aap Implantate

(CDAX, Health Care, AAQ1 GR)

WARBURG RESEARCH

Hold	
EUR 4.00	(EUR 3.77)
Price	EUR 3.84
Upside	**4.2 %**

Value Indicators:	EUR
DCF:	4.00

Warburg ESG Risk Score:	**1.8**
ESG Score (MSCI based):	3.0
Balance Sheet Score:	2.5
Market Liquidity Score:	0.0

Description:

Producer of implants to mend broken bones

Market Snapshot:	EUR m
Market cap:	12.9
No. of shares (m):	3.4
EV:	21.9
Freefloat MC:	6.9
Ø Trad. Vol. (30d):	41.90 th

Shareholders:	
Freefloat	53.1 %
Ratio Capital Management	*15.5 %*
Noes Beheer B.V.	*12.9 %*
Jürgen W. Krebs	*9.5 %*
Deepblue Holding AG	*4.6 %*

Key Figures (WRe):	2021e
Beta:	1.7
Price / Book:	2.0 x
Equity Ratio:	31 %

Sales growth remains at a high level; Now profitable

First positive EBITDA since 2016: aap Implantate has reported positive EBITDA for both Q2 (EUR 0.3m) and H1 (EUR 0.1m), for the first time since focusing on the Trauma business in 2016. This reflects the success of the restructuring measures and the dynamic sales growth especially in the important region of North America. Group sales increased by 74% in Q2 to EUR 3.3m and 37% to EUR 6.0m in H1 2021. Cash flow improved to minus EUR 0.4m in H1 (prev. year: EUR -2.0m). Financing was secured by a further shareholder loan of approx. EUR 1.0m and cash inflows from the German Covid-19 aid programme, which are not refundable, and the sale of land (together approx. EUR 0.9m).

Confirmation of outlook for strong sales growth and clear EBITDA improvement: Management expects H2 sales to exceed the level of the first half-year (H1: EUR 6.0m). For Q3, sales of EUR 3.0-3.4m are envisaged, based on a well-filled order book. In view of this, the lower end of the FY guidance range for sales (EUR 12-15m) should be easily achieved (WRe: EUR 12.8m). aap Implantate aims to achieve positive EBITDA in the Trauma business in the further course of the financial year 2021. Taking R&D costs into account, mainly for the innovative silver coating technology and before possible co-financing of this technology, FY group EBITDA will be slightly negative. This is reflected in the FY EBITDA guidance of EUR -5.5m to EUR -3.5m (WRe: EUR -3.6m; H1: EUR 0.1m).

A closer look at EBITDA and earnings quality: Even on closer examination, the adjusted earnings, as provided by the company, show positive development with an improvement in recurring EBITDA to EUR -0.4m in H1 from EUR -2.9m in the previous year's period. It becomes obvious that reported EBITDA benefited from non-refundable state-subsidised support during the Covid-19 crisis ("Überbrückungshilfe III") but only to a limited extent (approx. EUR 0.5m in H1). In contrast, the company incurred expenses for restructuring and refinancing (EUR 0.2m), that were merely offset by one-off revenue related to reversal of accruals (~EUR 0.1m) and a settlement of a distribution agreement (~EUR 0.1m). We are not expecting any considerable Covid-related payments or restructuring expenses in H2. As the company expects higher sales in H2 than in the first half of the year, recurring EBITDA excluding expenses for potential capital measures and the human trial silver technology should rather be neutral in H2 (H1: EUR -0.4m). R&D expenses were at a low level in H1, due to the pandemic and the yet-to-start human clinical trial, but this will have a negative impact on earnings in H2 and explains the guidance for a negative FY EBITDA despite the strong improvement in H1.

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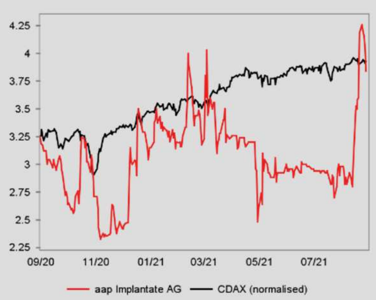
Changes in Estimates:

FY End: 31.12. in EUR m	2021e (old)	+ / -	2022e (old)	+ / -	2023e (old)	+ / -
Sales	10.6	20.8 %	12.0	28.7 %	n.a.	n.m.
EBITDA	-1.8	n.m.	-0.1	n.m.	n.a.	n.m.
EBT	-2.9	n.m.	-1.2	n.m.	n.a.	n.m.
EPS	-0.88	n.m.	-0.34	n.m.	n.a.	n.m.

Comment on Changes:

- Q2/H1 2021 results provide for sustainable top-line growth which exceeds our expectations. We have adjusted our estimates accordingly.
- Underlying profitability excluding R&D expenditure is better than expected.
- We have introduced our estimates for 2023.



Rel. Performance vs CDAX:	
1 month:	26.7 %
6 months:	8.9 %
Year to date:	8.7 %
Trailing 12 months:	0.6 %

Company events:

FY End: 31.12. in EUR m	CAGR (20-23e)	2017	2018	2019	2020	2021e	2022e	2023e
Sales	23.3 %	10.9	10.8	11.7	9.3	12.8	15.4	17.5
Change Sales yoy		-25.8 %	-1.1 %	8.9 %	-20.6 %	37.4 %	20.4 %	13.3 %
EBITDA	-	-6.2	-6.4	-5.1	-4.8	-3.6	0.3	1.6
Margin		*-57.0 %*	*-59.5 %*	*-43.8 %*	*-51.1 %*	*-28.1 %*	*2.0 %*	*9.0 %*
EBITDA adj.		-6.2	-6.4	-5.1	-3.4	-4.1	0.3	1.6
Margin		-57.0 %	-59.5 %	-43.8 %	-36.3 %	-32.0 %	2.0 %	9.0 %
EBIT	-	-8.0	-8.1	-19.8	-7.9	-4.9	-0.6	0.7
Margin		*-73.3 %*	*-75.5 %*	*-168.4 %*	*-84.6 %*	*-38.4 %*	*-3.6 %*	*3.7 %*
Net income	-	-8.9	-7.8	-19.5	-8.8	-5.4	-0.9	0.2
EPS	-	-0.31	-0.27	-0.61	-2.74	-1.60	-0.26	0.05
DPS	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dividend Yield		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCFPS		-0.26	-0.31	-0.23	-1.28	-1.96	-0.65	-0.28
FCF / Market cap		-1.8 %	-1.8 %	-2.7 %	-31.9 %	-51.0 %	-16.8 %	-7.3 %
EV / Sales		36.4 x	44.7 x	23.1 x	1.8 x	1.7 x	1.6 x	1.4 x
EV / EBITDA		n.a.	n.a.	n.a.	n.a.	n.a.	78.1 x	15.9 x
EV / EBIT		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	38.3 x
P / E		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	76.8 x
FCF Potential Yield		-1.9 %	-1.7 %	-7.1 %	-46.5 %	-22.0 %	-1.9 %	2.4 %
Net Debt		-12.2	-3.9	-0.6	4.1	9.0	11.2	12.1
ROCE (NOPAT)		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.7 %
Guidance:	Sales EUR 12-15m, EBITDA EUR -5.5 to -3.5m							

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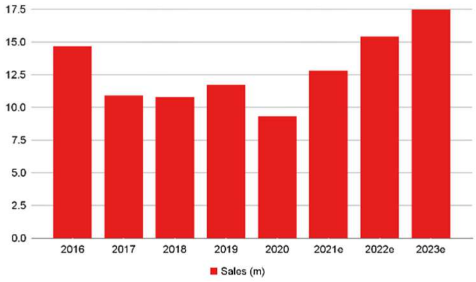
Dynamic top-line development should continue: We expect double-digit sales growth also for 2022, driven by the continuation of positive development in North America (WRe: +32% to ~EUR 5.2m) and a recovery in European markets like Germany. Here, the delay in ending the lockdown resulted in a slow recovery, but the recovery should become more noticeable in 2022. As a result, high single-digit percentage sales growth is likely (2022e: +8% to EUR 2.8m), before returning to low single-digit percentage rates most likely in 2023/2024. For North America, we expect continued dynamic growth in the low thirties as already seen in 2020. This should be achieved by gaining increasing access to hospitals, purchasing groups and regional distributors, but also through own regional direct sales reps. Furthermore, International (excl. Germany and US) is most likely to return to sales in the region of approx. EUR 6m as soon as this year, a level already seen in 2019/2020. In view of this, sales growth is likely to be in the low double-digit percentages in the coming years. Overall, this should secure double-digit percentage sales growth at group level in the years to come (CAGR 2020-2023e: ~23%). Sales growth to levels exceeding our current estimates would require further investment in regional sales forces and marketing in our view. The necessary investment would require external funding.

Silver coating technology shows positive signals from initial applications: In the first half of this year, aap's silver-coated plate systems were used for the treatment of three patients. This includes one Investigator Initiated Trial (IIT study) and two healing trials in patients with severe infections, in which the therapy was supplemented by the antibacterial silver coating technology to increase the chances of healing by containing or avoiding infection. According to aap, a good healing process and no indication of infection have been observed so far. The official human trial study to achieve approval (CE mark) is planned to start in Germany in 2021. A total of 226 patients are to be recruited in Germany in controlled, fully-blinded, multicenter trials over a period of a year to a year-and-a-half. This will be followed by a 12-month post intervention period and approx. six months of data evaluation and finally, an application to achieve the CE-mark. If successful, a market launch could take place in 2025. Currently, aap is in the process of evaluating all financing options including partnering, co-financing or raising capital to finance the study independently. Our estimates do not yet include any contribution and, in view of this, the silver coating technology is a wildcard.

Financing requirements mainly as an investment in future growth: In view of the achievement of breakeven at operating level, the financial situation has clearly improved. Now, rather than securing financing for underlying business, the focus will turn to financing growth acceleration in future (portfolio and market expansion with a focus on the US) and the human clinical study to achieve CE approval for the antibacterial silver coating technology. For the latter, the company's financing need should be rather minor, given that aap secured grants from the German Federal Ministry of Education and Research of up to EUR 2.7m for expenses incurred to carry out the study. The problem is that initial costs to start the human study and the remaining costs have to be financed by the company. We estimate a low to mid-single-digit million amount. Important too, is the repayment of shareholder loans of up to EUR 1.4m, of which EUR 1.0m are short term. However, prolongation of the granted loans should not be a problem either, in our view, given the progress achieved with regard to underlying profitability. The loans are secured by collateral pledges of the Loqteq technology (main business) and the silver coating technology. Considering all the factors mentioned above, the best solution would be to increase capital to finance growth and the start of the human clinical trial for the silver coating technology and finally, to lower financial costs.

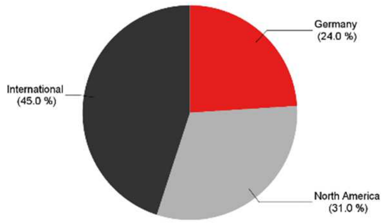
Hold rating reiterated following strong share-price increase, PT raised to EUR 4.00 from EUR 3.77: The restructuring measures are bearing fruit. In combination with a continuation of strong sales momentum, especially in North America and International, this allows aap Implantate to become operationally positive. The current development is ahead of our expectations. We have adjusted our estimates accordingly. Our DCF-derived PT has increased to EUR 4.00 from EUR 3.77. The focus is now turning to financing further top-line growth, the human trial to achieve marketing authorization for silver-coated implants and to repay debt. In view of the still existing financing requirements, which we calculate to be in the range of EUR 1.4-4.5m, and given the recent strong share price increase, we confirm our Hold rating.

Sales development
in EUR m



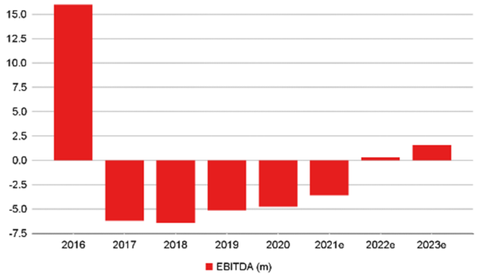
Source: Warburg Research

Sales by regions
2020; in %



Source: Warburg Research

EBITDA development
in EUR m



Source: Warburg Research

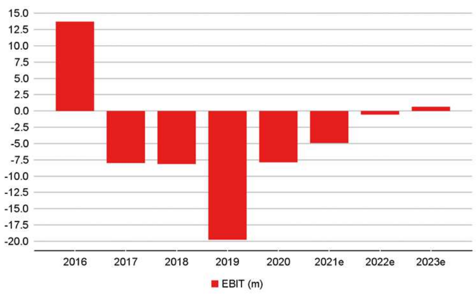
Company Background

- aap Implantate AG develops, produces and sells medical implants, which are primarily used in orthopaedics to mend fractures.
- aap Implantate AG was founded in 1990 as an MBO from the Johnson & Johnson Group and is headquartered in Berlin.
- The company covers the entire value chain and sells the products worldwide with a focus on established markets such as Germany, North America as well as further European countries.
- The products are sold by direct sale, by international sales partners or OEM partnerships.
- Also addressed are so-called "Global Partners", larger companies interested in an agreement to distribute aap's current products (and, if approved, the silver coating technology) via their sales channels.

Competitive Quality

- aap Implantate AG has developed a patent protected anatomical plating system (LOQTEQ), which provides significant improvements for surgeons, hospitals and clinics as well as patients.
- Additionally, aap Implantate AG has a promising development pipeline with an antibacterial silver coating for the implants as well as coated magnesium implants.

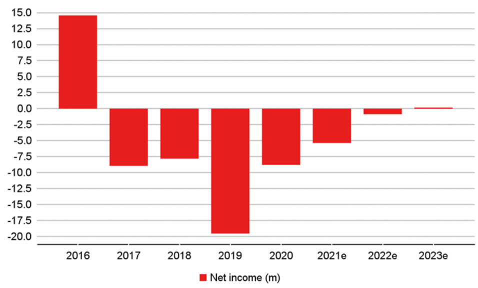
EBIT development
in EUR m



Source: Warburg Research

Net income development

in EUR m



DCF model

Figures in EUR m	Detailed forecast period 2021e	2022e	2023e	Transitional period 2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	Term. Value
Sales	12.8	15.4	17.5	19.7	21.9	24.2	26.5	28.7	30.7	32.5	33.8	34.8	35.9	
Sales change	*37.4 %*	*20.4 %*	*13.3 %*	*12.5 %*	*11.4 %*	*10.6 %*	*9.6 %*	*8.3 %*	*6.8 %*	*5.8 %*	*4.2 %*	*3.0 %*	*3.0 %*	*2.5 %*
EBIT	-4.9	-0.6	0.7	2.1	3.2	3.5	3.9	4.2	4.4	4.7	4.7	4.9	5.0	
EBIT-margin	*-38.4 %*	*-3.6 %*	*3.7 %*	*10.5 %*	*14.6 %*	*14.6 %*	*14.6 %*	*14.6 %*	*14.5 %*	*14.4 %*	*14.0 %*	*14.0 %*	*14.0 %*	
Tax rate (EBT)	*1.8 %*	*10.2 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	*28.0 %*	
NOPAT	-4.8	-0.5	0.5	1.5	2.3	2.5	2.8	3.0	3.2	3.4	3.4	3.5	3.6	
Depreciation	1.3	0.9	0.9	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.0	1.0	1.1	
in % of Sales	*10.3 %*	*5.6 %*	*5.3 %*	*3.5 %*	*3.4 %*	*3.4 %*	*3.4 %*	*3.4 %*	*3.5 %*	*3.6 %*	*3.0 %*	*3.0 %*	*3.0 %*	
Changes in provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	2.2	1.7	1.5	0.3	0.6	0.4	0.2	0.0	-0.3	-0.5	-0.5	-0.7	-1.1	
- Capex	0.3	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.0	1.1	
Capex in % of Sales	*2.2 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	*3.0 %*	
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Free Cash Flow (WACC Model)	-6.0	-1.8	-0.6	1.3	1.8	2.2	2.7	3.1	3.6	4.1	3.9	4.2	4.7	3
PV of FCF	-5.8	-1.6	-0.5	0.9	1.2	1.3	1.4	1.5	1.6	1.6	1.4	1.4	1.4	12
share of PVs	-44.59 %			78.22 %										66.37 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	15.00 %	Financial Strength	2.90
Cost of debt (after tax)	6.8 %	Liquidity (share)	1.80
Market return	7.00 %	Cyclicality	1.20
Risk free rate	1.50 %	Transparency	1.40
		Others	1.20
WACC	**10.24 %**	**Beta**	**1.70**

Valuation (m)

Present values 2033e	6
Terminal Value	12
Financial liabilities	2
Pension liabilities	0
Hybrid capital	0
Minority interest	0
Market val. of investments	0
Liquidity	3
Equity Value	**18**
No. of shares (m)	4.6
Value per share (EUR)	**4.00**

Sensitivity Value per Share (EUR)

Terminal Growth

Beta	WACC	1.75 %	2.00 %	2.25 %	**2.50 %**	2.75 %	3.00 %	3.25 %
1.91	11.2 %	3.11	3.16	3.21	3.27	3.33	3.39	3.46
1.81	10.7 %	3.42	3.48	3.54	3.61	3.68	3.76	3.84
1.75	10.5 %	3.59	3.66	3.72	3.80	3.88	3.96	4.05
1.70	10.2 %	3.77	3.84	3.92	**4.00**	4.08	4.18	4.27
1.65	10.0 %	3.96	4.04	4.12	4.21	4.31	4.41	4.52
1.59	9.7 %	4.17	4.25	4.34	4.44	4.55	4.66	4.78
1.49	9.2 %	4.62	4.72	4.83	4.95	5.08	5.21	5.36

Delta EBIT-margin

Beta	WACC	-1.5 pp	-1.0 pp	-0.5 pp	**+0.0 pp**	+0.5 pp	+1.0 pp	+1.5 pp
1.91	11.2 %	2.60	2.82	3.04	3.27	3.49	3.71	3.93
1.81	10.7 %	2.90	3.14	3.37	3.61	3.85	4.08	4.32
1.75	10.5 %	3.07	3.31	3.55	3.80	4.04	4.29	4.53
1.70	10.2 %	3.24	3.49	3.75	**4.00**	4.25	4.50	4.76
1.65	10.0 %	3.43	3.69	3.95	4.21	4.47	4.74	5.00
1.59	9.7 %	3.63	3.90	4.17	4.44	4.71	4.98	5.25
1.49	9.2 %	4.07	4.37	4.66	4.95	5.24	5.53	5.83

- High beta due to weak financial position.

Valuation

	2017	2018	2019	2020	2021e	2022e	2023e
Price / Book	9.6 x	13.9 x	14.4 x	1.2 x	2.0 x	2.2 x	2.1 x
Book value per share ex intangibles	1.07	0.75	0.46	2.28	1.15	0.98	1.12
EV / Sales	36.4 x	44.7 x	23.1 x	1.8 x	1.7 x	1.6 x	1.4 x
EV / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	78.1 x	15.9 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	38.3 x
EV / EBIT adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	38.3 x
P / FCF	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P / E	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	76.8 x
P / E adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	76.8 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield (on market EV)	-1.9 %	-1.7 %	-7.1 %	-46.5 %	-22.0 %	-1.9 %	2.4 %

*Adjustments made for: -

Consolidated profit & loss

In EUR m	2017	2018	2019	2020	2021e	2022e	2023e
Sales	**10.9**	**10.8**	**11.7**	**9.3**	**12.8**	**15.4**	**17.5**
Change Sales yoy	-25.8 %	-1.1 %	8.9 %	-20.6 %	37.4 %	20.4 %	13.3 %
Increase / decrease in inventory	-0.5	0.0	0.0	-0.5	0.0	0.0	0.0
Own work capitalised	1.3	1.9	1.2	0.1	0.0	0.0	0.0
Total Sales	**11.7**	**12.6**	**13.0**	**9.0**	**12.8**	**15.4**	**17.5**
Material expenses	1.9	2.3	2.4	1.0	1.8	2.2	1.6
Gross profit	**9.8**	**10.3**	**10.6**	**8.0**	**11.0**	**13.3**	**15.9**
Gross profit margin	*89.9 %*	*95.5 %*	*90.3 %*	*85.3 %*	*86.0 %*	*86.0 %*	*91.0 %*
Personnel expenses	7.4	7.8	8.2	6.5	6.9	7.6	8.4
Other operating income	0.8	0.5	1.2	1.0	0.9	0.8	0.8
Other operating expenses	9.4	9.4	8.8	7.2	8.6	6.2	6.7
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	**-6.2**	**-6.4**	**-5.1**	**-4.8**	**-3.6**	**0.3**	**1.6**
Margin	*-57.0 %*	*-59.5 %*	*-43.8 %*	*-51.1 %*	*-28.1 %*	*2.0 %*	*9.0 %*
Depreciation of fixed assets	1.2	1.1	13.1	3.1	1.0	0.6	0.6
EBITA	**-7.4**	**-7.5**	**-18.2**	**-7.8**	**-4.6**	**-0.3**	**1.0**
Amortisation of intangible assets	0.6	0.7	1.5	0.0	0.3	0.3	0.3
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	**-8.0**	**-8.1**	**-19.8**	**-7.9**	**-4.9**	**-0.6**	**0.7**
Margin	*-73.3 %*	*-75.5 %*	*-168.4 %*	*-84.6 %*	*-38.4 %*	*-3.6 %*	*3.7 %*
EBIT adj.	**-8.0**	**-8.1**	**-19.8**	**-7.9**	**-4.9**	**-0.6**	**0.7**
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenses	0.0	0.0	0.5	0.3	0.6	0.4	0.4
Other financial income (loss)	-1.3	0.5	0.2	-0.6	0.0	0.0	0.0
EBT	**-9.3**	**-7.7**	**-20.0**	**-8.8**	**-5.5**	**-1.0**	**0.2**
Margin	*-85.3 %*	*-71.0 %*	*-170.7 %*	*-94.5 %*	*-42.7 %*	*-6.3 %*	*1.3 %*
Total taxes	0.0	0.0	-0.6	0.1	-0.1	-0.1	0.1
Net income from continuing operations	**-9.3**	**-7.6**	**-19.4**	**-8.9**	**-5.4**	**-0.9**	**0.2**
Income from discontinued operations (net of tax)	0.3	-0.2	-0.1	0.1	0.0	0.0	0.0
Net income before minorities	**-8.9**	**-7.8**	**-19.5**	**-8.8**	**-5.4**	**-0.9**	**0.2**
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	**-8.9**	**-7.8**	**-19.5**	**-8.8**	**-5.4**	**-0.9**	**0.2**
Margin	*-82.0 %*	*-72.5 %*	*-166.3 %*	*-94.3 %*	*-41.9 %*	*-5.7 %*	*1.0 %*
Number of shares, average	28.6	28.7	32.1	3.2	3.4	3.4	3.4
EPS	**-0.31**	**-0.27**	**-0.61**	**-2.74**	**-1.60**	**-0.26**	**0.05**
EPS adj.	-0.31	-0.27	-0.61	-2.74	-1.60	-0.26	0.05

*Adjustments made for:

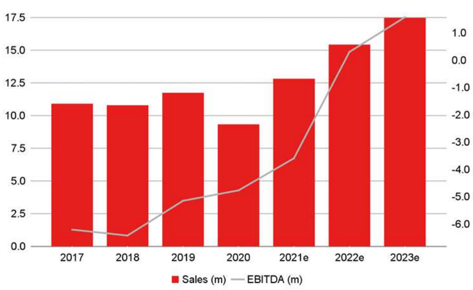
Guidance: Sales EUR 12-15m, EBITDA EUR -5.5 to -3.5m

Financial Ratios

	2017	2018	2019	2020	2021e	2022e	2023e
Total Operating Costs / Sales	164.0 %	176.8 %	154.6 %	147.1 %	128.1 %	98.0 %	91.0 %
Operating Leverage	n.a.	-1.7 x	16.1 x	2.9 x	-1.0 x	-4.4 x	n.a.
EBITDA / Interest expenses	n.m.	n.m.	n.m.	n.m.	n.m.	0.7 x	3.7 x
Tax rate (EBT)	0.3 %	0.2 %	3.0 %	-1.4 %	1.8 %	10.2 %	28.0 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	75,186	74,352	80,959	91,882	126,217	151,911	172,109

Sales, EBITDA

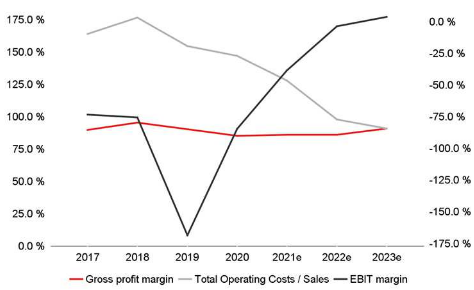
in EUR m



Source: Warburg Research

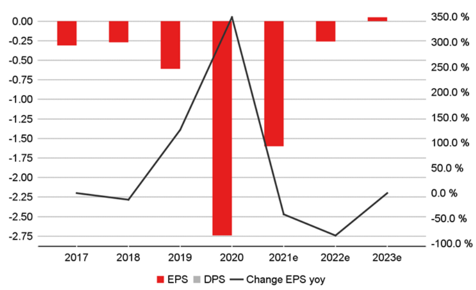
Operating Performance

in %



Source: Warburg Research

Performance per Share



Source: Warburg Research

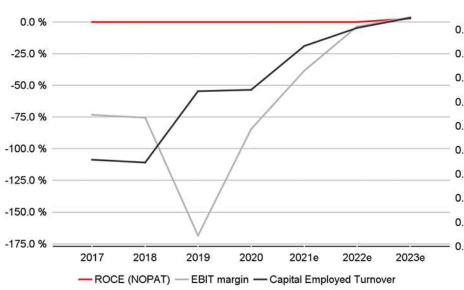
Consolidated balance sheet

In EUR m	2017	2018	2019	2020	2021e	2022e	2023e
Assets							
Goodwill and other intangible assets	11.8	13.3	4.1	3.0	2.5	2.5	2.5
thereof other intangible assets	0.1	0.2	0.1	0.0	0.0	0.0	0.0
thereof Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property, plant and equipment	7.2	6.9	6.2	4.3	3.5	3.4	3.3
Financial assets	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Other long-term assets	1.1	0.6	0.4	0.4	0.4	0.4	0.4
Fixed assets	**20.3**	**20.9**	**10.7**	**7.7**	**6.5**	**6.4**	**6.3**
Inventories	9.6	9.6	7.7	7.0	9.6	11.5	13.0
Accounts receivable	2.5	2.7	1.9	1.8	2.1	2.5	2.9
Liquid assets	13.3	4.3	2.9	0.9	0.3	0.8	0.9
Other short-term assets	4.7	4.8	3.1	2.4	2.4	2.4	2.4
Current assets	**30.2**	**21.3**	**15.6**	**12.0**	**14.4**	**17.2**	**19.2**
Total Assets	**50.5**	**42.2**	**26.3**	**19.7**	**20.8**	**23.6**	**25.4**
Liabilities and shareholders' equity							
Subscribed capital	28.6	28.7	32.1	3.2	3.4	3.4	3.4
Capital reserve	19.9	20.0	20.1	21.6	21.6	21.6	21.6
Retained earnings	12.1	11.9	11.8	11.7	6.4	5.5	5.7
Other equity components	-18.0	-25.7	-45.1	-26.2	-25.0	-24.7	-24.4
Shareholders' equity	42.6	34.9	18.9	10.3	6.4	5.8	6.3
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	**42.6**	**34.9**	**18.9**	**10.3**	**6.4**	**5.8**	**6.3**
Provisions	0.8	0.3	0.4	0.6	0.6	0.6	0.6
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	1.1	0.3	2.3	5.0	9.3	12.0	13.0
Short-term financial liabilities	0.3	0.0	0.5	0.4	0.4	0.4	0.4
Accounts payable	1.8	2.1	1.3	1.9	2.6	3.2	3.6
Other liabilities	4.3	4.5	3.4	1.9	1.9	1.9	1.9
Liabilities	**7.9**	**7.3**	**7.4**	**9.4**	**14.4**	**17.7**	**19.1**
Total liabilities and shareholders' equity	**50.5**	**42.2**	**26.3**	**19.7**	**20.8**	**23.6**	**25.4**

Financial Ratios

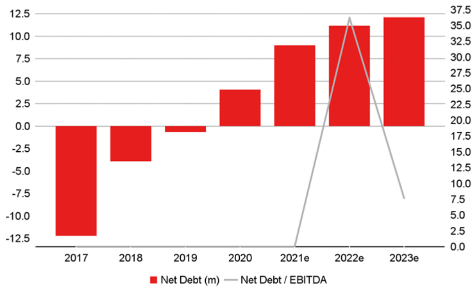
	2017	2018	2019	2020	2021e	2022e	2023e
Efficiency of Capital Employment							
Operating Assets Turnover	0.6 x	0.6 x	0.8 x	0.8 x	1.0 x	1.1 x	1.1 x
Capital Employed Turnover	0.4 x	0.3 x	0.6 x	0.6 x	0.8 x	0.9 x	0.9 x
ROA	-44.0 %	-37.4 %	-181.8 %	-114.6 %	-83.0 %	-13.8 %	2.7 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.7 %
ROE	-18.4 %	-20.2 %	-72.6 %	-60.3 %	-64.3 %	-14.4 %	2.8 %
Adj. ROE	-18.4 %	-20.2 %	-72.6 %	-60.3 %	-64.3 %	-14.4 %	2.8 %
Balance sheet quality							
Net Debt	-12.2	-3.9	-0.6	4.1	9.0	11.2	12.1
Net Financial Debt	-12.2	-3.9	-0.6	4.1	9.0	11.2	12.1
Net Gearing	-28.7 %	-11.2 %	-3.4 %	39.5 %	140.6 %	191.8 %	192.4 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	3623.1 %	770.3 %
Book Value / Share	1.5	1.2	0.6	3.2	1.9	1.7	1.9
Book value per share ex intangibles	1.1	0.8	0.5	2.3	1.2	1.0	1.1

ROCE Development



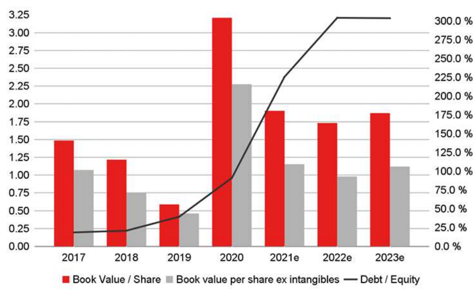
Source: Warburg Research

Net debt
in EUR m



Source: Warburg Research

Book Value per Share
in EUR



Source: Warburg Research

Consolidated cash flow statement

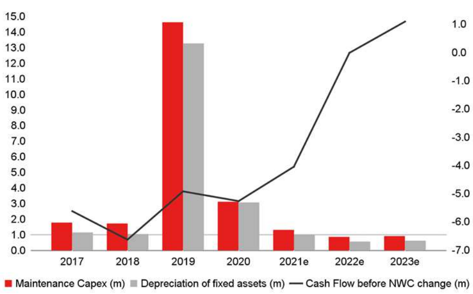
In EUR m	2017	2018	2019	2020	2021e	2022e	2023e
Net income	-9.3	-7.6	-19.9	-8.5	-5.4	-0.9	0.2
Depreciation of fixed assets	1.2	1.1	13.3	3.1	1.0	0.6	0.6
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.6	0.7	1.5	0.0	0.3	0.3	0.3
Increase/decrease in long-term provisions	0.3	-0.5	0.1	0.2	0.0	0.0	0.0
Other non-cash income and expenses	1.5	-0.2	0.1	-0.1	0.0	0.0	0.0
Cash Flow before NWC change	**-5.6**	**-6.6**	**-4.9**	**-5.3**	**-4.1**	**0.0**	**1.1**
Increase / decrease in inventory	0.1	0.6	0.4	1.4	-2.6	-1.9	-1.5
Increase / decrease in accounts receivable	0.0	0.0	-0.8	0.9	-0.3	-0.4	-0.4
Increase / decrease in accounts payable	0.0	0.0	-0.4	-0.7	0.7	0.6	0.4
Increase / decrease in other working capital positions	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	0.2	0.7	-0.8	1.6	-2.2	-1.7	-1.5
Net cash provided by operating activities [1]	**-5.4**	**-5.9**	**-5.8**	**-3.7**	**-6.3**	**-1.7**	**-0.4**
Investments in intangible assets	-1.3	-2.2	-1.0	0.0	0.0	0.0	0.0
Investments in property, plant and equipment	-0.7	-0.7	-0.7	-0.4	-0.3	-0.5	-0.5
Payments for acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial investments	0.0	0.0	-2.0	0.0	0.0	0.0	0.0
Income from asset disposals	0.5	0.0	0.0	0.3	0.6	0.0	0.0
Net cash provided by investing activities [2]	**-1.5**	**-3.0**	**0.3**	**-0.1**	**0.4**	**-0.5**	**-0.5**
Change in financial liabilities	-1.4	-0.8	-0.5	-0.3	4.3	2.7	1.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	-3.4	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.1	0.1	3.4	0.0	0.0	0.0	0.0
Other	1.2	0.6	1.3	2.0	1.0	0.0	0.0
Net cash provided by financing activities [3]	**-3.5**	**-0.2**	**4.1**	**1.8**	**5.4**	**2.7**	**1.0**
Change in liquid funds [1]+[2]+[3]	**-10.5**	**-9.0**	**-1.3**	**-2.0**	**-0.6**	**0.5**	**0.1**
Effects of exchange-rate changes on cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash and cash equivalent at end of period	13.3	4.3	2.9	0.9	0.3	0.8	0.9

Financial Ratios

	2017	2018	2019	2020	2021e	2022e	2023e
Cash Flow							
FCF	-7.5	-8.9	-7.5	-4.1	-6.6	-2.2	-0.9
Free Cash Flow / Sales	-68.6 %	-82.5 %	-63.6 %	-43.8 %	-51.4 %	-14.1 %	-5.4 %
Free Cash Flow Potential	-7.6	-8.3	-19.3	-7.9	-4.8	-0.5	0.6
Free Cash Flow / Net Profit	83.7 %	113.8 %	38.2 %	46.5 %	122.6 %	247.7 %	-556.7 %
Interest Received / Avg. Cash	0.0 %	0.0 %	0.0 %	0.5 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	2.8 %	4.2 %	38.5 %	9.4 %	7.8 %	3.9 %	3.4 %
Management of Funds							
Investment ratio	18.8 %	26.9 %	14.8 %	3.8 %	2.2 %	3.0 %	3.0 %
Maint. Capex / Sales	16.4 %	16.0 %	124.6 %	33.5 %	10.3 %	5.6 %	5.3 %
Capex / Dep	114.8 %	167.7 %	11.8 %	11.2 %	21.3 %	53.4 %	57.1 %
Avg. Working Capital / Sales	100.2 %	95.3 %	78.2 %	80.9 %	62.3 %	64.5 %	66.1 %
Trade Debtors / Trade Creditors	145.1 %	123.9 %	141.8 %	94.5 %	80.8 %	78.1 %	80.6 %
Inventory Turnover	0.2 x	0.2 x	0.3 x	0.1 x	0.2 x	0.2 x	0.1 x
Receivables collection period (days)	85	90	58	71	60	59	61
Payables payment period (days)	342	335	202	707	529	541	836
Cash conversion cycle (Days)	1,619	1,255	1,027	1,918	1,484	1,463	2,243

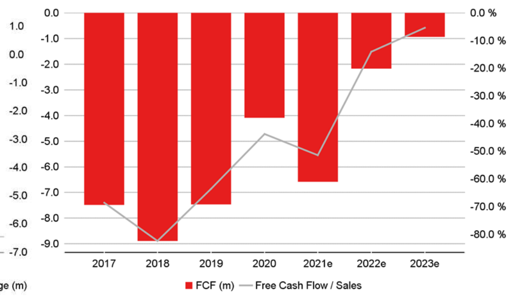
CAPEX and Cash Flow

in EUR m



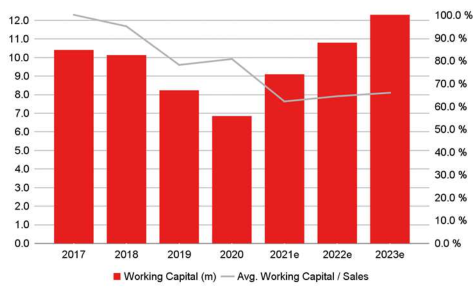
Source: Warburg Research

Free Cash Flow Generation



Source: Warburg Research

Working Capital



Source: Warburg Research

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Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
aap Implantate	5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A3H2101.htm

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

-B-	**Buy:**	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	**Hold:**	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	**Sell:**	The price of the analysed financial instrument is expected to fall over the next 12 months.
"-"	**Rating suspended:**	The available information currently does not permit an evaluation of the company.

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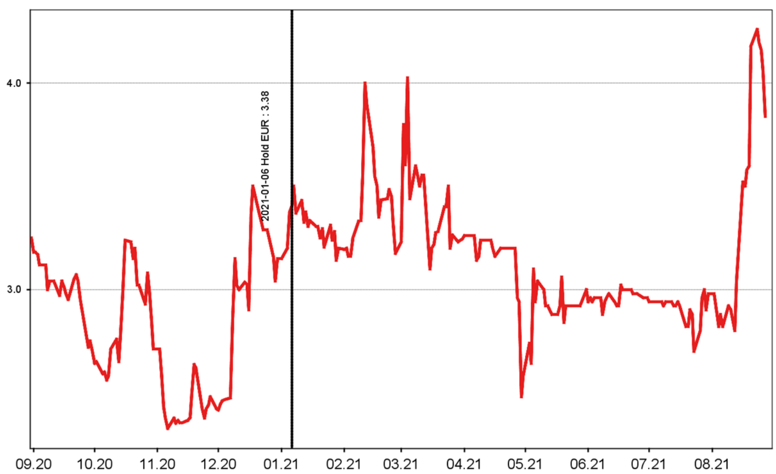
Rating	Number of stocks	% of Universe
Buy	146	68
Hold	61	28
Sell	6	3
Rating suspended	2	1
Total	**215**	**100**

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING …

… taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	41	76
Hold	11	20
Sell	0	0
Rating suspended	2	4
Total	**54**	**100**

PRICE AND RATING HISTORY AAP IMPLANTATE AS OF 30.08.2021



Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.

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