Bryan, Garnier & Co

INDEPENDENT RESEARCH UPDATE

10th May 2016

TMT

Bloomberg			5	SOW GR
Reuters			SC	DWG.DE
12-month High / Lov		34	.9 / 23.8	
Market capitalisation	ו (EURm)			2,667
Enterprise Value (B	G estimates	EURm)		2,548
Avg. 6m daily volum	ie ('000 shai	res)		246.6
Free Float				64.9%
3y EPS CAGR				4.6%
Gearing (12/15)				1%
Dividend yield (12/1	6e)			1.78%
	40/46	12/160	12/170	12/190

YE December	12/15	12/16e	12/17e	12/18e
Revenue (€m)	873.06	887.65	917.64	959.76
EBITA €m)	263.4	271.9	287.1	307.1
Op.Margin (%)	30.2	30.6	31.3	32.0
Diluted EPS (€)	2.33	2.35	2.48	2.66
EV/Sales	3.1x	2.9x	2.6x	2.3x
EV/EBITDA	9.6x	8.9x	7.9x	6.9x
EV/EBITA	10.2x	9.4x	8.3x	7.2x
P/E	14.5x	14.4x	13.6x	12.7×
ROCE	17.7	18.2	19.5	21.4





Software AG

French Flair at work

Fair Value EUR40 (price EUR33.76)

BUY

We are reiterating our Buy rating and DCF-derived Fair Value of EUR40. We estimate that the positive momentum generated over the past 18 months by the new Chief Customer Officer, Eric Duffaut, is gradually changing Software AG's status from a value stock to a growth stock, with the target of delivering a margin of 32-35% in 2020.

- Positive momentum. The arrival of Eric Duffaut as Chief Customer Officer at the end of 2014 (previously at SAP and Oracle) has so far enabled Software AG to improve its sales productivity by 30%. The strategy rolled out since early 2015 has delivered convincing results with a return to growth in the Digital Business Platform business (DBP), a 2015 non-IFRS operating margin of 29.7% well above the initial target, and five quarters in a row of higher than consensus earnings.
- Transformation far from complete. The second part of the strategy consists of transforming the sales approach in order to step up growth by 2018: sales of business solutions, expanding the ecosystem of partners and extending sales coverage. In our view, this should lift organic growth to almost 6% in 2020 thanks to an acceleration in sales growth from the digital business platform.
- 2016 has started out ahead of targets. Software AG reported Q1 2016 sales up 8.8% lfl and non-IFRS EBIT margin up 3.9 points. We estimate that 2016 margin guidance for 30-31% is cautious since it now implies a stable level for the last three quarters of the year. As such, if guidance is exceeded in 2016, we would be confident in the group's ability to deliver the top end of the 32-35% range in 2020.
 - **Still attractively valued**. Despite a rebound of more than 80% since October 2014, Software AG is trading on 2016e and 2017e EV/EBIT multiples of 9.4x and 8.3x respectively, implying a discount of around 40% relative to the average of major European software publishers.



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Company description

Founded in 1969, and listed on the Frankfurt Stock Exchange since 1999, Software AG markets enterprise software addressing two specific needs: 1). Helping businesses to digitise their processes, through its Digital Business Platform (64% of Product revenues: business and IT transformation, streaming analytics, agile apps, IT portfolio management, integration and connectivity); 2). Modernisation of legacy IT systems on mainframes through Adabas & Natural (36% of Product revenue: database management systems and application development). The company generates 45% of Product revenues in America, vs. 48% in the EMEA region (incl. 14% in Germany) and 7% in Asia Pacific. By Industry, 20% of Product revenues are made with Governments, vs. 19% in Financial Services, 19% in IT Services, 12% in Business Services, 10% in Manufacturing, and 20% with other industries (Telecoms/Media, Transport/Logistics, etc.).

Simplified Profit & Loss Account (EURm)	2013	2014	2015	2016e	2017e	2018e
Revenues	973	858	873	888	918	960
Change (%)	-7.1%	-11.8%	1.8%	1.7%	3.4%	4.6%
Ifl change (%)	-5.0%	-6.8%	-1.7%	3.6%	3.3%	4.6%
Adjusted EBITDA	264	250	278	286	302	322
Depreciation & amortisation	(12.9)	(11.6)	(14.4)	(14.5)	(14.8)	(14.9)
Adjusted EBIT	251	238	263	272	287	307
EBIT	206	176	209	233	255	277
Change (%)	-17.2%	-14.4%	19.0%	11.4%	9.4%	8.6%
Financial results	(8.4)	(9.2)	(2.9)	(5.0)	(2.2)	(0.26)
Pre-Tax profits	197	167	207	228	253	277
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0
Tax	(63.1)	(56.3)	(66.9)	(74.2)	(82.2)	(90.0)
Profits from associates	0.0	0.0	0.0	0.0	0.0	0.0
Minority interests	0.18	0.19	0.16	0.15	0.20	0.25
Net profit	134	110	139	154	171	187
Restated net profit	178	165	188	190	200	215
Change (%)	-14.7%	-7.3%	13.6%	0.9%	5.5%	7.4%
Cash Flow Statement (EURm)						
Operating cash flows	193	147	180	204	214	229
Change in working capital	(21.0)	(3.5)	5.3	2.0	5.6	8.7
Capex, net	(12.7)	(8.0)	(9.8)	(11.9)	(12.0)	(12.0)
Financial investments, net	(56.6)	(1.3)	43.5	(14.9)	0.0	0.0
Acquisitions, net	(106)	14.4	(1.5)	0.0	0.0	0.0
Dividends	(38.3)	(36.4)	(39.6)	(43.5)	(47.4)	(51.4)
Other	330	(174)	(127)	(17.5)	(18.4)	(19.1)
Net debt	107	70.4	13.9	(119)	(276)	(447)
Free Cash flow	159	135	176	194	208	226
Balance Sheet (EURm)						
Tangible fixed assets	64.5	61.2	56.2	53.6	50.8	47.9
Intangibles assets & goodwill	1,041	1,037	1,057	1,033	1,013	994
Investments	4.5	7.1	24.5	39.5	39.5	39.5
Deferred tax assets	16.3	10.9	11.0	11.0	11.0	11.0
Current assets	364	359	353	355	360	366
Cash & equivalents	506	374	312	430	572	728
Total assets	1,997	1,849	1,815	1,923	2,047	2,186
Shareholders' equity	966	1,013	1,090	1,200	1,324	1,459
Provisions	142 22.6	135 17.1	81.9	89.9 16.7	95.9	99.9 16.7
Deferred tax liabilities L & ST Debt	22.0 613	444	16.7 326	311	16.7 296	281
Current liabilities	254	240	320	305	290 315	329
Total Liabilities	1,997	1,849	1,815	1,923	2,047	2,186
Capital employed	1,997	1,049	1,013	1,923	1,048	1,013
	1,072	1,004	1,104	1,001	1,040	1,010
Ratios	05.00	07.75	00.47	00.00	04.00	04.00
Operating margin	25.80	27.75	30.17	30.63	31.28	31.99
Tax rate	32.01	33.73	32.40	32.50	32.50	32.50
Net margin ROE (after tax)	13.76 13.86	12.86	15.97 12.80	17.34 12.83	18.59 12.89	19.45 12.79
ROCE (after tax)	17.31	10.89 16.57	12.00	12.03	12.69	21.43
Gearing	11.07	6.95	1.27	(9.91)	(20.86)	(30.61)
Pay out ratio	29.88	39.39	31.16	30.79	30.10	29.63
Number of shares, diluted	88.74	88.66	80.68	80.68	80.68	80.68
	00.11	00.00	00.00	00.00	00.00	00.00
Data per Share (EUR)	1 54	1 07	1 77	1.05	2.16	2.26
EPS Restated EPS	1.54 2.01	1.27 1.87	1.77 2.33	1.95 2.35	2.16	2.36
Restated EPS % change	-14.6%	1.87 -7.2%	2.33 24.9%	2.35 0.9%	2.48 5.5%	2.66 7.4%
So change EPS bef. GDW	-14.6% 2.01	-7.2% 1.87	24.9%	2.35	2.48	2.66
BVPS	10.88	1.67	2.55 13.51	2.35 14.88	2.40 16.41	18.09
Operating cash flows	2.17	1.65	2.23	2.52	2.66	2.84
FCF	1.79	1.52	2.18	2.40	2.58	2.80
Net dividend	0.46	0.50	0.55	0.60	0.65	0.70
	0.10	5.00	2.00	5.00	5.00	00



1. Back in favour

1.1. DCF model: EUR40 per share

Fig. 1: DCF assumptions

Risk-free rate 1,6% 7,0% Equity risk premium Beta 1,4 Return expected on equity 11,4% Stock price (EUR) 33,76 Number of shares (m) 79,00 Market Capitalisation (EURm) 2 667 Net debt on 31/12/2016e (EURm) -119 Entreprise value (EURm) 2 548 Interest rate on cash 1,0% Tax rate 32,0% 2,5% Sales growth rate to perpetuity WACC 11,4%

Source: Company Data; Bryan, Garnier & Co ests.

Fig. 2: Discounted FCF

in EURm (FYE 31/12)	2015	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e
Sales	873	888	918	960	1 009	1 067	1 136	1 210	1 289	1 373	1 462	1 557
% chg	1,8%	1,7%	3,4%	4,6%	5,1%	5,8%	6,5%	6,5%	6,5%	6,5%	6,5%	6,5%
Operating profit	263	272	287	307	335	369	398	424	451	480	512	545
as a % of sales	30,2%	30,6%	31,3%	32,0%	33,2%	34,6%	35,0%	35,0%	35,0%	35,0%	35,0%	35,0%
Theoretical tax rate	32,4%	32,5%	32,5%	32,5%	32,0%	32,0%	32,0%	32,0%	32,0%	32,0%	32,0%	32,0%
Theoretical tax	85	88	93	100	107	118	127	136	144	154	164	174
NOPAT	178	184	194	207	228	251	270	288	307	327	348	371
Depreciation	14	15	15	15	15	15	15	16	17	18	19	20
as a % of sales	1,7%	1,6%	1,6%	1,6%	1,5%	1,4%	1,3%	1,3%	1,3%	1,3%	1,3%	1,3%
Сарех	12	12	12	12	13	13	15	16	17	18	19	20
as a % of sales	1,4%	1,4%	1,3%	1,3%	1,2%	1,2%	1,3%	1,3%	1,3%	1,3%	1,3%	1,3%
WCR	53	51	45	37	24	11	-23	-24	-26	-27	-29	-31
as a % of sales	6,1%	5,7%	4,9%	3,8%	2,4%	1,0%	-2,0%	-2,0%	-2,0%	-2,0%	-2,0%	-2,0%
Change in WCR	-5	-2	-6	-9	-13	-13	-34	-1	-2	-2	-2	-2
Free cash flows	186	188	202	219	243	266	304	289	308	328	350	372
Discounted free cash flows	186	177	171	166	165	162	167	143	136	130	125	119
Sum of discounted FCF	1 541											
Terminal value	1 432											
Enterprise value	2 973											
Fair value of associates	0											
Fair value of financial assets	39											
Provisions	90											
Fair value minority interests	1											
Dilution (s/o, warrants, conv bds)	41											
NPV of tax credits	11											
Net debt on 31/12/2016e	-119											
Equity value	3 093											
Diluted nbr of shares (m)	77,92											
Valuation per share (EUR)	40											

Source: Company Data; Bryan, Garnier & Co ests.

Our DCF-derived Fair Value of EUR40 is based on medium-term adjusted EBIT margin of 35%



Our DCF valuation puts the share price at EUR40, 19% ahead of the current level, based on a risk-free rate of 1.6%, an equity risk premium of 7% and a beta of 1.4.

Sensitivity analysis - EBIT margin and WACC (EUR)

				EBIT margin		
	40	29.0%	32.0%	35.0%	38.0%	41.0%
	10.5%	39	41	44	47	49
WACC	11.0%	36	39	41	44	46
	11.4%	35	37	40	42	44
	12.0%	33	35	37	39	41
	12.5%	31	33	35	37	39

Source: Bryan, Garnier & Co. ests.

1.2. Analysis of share price performance

An outstanding stockmarket performance since the end of 2014 After a 20% plunge in 2014 and a 31% increase in 2015, the Software AG share has gained 27% YTD in 2016. This corresponds to a 22% underperformance relative to the EuroSTOXX in 2014, followed by an outperformance of 23% in 2015 and 36% since the start of 2016.

Fig. 3: Software AG vs. indices DJ Technology et DJ EuroSTOXX



Source: Thomson Reuters.

The Software AG share suffered a chaotic performance between mid-2011 and summer 2014 and then benefited from factors favouring a sharp upturn. This resulted in: 1) A 27% plunge in the share price between 12th March 2013 and 24th June 2013 (from EUR31 to EUR22.5) due to the sharp narrowing in the BPE/DBP business line margin following an ambitious sales staff recruitment plan and four acquisitions over the period (Metaquark, Alfabet, LongJump, Apama), 2) A sharp rebound (+28%) until 11th November 2013 (from EUR22.5 to EUR28.9) on the back of Q2 and Q3 2013 earnings generally in line with expectations, 3) A fairly stable period between 11th November 2013 and 2nd June 2014 (between EUR25 and EUR29), in view of 2013 and Q1 2014 earnings pretty much in line with forecasts and the disposal of IDS Scheer Consulting (a loss-making subsidiary), 4) A collapse in the share price (-38%) until 16th October 2014 from EUR28.5 to EUR17.8, following downward revisions to 2014 guidance on 15th July 2014 following far lower than expected Q2 2014 figures and the overturning of the 2018 plan communicated to the market in January 2013, 5) A sharp rebound since 16th October 2014 (+89%) following the nomination of Éric Duffaut as Chief

Please see the section headed "Important information" on the back page of this report.



The outperformance by the Software AG share over the past six months has been driven by a string of better than expected quarterly results, management's more reassuring vision and a more beneficial backdrop for European software publishers Customer Officer and five consecutive quarters of higher-than-expected earnings (Q4 2014, Q2, Q3 and Q4 2015 and Q1 2016). A peak was reached on 30th March 2016 at EUR34.9.

After gaining 25% over the past six months, the Software AG share is part of the leading group of European software publishers in terms of stockmarket performances (Opera +20%, Nemetschek +12%, Micro Focus +9%, Temenos +4%, Sage -4%, SAP -8%, Dassault Systèmes -8%, SimCorp -19%, Aveva -32%). This compares with US groups with +2% for CA Technologies, 0% for IBM, -2% for Adobe, -3% for Intuit, -9% for Oracle, -12% for Salesforce, -14% for Autodesk, -14% for Microsoft, -15% for Ansys, -19% for Workday, and -24% for Symantec.

The group's far better performance than those of other European and US players over the past six months was driven by the following factors:

- A series of higher than expected quarterly results. Software AG has exceeded consensus forecasts for the past five quarters in a row (from Q1 2015 to Q1 2016), and indeed, in six out of the last seven last quarters with only Q4 2014 coming in just in line. This excellent string of results contrasts massively with the period running from Q2 2011 to Q2 2014, when Software AG reported lower than expected figures in four out of 13 quarters (Q2 2011, Q4 2011, Q4 2012 and Q2 2014), figures in line for seven quarters (including the entire year of 2013) and higher than expected earnings in just two quarters (Q3 2011 and Q3 2012). Indeed, 2015 was the first year since 2010 in which Software AG reached or exceeded its original full-year guidance announced at end-January. However, in 2015, as in all years since 2010, initial guidance in the DBP division (former BPE) was reduced during the year or was not reached, and this was offset by upward revisions to guidance for the A&N division (former ETS).
- A more reassuring vision from management. We believe that the arrival of Eric Duffaut as Chief Customer Officer has provided fresh blood for Software AG's management team. In particular, investor perception of the sales approach has improved massively. The new vision and roadmap was presented to the market at end-2014 and their execution gradually paid off throughout 2015.
- A beneficial stockmarket backdrop for European software publishers. Faced with the risks of a slowdown in the US economy (risk in China, oil, rates etc.) and still stratospheric valuations for SaaS/cloud publishers (Salesforce, Workday...), we estimate that Software AG, helped by low valuation multiples, benefited from general arbitrage moves in favour of discounted European software publishers.

In addition, we believe that the change in the Software AG share price reflects growth momentum in consensus EPS, but we are not ruling out further upward revisions by this consensus if positive momentum lasts beyond Q1 2016. As indicated in Fig. 4, over the past three years, the share price has admittedly gained 27% whereas the consensus 12m forward EPS figure only increased by 6% over the period. However, since the publication of preliminary 2015 results (19/01/2016), which marked a change in stockmarket status, the difference has been far narrower, with the share price up 16% compared with growth in consensus 12m forward EPS of 11%.





Fig. 4: EPS momentum and share price change over three years (base 100)

Source: Company Data; Bryan, Garnier & Co ests.

Discount of around 40% relative to European publishers

Finally, as shown in Fig. 5, on the basis of 2016e and 2017e EV/EBIT multiples, Software AG's valuation shows a discount of around 40% relative to the average of European software publishers.

Fig. 5: Peer comparison - software

Software	Currency	Rating	Price	Fair	Market cap	Р	ER (x)		EV/s	ales (x)		E١	V/EBIT (x)
			9-May-16	value	(m)	2015	2016e	2017e	2015	2016e	2017e	2015	2016e	2017e
SAP	EUR	NEUTRAL	69,0	73	84 827	18,6	17,4	16,5	4,3	4,0	3,6	14,3	13,4	12,3
Dassault Systèmes	EUR	SELL	69,0	62	17 736	29,0	25,2	23,5	5,8	5,2	4,5	19,4	16,7	14,4
Sage Group	GBP/p	SELL	593,0	555	6 401	23,5	22,0	19,7	4,5	4,1	3,8	16,5	14,9	13,6
Micro Focus International	GBP/p	Not rated	1549,0	N/A	3 542	15,4	13,6	13,0	5,1	5,0	4,7	12,1	10,7	10,2
Temenos Group	CHF	NEUTRAL	52,0	52	3 614	29,5	23,6	20,0	7,4	6,3	5,5	23,9	19,6	16,4
Software AG	EUR	BUY	33,7	40	2 667	14,5	14,4	13,6	3,1	2,9	2,6	10,2	9,4	8,3
SimCorp	DKK	Not rated	299,8	N/A	12 442	31,2	32,2	30,5	5,9	5,6	5,4	23,0	25,2	25,3
Nemetschek	EUR	Not rated	48,5	N/A	1 867	52,1	44,1	36,5	6,5	5,7	5,1	35,4	29,2	29,4
Opera Software	NOK	Not rated	64,5	N/A	9 459	22,5	33,4	18,8	2,0	1,8	1,5	13,9	28,5	28,3
Aveva Group	GBP/p	Not rated	1575,0	N/A	1 007	25,2	23,3	21,6	4,4	4,2	4,0	16,7	15,1	14,8
Europe Software Median						24,3	23,4	19,9	4,8	4,6	4,3	16,6	15,9	14,6
Microsoft	USD	Not rated	50,1	N/A	393 573	20,4	18,8	17,4	3,6	3,7	3,5	12,6	12,1	11,9
Oracle	USD	Not rated	39,4	N/A	163 339	15,0	14,0	13,0	4,1	4,0	3,9	9,6	9,1	9,1
IBM	USD	Not rated	147,3	N/A	141 441	9,9	10,9	10,4	2,1	2,2	2,2	10,3	11,8	11,8
Salesforce.com	USD	Not rated	74,6	N/A	50 625	99,5	73,9	57,2	7,6	6,0	4,8	60,9	43,6	41,9
Adobe Systems	USD	Not rated	94,6	N/A	47 325	45,5	33,4	25,1	9,4	7,6	6,1	32,7	23,7	22,8
Intuit	USD	Not rated	101,7	N/A	26 111	39,3	29,0	23,6	5,9	5,7	5,1	21,8	17,7	17,5
VMware	USD	Not rated	55,4	N/A	23 496	13,6	13,3	12,5	2,6	2,5	2,3	8,3	8,0	7,8
Check Point Software	USD	Not rated	82,5	N/A	14 426	19,8	18,2	16,5	8,1	6,2	5,7	14,2	11,3	11,2
Workday	USD	Not rated	70,2	N/A	13 839	N/M	N/M	N/M	10,2	8,0	6,0	N/M	N/M	N/M
Red Hat	USD	Not rated	71,7	N/A	13 016	37,6	32,0	27,4	5,8	4,9	4,0	24,4	20,9	19,6
Autodesk	USD	Not rated	58,8	N/A	13 204	70,0	N/M	N/M	5,0	6,4	5,5	44,3	N/M	N/M
CA Technologies	USD	Not rated	29,8	N/A	12 424	12,3	11,9	11,4	2,9	2,8	2,7	7,8	7,6	7,3
ServiceNow	USD	Not rated	67,4	N/A	10 987	168,6	108,8	66,8	10,6	7,6	5,7	103,4	62,8	60,9
Symantec	USD	Not rated	16,6	N/A	10 853	16,2	15,3	12,1	2,4	2,8	2,6	8,3	9,9	9,6
US Software Median						20,4	18,5	16,9	5,4	5,3	4,4	14,2	11,9	11,9



Chief Customer Officer Éric Duffaut has a solid track record in sales channel management at Oracle and SAP

His October 2014 appointment was a timely move given the company's flagging sales productivity

Software AG's problems had been pinpointed by management: complex deals, customer preference for SaaS, uneven sales execution.

2. The "Duffaut" effect in action

2.1. The response to low sales efficiency

2.1.1. Experience at SAP and Oracle put to work for Software AG

As announced in August 2014, Eric Duffaut became Software AG's Chief Customer Officer in October 2014, taking on wide-reaching responsibilities covering global sales forces, together with services and marketing. Mr Duffaut, 53, spent 15 years at Oracle (1990-2005) in various sales management positions then as Vice President in charge of indirect sales channels in the EMEA region. This was followed by eight years at SAP (2005-2013), where he was responsible for indirect sales channels and SMEs, first as Vice President for the EMEA region then as global Executive Vice President and finally as President of Global Ecosystem and Channels. At Oracle, he helped to set up an ecosystem of 650 software publishers and integrators building business solutions on top of Oracle databases. At SAP, he was instrumental in raising the percentage of sales from indirect channels (IT services firms, resellers, distributors, ISVs, etc.) to 33% the year he left the company (2013) up from barely 8% in 2004, when revenue depended heavily on direct sales to large accounts.

Eric Duffaut's appointment followed a spate of commercial execution problems that year, culminating in the 14th July 2014 profit warning, when management slashed its 2014 product sales growth guidance for the Business Process Excellence (BPE) division (now the Digital Business Platform division or DBP) to around 0% on a constant currency basis versus +12-18% barely six months previously¹. Despite an excellent sales pipeline (+30% at end-June 2014, for example), Software AG was struggling to sign deals over EUR1m, given its lengthy sales cycles. This resulted in a substantial reduction in the company's average deal size (from EUR500k to around EUR400k) and sales productivity. Mid-size deals (EUR100k to EUR1m), however, continued to show double-digit growth (around 30% for real-time analytics).

2.1.2. An uncompromising analysis

At that time, CEO Karl-Heinz Streibich had effectively identified the structural changes facing Software AG in its market, resulting from the opportunity afforded by digital transformation, against a backdrop of a sluggish economy and IT budget trade-offs:

1) Ever more complex deals, with senior executives (CEO, CFO, etc.) increasingly involved in decision-making processes. This complexity reflects the increasingly strategic nature of digital transformation for companies. Going well beyond the simple adoption of new technologies (cloud, big data, social networks, mobility, etc.), digitisation fundamentally changes a company's core business and there is no room for error.

¹ Software AG ended 2014 with BPE/DBP product sales down 6% same currency.



2) Widespread customer preference for a subscription or cloud-based model (SaaS, PaaS, IaaS²). This type of model represents only a fraction of Software AG's market (a few percent of sales at most), but the success of Salesforce, Workday and Amazon's models is increasingly prompting customers to question their models.

3) **Software AG's sales execution**. The aggressive sales staff recruitment strategy rolled out in 2012-2013 failed to meet expectations. Putting more feet on the street proved insufficient to boost sales, despite a few local successes. An orderly sales strategy was also called for, together with firm discipline and an overhaul of the company's sales organisation.

Upon his arrival, Eric Duffaut presented an uncompromising analysis of the company's sales approach to the financial community: 1) sales teams were not clearly segmented by client size and potential, 2) market coverage remained too opportunistic, with a single sales team targeting all deal sizes (large, medium and small) and all sectors (banks, telecoms, energy, etc.), with no clear prioritisation, 3) indirect sales failed to get off the ground, as business solutions co-developed with partners for given clients or local areas were not replicated globally.

As Fig. 6 shows, this inefficiency resulted in lacking sales productivity and fierce competition for deals, since the company's offers were based largely on product functionality and lacked differentiating factors.



Fig. 6: Sales productivity: licence revenues/S&M employee (2011-2014)

Source: Company Data; Bryan, Garnier & Co ests.

² "Software as a Service" (Salesforce, Workday, SAP SuccessFactors or Ariba, Oracle Cloud Applications, etc.), "Platform as a Service" (Salesforce Heroku, SAP HANA Cloud Platform, Oracle Cloud Platform, IBM Bluemix, Amazon EC2, Google App Engine, etc.), "Infrastructure as a Service" (Amazon Web Services, Microsoft Azure, Oracle Cloud, Google Compute Engine, IBM SoftLayer, SAP HANA Enterprise Cloud, HP Cloud, etc.).

Eric Duffaut immediately identified further weaknesses: no sales segmentation, overly opportunistic coverage and a solutions-based approach insufficiently developed to create an ecosystem of partners



Software AG's rivals also encountered similar problems: the complexity of middleware publishers' offers

2.2. Rising to the challenge of digital transformation

The problems encountered by Software AG were not company-specific: its US competitor Tibco, French rival Axway and market leader IBM also suffered to varying degrees. The complexity of middleware publishers' offers proved to be a roadblock on the path to digitisation. These publishers' offers range from several tens to several hundreds of modules. Digital transformation prompted them to adapt their components, develop new components or make acquisitions and integrate the products acquired into their existing offers, while continuing to maintain their existing products. This inflated R&D charges, given the number of modules to be maintained. Faced with these developments, Tibco chose to rid itself of pressure from investors by being delisted then acquired by a Private Equity fund (Vista Equity Partners) in December 2014.



Fig. 7: Sales performance: Software AG vs. Tibco, Axway and IBM

2.2.1. Digital transformation has revolutionised middleware

The middleware market has experienced a massive change over the last 10 years or so, shifting from a technical to a business-based approach. Today's market players need to meet a strategic necessity facing many major companies: digitising their core business. For middleware publishers like Software AG, this calls for a fundamental change in their offers and commercial approach.

At the outset, middleware was a technical field: a tool to facilitate communication between IT applications in heterogeneous environments without replacing the systems underpinning a company's core business. In the 1990s, middleware fell into EAI IT architectures (Enterprise Application Integration)³, providing "links" to integrate, say, a manufacturing management system

Over the last 10 years or so, middleware has shifted from a technical to a business-based approach driven by a strategic necessity: digital transformation in companies

Source: Company Data; Bryan, Garnier & Co ests.

³ EAI is a type of "linking" middleware architecture that facilitates communication between heterogeneous applications. It falls into the category of IT business integration and "urbanisation" systems. Its advantage lies in data flows being managed on a centralised basis, rather than via point-topoint connections between applications.



with an inventory management system or a bank loan management system with a CRM application. It also made it possible to write "composite" applications derived from various systems.

With the rise of e-commerce, in the 2000s the middleware concept extended to Business Process Management (BPM)⁴ and the management of service-oriented architectures (SOA)⁵. At the same time, EAI via "connectors" gave way to integration via Enterprise Service Bus (ESB)⁶. These developments prompted Software AG to launch its SOA-based Crossvision range in 2005 and to acquire WebMethods in 2007 and IDS Scheer in 2009.

Over the past five years, the middleware market has seen another major development, with cloud and mobile technologies, social networks and the internet of things. These changes have taken Software AG into new segments: mobile middleware, in-memory data management, Complex Event Processing (CEP)⁷, Application Programming Interfaces (API)⁸, Platform as a Service (PaaS), and Operational Intelligence (OI)⁹.

⁴ BPM involves automating a company's business processes – pre-analysed and modelled using standardised methods (UML, BPML, BPMN, etc.) - and their execution. It brought the emergence of analytical tools generating performance indicators for one or more processes in the form of dashboards to facilitate process improvements.

⁵ The "service" aspect of SOA relates to web-based services. SOAs allow IT applications to interact with each other using web-based services in the form of functionalities encapsulated in software components. The set of web-based services is managed by a "bus" (Enterprise Service Bus). The advantage of SOAs, thanks to their use of software components rather than lines of code, is to extract an application's "business" logic so that it can be adapted to new contexts (new process, new regulation, etc.) without having to be rewritten.

⁶ ESB is an architecture model that uses web-based services, message-oriented systems, intelligent routing and transformation. It forms the main pathway via which the software services are channelled. ESB is similar to EAI, but built on standards (XML, Java, web-based services). Unlike EAI, ESB provides a fully distributed integration environment thanks to the use of service containers that can be run anywhere in the network.

⁷ CEP is a technique that makes it possible to identify complex events, by deduction, analysis and correlation of basic events within an "event cloud". The main applications of CEP are securities trading, detection of credit card fraud and business activity monitoring.

⁸ An API is a "plug-in" to which an IT application can connect in order to retrieve a specific type of data (account balance, client/product reference, package location, etc.). An API server makes it possible to deploy internal services outside a company in a B2B context.

⁹ OI is a set of real-time dynamic analysis tools which run queries against streaming data feeds and event data to deliver real-time operational solutions. The tools enable companies to identify inefficiencies, opportunities and threats.



- These technologies led to the creation of new applications services derived from the company's business lines and IT department. The services are integrated into the company's other applications. They are connected externally via cloud platforms in PaaS mode over which the company has no control which are in turn integrated into the company's other applications via its application bus. Regarding the internet of things (IoT), the approach is even more complex: connected objects send data via sensors, which is then collected using a software gateway with a specific communication protocol¹⁰ and transmitted to a cloud for storage before being integrated into the IT system of the company which has access to the data. The data is therefore integrated from the object to the cloud then from the cloud to the company and its partners.
- Demands placed on the company's central IT system by cloud or mobile services (sensors, telephones, social networks, video, telemetry, kiosks, emails, internet, files) and the surge in the number of users, connections and data volumes trigger an explosion in data (ever faster, more diverse and higher in volume), which causes problems in terms of the system's resilience to the increased load. Therefore, data has to be managed via an in-memory platform that can handle terabytes of data with real time access.
- The "digital enterprise" concept goes far beyond automated processes. It implies changing the way in which a company interacts with customers (convergence of sales channels, Internet of Things, new models) and putting process control in customers' hands. Faced with these developments, companies have to review the way in which their business applications are designed, used and maintained, because conventional business applications do not meet the requirements of a digital business: they have to be made adaptable. This requires the implementation of hybrid integration tools (from the cloud to conventional IT architectures), agile process management, and integrated management of the IT portfolio.
- The need for new generation reporting tools. Companies base the bulk of their operational decisions on daily, weekly or monthly reports. Most applications have very limited analytical capacities and many operational decisions are based on incomplete, incorrect or obsolete data while many activities operate at below-optimum efficiency. In this context, managers need to be provided with real-time or near real-time responses (pro-active alerts, automated responses, and intelligent dashboards, continuous process analysis/design) to improve and accelerate operational decision-making.

2.2.2. From middleware to the Digital Business Platform

In 2010, Software AG's product portfolio was essentially geared to meeting specific technical and business needs: process modelling or automation (sales, purchasing, HR, finance, etc.), business line monitoring, composite applications, integration of a company's IT system with those of its partners, application bus, SOA governance and application modernisation. By combining the various components, Software AG was able to deliver solutions to customers' business or technical problems

In 2010, Software AG's product portfolio was geared to meeting specific technical and business needs

¹⁰ MQTT, which is particularly suitable for low bandwidths.



From 2011, Software AG adopted an approach based on a collaborative software platform (cutting the cost of changing a menu in a fast-food chain, correcting inventory data, improving the customer retention rate, increasing supply chain efficiency and so on).

In 2011, after integrating WebMethods and IDS Scheer, Software AG adopted a new approach based on a collaborative platform ("agility layer") to improve the management of processes, integration, applications and data. In 2013, the agility layer became a digitisation layer and the platform became an Enterprise Digital Platform, bringing together all the products that could be used to design, develop, deploy, run and operate end-to-end process applications.



Fig. 8: The Digital Business Platform (DBP) today

Source: Company Data.

In 2014-15, the publisher consolidated its product offering in the Digital Business Platform, a technology base for the management of companies' digital transformation

The Digital Business Platform makes it possible to map the customer journey, manage compliance, predictive management and real-time inventory visibility, implement an omnichannel approach, increase visibility on the logistic chain and use location-based marketing In 2014-15, Software AG consolidated its product range in the Digital Business Platform, a technology base to manage the digitisation of companies' processes and IT systems and build applications that can be adapted as the business changes. The platform has three layers: at the bottom, in-memory data management, in the middle, process automation and integration, collaborative process analysis and IT portfolio and architecture management and on top, the analytical and decision-making layer. The acquisitions made in 2011-13 are in line with this new direction: JackBe strengthened the offering of real-time dashboards, Apama reinforced CEP (integrated with WebMethods), Alfabet enhanced IT portfolio management (integrated with Aris), LongJump (application development) and My-Channels (universal messaging) enhanced the integration/SOA component, and Terracotta provided in-memory data management.

The specific Digital Business Platform applications for customers are:

- Customer journey mapping. This application draws up a detailed map showing the nature of customers' journeys, designs and manages customer journeys to ensure a more fluid omnichannel experience, provides insight into where existing processes and channels support these journeys, and identifies process improvements. It also establishes a comprehensive roadmap for digital transformation, describing how omni-channel customer journeys are effectively supported at present, and improving the customer experience via all sales channels and points of contact.
- **Compliance management**. This is a process-based risk and compliance management approach which facilitates the design, implementation and documentation of controls, tests and risk



assessments, the analysis and assessment of operational compliance and risks, reporting to management using real-time dashboards, and the automatic escalation of problems for solution. It also seeks to improve transparency and decision-making, reduce audit and compliance costs and accelerate the application of new laws and regulations.

- Predictive maintenance. The state of all equipment and appliances is monitored in order to predict failures using data provided by sensors. Historical maintenance trends and real-time data from sensors are used to predict when a plant's or location's assets require maintenance operations and real-time visibility is provided on the activities and performance of technical staff. The application also aims to increase the operating margin per technical employee and reduce maintenance costs, improve the planning of maintenance and repair visits using preventive measures and boost sales by adopting more demanding service-level agreements.
- Real-time inventory visibility. The application continually ensures comprehensive real-time visibility on all supply sources, using dashboards which can also be viewed by the online sales platforms. It facilitates stock movements between sales channels to maximise sales. In addition, it seeks to provide an understanding of current inventory for each product and each storage point, to increase sales through the intelligent redeployment of stock between sales channels, and to facilitate orders, collections and deliveries via all channels.
- Implementation of the omni-channel approach. This process involves centralising the management of customers' purchasing experiences, processing orders via several sales channels and systems, and streamlining interactions between systems and business processes in relation to the omni-channel approach. It aims to ensure that the customer's desire to buy is satisfied regardless of the sales channel used, to optimise supply stocks for each order, collect orders at the delivery point chosen by the client, and preserve distributors' brand images by enabling them to keep their promises to consumers.
- Improvement of visibility on the logistics chain. This application provides visibility on the supply chain and the performance of each supplier and makes it possible to share data with partners via a common electronic platform supporting a wide range of data formats and communication protocols, offering real-time analysis of the supply chain performance. This platform must also generate alerts when performance thresholds are breached, ensure that each partner in a network can connect at the lowest possible cost and set rules to prioritise processing depending on the problem, customer and supplier concerned.
- Location-based marketing. This platform facilitates real-time personalised targeting, depending on the customer's exact geo-location. It analyses the customer's location in real time, segmenting customers on the basis of contextual data and historical and instant profiles, and sending offers, promotions and product/service information tailored to each segment. It also improves response times using real-time geo-localisation analysis, enhances interaction with customers, boosts brand loyalty and raises promotion conversion rates to up to ten times their original level.



Software AG has a cloud/SaaS offering focused on process modelling, application development and management of the cloud portfolio and API

The new sales approach introduced at the start of 2015 is to be rolled out in two stages up to 2018: optimisation of existing teams, followed by expansion and transformation

It covers marketing, sales,

It covers marketing, sales, maintenance and services

The cloud: Software AG entered this field in 2011 with tools to meet basic needs in terms of process modelling, publishing and dashboards. The cloud offering is now part of Software AG's Cloud platform, a unified PaaS facilitating cloud-cloud and cloud-on-premise integration (WebMethods Integration Cloud), application development (WebMethods Agile Apps Cloud), process modelling/publishing (ARIS Cloud), cloud portfolio management (Alfabet Enterprise Cloud), and API management (WebMethods API-Portal).

2.3. How to increase sales efficiency

The new sales approach put in place by Eric Duffaut in January 2015 is to be rolled out in two stages over the 2015-2018 period:

- Stage one: optimisation of existing teams to bring performances up to standard. This should be achieved via a new organisational structure with teams segmented according to customer size and by implementing standard processes with the aim of boosting individual performances.
- Stage two: transformation by extending market coverage and developing the ecosystem of partners in order to leverage sales.

This new approach affects marketing, sales, maintenance and services:

- Marketing: generate demand more efficiently. To accelerate growth in the pipeline and improve overall efficiency, Software AG has merged all its marketing teams;
- Sales: significantly improve sales productivity, sell "use cases" rather than products and extend the partner ecosystem. A new organisational structure based on customer type has been introduced. Selling processes have been standardised based on best practices. In the short term, sales staff performances are to be monitored more effectively to bring their profiles in line with their sales opportunities. Rather than selling a collection of products from a catalogue using a technical approach, the sales approach is to focus on cross-cutting solutions and multiproduct offers tailored to customers' specific requirements. The sales team has been reorganised to ensure that sales are clearly segmented by client size, solution type and channel and to prevent sales efforts from being spread too thin. Finally, Software AG is working on developing its partner network so as to increase its indirect sales.

Fig. 9: New commercial structure based on customer type

Type of sale	Type of sales person	Organisation
Strategic accounts	Global account executive	1 sales person per global account
Mid-sized accounts	Account executive	1 sales person for every 10 accounts
Local or small accounts	Territory account executive	1 sales person for every 20-30 accounts
Indirect sales	Partner account manager	1 sales person for one or more partners
Specialist products	Specialist sales	Adabas, Natural, Aris, Alfabet, Apama
Sales to supplement the installed base	Inside sales	Telesales, app store, etc.



- Maintenance: maximise sales. A dedicated maintenance business line has been set up. New DBP customers are now being offered a rate of 22% of the initial price of the licence acquired (rather than 20%) with the Premier offer. Based on an average licence deal of EUR500k, we estimate that the switch from "Standard" to "Premier" contracts, assuming 20 new customers are signed up each, adjusted for a 5% churn rate, would generate additional maintenance sales of EUR0.8m per year, i.e. 0.2ppt of additional growth in DBP sales (0.3ppt in additional growth for DBP maintenance sales) and 0.1ppt of additional growth for full-year group sales. If this pace of growth were sustained, we estimate that it would take Software AG five years to gain one percentage point of growth in the DBP division and three years to achieve the same percentage increase in DBP maintenance sales.
- Consulting: optimise deployment to provide a lever for value creation. In order to increase the Consulting business line margin (11.3% in 2015, versus 7.7% in 2014), the business line is now focusing on pre-sales (processes geared to establishing "business cases"), referencing the solution deployment customer references, co-developing solutions with customers (industry-specific), and supporting partners rather than simply providing products for installation. The partner's role is to expand market coverage, increase service capacity (integration, IT outsourcing, cloud hosting, BPO) and provide business or technological expertise.



Sales and marketing headcount cut by 34% since Q2 2013 and 16% since end-2014

3. Strategy paying off

3.1. Results beginning to convince

From the outset, Eric Duffaut indicated that the new sales approach would not have an immediate effect and that no quarterly performance should be extrapolated to the full year. The 37% lfl plunge in licence sales in the DBP division in Q1 2016 indeed showed the time necessary for a turnaround. In addition, although these licence sales rose in Q2 2015, Q4 2015 and Q1 2016 (respectively +3%, +17% and 7% lfl), they remain penalised by the reallocation of roles, the focus on individual productivity, the departure of low performers and a freeze on recruitment of sales staff. The initial aim was to do better with fewer resources and this target has been reached. As shown in Fig.10, sales and marketing staff have been cut by 34% since the peak level of Q3 2013 and 16% since the end of 2014. The second stage concerning H2 2016 and beyond, is to consist of increasing sales coverage and resources.

Fig. 10: Change in sales and marketing headcount (2010-2016)



Source: Company Data; Bryan, Garnier & Co ests.

Very encouraging indicators in terms of number of contracts over EUR1m, the average size of contracts, sales productivity, new cloud orders etc. For DBP, the strategy now seems to be paying off as shown by a number of figures indicated in Fig. 11. At end-2015, coverage of the pipeline had increased 18%, while the amount of contracts over EUR1m was up 53% with the average size of contracts up 14%. Sales productivity leapt 30% in Q1 2016, while DBP sales headcount dropped 11% in 2015. Over the medium term, other indicators are encouraging: licence sales based on utilisation cases were up 31%, the number of active partners up 60%, the share of indirect sales in overall sales has increased by three points, cloud orders had risen in triple digits and more than 60 customers had subscribed to a "Premier" maintenance contract.



"Optimise to perform"	
Optimising demand generation process	Coverage of pipeline: +18% YoY
	Marketing contribution: 32%
Clearly recognisable brand	New sky blue Software AG logo
Segmentation of sales force	Share of DBP licences in strategic accounts: +12ppt (licence sales +43%)
	DBP deals > EUR1m: +53%. Average deal size: +14% YoY.
Simplification of processes	Optimisation of headcount: DBP sales headcount -11% YoY.
	Centralised teams and processes. Standardised systems.
Maximisation of maintenance sales	Maintenance sales +3% (+7% on DBP)
	Launch of "Premier Maintenance" offer, 40 customers (60+ end-March 2016)
"Transform to outperform"	
Sales approach based on utilisation or	DBP licence sales based on "use cases": +31% YoY.
industrial cases	46 "use cases", more than 100 assets in the Digital Marketplace.
Expansion in ecosystem	No of active partners: +60% YoY (+74 to 333)
	Share of indirect sales: +3ppt YoY
	More than 600 new external consultants trained
Services: value creation vehicle	More than 70 projects where value is higher than that of the initial case
	40 new references engaged
On-premise and cloud player	New cloud bookings in 2015: +131% YoY (+155% in Q1 2016)
	2015 cloud sales: +75% YoY
A single efficient team	DBP sales productivity: +19% YoY (+30% in Q1 2016)
	(DBP licence sales/DBP headcount in licences)

Fig. 11: Achievements of new sales strategy at end-2015

Source: Company Data.

A return to sharp growth in DBP licences. As indicated in Fig. 12, after four consecutive quarters of double-digit decline, licence sales in the DBP division restored modest growth in Q2 2015 at 3% lfl. Q3 2015 sales dropped 6% lfl, but Q4 2015 sales came in significantly higher (+17% lfl). In Q3 2015, the number of DBP contracts worth more than EUR1m had risen 35% (+10% relative to Q1 and Q2 2015) and 53% in Q4 2015 (+37% over the full-year 2015). The average size of DBP business rose 14% over 2015 (+36% over Q4 2015).

Fig. 12: Quarterly DBP licence sales (2011-2016) (%)



Source: Company Data.



A huge increase in sales productivity. Fig. 13 shows the increase in sales productivity since Q2 2015. According to Software AG, productivity for the DBP division climbed 12% lfl in Q2 2015, 10% lfl in Q3 2015, 40% lfl in Q4 2015 (+19% lfl in 2015), and 30% lfl in Q1 2016. Sales coverage increased by 8% in Q2 2015, 17% in Q3 and 18% in Q4 2015 relative to end-2014.



Fig. 13: Sales productivity: licence sales/S&M headcount (2011-2015)

Development of partnership ecosystem. The number of partners rose by 5% in Q1 2015, 15% in Q2 2015, 23% in Q3 2015 (514 external consultants YTD at the end of the quarter) and 60% in Q4 2015 (more than 600 external consultants at end-2015), and now stands at 333. In principle, the major integrators (Capgemini, Wipro, TCS, etc.) market the solution under their own name, whereas small integrators highlight Software AG's credibility in digital. However, given that sales cycles are double those of direct sales (a year to convince a partner, plus a year for a partner to sell the solution to clients), this ecosystem of partners does not yet produce significantly positive effects on growth, although the rise in indirect sales from 10% of total sales to 25% over the medium term would clearly be beneficial in our view.

Fig. 14: Examples of partner solutions including Software AG's offer

Partner	Offer name	Offer description
Capgemini	Connected Service Experience	Software AG's big-data streaming and hybrid integration technology +
		Salesforce Service Cloud + Capgemini's digital transformation expertise.
Wipro	Wipro Looking Glass	Enabling discrete manufacturers to improve their services revenue and
		customer satisfaction and reduce their cost of service.
тсѕ	Global Operations Solutions	Connecting valuable applications to provide real time insights, facilitate
		seamless collaboration and quickly identify and act on exceptions.
Infosys	Smart Work Bench	Integrated planning and optimisation for outsourced manufacturing.
PwC	Continuous Assurance	Monitor business activity continuously and assure stakeholders of
		compliance at any moment through oversight and integrated reporting.
Cognizant	Intraday Liquidity Monitoring	Offers multinational banks global, entity and currency-level insights into
		payments and settlements as well as intraday liquidity in real time.
Sony	Media Backbone Conductor	Audio/video content management and workflow

Source: Company Data; Bryan, Garnier & Co ests.



The recovery in maintenance revenues, thanks to the A&N division. The Premier Maintenance support for DBP is now billed 10% higher than the Standard support (22% of initial licence price vs. 20%). Concerning A&N, thanks to the increase in the support's added value (24/7, specific monitoring etc.), the renewal rate for maintenance contracts rose from 93% in Q1 2014 to 97.3% in Q1 2015. The slowdown in maintenance sales growth in Q1 2016 was due to the switch in the recognition of maintenance revenues for some Brazilian clients, both on A&N and DBP, to a cash collection mode given the deterioration in the situation in the country, a situation that is supposed to inverse once Software AG has cashed in payments. Without this cash collection mode, A&N maintenance sales would have been virtually stable in Q1 2016 instead of falling by 4%. In addition, more than 60 customers had opted for Premier support at end-March 2016, pointing to a pace of around 20 new customers a quarter.

Fig. 15: Lfl quarterly growth in maintenance sales (2011-2016)



Source: Company Data; Bryan, Garnier & Co ests.

Development of cloud sales. New bookings in cloud services leapt 212% in Q3 2015 (+255% YTD), 56% in Q4 2015 (+131% over 2015) and 155% in Q1 2016. However, these sales only account for a very small percentage of Software AG's sales.

Software AG nevertheless remains subject to the economic backdrop and sales cycles that are difficult to predict precisely for large contracts.

- In Q3 2015, the DBP division produced licence sales down 6% lfl, well below the double-digit growth guidance management had mentioned at the Q2 2015 earnings publication. This stemmed from EUR7m in postponed licences, in which case Software AG would have reported 10% lfl growth in licence sales in the division: EUR4m for a deal in the US that was ultimately signed in Q4 2015, EUR2m due to the environment in Brazil and EUR1m due to the chaotic backdrop in Asia-Pacific and especially China and its main commercial partners in the region. In Q4 2015, adjusted for the EUR4m deal that was delayed in the US, licence sales would have grown 10% lfl instead of 17% lfl. In all, excluding the negative effects of the economic backdrop in Brazil and Asia, H2 2015 DBP licence sales would have stood at 11% lfl instead of the 8% lfl figure actually reported.
- In Q1 2016, a government customer in South Africa currently developing electronic services delayed a EUR3m investment in DBP licences and reallocated its budget to EUR3m in A&N

The improvement is not linear however and remains subject to sales cycles in large contracts and the economic backdrop



Margin in the DBP and A&N divisions has clearly picked up since 2013 thanks to the improvement in sales productivity and a rising share of offshore R&D licences in order to not lose the budget. This DBP deal is still on the table and could be signed later in the year according to Software AG. That said, if the deal had been signed in Q1, DBP licence sales would have grown by 17% lfl during the quarter rather than the 7% reported.

Software AG's sales and marketing headcount has been cut by 34% since its peak level of Q3 2013, with the plunge in licence sales in A&N and a mixed performance in DBP, as well as a creaming off of sales and marketing staff recruited in 2012 and 2013, also with the impact of the sale of IDS Sheer Consulting in August 2013 and April 2014. Over the same period, R&D headcount was only reduced by 5% but a significant share of the work is now carried out offshore (52% now primarily in India, Israel and Bulgaria). Whereas R&D costs at Adabas & Natural fell 3% lfl in 2013, 4% in 2014 and 19% in 2015, management considers that it can still trim them by 25-30% without reducing headcount. Similarly, R&D costs at DBP fell 7% lfl in 2015, compared with increases of 2% in 2014 and 12% in 2013.



Fig. 16: DBP and A&N: divisional margin (% of sales) (2012-2016)

The services margin has also improved considerably thanks to the withdrawal from low value added businesses and the accent placed on higher valued added offers and accompanying customers in the pre-sale phase In Consulting, the business line margin has improved massively since 2012 thanks to the withdrawal from low value added and low profitability businesses, especially IDS Scheer Consulting, sold off in parts between June 2011 and May 2014. Software AG's services offer is now focused on its own products and accompanying customers in the pre-sale phase, with a clear increase in the utilisation rate as well. The Consulting margin has risen from -0.7% in 2012 to 3.4% in 2013, 7.7% in 2014 and 11.3% in 2015. Over the same period, gross margin widened from 8.9% in 2012 to 15.5% in 2013, 18.4% in 2014 and 20.8% in 2015. The decline in gross margin and business line margin in Q1 2016 was not representative given that these margins included EUR2m in restructuring costs. Adjusted for this figure, we estimate that the Consulting margin would have stood at around 8%, instead of the 4% reported in Q1 2016.

Source: Company Data.







Source: Company Data.

3.2. Heading for a margin of 32-35%

3.2.1. Growth set to take off

We believe that Software AG should be capable of generating positive organic growth on a sustainable basis, and no longer over one quarter, given the visible improvement in sales productivity and the change in the sales mix between the DBP, A&N and Consulting divisions, and on condition that the economic backdrop enables an acceleration in sales staff recruitment. In the following pages, we show that the group should be capable of turning the slight organic sales decline seen in 2015 (est. -1.7%) into organic growth close to 6% by 2020. Better still, if we project the sales model out to 2025, we calculate that organic growth could climb to 7%.



Fig. 18: Theoretical projection of sales model (2015-2025e) (EURm)

On the basis of the theoretical projection set out in Fig. 18 above, we estimate that Software AG's sales mix could change as follows:

We estimate that organic growth of close to 6% is possible out to 2020

Source: Company Data; Bryan, Garnier & Co ests.



- In 2015 DBP 49%, A&N 28%, Consulting 22%.
- In 2020 DBP 63%, A&N 16%, Consulting 21%.
- In 2025 DBP 72%, A&N 9%, Consulting 20%.

Our theoretical sales model stems from assumptions made by Software AG on the development between now and 2025 of maintenance sales, available in recent investor presentations. These take two base scenarios into account concerning average annual growth in DBP licence sales: one with growth of 10% (best-case scenario) and the other with zero growth (worst-case). The other assumptions made by Software AG are the following:

1) In DBP, a maintenance renewal rate of between 93% (2015-2018) and 95% (2022-2025), and an average maintenance price of around 18% of the initial licence price (new contracts stand at 22% in principle).



Fig. 19: Illustration of changes in DBP maintenance sales (2015-2025e)

Source: Company Data; Bryan, Garnier & Co ests.



Fig. 20: Illustration of change in group maintenance sales (2015-2025e)

Source: Company Data; Bryan, Garnier & Co ests.



2) In A&N, a stable churn rate of 4% over time. As such, the model suggests that maintenance sales in DBP could come close to EUR300m by 2018 (2019 if DBP licence sales are stable), EUR350m in 2020, and slightly less than EUR55m by 2025 (less than EUR400m by this date if DBP licence sales are stable) and group maintenance sales would approach EUR450m in 2019 (around EUR430m if DBP licence sales are stable) and around EUR650m by 2025 (almost EUR500m if DBP licence sales are stable).

These factors prompt us to make the following estimates:

- DBP: organic growth rising from 2% in 2015 to 8% in 2016, followed by 9% in 2017 and 10% in 2018-20 and beyond until 2025, taking into account the success of the sales approach. This is based on double-digit sales growth in licences over 2015-20 (+12-13%) followed by +10% a year beyond (2019-2025), and average annual growth of 8% in maintenance over 2015-25.
- A&N: an organic decline from 5% in 2015 to -4% in 2016 and -6-7% in 2018-20, with maintenance sales dropping slightly in organic terms and a decline in licence sales (-9% in 2015, -4% in 2016, -15% in 2017-18, -20% in 2019-20, -15% thereafter out to 2025). Note interestingly that Software AG has pledged to ensure maintenance for Adabas & Natural until 2050 at least.
- **Consulting**: modest growth in sales given the focus placed on partnerships (2-4% a year, with the possibility in our view of rising to 5% a year over the medium-term once cruising speed has been reached).

3.2.2. The ongoing take-off in margins

In January 2015, management announced its target for non-IFRS EBIT margin of 32-35% by 2020. Whereas for 2015, it was initially forecasting a margin of 27.5-28.5% lfl, followed by 28-29% in October, the group finally delivered 29.7%, 1.8ppt ahead of the 2014 level. This difference of 1.2-2.2ppt relative to initial estimates was driven by:

- A more beneficial mix effect than initially expected, with A&N sales (ex-ETS) higher than forecast (-5% lfl compared with initial guidance for -14%/-8% lfl, with an excellent Q3 2015), and DBP sales (ex-BPE) lower than forecast (+2% lfl compared with initial guidance for +6-12% lfl, with a poor Q1 2015 performance). However, A&N generated a margin of 70% compared with 29% for DBP. Within the divisions, the business line margins for DBP, A&N and Consulting widened by 2.5ppt, 1.8ppt and 3.5ppt respectively.
- Excellent cost control. On sales down 4% lfl, R&D, sales & marketing and general & administrative costs were down 8%, 4% and 9% respectively. Meanwhile, gross margin widened by 3.2ppt in 2015. Note in these figures that R&D and sales & marketing expenses dropped by 7% and 2% lfl in the DBP division thanks to measures to increase sales productivity, while R&D costs dropped 19% lfl in the A&N division thanks to offshore.

2015 non-IFRS EBIT margin was 1.2-2.2ppt higher than initial forecasts thanks to a beneficial mix effect and excellent cost control



In view of a non-IFRS EBIT margin up 3.9ppt in Q1 2016, we consider guidance for a 0.3-1.3 widening over 2016 as cautious since it implies a stable margin over the three remaining quarters of the year, for the midrange For 2016, management is expecting non-IFRS EBIT margin of 30-31%, i.e. an increase of 0.3-1.3ppt. This growth is set to stem from three areas of improvement: 1) sales productivity, 2) growth in maintenance sales, 3) services profitability.

- The Q1 2016 non-IFRS margin rose 3.9ppt to 28.7%, for the same reasons as in 2015, namely the mix effect and cost control. The DBP division saw its margin widen 7.7ppt to 25.2%, admittedly thanks to advantageous comparison with the year-earlier period, but also since sales & marketing expenses plunged 11% lfl in line with the decline in sales headcount. The A&N division margin widened by 2ppt to 70.4% despite the 23% lfl increase in sales & marketing spend, thanks to a 5% lfl decline in the cost of sales given the 79% increase in lfl licence sales. In contrast, the margin in consulting dropped 4ppt to 4%, although this was due to EUR2m in restructuring costs, otherwise it would have been stable.
- To reach the mid-range of the non-IFRS margin target of 30-31% for 2016, Software AG would have to generate a stable margin over the remaining three quarters of the year. We estimate that to reach the top end of the range (31%), margins in the next three quarters would have to come in at 31.7%, or widen by 0.7ppt relative to the 31% reported over the last three quarters of 2015. The low-end of the range in our view implies a margin for the next three quarters of 30.4% (-0.6ppt). Our 2016 scenario for non-IFRS margin at 31.1% (+1.4ppt) implies a 0.8ppt increase over the last three quarters of the year, as shown in Fig. 21. The 2.1ppt increase that we expect for Q4 stems from EUR5.4m in exchange rate losses in Q4 2015: adjusted for other income/expenses, the margin would narrow by 0.3 points.



Fig. 21: Growth in non-IFRS EBIT margin on an annual basis

Source: Company Data; Bryan, Garnier & Co ests.

Fig. 22 sets out our sales and non-IFRS margin estimates. We expect a steady rise in non-IFRS EBIT margin to 31.7% in 2017 and 32.4% in 2018, 33.5% in 2019 and 34.8% in 2020, namely the top end of the 32-35% range targeted by management.



Software AG (EURm)	2015	2016e	2017e	2018e	2019e	2020e
Revenues	873.1	887.7	917.6	959.8	1,008.8	1,066.9
o/w Licences	271.9	281.9	292.1	311.5	332.6	357.5
o/w Maintenance	406.9	412.1	428.0	445.3	465.6	489.4
o/w Services	193.4	192.9	196.9	202.3	209.9	219.3
o/w Other	0.8	0.7	0.7	0.7	0.7	0.7
Gross profit	695.9	707.7	729.9	759.8	802.4	853.3
Gross margin (%)	79.7%	79.7%	79.5%	79.2%	79.5%	80.0%
Sales & marketing costs	(253.5)	(259.8)	(265.5)	(273.7)	(285.7)	(299.9)
% of revenues	29.0%	29.3%	28.9%	28.5%	28.3%	28.1%
R&D costs	(106.4)	(107.0)	(106.7)	(107.5)	(109.0)	(110.9)
% of revenues	12.2%	12.1%	11.6%	11.2%	10.8%	10.4%
G&A costs	(72.6)	(68.6)	(70.7)	(71.5)	(72.6)	(73.8)
% of revenues	8.3%	7.7%	7.7%	7.4%	7.2%	6.9%
Other gains and losses	(4.3)	4.4	4.0	4.0	3.0	3.0
Non-IFRS operating profit	259.1	276.3	291.1	311.1	338.1	371.8
Non-IFRS operating margin (%)	29.7%	31.1%	31.7%	32.4%	33.5%	34.8%

Fig. 22: Our margin estimates (2015-2020e)

Source: Company Data; Bryan, Garnier & Co ests.

We expect a non-IFRS EBIT margin of 31.1% in 2016 thanks to a better than expected Q1 2016 in A&N and good cost control and sales productivity The DBP division could see its margin widen by 4.9ppt to 33.9% over 2016, and then gain 3ppt in 2017 (36.9%), 3.2ppt in 2018 (40.1%), 2.8ppt in 2019 (42.9%) and 3.5ppt in 2020 (45.4%) with the acceleration in organic growth in licence sales and the increase in sales productivity, and an acceleration in sales stemming from the partnership ecosystem towards the end of the period. We are forecasting stable Ifl sales & marketing costs in 2016 thanks to measures to improve sales productivity (due to the decline in headcount over 2015-2016), followed by growth of around 5% a year in 2017 and 2018, 6-6.5% a year in 2019 and 2020 if sales headcount picks up again. We estimate R&D costs should grow by 2-3% a year, thanks to further use of offshore.

DBP Product (EURm)	2015	2016e	2017e	2018e	2019e	
Revenues	431.5	460.7	502.2	552.2	608.3	
o/w Licences	183.5	199.8	223.1	252.8	285.7	
o/w Maintenance	248.0	260.9	279.1	299.4	322.6	

428.6

93.0%

(185.8)

40.3%

(86.5)

18.8%

156.2

33.9%

468.4

93.3%

(195.1)

38.8%

(88.2)

17.6%

185.2

36.9%

517.1

93.6%

(205.8)

37.3%

(89.9)

16.3%

221.4

40.1%

571.5

93.9%

(218.2)

35.9%

(92.2)

15.2%

261.2

42.9%

Fig. 23: Our margin estimates for DBP products (2015-2020e)

403.6

93.5%

(192.7)

44.7%

(85.7)

19.9%

125.2

29.0%

Source: Company Data; Bryan, Garnier & Co ests.

Gross profit Gross margin (%)

% of revenues

% of revenues

Business line result

Business line margin (%)

R&D costs

Sales & marketing costs

Out to 2020, we estimate DBP margin should reach 45% while A&N margin should remain close to 70%... In the A&N division, we estimate the margin should remain close to 70% thanks to the rising share of maintenance in sales (79% in 2020 vs. 64% in 2015). For 2016, we expect a 0.6ppt decline to 69.4%, bearing in mind that the 2ppt rise in Q1 2016 could be considered as exceptional given the no less exceptional increase in licence sales. We are forecasting margins of 69.7% (+0.3ppt) for 2017, 69.4% (-0.3ppt) for 2018, 69% (-0.4ppt) for 2019, and 68.7% (-0.3ppt) for 2020. Our growth estimate

2020e 669.3 320.0 349.3

631.5

94.3%

(232.4)

34.7%

(94.9)

14.2%

304.1

45.4%



for 2017 is based on an acceleration in offshore R&D (costs down 10% compared with +1% lfl in 2016) and a decline in sales & marketing costs (est. -8% lfl compared with -1% lfl for 2016) after the exceptional sales commissions effect in Q1 2016.

Fig. 24:	Our margin estimates	s for A&N products	(2015-2020e)
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A&N Product (EURm)	2015	2016e	2017e	2018e	2019e	2020e
Revenues	248.0	233.9	218.6	205.2	190.6	178.3
o/w Licences	88.4	82.1	69.0	58.6	46.9	37.5
o/w Maintenance	158.9	151.1	148.9	145.9	143.0	140.1
o/w Services & Other	0.6	0.7	0.7	0.7	0.7	0.7
Gross profit	233.8	221.2	206.0	191.5	177.8	166.4
Gross margin (%)	94.3%	94.5%	94.3%	93.3%	93.3%	93.3%
Sales & marketing costs	(39.5)	(38.3)	(35.2)	(31.5)	(29.5)	(27.9)
% of revenues	15.9%	16.4%	16.1%	15.3%	15.5%	15.6%
R&D costs	(20.7)	(20.5)	(18.5)	(17.6)	(16.8)	(16.0)
% of revenues	8.4%	8.8%	8.5%	8.6%	8.8%	9.0%
Business line result	173.6	162.4	152.3	142.4	131.5	122.5
Business line margin (%)	70.0%	69.4%	69.7%	69.4%	69.0%	68.7%

Source: Company Data; Bryan, Garnier & Co ests.

...and around 14% for consulting

In consulting, we estimate that further margin improvement should be driven by the ongoing increase in value added services. We estimate that by 2020, the business line margin in consulting should reach 14.2% for gross margin of 22.8%.

Fig. 25: Margin estimates for consulting (2015-2020e)

Consulting (EURm)	2015	2016e	2017e	2018e	2019e	2020e
Revenues	193.6	193.0	196.9	202.3	209.9	219.3
Gross profit	40.3	36.7	41.8	44.1	46.8	50.0
Gross margin (%)	20.8%	19.0%	21.2%	21.8%	22.3%	22.8%
Sales & marketing costs	(18.4)	(17.3)	(16.8)	(17.2)	(18.0)	(18.8)
% of revenues	9.5%	9.0%	8.5%	8.5%	8.6%	8.6%
Business line result	21.8	19.4	25.0	26.9	28.8	31.2
Business line margin (%)	11.3%	10.0%	12.7%	13.3%	13.7%	14.2%



4. Accounts

4.1. Income statement

EURm (FYE 31/12)	2012	2013	2014	2015	2016e	2017e	2018e	CAGR 15-18e
Net revenue	1 047,3	972,7	857,8	873,1	887,7	917,6	959,8	3,2%
% change	-4,6%	-7,1%	-11,8%	1,8%	1,7%	3,4%	4,6%	
Gross Margin	707,6	720,2	663,4	695,9	707,3	729,9	759,8	
% of revenue	67,6%	74,0%	77,3%	79,7%	79,7%	79,5%	79,2%	
Research & Development	(101,1)	(107,9)	(109,1)	(106,4)	(107,0)	(106,7)	(107,5)	
% of revenue	9,7%	11,1%	12,7%	12,2%	12,1%	11,6%	11,2%	
Sales & Marketing	(243,9)	(287,5)	(253,9)	(253,5)	(259,8)	(265,5)	(273,7)	
% of revenue	23,3%	29,6%	29,6%	29,0%	29,3%	28,9%	28,5%	
General & Administrative	(67,9)	(73,9)	(62,3)	(72,6)	(68,6)	(70,7)	(71,5)	
% of revenue	6,5%	7,6%	7,3%	8,3%	7,7%	7,7%	7,4%	
Amortisation	(12,9)	(12,9)	(11,6)	(14,4)	(14,5)	(14,8)	(14,9)	
Net operating provisions	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Adjusted EBIT	294,7	250,9	238,1	263,4	271,9	287,1	307,1	5,2%
% of revenue	28,1%	25,8%	27,8%	30,2%	30,6%	31,3%	32,0%	
Net restructuring charge	(3,0)	(12,6)	(9,1)	(15,3)	(8,0)	(6,0)	(4,0)	
Capital gains or losses	(0,6)	(1,7)	(2,7)	0,0	0,0	0,0	0,0	
Goodwill amortisation	(38,1)	(40,4)	(39,2)	(35,0)	(27,5)	(22,4)	(22,4)	
Stock-based compensation	(7,9)	0,7	(11,7)	3,1	(7,5)	(7,5)	(7,5)	
Other exceptional gains (losses)	3,2	8,6	0,7	(6,8)	4,4	4,0	4,0	
EBIT	248,3	205,5	176,0	209,4	233,3	255,2	277,2	9,8%
% of revenue	23,7%	21,1%	20,5%	24,0%	26,3%	27,8%	28,9%	
Cost of net debt	(8,8)	(8,4)	(9,2)	(2,9)	(5,0)	(2,2)	(0,3)	
Other financial gains (losses)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Profit before tax	239,5	197,1	166,8	206,5	228,3	253,0	276,9	10,3%
Income taxes	(74,8)	(63,1)	(56,3)	(66,9)	(74,2)	(82,2)	(90,0)	
Tax rate	31,2%	32,0%	33,7%	32,4%	32,5%	32,5%	32,5%	
Consolidated net profit	164,7	134,0	110,6	139,6	154,1	170,8	186,9	10,2%
% of revenue	15,7%	13,8%	12,9%	16,0%	17,4%	18,6%	19,5%	
Profit from associates	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Minority interests	0,2	0,2	0,2	0,2	0,2	0,2	0,3	
Attributable net profit	164,5	133,8	110,4	139,4	154,0	170,6	186,7	10,2%
Average nb of shares - basic (m)	86,9	86,9	86,9	79,0	79,0	79,0	79,0	
Average nb of shares - diluted (m)	88,8	88,7	88,7	80,7	80,7	80,7	80,7	
Basic EPS (EUR)	1,89	1,54	1,27	1,77	1,95	2,16	2,36	10,2%
% change	-7,1%	-18,7%	-17,5%	39,1%	10,4%	10,8%	9,4%	
Adjusted EPS (EUR)	2,36	2,01	1,87	2,33	2,35	2,48	2,66	4,6%
% change	-2,5%	-14,6%	-7,2%	24,9%	0,9%	5,5%	7,4%	



4.2. Balance sheet

EURm (FYE 31/12)	2012	2013	2014	2015	2016e	2017e	2018e
Goodwill	756,4	829,2	857,3	900,0	887,5	880,1	872,7
Intangible fixed assets	214,4	211,8	180,2	157,4	145,4	133,4	121,4
Tangible fixed assets	64,0	64,5	61,2	56,2	53,6	50,8	47,9
Fixed assets and goodwill	1 034,8	1 105,4	1 098,6	1 113,6	1 086,5	1 064,3	1 042,0
Investments	10,3	4,5	7,1	24,5	39,5	39,5	39,5
Deferred tax assets	16,7	16,3	10,9	11,0	11,0	11,0	11,0
Inventories	0,1	0,1	0,1	0,0	0,0	0,0	0,0
Accounts receivables	341,3	323,2	298,6	307,7	309,7	313,7	318,3
Other short term assets	53,1	40,9	59,8	45,5	45,8	46,4	47,6
Current assets	394,4	364,2	358,5	353,2	355,5	360,1	365,9
Cash & cash equivalents	315,6	506,5	373,7	312,4	430,3	572,5	728,0
TOTAL ASSETS	1 771,9	1 996,9	1 848,9	1 814,8	1 922,8	2 047,4	2 186,4
Shareholders' equity	1 059,3	964,8	1 012,5	1 089,2	1 199,7	1 322,9	1 458,2
Minority interests	0,8	0,8	0,8	0,5	0,6	0,8	1,1
Consolidated equity	1 060,1	965,6	1 013,4	1 089,7	1 200,4	1 323,8	1 459,3
Long-term provisions	151,0	141,6	134,6	81,9	89,9	95,9	99,9
Deferred tax liabilities	26,8	22,6	17,1	16,7	16,7	16,7	16,7
Convertible bonds	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Long-term debt	213,4	410,5	340,5	213,2	213,2	213,2	213,2
Short-term debt	52,6	202,9	103,6	113,0	98,0	83,0	68,0
Debt	266,0	613,4	444,1	326,3	311,3	296,3	281,3
Accounts payable and accrued	48,1	36,1	32,6	33,1	33,0	34,1	35,7
Deferred revenues	111,9	108,0	112,1	123,8	125,9	130,1	136,1
Salary and income tax payable	30,7	38,5	32,6	28,6	29,1	30,1	31,5
Other liabilities	77,3	71,1	62,4	114,7	116,6	120,5	126,0
Current liabilities	267,9	253,7	239,7	300,2	304,5	314,8	329,2
TOTAL LIABILITIES	1 771,9	1 996,9	1 848,9	1 814,8	1 922,8	2 047,4	2 186,4

Source: Company Data; Bryan, Garnier & Co ests.

4.3. Cash flow statement

EURm (FYE 31/12)	2012	2013	2014	2015	2016e	2017e	2018e
Operating cash flow	214,4	192,8	146,7	180,1	203,6	214,4	229,3
Change in WCR	(29,9)	(21,0)	(3,5)	5,3	2,0	5,6	8,7
Capital expenditure	(13,3)	(13,8)	(10,9)	(12,1)	(12,0)	(12,0)	(12,0)
Disposals in fixed assets	0,6	1,2	2,9	2,4	0,1	0,0	0,0
Net capex	(12,6)	(12,7)	(8,0)	(9,8)	(11,9)	(12,0)	(12,0)
Free cash flow	171,8	159,1	135,2	175,7	193,7	208,0	226,0
Investments	(1,4)	(57,2)	(33,4)	(6,0)	(15,0)	0,0	0,0
Disposals in investments	0,3	0,6	32,1	49,5	0,1	0,0	0,0
Acquisitions (goodwill)	(18,0)	(106,4)	14,4	(1,5)	0,0	0,0	0,0
Cash flow after investing activity	152,8	(3,8)	148,3	217,7	178,8	208,0	226,0
Dividends paid	(40,1)	(38,3)	(36,4)	(39,6)	(43,5)	(47,4)	(51,4)
Issuance of shares	2,6	(153,7)	(69,2)	(69,4)	0,0	0,0	0,0
Cap. Incr. for minority interests	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Incr. cash bef. loan repayments	115,3	(195,9)	42,7	108,7	135,4	160,6	174,7
Repayment of loans	(16,2)	330,2	(174,3)	(126,5)	(17,5)	(18,4)	(19,1)
Net increase in cash	99,2	134,3	(131,6)	(17,8)	117,9	142,2	155,6



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Price Chart and Rating History

Software AG



Ratings Date	Ratings	Price
29/10/14	BUY	EUR18.69
16/07/14	NEUTRAL	EUR20
19/07/13	BUY	EUR25.82

Target Price Date	Target price
14/04/16	EUR40
05/04/16	EUR39
22/03/16	EUR38
20/01/16	EUR34
18/12/15	EUR33
29/10/15	EUR31
14/09/15	EUR30
24/07/15	EUR31
24/03/15	EUR30
29/01/15	EUR27
30/10/14	EUR24
16/07/14	EUR23
15/07/14	Under review
10/01/14	EUR34
25/10/13	EUR32
26/07/13	EUR30
19/07/13	EUR32
26/04/13	EUR28
30/01/13	EUR30



Bryan Garnier stock rating system

For the purposes of this Report, the Bryan Garnier stock rating system is defined as follows:

Stock rating

BUY	Positive opinion for a stock where we expect a favourable performance in absolute terms over a period of 6 months from the publication of a
bei	recommendation. This opinion is based not only on the FV (the potential upside based on valuation), but also takes into account a number of
	elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock
	will feature an introduction outlining the key reasons behind the opinion.
	Opinion recommending not to trade in a stock short term neither as a RUVER or a SELLER, due to a specific set of factors. This view is intended to

- NEUTRAL Opinion recommending not to trade in a stock short-term, neither as a BUYER or a SELLER, due to a specific set of factors. This view is intended to be temporary. It may reflect different situations, but in particular those where a fair value shows no significant potential or where an upcoming binary event constitutes a high-risk that is difficult to quantify. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
- SELL Negative opinion for a stock where we expect an unfavourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential downside based on valuation), but also takes into account a number of elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.

Distribution of stock ratings

BUY ratings 57,9%

NEUTRAL ratings 33,6%

SELL ratings 8,6%

Research Disclosure Legend

1	Bryan Garnier shareholding in Issuer	Bryan Garnier & Co Limited or another company in its group (together, the "Bryan Garnier Group") has a shareholding that, individually or combined, exceeds 5% of the paid up and issued share capital of a company that is the subject of this Report (the "Issuer").	No
2	Issuer shareholding in Bryan Garnier	The Issuer has a shareholding that exceeds 5% of the paid up and issued share capital of one or more members of the Bryan Garnier Group.	No
3	Financial interest	A member of the Bryan Garnier Group holds one or more financial interests in relation to the Issuer which are significant in relation to this report	No
4	Market maker or liquidity provider	A member of the Bryan Garnier Group is a market maker or liquidity provider in the securities of the Issuer or in any related derivatives.	No
5	Lead/co-lead manager	In the past twelve months, a member of the Bryan Garnier Group has been lead manager or co-lead manager of one or more publicly disclosed offers of securities of the Issuer or in any related derivatives.	No
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7	Research agreement	A member of the Bryan Garnier Group is party to an agreement with the Issuer relating to the production of this Report.	No
8	Analyst receipt or purchase of shares in Issuer	The investment analyst or another person involved in the preparation of this Report has received or purchased shares of the Issuer prior to a public offering of those shares.	No
9	Remuneration of analyst	The remuneration of the investment analyst or other persons involved in the preparation of this Report is tied to investment banking transactions performed by the Bryan Garnier Group.	No
10	Corporate finance client	In the past twelve months a member of the Bryan Garnier Group has been remunerated for providing corporate finance services to the issuer or may expect to receive or intend to seek remuneration for corporate finance services from the Issuer in the next six months.	No
11	Analyst has short position	The investment analyst or another person involved in the preparation of this Report has a short position in the securities or derivatives of the Issuer.	No
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