(CDAX, Software/IT)



D		Value Indicators:	EUR	Share data:		Description:	
Buy	(Hold)	DCF:	121.42	Bloomberg:	GKS GR	Leading software company for	
				Reuters:	GKSG	stationary retailers	
EUR 120.00	(EUR 70.00)			ISIN:	DE0007571424	,	
		Market Snapshot:	EUR m	Shareholders:		Risk Profile (WRe):	2017e
		Market cap:	174.8	Freefloat	39.5 %	Beta:	1.3
Price	EUR 92.49	No. of shares (m):	1.9	GK Software Holding	49.6 %	Price / Book:	4.6 x
Upside	29.7 %	EV:	175.4	SAP	5.3 %	Equity Ratio:	48 %
		Freefloat MC:	69.0	Rainer Gläß	3.3 %	Net Debt / EBITDA:	0.0 x
		Ø Trad. Vol. (30d):	24.26 th	Stephan Kronmüller	2.3 %		

Prospects are bright

Stated Figure	s Q1/2017	:					
in EUR m	Q1/17	Q1/17e	Q1/16	yoy	2017e	2016	уоу
Sales	20.1	17.0	15.4	30.3%	92.0	77.3	19.0%
EBITDA margin	1.0 5.0%	0.6 3.5%	-0.5 -3.1%	-	13.3 14.5%	7.8 10.1%	71.0%
EBIT margin	0.2 0.8%	-0.2 -1.2%	-1.5 -9.5%	-	8.6 9.4%	3.9 5.1%	119.3%
EPS in EUR	-0.19	-0.30	-0.82	-76.8%	3.21	1.50	114.0%

Comment on Figures:

- GK's Q1 figures clearly exceeded expectations. This was due to both another increase in the group's efficiency and very strong revenues in the service segment related to special effects from project completions.
- Following the Q1 figures, which had been reported a couple of weeks ago, we have substantially revised the valuation model.

The significant increase in GK's PT can be put down to a number of factors related to valuation and contents: It should first be noted that, in operating terms, the group's efficiency has improved noticeably over the last few quarters. The number of projects resulting in non-billable services has decreased significantly. However, there are still non-billable days from time to time, mainly as part of attractive long-term major projects. Additionally, staff is currently reduced at a slightly slower pace than planned, and this will continue over the next few years since demand for qualified employees is high – which will bring about high utilisation rates and strong margins. In addition to efficiency, the strong momentum is also reflected in the sales trend: New software developments ("OmniPOS") have been met with strong demand, the partnership with SAP generates strong momentum for projects and license revenues, and last, but not least, the company's internationalisation in the USA and (South) Africa is successful. Speaking of South Africa, it is worth mentioning that "Massmart" (51% Wal-Mart) has been acquired as a customer together with SAP. This shows that customers such as Walmart – as well as many medium-sized American companies – should be well within reach for GK now. Given that GK's opportunities now outweigh the risks (which had been substantial in earlier years), and that a potential takeover by SAP (shareholder with a pre-emptive right to purchase management's shares) is still possible, the beta was significantly reduced (from 1.5 to 1.3) in the risk assessment analysis. In combination with a substantial increase in estimates, this results in a significantly higher PT of EUR 120 (70), on the basis of which GK is being upgraded to Buy (Hold) again.

Changes in E	stimates:						Comment on Changes:
FY End: 31.12. in EUR m	2017e (old)	+ / -	2018e (old)	+ / -	2019e (old)	+/-	business as well as the cooperation with SAP lead to higher earn
Sales EBITDA EBIT EPS	85.1 11.9 7.6 0.0	8.2 % 12.0 % 14.2 % 14.2 %	93.6 15.9 11.5 0.0	13.1 % 23.0 % 26.9 % 27.0 %	n.a. n.a. n.a. n.a.	n.m. n.m. n.m. n.m.	 estimates. It seems more and more likely that the company can also acquire n international customers (also in North America amongst others) in medium to long term. Customers acquired through partners, in particular, may by very

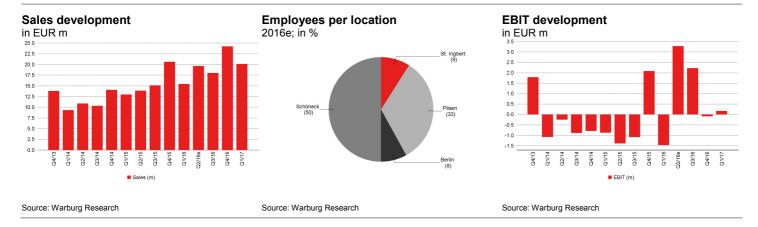
attractive in terms of margins ("licensing income").

25 -	4	FY End: 31.12. in EUR m	CAGR (16-19e)	2013	2014	2015	2016	2017e	2018e	2019e
90 -	Γ	Sales	14.6 %	42.5	44.6	62.6	77.3	92.0	105.8	116.4
85 -		Change Sales yoy	14.0 /0	49.4 %	5.1 %	40.3 %	23.5 %	19.0 %	15.0 %	10.0 %
80 - 76 -	N	Gross profit margin		91.3 %	89.6 %	87.6 %	90.6 %	90.5 %	90.5 %	90.5 %
70 -	nd	EBITDA	45.1 %	3.3	0.0	2.2	7.8	13.3	19.6	23.9
86 -	m	Margin		7.9 %	0.1 %	3.5 %	10.1 %	14.5 %	18.5 %	20.5 %
50 -		EBIT	67.1 %	1.0	-3.0	-1.3	3.9	8.6	14.6	18.4
56 - Start Start Comment	and the second	Margin		2.5 %	-6.8 %	-2.0 %	5.1 %	9.4 %	13.8 %	15.8 %
45 Agent and		Net income	66.2 %	0.6	-1.9	-1.5	2.8	6.1	10.3	13.0
40 07/16 09/16 11/16 01/17 03	V17 05/17	EPS	66.1 %	0.34	-0.99	-0.79	1.50	3.21	5.45	6.87
GK Software ODAX (norma		EPS adj.	66.1 %	0.34	-0.99	-0.79	1.50	3.21	5.45	6.87
	en secul	DPS	-	0.25	0.00	0.00	0.00	0.50	0.50	0.50
Rel. Performance vs CDA	X:	Dividend Yield		0.8 %	n.a.	n.a.	n.a.	0.5 %	0.5 %	0.5 %
1 month:	16.7 %	FCFPS		-0.31	-1.15	0.20	1.00	5.25	5.98	7.98
		FCF / Market cap		-1.0 %	-3.4 %	-0.3 %	1.5 %	5.7 %	6.5 %	8.6 %
6 months:	47.9 %	EV / Sales		1.1 x	1.6 x	1.2 x	1.3 x	1.9 x	1.6 x	1.3 x
Year to date:	44.4 %	EV / EBITDA		13.6 x	n.a.	33.7 x	12.5 x	13.1 x	8.4 x	6.3 x
Trailing 12 months:	78.0 %	EV / EBIT		43.3 x	n.a.	n.a.	24.8 x	20.3 x	11.3 x	8.2 x
5		P/E		91.7 x	n.a.	n.a.	30.8 x	28.8 x	17.0 x	13.5 x
Company events:		P / E adj.		91.7 x	n.a.	n.a.	30.8 x	28.8 x	17.0 x	13.5 x
22.06.17	AGM	FCF Potential Yield		6.6 %	1.6 %	2.8 %	7.3 %	6.2 %	9.3 %	12.3 %
30.08.17	Q2	Net Debt		-10.5	-7.4	8.8	10.5	0.6	-9.8	-23.9
29.11.17	Q3	ROCE (NOPAT) Guidance:	.a.	2.9 %	n.a.	n.a.	8.1 %	15.2 %	27.4 %	36.0 %

Analyst **Felix Ellmann** fellmann@warburg-research.com +49 40 309537-120

1



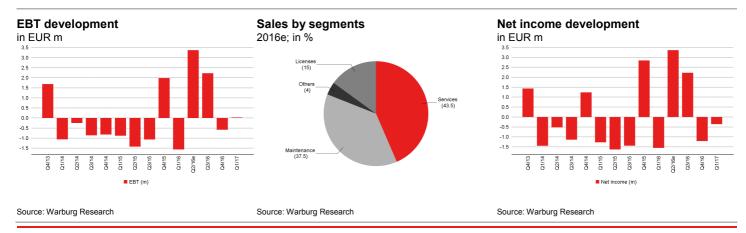


Company Background

- 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				٦	ransition	al period					Term. Value
Figures in EUR m	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	
Sales	92.0	105.8	116.4	123.4	130.8	138.6	146.9	155.7	165.1	175.0	185.5	194.8	204.5	
Sales change	19.0 %	15.0 %	10.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	5.0 %	5.0 %	2.5 %
EBIT	8.6	14.6	18.4	19.7	22.2	23.6	25.0	26.5	28.1	29.7	31.5	33.1	34.8	
EBIT-margin	9.4 %	13.8 %	15.8 %	16.0 %	17.0 %	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	6.1	10.4	13.1	14.0	15.8	16.7	17.7	18.8	19.9	21.1	22.4	23.5	24.7	
Depreciation	4.7	5.0	5.5	6.2	6.5	6.9	5.9	4.7	5.0	1.7	1.9	1.9	2.0	
in % of Sales	5.1 %	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	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	-0.6	2.5	1.9	14.0	-0.5	-0.7	-0.9	1.9	2.1	2.2	2.3	2.0	2.1	
- Capex	1.5	1.5	1.5	3.7	3.9	4.2	4.4	4.7	3.3	1.7	1.9	1.9	2.0	
Capex in % of Sales	1.6 %	1.4 %	1.3 %	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)	10.0	11.4	15.2	1.2	19.0	20.3	20.2	16.9	19.6	19.0	20.1	21.5	22.6	23
PV of FCF	9.6	10.0	12.3	0.9	13.0	12.8	11.7	9.0	9.6	8.5	8.3	8.2	7.9	131
share of PVs		12.61 %						35.53	3 %					51.86 %
Model parameter							Valuat	on (m)						
Derivation of WACC:			Derivation	of Beta:			Presen	t values 20)29e	12	22			
Dahlari	0.00.0/		-			1.00		al Value		13	-			
Debt ratio	0.00 %		Financial S	•		1.30		al liabilitie:			5			
Cost of debt (after tax)	4.2 %		Liquidity (s	nare)		1.30		n liabilities			2			
Market return	7.00 % 1.50 %		Cyclicality	2014		1.50 1.20	Hybrid Minorit	capital v interest			0 0			
Risk free rate	1.50 %		Transparer Others	icy		1.20		val. of inve	actmonto		0			
			Uners			1.30	Liquidit		councing			No. of sha	res (m)	1.9
WACC	8.76 %	-	Beta			1.32	Equity			22	_	Value per	,	

Sensitivity Value per 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
1.50	9.8 %	96.80	98.36	100.03	101.80	103.71	105.75	107.95	1.50	9.8 %	90.89	94.53	98.16	101.80	105.44	109.08	112.72
1.41	9.3 %	104.81	106.69	108.71	110.87	113.20	115.72	118.45	1.41	9.3 %	99.10	103.02	106.95	110.87	114.80	118.72	122.65
1.37	9.0 %	109.24	111.31	113.54	115.94	118.53	121.33	124.38	1.37	9.0 %	103.68	107.77	111.85	115.94	120.02	124.11	128.19
1.32	8.8 %	113.99	116.28	118.75	121.42	124.30	127.44	130.87	1.32	8.8 %	108.64	112.90	117.16	121.42	125.68	129.93	134.19
1.27	8.5 %	119.10	121.64	124.39	127.36	130.59	134.11	137.97	1.27	8.5 %	114.02	118.47	122.91	127.36	131.81	136.25	140.70
1.23	8.3 %	124.62	127.44	130.50	133.83	137.45	141.42	145.79	1.23	8.3 %	119.87	124.52	129.18	133.83	138.48	143.13	147.78
1.14	7.8 %	137.06	140.58	144.43	148.63	153.26	158.37	164.05	1.14	7.8 %	133.27	138.39	143.51	148.63	153.75	158.87	163.99

• 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



Valuation							
	2013	2014	2015	2016	2017e	2018e	2019e
Price / Book	1.7 x	2.6 x	2.2 x	2.8 x	4.6 x	3.7 x	3.0 x
Book value per share ex intangibles	12.44	11.68	2.03	4.18	8.96	15.52	23.68
EV / Sales	1.1 x	1.6 x	1.2 x	1.3 x	1.9 x	1.6 x	1.3 x
EV / EBITDA	13.6 x	n.a.	33.7 x	12.5 x	13.1 x	8.4 x	6.3 x
EV / EBIT	43.3 x	n.a.	n.a.	24.8 x	20.3 x	11.3 x	8.2 x
EV / EBIT adj.*	43.3 x	n.a.	n.a.	24.8 x	20.3 x	11.3 x	8.2 x
P / FCF	n.a.	n.a.	n.a.	66.8 x	17.6 x	15.5 x	11.6 x
P/E	91.7 x	n.a.	n.a.	30.8 x	28.8 x	17.0 x	13.5 x
P / E adj.*	91.7 x	n.a.	n.a.	30.8 x	28.8 x	17.0 x	13.5 x
Dividend Yield	0.8 %	n.a.	n.a.	n.a.	0.5 %	0.5 %	0.5 %
FCF Potential Yield (on market EV)	6.6 %	1.6 %	2.8 %	7.3 %	6.2 %	9.3 %	12.3 %
*Adjustments made for: -							



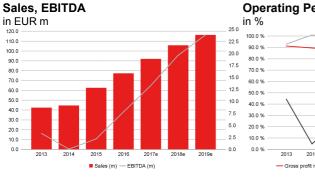
Consolidated profit & loss

In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Sales	42.5	44.6	62.6	77.3	92.0	105.8	116.4
Change Sales yoy	49.4 %	5.1 %	40.3 %	23.5 %	19.0 %	15.0 %	10.0 %
Increase / decrease in inventory	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Own work capitalised	0.4	0.5	0.5	0.4	0.9	1.1	1.2
Total Sales	42.8	45.1	63.1	77.7	92.9	106.9	117.5
Material expenses	4.1	5.2	8.3	7.7	9.7	11.1	12.2
Gross profit	38.8	40.0	54.9	70.0	83.3	95.7	105.3
Gross profit margin	91.3 %	89.6 %	87.6 %	90.6 %	90.5 %	90.5 %	90.5 %
Personnel expenses	25.6	28.7	39.7	47.7	52.0	57.7	63.4
Other operating income	2.5	2.2	1.7	1.8	2.3	2.6	2.9
Other operating expenses	12.3	13.4	14.7	16.3	20.2	21.2	20.9
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	3.3	0.0	2.2	7.8	13.3	19.6	23.9
Margin	7.9 %	0.1 %	3.5 %	10.1 %	14.5 %	18.5 %	20.5 %
Depreciation of fixed assets	0.8	0.9	1.0	1.1	1.4	1.6	1.7
EBITA	2.6	-0.9	1.2	6.7	12.0	18.0	22.1
Amortisation of intangible assets	1.5	1.2	1.5	1.8	2.8	3.2	3.5
Goodwill amortisation	0.0	0.9	1.0	1.0	0.6	0.2	0.2
EBIT	1.0	-3.0	-1.3	3.9	8.6	14.6	18.4
Margin	2.5 %	-6.8 %	-2.0 %	5.1 %	9.4 %	13.8 %	15.8 %
EBIT adj.	1.0	-3.0	-1.3	3.9	8.6	14.6	18.4
Interest income	0.1	0.2	0.2	0.1	0.2	0.2	0.2
Interest expenses	0.2	0.1	0.3	0.6	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	0.9	-3.0	-1.4	3.5	8.5	14.5	18.3
Margin	2.2 %	-6.7 %	-2.2 %	4.5 %	9.3 %	13.7 %	15.7 %
Total taxes	0.3	-1.1	0.1	0.6	2.5	4.2	5.3
Net income from continuing operations	0.6	-1.9	-1.5	2.8	6.1	10.3	13.0
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	0.6	-1.9	-1.5	2.8	6.1	10.3	13.0
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	0.6	-1.9	-1.5	2.8	6.1	10.3	13.0
Margin	1.4 %	-4.2 %	-2.4 %	3.7 %	6.6 %	9.7 %	11.2 %
Number of shares, average	1.8	1.9	1.9	1.9	1.9	1.9	1.9
EPS	0.34	-0.99	-0.79	1.50	3.21	5.45	6.87
EPS adj.	0.34	-0.99	-0.79	1.50	3.21	5.45	6.87
*Adjustments made for:							

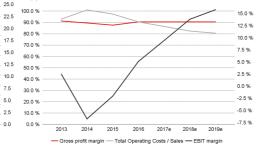
Guidance: n.a.

Financial Ratios

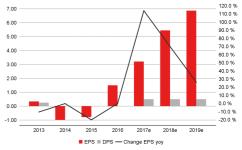
	2013	2014	2015	2016	2017e	2018e	2019e
Total Operating Costs / Sales	93.0 %	101.1 %	97.4 %	90.4 %	86.5 %	82.5 %	80.5 %
Operating Leverage	0.7 x	n.a.	-1.4 x	n.a.	6.3 x	4.6 x	2.6 x
EBITDA / Interest expenses	14.9 x	0.3 x	6.7 x	12.2 x	44.5 x	65.2 x	79.5 x
Tax rate (EBT)	35.5 %	37.4 %	-8.5 %	18.1 %	29.0 %	29.0 %	29.0 %
Dividend Payout Ratio	74.5 %	0.0 %	0.0 %	0.0 %	15.6 %	9.2 %	7.3 %
Sales per Employee	102,535	105,677	145,313	175,985	205,260	231,420	249,571



Operating Performance



Performance per Share



Source: Warburg Research

Source: Warburg Research

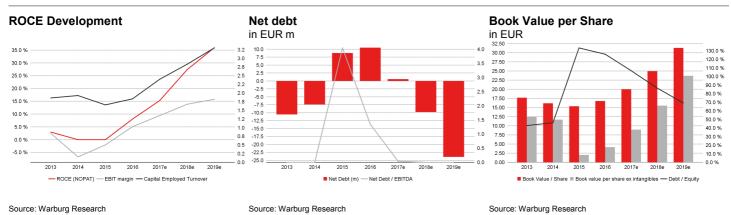
WARBURG RESEARCH

Consolidated balance sheet

In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Assets							
Goodwill and other intangible assets	9.9	8.5	25.2	23.8	20.9	17.8	14.4
thereof other intangible assets	3.5	2.9	20.2	18.8	16.4	13.6	10.4
thereof Goodwill	6.4	5.5	5.0	5.0	4.4	4.2	4.0
Property, plant and equipment	4.8	5.0	5.8	8.9	8.6	8.2	7.6
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	14.7	13.4	30.9	32.7	29.5	26.0	22.0
Inventories	1.0	1.2	1.7	1.2	1.4	1.6	1.8
Accounts receivable	13.1	9.2	12.6	18.0	17.6	20.3	22.3
Liquid assets	13.7	10.2	7.4	6.0	15.9	26.3	40.4
Other short-term assets	5.2	10.7	15.2	13.7	13.7	13.7	13.7
Current assets	33.0	31.2	36.8	38.9	48.6	61.8	78.2
Total Assets	47.7	44.7	67.7	71.6	78.1	87.8	100.2
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	18.2	18.5	18.5	18.5	18.5
Retained earnings	0.0	0.0	0.0	0.0	6.1	15.5	27.5
Other equity components	13.4	10.4	8.9	11.3	11.3	11.3	11.3
Shareholders' equity	33.4	30.6	29.0	31.7	37.8	47.1	59.2
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	33.4	30.6	29.0	31.7	37.8	47.1	59.2
Provisions	3.5	4.1	6.0	3.6	3.6	3.6	3.6
thereof provisions for pensions and similar obligations	0.9	1.7	1.5	1.7	1.7	1.7	1.7
Financial liabilities (total)	2.3	1.1	14.7	14.8	14.8	14.8	14.8
thereof short-term financial liabilities	1.3	0.3	3.2	5.8	5.8	5.8	5.8
Accounts payable	1.0	1.6	2.1	2.2	2.6	3.0	3.3
Other liabilities	7.6	7.2	15.9	19.3	19.3	19.3	19.3
Liabilities	14.3	14.1	38.7	39.9	40.3	40.7	41.0
Total liabilities and shareholders' equity	47.7	44.7	67.7	71.6	78.1	87.8	100.2

Financial Ratios

	2013	2014	2015	2016	2017e	2018e	2019e
Efficiency of Capital Employment							
Operating Assets Turnover	2.5 x	3.4 x	4.5 x	3.0 x	3.7 x	3.9 x	4.1 x
Capital Employed Turnover	1.9 x	1.9 x	1.7 x	1.8 x	2.4 x	2.8 x	3.3 x
ROA	4.1 %	-13.9 %	-4.9 %	8.6 %	20.6 %	39.6 %	59.0 %
Return on Capital							
ROCE (NOPAT)	2.9 %	n.a.	n.a.	8.1 %	15.2 %	27.4 %	36.0 %
ROE	2.0 %	-5.8 %	-5.0 %	9.3 %	17.5 %	24.2 %	24.4 %
Adj. ROE	2.0 %	-5.8 %	-5.0 %	9.3 %	17.5 %	24.2 %	24.4 %
Balance sheet quality							
Net Debt	-10.5	-7.4	8.8	10.5	0.6	-9.8	-23.9
Net Financial Debt	-11.5	-9.0	7.3	8.8	-1.1	-11.5	-25.6
Net Gearing	-31.5 %	-24.1 %	30.3 %	33.1 %	1.5 %	-20.7 %	-40.4 %
Net Fin. Debt / EBITDA	n.a.	n.a.	337.6 %	112.8 %	n.a.	n.a.	n.a.
Book Value / Share	17.7	16.2	15.4	16.8	20.0	24.9	31.3
Book value per share ex intangibles	12.4	11.7	2.0	4.2	9.0	15.5	23.7



Source: Warburg Research

COMMENT

Published 15.06.2017

6

Consolidated cash flow statement



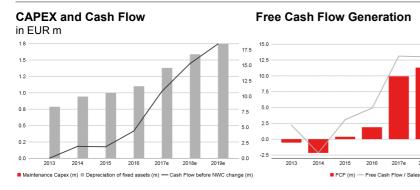
In EUR m	2013	2014	2015	2016	2017e	2018e	2019e
Net income	0.6	-1.9	-1.5	2.8	6.1	10.3	13.0
Depreciation of fixed assets	0.8	0.9	1.0	1.1	1.4	1.6	1.7
Amortisation of goodwill	0.0	0.9	1.0	1.0	0.6	0.2	0.2
Amortisation of intangible assets	1.5	1.2	1.5	1.8	2.8	3.2	3.5
Increase/decrease in long-term provisions	-1.7	0.8	0.7	0.0	0.0	0.0	0.0
Other non-cash income and expenses	-1.1	0.0	-0.8	-2.3	0.0	0.0	0.0
Cash Flow before NWC change	0.0	1.9	1.9	4.4	10.8	15.3	18.5
Increase / decrease in inventory	0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
Increase / decrease in accounts receivable	2.4	-0.4	-0.4	-0.4	0.4	-2.7	-2.0
Increase / decrease in accounts payable	-1.0	-0.2	-0.2	-0.2	0.4	0.4	0.3
Increase / decrease in other working capital positions	0.0	-1.6	1.0	0.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	1.5	-2.3	0.3	-0.7	0.6	-2.5	-1.9
Net cash provided by operating activities [1]	1.6	-0.4	2.2	3.7	11.4	12.8	16.6
Investments in intangible assets	-0.9	-1.2	-1.2	-1.2	-0.3	-0.3	-0.3
Investments in property, plant and equipment	-1.2	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Payments for acquisitions	0.0	0.0	-16.8	-0.1	0.0	0.0	0.0
Financial investments	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0
Income from asset disposals	1.2	0.3	0.0	-3.2	0.0	0.0	0.0
Net cash provided by investing activities [2]	-0.9	-1.6	-18.6	-5.1	-1.5	-1.5	-1.5
Change in financial liabilities	-1.2	-1.2	13.6	0.1	0.0	0.0	0.0
Dividends paid	0.0	-0.5	0.0	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	3.8	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	-1.0	-0.7	0.0	0.0	0.0
Net cash provided by financing activities [3]	2.6	-1.6	12.6	-0.6	0.0	-0.9	-0.9
Change in liquid funds [1]+[2]+[3]	3.2	-3.6	-3.9	-2.1	9.9	10.4	14.1
Effects of exchange-rate changes on cash	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Cash and cash equivalent at end of period	13.5	10.2	6.4	5.3	15.9	26.3	40.4

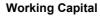
Financial Ratios

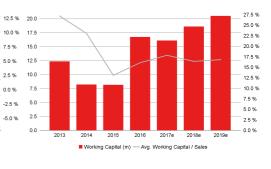
	2013	2014	2015	2016	2017e	2018e	2019e
Cash Flow							
FCF	-0.6	-2.2	0.4	1.9	9.9	11.3	15.1
Free Cash Flow / Sales	-1.3 %	-6.2 %	-0.3 %	1.7 %	10.8 %	10.7 %	13.0 %
Free Cash Flow Potential	3.0	1.2	2.1	7.2	10.9	15.4	18.6
Free Cash Flow / Net Profit	-91.9 %	147.0 %	13.3 %	46.3 %	163.5 %	109.8 %	116.2 %
Interest Received / Avg. Cash	0.9 %	1.3 %	2.5 %	2.2 %	1.8 %	0.9 %	0.6 %
Interest Paid / Avg. Debt	7.8 %	7.4 %	4.1 %	4.3 %	2.0 %	2.0 %	2.0 %
Management of Funds							
Investment ratio	5.0 %	5.3 %	3.8 %	3.1 %	1.6 %	1.4 %	1.3 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	92.0 %	77.6 %	68.6 %	61.4 %	31.3 %	29.5 %	26.8 %
Avg. Working Capital / Sales	27.2 %	23.0 %	13.1 %	16.1 %	17.8 %	16.4 %	16.8 %
Trade Debtors / Trade Creditors	1356.9 %	562.7 %	600.2 %	819.6 %	676.9 %	676.7 %	675.8 %
Inventory Turnover	3.9 x	4.4 x	5.0 x	6.4 x	6.9 x	6.9 x	6.8 x
Receivables collection period (days)	113	75	73	85	70	70	70
Payables payment period (days)	86	116	93	105	98	99	99
Cash conversion cycle (Days)	-37	-52	-182	-48	-47	-46	-43

2016

2017e 2018e 2019e







Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Published 15.06.2017

7



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 <u>http://www.mmwarburg.de/disclaimer/disclaimer.htm#Valuation</u>). 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.
- -3- Companies affiliated with Warburg Research manage financial instruments, which are, or the issuers of which are, subject of the investment recommendation, in a market based on the provision of buy or sell contracts.
- -4- MMWB, Warburg Research, or an affiliated company, reached an agreement with the issuer to provide investment banking and/or investment 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.
- -5- The company compiling the analysis or an affiliated company had reached an **agreement on the compilation of the investment recommendation** with the analysed company.
- -6- Companies affiliated with Warburg Research regularly trade financial instruments of the analysed company or derivatives of these.
- -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.

-В-	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.	
"_"	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	106	53
Hold	82	41
Sell	10	5
Rating suspended	1	1
Total	199	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	30	71
Hold	9	21
Sell	2	5
Rating suspended	1	2
Total	42	100

PRICE AND RATING HISTORY GK SOFTWARE AS OF 15.06.2017



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.

\bigvee Warburg Research

EQUITIES

Roland Rapelius Head of Equities

RESEARCH

Michael Heider Head of Research Henner Rüschmeier Head of Research Lucas Boventer Renewables, Internet, Media **Christian Cohrs** Engineering, Logistics Felix Ellmann Software, IT Jörg Philipp Frey Retail, Consumer Goods Marie-Thérèse Grübner Small Cap Research Ulrich Huwald Health Care, Pharma Thilo Kleibauer Retail, Consumer Goods Eagert Kuls Engineering Henrik Paganetty Telecommunications

INSTITUTIONAL EQUITY SALES

+49 40 309537-280 mheider@warburg-research.com +49 40 309537-270 hrueschmeier@warburg-research.com +49 40 309537-290 lboventer@warburg-research.com +49 40 309537-175 ccohrs@warburg-research.com +49 40 309537-120 fellmann@warburg-research.com +49 40 309537-258 jfrey@warburg-research.com +49 40 309537-240 mgruebner@warburg-research.com +49 40 309537-255 uhuwald@warburg-research.com +49 40 309537-257 tkleibauer@warburg-research.com +49 40 309537-256 ekuls@warburg-research.com +49 40 309537-185 hpaganetty@warburg-research.com

+49 40 3282-2673

rrapelius@mmwarburg.com

+49 40 3282-2669 hnass@mmwarburg.com +49 40 3282-2664 kschilling@mmwarburg.com +49 40 3282-2665 tbeckmann@mmwarburg.com +49 69 5050-7411 lboqdanova@mmwarburq.com +49 69 5050-7415 jbuchmueller@mmwarburg.com +49 40 3282-2666 pdontenwill@mmwarburg.com +49 40 3282-2696

mfritsch@mmwarburg.com

omerckel@mmwarburg.com

+49 40 3282-2634

+49 40 3282-2702

+49 40 3282-2700

edust@mmwarburg.com

SALES TRADING Oliver Merckel

USA, Poland, The Netherlands

Head of Sales Trading Elyaz Dust Sales Trading **Michael Ilgenstein** Sales Trading

Carsten Klude

Macro Research

Bloomberg

FactSet

Warburg Research

Andrea Schaper

Sales Assistance

Holger Nass

Klaus Schilling

Tim Beckmann

Lyubka Bogdanova

Jens Buchmüller

Scandinavia, Austria Paul Dontenwill

Matthias Fritsch

United Kinadom

United Kingdom, Australia

United Kingdom

Head of Equity Sales, USA

Dep. Head of Equity Sales, GER

MACRO RESEARCH

For access please contact:

+49 40 3282-2572 cklude@mmwarburg.com

Our research can be found under:

research.mmwarburg.com/en/index.html

milgenstein@mmwarburg.com

www.factset.com

+49 40 3282-2632

aschaper@mmwarburg.com

MMWA GO

Andreas Pläsier Banks, Financial Services Jochen Reichert Telco, Internet, Media J. Moritz Rieser Real Estate Arash Roshan Zamir Cap. Goods, Renewables Malte Schaumann Technology Patrick Schmidt Small Cap Research **Oliver Schwarz** Chemicals, Agriculture Marc-René Tonn Automobiles, Car Suppliers **Björn Voss** Steel, Car Suppliers Alexander Wahl Car Suppliers. Construction Andreas Wolf Software, IT

Michael Kriszun United Kingdom Marc Niemann Germany Sanjay Oberoi United Kingdom Simon Pallhuber Switzerland, France

Angelika Flegler Roadshow/Marketing Juliane Willenbruch Roadshow/Marketing

Bastian Quast Sales Trading Jörg Treptow Sales Trading Jan Walter Sales Trading

Dr. Christian Jasperneite Investment Strategy

Thomson Reuters Capital IQ

Kerstin Muthig Sales Assistance

+49 40 309537-246 aplaesier@warburg-research.com +49 40 309537-130 jreichert@warburg-research.com +49 40 309537-260 mrieser@warburg-research.com +49 40 309537-155 aroshanzamir@warburg-research.com +49 40 309537-170 mschaumann@warburg-research.com +49 40 309537-125 pschmidt@warburg-research.com +49 40 309537-250 oschwarz@warburg-research.com +49 40 309537-259 mtonn@warburg-research.com +49 40 309537-254 bvoss@warburg-research.com +49 40 309537-230 awahl@warburg-research.com +49 40 309537-140

> +49 40 3282-2695 mkriszun@mmwarburg.com +49 40 3282-2660 mniemann@mmwarburg.com +49 69 5050-7410 soberoi@mmwarburg.com +49 69 5050-7414 spallhuber@mmwarburg.com

awolf@warburg-research.com

+49 69 5050-7417 aflegler@mmwarburg.com +49 40 3282-2694 jwillenbruch@mmwarburg.com

> +49 40 3282-2701 bquast@mmwarburg.com +49 40 3262-2658 jtreptow@mmwarburg.com +49 40 3262-2662 jwalter@mmwarburg.com

+49 40 3282-2439 cjasperneite@mmwarburg.com

www.thomsonreuters.com www.capitaliq.com

+49 40 3282-2703 kmuthig@mmwarburg.com