**Date** 07/11/2017

**Recommendation:** 

**Hold** (previous: Hold) **PT:** € **135.70** (prev.: € 135.00)

### **GK Software**

Industry: Software
Segment: Prime Standard
ISIN: DE0007571424
Reuters: GKSG

Price (06/11/2017): € 127.70

Market Cap € 241 m

EV € 236 m

Ø-volume `000€ 265

52W High € 132.50

52W Low € 50.50

### **Financial Calendar**

Q3 report 29/11/2017 FY 2017 26/04/2018

### Shareholder structure

GK Software Hldg.	49.8%
SAP AG	5.3%
R.Gläß	3.3%
S.Kronmüller	2.3%

### Share performance



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## **GK SOFTWARE AG**

# Acquisition strengthens expertise in issues of the future, convertible bond for further growth investments

On 01/11/2017, GK Software announced completion of the planned majority acquisition of prudsys AG, a company based in Chemnitz that specialises in the field of real-time-based omni-channel personalisation (through AI, machine learning). GK thereby gets a foot in the door to a field that may in the future play a central role in retailing. **prudsys RDE** is complementary to the solutions GK has thus far offered. Since the two companies are already working together on joint projects, we consider the risks of the acquisition to be low. Compared to the valuation of their numerous listed peers, the acquisition of prudsys appears to us to have been rather favourable, with the result that it has a slightly value-enhancing effect. Positive peer group effects are partially dampened by dilutive effects from two options programs that became effective in 2017.

- ✓ With **prudsys AG**, GK is acquiring an innovative company; its solution prudsys RDE is based on machine learning technology and artificial intelligence (AI) and addresses the topics "**recommendations**" (personal recommendations), "**marketing automation**" and **dynamic pricing** in the omni-channel environment. Patents in this field secure expertise market researcher Gartner sees prudsys as a "representative vendor" in the "digital personalisation engines" market. Since customers are already using prudsys RDE together with GK solutions, it is likely that the existing sales capacity of prudsys can be enhanced by cross-selling (as a precaution, we did not take this possible effect into consideration in the model). Against the background of the acquired expertise and a 2016 turnover of approx. EUR 3.6 million, with an EBIT of between EUR 0.25 million and EUR 0.5 million, an announced (gross) purchase price of up to EUR 5 million for the majority interest (we presume > 75%) is not overpriced in the current market environment.
- The **convertible bond** issued in October 2017 (3% interest, 5-year term, conversion price EUR 155 per share) met with great interest (three times over-subscribed). The gross proceeds from the issuing of the bond amounted to EUR 15 million. The proceeds from the bond are to be used to create solutions for **new market segments/customer groups**. Other fields include **investments in artificial intelligence (AI), machine learning, the Internet of Things (IoT)** and the **acquisition of prudsys AG**. The convertible bond (WKN: A2GSM7), which is traded on the Frankfurt Stock Exchange, has been trading well above the issue price since issue (currently at 104%)

Key figures - GK Software AG							
	Sales	EBITDA	EBIT	EPS (adj.)	EV/Sales	P/E	
2015 a	62.6	2.2	-1.3	-0.79	1.19	-43.7	
2016 a	77.3	7.8	3.9	1.50	1.28	31.3	
2017 e	93.8	12.0	7.9	2.67	2.52	47.9	
2018 e	110.1	18.1	13.8	4.69	2.15	27.2	
2019 e	122.8	20.7	16.2	5.63	1.92	22.7	
Source: Company Data, EQUI.TS							

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### The future of retail

Technical possibilities have resulted in an increase in customers' expectations in recent years. Many customers want a high degree of personal relevance from the respective contents and offers in marketing campaigns – in other words, an increasingly **individualised omni-channel shopping experience**. Among other things, prudsys RDE is a solution that makes it possible for retailers to use artificial intelligence and self-learning systems to make "better", customised offers (automated and in real-time). Using customer history to select items/offers that are more relevant to the customer can result in sales that are up to 10% higher than with standard offers. The solution for dynamic pricing (across distribution channels) can also result in prices/promotions from competitors and the regional strength of the respective market participants affecting the pricing: (customised) offers (in the form of discounts) for relevant product groups can in the long run enhance customer loyalty. It is obvious that retailers using such technologies will have a competitive advantage – in other words, in a highly competitive environment such as retailing, no market participant will be able to afford not using such technologies for very long. With the acquired technological expertise, GK not only rounds off its own omni-channel range of solutions, but could also contribute this know-how to future solutions.

## Appendix

Income Statement	2014	2015	2016	2017e	2018e	2019e
Sales	44.634	62.602	77.333	93.825	110.050	122.800
Change in finished goods	0.000	0.000	0.000	0.000	0.000	0.000
Other own costs capitalized	0.512	0.525	0.382	0.463	0.543	0.606
Other operating income	2.188	1.726	1.769	2.146	2.517	2.809
Total performance	47.333	64.853	79.483	96.434	113.110	126.215
Cost of material	-5.151	-8.266	-7.681	-9.151	-9.932	-10.523
Gross profit	42.182	56.587	71.802	87.283	103.178	115.692
Personnel expenses	-28.749	-39.668	-47.669	-55.211	-62.453	-69.908
Other operating expenses	-13.397	-14.742	-16.330	-20.110	-22.655	-25.097
EBITDA	0.037	2.177	7.803	11.961	18.070	20.687
Depreciation/amortisation	-3.052	-3.453	-3.861	-4.080	-4.314	-4.477
EBIT	-3.015	-1.276	3.942	7.881	13.756	16.210
Financial result	0.028	-0.107	-0.491	-0.670	-1.018	-0.898
Non operating result before taxes	0.000	0.000	0.000	0.000	0.000	0.000
EBT	-2.987	-1.383	3.452	7.211	12.738	15.312
Non operating result after taxes	0.000	0.000	0.000	0.000	0.000	0.000
Taxes	1.117	-0.117	-0.626	-2.164	-3.822	-4.594
Minority interest	0.000	0.000	0.000	0.015	0.065	0.065
Net result	-1.870	-1.500	2.826	5.063	8.981	10.783
Adjustments	0.00	0.00	0.00	0.00	0.00	0.00
Adjusted net result	-1.870	-1.500	2.826	5.063	8.981	10.783
Average number of shares	1.89	1.89	1.89	1.90	1.91	1.91
Average number of shares (dil.)	1.94	1.97	2.00	2.09	2.09	2.09
EPS	-0.99	-0.79	1.50	2.67	4.69	5.63
Adjusted EPS	-0.99	-0.79	1.50	2.67	4.69	5.63
Adjusted EPS (diluted)	-0.96	-0.76	1.41	2.42	4.30	5.16
DPS	0.00	0.00	0.00	0.60	1.01	1.26
Source: EQUI.TS; company data						
Cash Flow Statement	2014	2015	2016	2017e	2018e	2019e
Net cash provided by operating activities	-0.394	2.196	3.699	4.840	9.017	11.908
Net cash used in investing activities	-1.569	-18.583	-5.099	-7.724	-5.307	-5.143
Net cash provided by financing activities	-1.606	12.574	-2.119	13.000	-3.139	-3.940
Change in cash and securities	-3.569	-3.813	-3.519	10.115	0.571	2.825
Cash and secur. at the end of the period	10.173	7.377	6.017	16.133	16.704	19.528
Source: EQUI.TS; company data						

<b>Balance Sheet</b>	2014	2015	2016	2017e	2018e	2019e
Long term assets	13.445	30.944	32.736	36.381	37.374	38.040
Intangible assets	8.474	25.190	23.828	25.635	24.342	22.849
Tangible assets	4.970	5.753	8.902	10.739	13.025	15.184
Financial assets	0.002	0.002	0.007	0.007	0.007	0.007
Current assets	28.270	33.074	33.963	48.918	54.250	60.816
Inventories	1.159	1.655	1.180	1.432	1.680	1.874
Accounts Receivables	12.375	19.100	21.512	26.100	30.613	34.160
Other current assets	4.563	4.943	5.254	5.254	5.254	5.254
Cash and securities	10.173	7.377	6.017	16.133	16.704	19.528
Other assets	2.957	3.742	4.915	4.915	4.915	4.915
Total assets	44.673	67.760	71.615	90.214	96.539	103.771
Equity	30.555	28.967	31.654	36.702	44.479	53.258
Equity Reserves	30.555 30.555	28.967 28.967	31.654 31.654	36.702 36.117	44.479 43.894	53.258 52.673
Reserves	30.555	28.967	31.654	36.117	43.894	52.673
Reserves Minorities	30.555 0.000	28.967 0.000	31.654 0.000	36.117 0.585	43.894 0.585	52.673 0.585
Reserves Minorities Provisions	30.555 0.000 3.321	28.967 0.000 4.081	31.654 0.000 3.222	36.117 0.585 3.307	43.894 0.585 3.396	52.673 0.585 3.489
Reserves Minorities Provisions Liabilities	30.555 0.000 3.321 8.600	28.967 0.000 4.081 32.085	31.654 0.000 3.222 33.183	36.117 0.585 3.307 46.650	43.894 0.585 3.396 45.109	52.673 0.585 3.489 43.469
Reserves Minorities Provisions Liabilities Interest bearing liabilities	30.555 0.000 3.321 8.600 1.132	28.967 0.000 4.081 32.085 14.723	31.654 0.000 3.222 33.183 14.763	36.117 0.585 3.307 46.650 27.763	43.894 0.585 3.396 45.109 25.763	52.673 0.585 3.489 43.469 23.763
Reserves Minorities Provisions Liabilities Interest bearing liabilities Accounts Payables	30.555 0.000 3.321 8.600 1.132 1.634	28.967 0.000 4.081 32.085 14.723 2.091	31.654 0.000 3.222 33.183 14.763 2.187	36.117 0.585 3.307 46.650 27.763 2.653	43.894 0.585 3.396 45.109 25.763 3.112	52.673 0.585 3.489 43.469 23.763 3.473
Reserves Minorities Provisions Liabilities Interest bearing liabilities Accounts Payables Other non-interest bearing liabilities	30.555 0.000 3.321 8.600 1.132 1.634 5.835	28.967 0.000 4.081 32.085 14.723 2.091 15.271	31.654 0.000 3.222 33.183 14.763 2.187 16.233	36.117 0.585 3.307 46.650 27.763 2.653 16.233	43.894 0.585 3.396 45.109 25.763 3.112 16.233	52.673 0.585 3.489 43.469 23.763 3.473 16.233

Key Ratios	2014	2015	2016	2017e	2018e	2019e
Ratios for corporate valuation	1.61	1.10	4.20	2.52	2.45	1.00
EV/Sales	1.61	1.19	1.28	2.52	2.15 13.08	1.92
EV/EBITDA	1969.16	34.17	12.67	19.76		11.42
EV/EBIT	-23.84	-58.32	25.08	29.99	17.18	14.58
P/E reported	-42.38	-43.72	31.27	47.89	27.23	22.68
P/E clean PCPS	-42.38	-43.72	31.27	47.89	27.23	22.68
Price-to-book ratio	41.00	24.45	15.24	26.28 6.71	18.27	15.93 4.64
Price-to-book ratio	2.59	2.26	2.79	6.71	5.57	4.64
Profitability ratios						
EBITDA margin	0.1%	3.5%	10.1%	12.7%	16.4%	16.8%
EBIT margin	-6.8%	-2.0%	5.1%	8.4%	12.5%	13.2%
Pre tax margin	-6.7%	-2.2%	4.5%	7.7%	11.6%	12.5%
Net margin	-4.2%	-2.4%	3.7%	5.4%	8.2%	8.8%
Free-cash-flow-margin	0.3%	n.m.	0.7%	1.6%	7.3%	8.3%
ROE	-5.9%	-5.0%	9.3%	14.8%	22.0%	21.9%
Productivity ratios						
Sales/employees (in EUR '000)	78.0	84.7	84.9	95.4	103.5	110.0
Personnel expenses/employees (in '000)	50.3	53.7	52.3	56.1	58.7	62.6
Net result/employees (in '000)	-3.3	-2.0	3.1	5.1	8.4	9.7
Number of employees	572	739	911	984	1063	1116
Financial ratios						
Equity ratio	68.4%	42.7%	44.2%	40.7%	46.1%	51.3%
Gearing	46.2%	133.9%	126.2%	145.8%	117.0%	94.8%
Dividend yield	0.0%	0.0%	0.0%	0.5%	0.8%	1.0%
Cash-flow ratio						
Cash-flow per share	1.02	1.42	3.07	4.86	6.99	8.02
Free-Cash-flow per share	0.08	-8.45	0.27	0.79	4.22	5.33
Other ratios	C 004	F 50/	F 00/	4.207	2.007	2.604
Depreciation/Sales	6.8%	5.5%	5.0%	4.3%	3.9%	3.6%
Capex/Sales	4.0%	29.8%	6.8%	4.8%	4.8%	4.2%
Working Capital/Sales	26.7%	29.8%	26.5%	26.5%	26.5%	26.5%
Tax rate	37.4%	-8.5%	18.1%	30.0%	30.0%	30.0%
Source EQUI.TS						

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Authors of this financial analysis: Daniel Großjohann, Analyst, and Thomas Schießle, Analyst.

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### Reference pursuant to section 4 subsection 4 point 4 FinAnV:

Company	Analyst		Rating	Price Target
GK SOFTWARE AG	D.Grossjohann/T.Schießle	21/06/2016	Buy	€ 54.35
GK SOFTWARE AG	D.Grossjohann/T.Schießle	12/09/2016	Buy	€ 59.60
GK SOFTWARE AG	D.Grossjohann/T.Schießle	05/12/2016	Hold	€ 61.10
GK SOFTWARE AG	D.Grossjohann/T.Schießle	12/04/2017	Hold	€ 68.40
GK SOFTWARE AG	D.Grossjohann/T.Schießle	22/05/2017	Hold	€ 80.40
GK SOFTWARE AG	D.Grossjohann/T.Schießle	08/06/2017	Hold	€ 84.70
GK SOFTWARE AG	D.Grossjohann/T.Schießle	12/09/2017	Hold	€ 135.00

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The following valuation methods are used when valuing companies: Multiplier models (price/earnings, price/cash flow, price/book value, EV/revenues, EV/EBIT, EV/EBITA, EV/EBITDA), peer group comparisons, historical valuation approaches, discounting models (DCF, DDM), break-up value approaches or asset valuation approaches. The valuation models are dependent upon macroeconomic measures such as interest, currencies, raw materials and assumptions concerning the economy. In addition, market moods influence the valuation of companies. Furthermore, the approaches are based on expectations that can change quickly and without warning, according to industry-specific developments. As a result, the results of the valuation and target prices derived from the models can change correspondingly. The results of the valuation are based on a period of 12 months. They are, however, subject to market conditions and represent a snapshot. They can be reached more quickly or more slowly or be revised upwards or downwards.

3. Date of initial/original publication of the financial analysis:

(07/11/2017)

4. Date and time of the prices of financial instruments disclosed therein:

(Closing price on 06/11/2017)

5. Updates:

We have currently not yet set a fixed date to provide a precise update of this analysis. EQUI.TS GmbH reserves the right to update the analysis unannounced.

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