cklude@mmwarburg.com	Investment Strategy	cjasperneite@mmwarburg.com
Our research can be fou	nd under:		
	esearch.mmwarburg.com/en/index.html	Thomson Reuters	www.thomsonreuters.com
Bloomberg	MMWA GO	Capital IQ	www.capitaliq.com
For access please contact:	www.factset.com		
For access please contact:		Karatin Muthia	40.40.0000.0700
Andrea Schaper Sales Assistance	+49 40 3282-2632 aschaper@mmwarburg.com	Kerstin Muthig Sales Assistance	+49 40 3282-2703 kmuthig@mmwarburg.com