

REDEYE

Equity Research 19 August 2019

Artificial Solutions

Sector: Software

Strong order backlog and order intake supports future growth

Key metrics showing progress

The solid development for the two main metrics, order intake and order backlog, which grew by 200 percent and 79 percent, respectively, was the main highlights in the quarter. As these metrics provides a projection for future revenues the numbers supports our high growth estimates. Also, during the quarter, seven new customers were signed, a big step forward for one of the key metrics besides order intake and order backlog. Overall, a strong quarter that proves the new go-to-market strategy and business model. Following the report we only make minor estimate adjustments (already included rapid growth in our estimates) with no effect on the valuation.

Sharp increase in usage revenues

As anticipated the shift to a partner-led model had a dilutive effect on the sale numbers. Net sales increased 11% to SEK 12.6 (11.4) million (estimates: 13.0). The two key forwardlooking metrics, order intake and order backlog, both showed strong growth during the quarter though. Order intake amounted to SEK 22.8 (7.6) million and order backlog amounted to SEK 50.7 (28.4) million. Besides supporting future growth the revenue types in the order backlog will improve profitability as the nature of revenues in the backlog focus on high margin revenues (licenses and usage). A sharp increase in usage revenues (most profitable revenue stream) of 121% (SEK 3.1 million) and increased revenues delivered through partners (partners focus on lower margin revenues, i.e. professional services) grew gross margin to 60 (46)% (estimates: 52).

Adjusted operating expenses increased to SEK -46.0 (-45.6) million (estimates: -43.0) and adjusted operating loss amounted to SEK -30.8 (31.0) million (estimates -27.4). Overall the cost base contained no surprises and is anticipated to stay relatively flat during the year.

28 percent upside

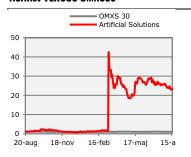
We reiterate our earlier base case fair value of SEK 30 per share - 28 % above current levels. This factors in around SEK100m of new equity this year with ~13% dilution. Customer acquisition and higher growth will be the share's key catalysts over the coming year.

KEY FINANCIALS (SEKm)	2017	2018	2019E	2020E	2021E	2022E
Net sales	48	45	57	81	116	169
EBITDA	-65	-95	-112	-76	-46	4
EBIT	-91	-119	-146	-89	-60	-11
EPS (adj.)	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
EV/Sales	N/A	N/A	12	8	6	4
EV/EBITDA	N/A	N/A	Neg.	Neg.	Neg.	Neg.
EV/EBIT	N/A	N/A	Neg.	Neg.	Neg.	Neg.
P/E	N/A	N/A	Neg.	Neg.	Neg.	Neg.

FAIR VALUE RANGE

BEAR	BASE	BULL
4.0	30.0	59.0

ASAI.st VERSUS OMXS30



REDEYE RATING



KEY STATS

Ticker	ASAI.st
Market	First North
Share Price (SEK)	23.5
Market Cap (MSEK)	581
Net Debt 19E (MSEK)	92
Free Float	56 %

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Q2'19 reflections

The Q2'19 figures showed great progress for the most important metrics: order intake, order backlog, gross margin and usage revenues. As earlier stated the shift to a partner-led model will have a dilutive effect on net sales throughout 2019. Sales via partners has two properties: i) revenue streams from partners are delayed before AS recognises them, and ii) a dilutive effect on top line (service revenue accrue mainly to partners).

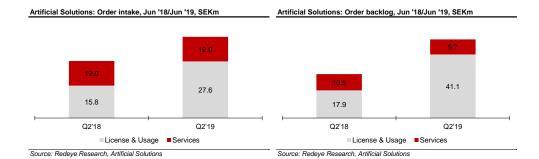
Artificial Solutions: Actuals and estimates, Q2'19

SEKm	Q2'18	Q2'19e	Q2'19a	Diff. (abs.)
Net sales	11.4	13.0	12.6	-0.4
Capitalised costs	3.2	2.6	2.6	0.0
Other income	0	0	0	
Total income	14.6	15.6	15.3	-0.3
Total OPEX	-38.1	-40.0	-45.2	-5.2
Total OPEX adj.	-38.1	-40.0	-42.9	-2.9
EBITDA	-23.5	-24.4	-29.9	-5.5
EBITDA adj.	-23.5	-24.4	-27.6	-3.2
D&A	-7.5	-3.0	-3.1	-0.1
EBIT	-31.0	-27.4	-33.0	-5.6
EBIT adj.	-31.0	-27.4	-30.7	-3.3
Order intake	7.6	n.a	22.8	
Order backlog	28.4	n.a	50.7	
Net sales growth	n.a	14%	11%	
Order intake growth	n.a	n.a	200%	
Order backlog growth	n.a	n.a	79%	
Gross margin	46%	52%	60%	
EBITDA margin	neg	neg	neg	
EBIT margin	neg	neg	neg	

Source: Redeye Reserach, Artificial Solutions

During the quarter Artificial Solutions did incur additional costs in respect of the reverse takeover in February (-2.3 MSEK). These expenses are not considered to be recurring and have been expensed in full. AS do not expect additional costs related to the reverse takeover going forward.

The forward looking metrics, order intake* and order backlog* showed impressive growth and are a good indication for future revenues. As of June 2019 order intake and order backlog amounted to SEK 39.6 (27.8) million and SEK 50.8 (28.4) million, respectively.



Besides supporting future growth both order intake and order backlog has shifted to a more profitable revenue mix – thus also supporting higher margins going forward, see table to the right. 33% of total order backlog expected to be delivered in year 2 and beyond. Important to note here is that as

Order intake and order backlog Q2'18 Q2'19 (% of total) 70% License & Usage 57% 30% Services 43% Total order intake 100% 100% License & Usage 63% 81% Services 37% 19% 100% Total order backlog 100% Source: Redeye Research, Artificial Solutions

some customers will buy usage and services "as used", the future revenues from existing customers may be beyond that included in backlog at any stage.

Shift to partner led business model in work

In line with AS go-to-market strategy, partner's share of delivered revenue increased to 34% compared to 25% in the quarter last year. This transition is starting to make its mark in the favourable revenue mix in order intake and order backlog. The partner channel will boost gross margins as partners deliver professional services (lower-margin business) to customers, leaving AS to concentrate on the license and usage-based revenues (high-margin business).

During the quarter the partners delivered two deals (out of 7 in total) in which AS had no involvement. As well as increasing the share of high-margin revenues, the main contribution of the partner channel is a reduction in customer acquisition costs (i.e. increased scalability and efficiency). Increased partner sales should be seen as an indication of partners investing more of their own dollars to get their staff trained on Teneo, and this is ultimately driven by customer demand.

^{*)} Order intake measures the total value of contractual commitments made by customers during the quarter. Order backlog represents the accumulated value orders received but have not yet been delivered.

Financial projections

This section presents our estimate changes and detailed estimates.

Estimate changes

The table below summarizes our estimate changes for '19e-'21e following the report.

Artificial Solutions: Estimate changes, '19e-'21e

Artificial Solutions. Estimate changes, 13e-21e							
SEKm	2019e	2020e	2021e				
Net sales (new)	57.2	80.7	116.2				
Net sales (old)	57.6	81.3	117.0				
change	-1%	-1%	-1%				
EBITDA (new)	-111.5	-76.3	-45.8				
EBITDA (old)	-97.4	-75.7	-45.0				
change	-14%	-1%	-2%				
EBIT (new)	-145.9	-89.3	-59.8				
EBIT (old)	-131.5	-88.7	-59.8				
change	-11%	-1%	0%				

Source: Redeye Reserach, Artificial Solutions

Detailed estimates

Artificial Solutions: Profit and loss, at base case, '18-'22e

SEKm	2018	Q1'19	Q2'19	Q3'19e	Q4'19e	2019e	2020e	2021e	2022e
Net sales	44.9	12.6	12.6	15.0	17.0	57.2	80.7	116.2	168.5
Capitalised costs	12.2	2.3	2.6	2.8	3.0	10.7	12.0	13.0	16.0
Other income	5.3	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
Total income	62.4	14.9	15.2	17.8	20.0	67.9	93.7	130.2	185.5
Other external costs	-51.5	-17.7	-16.7	-15.0	-16.0	-65.4	-49.0	-51.5	-54.0
Personnel costs	-105.9	-29.0	-28.5	-26.5	-30.0	-114.0	-121.0	-124.6	-127.1
Other operating costs	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	-95.1	-31.8	-30.0	-23.7	-26.0	-111.5	-76.3	-45.8	4.4
			į						
D&A	-23.7	-25.1	-3.1	-3.1	-3.1	-34.4	-13.0	-13.9	-15.0
EBIT	-118.8	-56.9	-33.1	-26.8	-29.1	-145.9	-89.3	-59.8	-10.6
			1						
Net financials	-27.3	-2.4	-10.2	-7.5	-7.5	-27.6	-16.0	-12.0	-10.0
EBT	-146.1	-59.3	-43.3	-34.3	-36.6	-173.5	-105.3	-71.8	-20.6
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	-146.1	-59.3	-43.3	-34.3	-36.6	-173.5	-105.3	-71.8	-20.6

Source: Redeye Research, Artificial Solutions

Investment Case

- Offers an attractive exposure to the conversational AI market
- Validated by mayor customers
- Revenue scalability
- Our DCF analysis indicates a value range of SEK 4 59, with a base case of SEK 30 per share.

As one of the leading vendors of conversational AI technology, Artificial Solutions is well positioned for significant growth. Its underlying market is set to grow at around 40% a year over the next several years, while the company should harness the benefits of its 2013 transformation into a software-based provider, its revised go-to-market strategy and the scaling of its initial deployments in this period too.

Major customers/partners

AS's blue-chip customers such as AT&T, Shell and Vodafone and its partner network of leading system integrators (including Accenture, Deloitte and KPMG) validate its technology. But now it must meet the key challenge of acquiring further customers from its target group of large global enterprises, whose sales cycles are usually long and complex. We view its crucial shift to a partner-led model as ensuring scalability and efficiency and note that partners' share of revenue has already increased from 9% in 2016 to 32% in 2018.

Revenue Scalability

Two of AS's three revenue streams - licenses and usage fees - provide high gross margins (~90%) and recurring revenues. The company's high operating leverage should translate into significant profitability if it succeeds in growing with its market while controlling customer churn and acquisition costs.

Tough start

Since AS's reverse takeover in March 2019, the share has fallen for no fundamental reason by some 40% - though it has rebounded from its low of SEK 18. We see good scope for a continued revaluation if the company performs as we forecast and gains more visibility with investors.

Valuation

Our valuation assumes around SEK 100m in new equity this year with ~13% dilution (precise numbers depending on the share price at the time of the issue). The number of shares in our valuation amounts to 28.56 million. The numbers presented in the 'Financial projections' chapter make up our estimates for the forecast period '19-'22 in base case.

We derive our fair value from a fundamental DCF analysis applied across three scenarios - base case (most likely), bear case (pessimistic) and bull case (optimistic).

Bear Case 4.0 SEK

- CAGR sales '18-'22: 37%
- CAGR sales '22-'28: 20%
- Terminal growth rate: 2%
- Sales '28e: SEK390m
- Avg. EBIT margin*: 10%
- Terminal EBIT margin: 14%
- WACC: 12%

*) period '22-'28

In our bear case scenario, we see our bear points materialize. It mainly boils down to competition and technology risks, where we assume that Teneo will not sustain its competitiveness over the medium and long-term.

As a result, the shift towards more profitable revenue types do not occur and the operating leverage is not realized.

These factors will contribute to AS lowering ambition and become a company with limited growth possibilities (i.e. a consultancy company with minor software sales). Lowered ambition will result in minor investments, employment, and marketing – leading to stable margins.

Base Case 30.0 SEK

Key Assumptions ('22-'28):

- CAGR sales: 33%
- Terminal growth rate: 2%
- Sales '28e: SEK860m
- Avg. EBIT margin: 22%
- Terminal EBIT margin: 34%
- WACC: 12%

As the market develops, AS is well positioned to benefit from its superior offering. As a result, our base case sees it growing with the market thanks to the competitive product and its revised go-to-market strategy.

The company's high operating leverage will translate into significant profitability as we assume a low customer churn and favorable customer acquisition costs.

In base case, we anticipate positive cash flow from 2023, a pessimistic view relative to AS own targets of positive cash flow from 2020.

Bull Case 59.0 SEK

- CAGR sales '18-'22: 46%
- CAGR sales '22-'28: 43%
- Terminal growth rate: 2%
- Sales '28e: SEK1 570m
- Avg. EBIT margin*: 27%
- Terminal EBIT margin: 37%
- WACC: 12%

*) period '22-'28

Our bull case factors in higher growth, driven by more customer wins and wider deployments at each customer (i.e. higher ACV).

Greater success will let AS to leverage its conversational data even further with a healthy rate of product innovation steaming from it – which ensures its competitiveness over a longer period.

It's operating leverage and lower churn assumptions (driven by greater stickiness from wider deployments) allows for greater margins, explaining our long-term profitability assumptions.

In bull case, we anticipate positive cash flow from 2022, still a pessimistic view relative to AS own targets of positive cash flow from 2020.

Catalysts

Growth

Customer acquisition and accelerated growth will be the most important catalysts for the share over the next year

Summary Redeye Rating

The rating consists of three valuation keys, each constituting an overall assessment of several factors that are rated on a scale of 0 to 1 points. The maximum score for a valuation key is 5 points.

Rating changes in the report

No changes.

People: 4

Artificial Solutions has a highly experienced senior management team and holds a strong position in terms of technological know-how and products. The challenges ahead relate to good execution and management (go-to-market approach, customer acquisition, partner strategy etc.). Our assessment is that the team is well-equipped to capitalize on these opportunities. In addition to the CEO's experience from companies undergoing expansion, the majority of the team has been at AS for eight years or more. We consider the management team and the developers to be fundamental to the company, which also represents a risk (dependency on key personnel). We would like the board and management team to have more skin in the game, to confirm their confidence in the company's future and to align their interests with other shareholders'. As of now, their combined holding amounts to \sim 4.9%.

Business: 3

AS is active in a market that is exhibiting particularly rapid growth. The overall global intelligent virtual assistants market is set to grow \sim 40% a year until 2023, according to Tractica, making it clearly a favorable market to be part of. Two of AS's three revenue streams - licenses and usage fees - provide high gross margins (\sim 90%) and recurring revenues. The company's high operating leverage should translate into significant profitability if it succeeds in growing with its market while controlling customer churn and acquisition costs.

Financials: 1

Even though AS secured SEK66m in a targeted share issue (on the 20_{th} of June) the funds will only suffice for the short-term. We anticipate that the company will need to raise additional capital this year for its ongoing operations. Its balance sheet is strained with negative equity and considerable debt. See page 61-63 in the company description document for more detailed information. AS has never before been able to reach profitability. In our estimates (base case), AS will reach profitability during 2023, at that point, the rating would start to gradually increase.

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INCOME STATEMENT	2017	2018	2019E	2020E	2021E
Net sales	48	45	57	81	116
Total operating costs	-113	-140	-169	-157	-162
EBITDA	-65	-95	-112	-76	-46
Depreciation Amountmention	-1	-1	-1	-1	-10
Amortization	-24	-23	-34	-13 n	-13
Impairment charges	0	110	146	0	(
EBIT	-91	-119	-146	-89	-60
Share in profits	-14	-27	-28	-16	-12 -12
Net financial items Exchange rate dif.	-14	-21 0	-28 0	-16 0	-12
	-105	-146	-174	-105	-72
Pre-tax profit Tax	-105	-146	-174	-105	-12
nax Net earnings	-105	-146	-174	-105	-72
BALANCE SHEET	2017	2018	2019E	2020E	2021E
Assets					
Current assets					
Cash in banks	4	47	131	42	6
Receivables	4	6	7	10	13
Inventories	0	0	0	0	(
Other current assets	10	17	17	17	17
Current assets	18	70	156	69	36
Fixed assets					
Tangible assets	2	2	2	2	2
Associated comp.	0	0	0	0	(
nvestments	5	6	6	6	6
Goodwill	7	0	0	0	(
Cap. exp. for dev.	0	0	0	0	(
D intangible rights	30	29	28	28	2
D non-current assets	0	0	0	0	(
Total fixed assets	45	37	36	35	35
Deferred tax assets	0	0	0	0	(
Total (assets) Liabilities	63	107	191	105	7
Current liabilities					
Short-term debt	75	94	143	153	167
Accounts payable	36	47	49	52	54
D current liabilities	0	0	0	0	8
Current liabilities	112	141	192	205	229
Long-term debt	24	52	80	86	93
D long-term liabilities	0	0	0	0	(
Convertibles	0	0	0	0	(
Total Liabilities	136	193	272	291	323
Deferred tax liab	0	0	0	0	(
Provisions	0	0	0	0	(
Shareholders' equity	-73	-86	-81	-186	-252
Minority interest (BS)	0	0	0	0	(
Minority & equity	-73	-86	-81	-186	-252
Total liab & SE	63	107	191	105	7
FREE CASH FLOW	2017	2018	2019E	2020E	2021
Net sales	48	45	57	81	116
Total operating costs	-91	-156	-169	-157	-162
Depreciations total	0	0	-34	-13	-14
EBIT	-59	-111	-146	-89	-60
Taxes on EBIT	0	0	0	0	(
NOPLAT	-59	-111	-146	-89	-60
Depreciation	0	0	34	13	14
Gross cash flow	-59	-111	-112	-76	-46
Change in WC	7	-12	1	12	1.
Gross CAPEX Free cash flow	-9 -61	-13 -136	-11 -122	-13 -89	-14 -52
	2017	2040	20405	20225	2027
CARITAL CTRUCTURE	2017	2018 -81%	2019E	2020E	2021
	11 07		-42%	-178%	-357%
CAPITAL STRUCTURE Equity ratio	-115%		07007		-103%
Equity ratio Debt/equity ratio	-137%	-169%	-276%	-128%	
Equity ratio Debt/equity ratio Net debt	-137% 95	-169% 99	92	197	254
	-137%	-169%			254 2
Equity ratio Debt/equity ratio Net debt Capital employed Capital turnover rate	-137% 95 22 0.8	-169% 99 13 0.4	92 11 0.3	197 10 0.8	254 2 1.6
Equity ratio Debt/equity ratio Net debt Capital employed	-137% 95 22	-169% 99 13	92 11	197 10	254 1.6 2021E 44%

DCF VALUATION WACC (%)	12.0 %	NPV FCF (201		: K		98
		NPV FCF (202				839
		Net debt				-92
A		Fair value esti	mate MSEI	K		845
Assumptions 2017-2023 (%) Average sales growth	41.0 %	Fair value e. p	er share. S	EK		30.0
EBIT margin	-52.8 %	Share price, S				23.5
PROFITABILITY	2017	20:	18	2019E	2020E	20216
ROE	0%		0%	0%	0%	0%
ROCE	-679%			-172%	-108%	-235%
ROIC	0%			-1140%	-805%	-576%
EBITDA margin	-137%			-195%	-95%	-39%
EBIT margin	-191%			-255%	-111%	-51%
Net margin	-221%			-303%	-130%	-62%
DATA PER SHARE	2017	201	.8	2019E	2020E	2021E
EPS	Neg.		eg.	Neg.	Neg.	Neg.
EPS adj	Neg.	Ne		Neg.	Neg.	Neg.
Dividend	0.00	0.0		0.00	0.00	0.00
Net debt	16.56	6.9	98	3.22	6.88	8.91
Total shares	5.76	14.2	22	28.56	28.56	28.56
VALUATION	2017	201	18	2019E	2020E	2021E
EV	N/A		I/A	672,7	672,7	672,7
P/E	N/A	. N	I/A	Neg.	Neg.	Neg
P/E diluted	N/A		I/A	Neg.	Neg.	Neg
P/Sales	N/A	. N	I/A	10.2	7.2	5.0
EV/Sales	N/A	. N	I/A	11.8	8.3	5.8
EV/EBITDA	- N/A	. N	I/A	Neg.	Neg.	Neg
EV/EBIT	N/A	. N	I/A	Neg.	Neg.	Neg
P/BV	N/A	. N	I/A	Neg.	Neg.	Neg
SHARE PERFORMANCE			ROWTH	/YEAR		16/18E
1 month			sales			9.5 %
3 month	-1		erating pro	fit adj		26.7 %
12 month			S, just			-42.4 %
Since start of the year		N/A Equ	iity			5.3 %
SHAREHOLDER STRUCTU	RE %			CAPITAL		VOTES
Scope				49.3 %		49.3 %
SEB-Stiftelsen				4.8 %		4.8 %
Longshore AB				3.2 %		3.2 %
Peter Lindell Acervo AB				3.1 % 2.8 %		3.1 % 2.8 %
Andrew Walton-Green				2.0 %		2.0 %
NLISIP				2.1 %		2.1 %
Johan A. Gustavsson				2.0 %		2.0 %
John Bremer				1.6 %		1.6 %
AB Possessor				1.4 %		1.4 %
SHARE INFORMATION						
Reuters code						ASAI.st
List						First North
Share price						23.5
Total shares, million Market Cap, MSEK						24.7 580.1
ivial net Gap, ivioen						300.1
MANAGEMENT & BOARD						-
CEO						Lawrence Flynn
CFO						Chris Bushnell
IR Chairman						Chris Bushnell Åsa Hedin
FINANCIAL INFORMATIO	N					
ANALYSTS						Radovo AD
ANALYSTS Havan Hanna					Mäster Samuels	Redeve AB

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Redeye Rating and Background Definitions

Company Quality

Company Quality is based on a set of quality checks across three categories; PEOPLE, BUSINESS, FINANCE. These are the building blocks that enable a company to deliver sustained operational outperformance and attractive long-term earnings growth.

Each category is grouped into multiple sub-categories assessed by five checks. These are based on widely accepted and tested investment criteria and used by demonstrably successful investors and investment firms. Each sub-category may also include a complementary check that provides additional information to assist with investment decision-making.

If a check is successful, it is assigned a score of one point; the total successful checks are added to give a score for each sub-category. The overall score for a category is the average of all sub-category scores, based on a scale that ranges from 0 to 5 rounded up to the nearest whole number.

The overall score for each category is then used to generate the size of the bar in the Company Quality graphic.

People

At the end of the day, people drive profits. Not numbers. Understanding the motivations of people behind a business is a significant part of understanding the long-term drive of the company. It all comes down to doing business with people you trust, or at least avoiding dealing with people of questionable character.

The People rating is based on quantitative scores in seven categories: Passion, Execution, Capital Allocation, Communication, Compensation, Ownership, and Board.

Business

If you don't understand the competitive environment and don't have a clear sense of how the business will engage customers, create value and consistently deliver that value at a profit, you won't succeed as an investor. Knowing the business model inside out will provide you some level of certainty and reduce the risk when you buy a stock. The Business rating is based on quantitative scores grouped into five sub-categories: Business Scalability, Market

Structure, Value Proposition, Economic Moat, and Operational Risks.

Financials

Investing is part art, part science. Financial ratios make up most of the science. Ratios are used to evaluate the financial soundness of a business. Also, these ratios are key factors that will impact a company's financial performance and valuation. However, you only need a few to determine whether a company is financially strong or weak.

The Financial rating is based on quantitative scores that are grouped into five separate categories: Earnings Power, Profit Margin, Growth Rate, Financial Health, and Earnings Quality.

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Disclaimer

Important information

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Redeye Rating (2019-08-19)

Rating	People	Business	Financials
5p	8	6	0
3p - 4p	39	32	22
0p - 2p	29	38	54
Company N	76	76	76

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CONFLICT OF INTERESTS

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Viktor Westman owns shares in the company: No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.