

Hold EUR 4.30 (EUR 4.10) Price EUR 3.90 Upside 10.3 %	Value Indicators: EUR DCF: 4.30	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: 19.4 No. of shares (m): 5.0 EV: 20.6 Freefloat MC: 10.4 Ø Trad. Vol. (30d): 21.82 th	Shareholders: Freefloat 53.3 % Ratio Capital Management B.V. 15.0 % Noes Beheer B.V. 10.3 % Axxion S.A. 9.9 % Juergen Krebs 8.3 %	Key Figures (WRe): 2021e Beta: 1.4 Price / Book: 1.4 x Equity Ratio: 58 %

Strong growth in Q3 underpins growth potential

Stated Figures Q3/2021:								Comment on Figures:	
in EUR m	Q3/21	Q3/21e	Q3/20	yoy	9M/21	9M/20	yoy		
Sales	3.0	3.0	2.6	15.4%	8.9	6.9	29.0%	Sales rose by 15% yoy to EUR 3.0m in Q3 (WRe: EUR 3.0m), reaching the lower end of the Q3 guidance of EUR 3.0-3.4m	
EBITDA	0.02	0.01	-0.5	-	0.1	-4.4	-	EBITDA improved to EUR 0.02m (WRe: EUR 0.03m) with the margin at breakeven (vs -7% in H1).	
<i>margin</i>	<i>0.7%</i>	<i>0.4%</i>	<i>-18.5%</i>		<i>1.1%</i>	<i>-63.8%</i>		FY 21 guidance now targeting the lower end of EUR 12-14m sales range (WRe: EUR 12.0m) and upper half of EBITDA range (EUR -2m to EUR -0.7m, WRe: EUR -1.1m).	

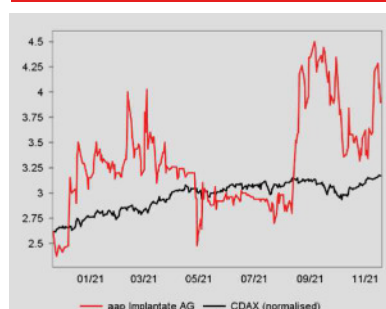
aap Implantate published solid Q3 results and updated its FY 21 guidance.

Sound sales growth of 15% yoy in Q3 was particularly driven by LATAM and APAC, where the company experienced a solid recovery post COVID. At the same time, aap scored new customer wins especially in Latin America, which supported growth in Q3. The EBITDA once again reflects the company's ability to operate profitably and underpins the success of cost measures implemented over the past two years (i.e. personnel, operating expenses).

Following the increase in the FY 21 outlook on September 16, management has now specified the sales target to the lower end of the EUR 12-14m range (WRe: EUR 12.0m), which is fully in line with our estimates and implies strong sales growth of 29% yoy in FY 21. In Q4, this implies sales growth of around 30% yoy to EUR 3.1m, which should be supported by increasing mobility in Asia, LATAM, and the US. EBITDA is now expected to reach the upper half of the guidance range (EUR -2m to EUR -0.7m, WRe: EUR -1.1m) on the back of the successful implementation of cost measures. This fully reflects the company's successful repositioning strategy, as measures related to personnel costs and capacity adjustments are starting to bear fruit.

Meanwhile, aap successfully completed a capital increase with subscription rights in October. The company placed 1.5m shares at a subscription price of EUR 3.30, which resulted in net inflows of EUR 4.8m. Importantly, core shareholders have subscribed more than 50% of the capital increase. With that, aap should have sufficient firepower to continue pursuing its growth path in its Trauma business and the innovative silver coating technology, which has received promising clinical data, recording excellent healing processes and no indications of infections.

Overall, sound Q3 results show the ongoing success of restructuring measures in the past two years as well as a solid recovery post-COVID. News-flow looks set to remain positive as the EBITDA guidance looks conservative and aap should continue to capitalize on the recovery post COVID in light of the increasing mobility. We confirm our Hold rating with a new PT of EUR 4.30. Change of analyst.

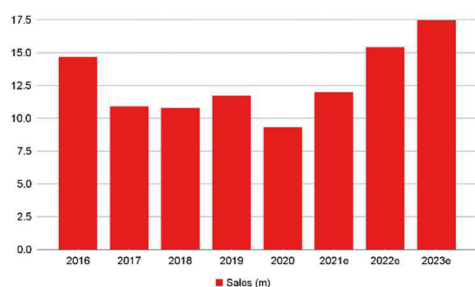


Rel. Performance vs CDAX:	
1 month:	6.8 %
6 months:	20.3 %
Year to date:	9.0 %
Trailing 12 months:	26.4 %

Company events:	

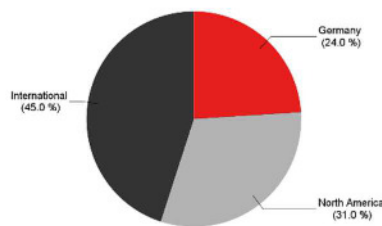
FY End: 31.12. in EUR m	CAGR (20-23e)	2017	2018	2019	2020	2021e	2022e	2023e
Sales	23.3 %	10.9	10.8	11.7	9.3	12.0	15.4	17.5
Change Sales yoy		-25.8 %	-1.1 %	8.9 %	-20.6 %	28.7 %	28.5 %	13.3 %
EBITDA	-	-6.2	-6.4	-5.1	-4.8	-1.1	-0.2	1.2
Margin		-57.0 %	-59.5 %	-43.8 %	-51.1 %	-9.5 %	-1.2 %	6.7 %
EBITDA adj.		-6.2	-6.4	-5.1	-3.4	-1.6	-0.2	1.2
Margin		-57.0 %	-59.5 %	-43.8 %	-36.3 %	-13.7 %	-1.2 %	6.7 %
EBIT	-	-8.0	-8.1	-19.8	-7.9	-2.5	-1.1	0.3
Margin		-73.3 %	-75.5 %	-168.4 %	-84.6 %	-20.5 %	-6.9 %	1.5 %
Net income	-	-8.9	-7.8	-19.5	-8.8	-2.9	-1.4	-0.1
EPS	-	-0.31	-0.27	-0.61	-2.74	-0.58	-0.28	-0.02
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	-0.71	-0.67	-0.25
FCF / Market cap		-1.8 %	-1.8 %	-2.7 %	-31.9 %	-18.1 %	-17.3 %	-6.5 %
EV / Sales		36.4 x	44.7 x	23.1 x	1.8 x	1.7 x	1.5 x	1.4 x
EV / EBITDA		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	21.0 x
EV / EBIT		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	96.9 x
P / E		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield		-1.9 %	-1.7 %	-7.1 %	-46.5 %	-6.4 %	-2.4 %	2.8 %
Net Debt		-12.2	-3.9	-0.6	4.1	1.1	4.4	5.6
ROCE (NOPAT)		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.0 %
Guidance:	Sales EUR 12m, upper half of EBITDA range EUR -2.0 to -0.7m							

Sales development
in EUR m



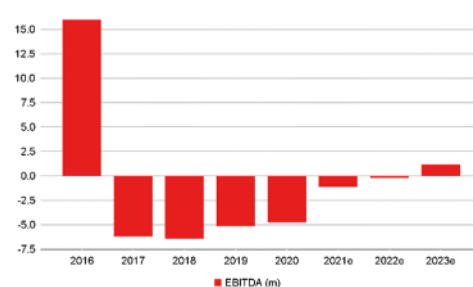
Source: Warburg Research

Sales by regions
2020; in %



Source: Warburg Research

EBITDA development
in EUR m



Source: Warburg Research

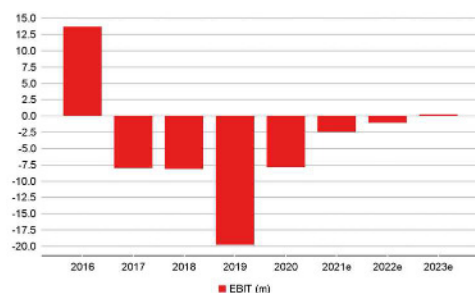
Company Background

- 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

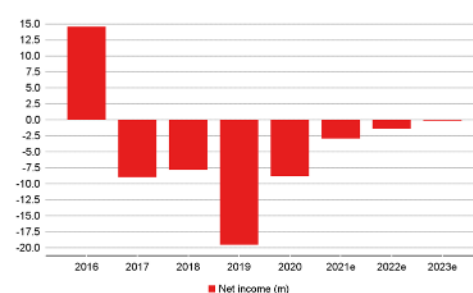
- aap Implantate AG has developed a patent protected anatomical plating system (LOQTEQ), which provides significant improvements for surgeons, hospitals and clinics as well as patients.
- Additionally, aap Implantate AG has a promising development pipeline with an antibacterial silver coating for the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

EBIT development
in EUR m



Source: Warburg Research

Net income development
in EUR m



Source: Warburg Research

DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	
Sales	12.0	15.4	17.5	19.7	21.9	24.2	26.5	28.7	30.7	32.5	33.8	34.8	35.9	2.5 %
Sales change	28.7 %	28.5 %	13.3 %	12.5 %	11.4 %	10.6 %	9.6 %	8.3 %	6.8 %	5.8 %	4.2 %	3.0 %	3.0 %	
EBIT	-2.5	-1.1	0.3	1.4	2.8	3.4	3.7	4.0	4.3	4.5	4.6	4.5	4.5	
EBIT-margin	-20.5 %	-6.9 %	1.5 %	7.0 %	13.0 %	14.0 %	14.0 %	14.0 %	14.0 %	14.0 %	13.5 %	13.0 %	12.5 %	
Tax rate (EBT)	3.3 %	6.8 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	
NOPAT	-2.4	-1.0	0.2	1.0	2.0	2.4	2.7	2.9	3.1	3.3	3.3	3.3	3.2	
Depreciation	1.3	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.1	
in % of Sales	11.0 %	5.6 %	5.3 %	4.9 %	4.5 %	4.1 %	3.7 %	3.3 %	3.0 %	3.0 %	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	1.6	2.3	1.5	0.9	0.8	0.8	0.6	0.4	0.2	-0.4	-0.7	-0.9	-1.0	
- 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	2.3 %	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)	-3.0	-2.9	-0.9	0.5	1.5	1.9	2.2	2.6	2.9	3.6	4.0	4.2	4.2	3
PV of FCF	-2.8	-2.5	-0.7	0.4	1.0	1.2	1.3	1.3	1.4	1.6	1.6	1.6	1.5	19
share of PVs	-23.54 %			50.38 %										73.16 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	15.00 %	Financial Strength	1.70
Cost of debt (after tax)	5.8 %	Liquidity (share)	1.70
Market return	7.00 %	Cyclicality	1.00
Risk free rate	1.50 %	Transparency	1.20
		Others	1.40
WACC	8.68 %	Beta	1.40

Valuation (m)

Present values 2033e	7		
Terminal Value	19		
Financial liabilities	5		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	1	No. of shares (m)	5.0
Equity Value	21	Value per share (EUR)	4.30

Sensitivity Value per Share (EUR)

		Terminal Growth									Delta EBIT-margin						
Beta	WACC	1.75 %	2.00 %	2.25 %	2.50 %	2.75 %	3.00 %	3.25 %	Beta	WACC	-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.61	9.7 %	2.96	3.04	3.13	3.23	3.33	3.44	3.56	1.61	9.7 %	2.51	2.75	2.99	3.23	3.47	3.71	3.95
1.51	9.2 %	3.39	3.49	3.60	3.72	3.85	3.99	4.13	1.51	9.2 %	2.94	3.20	3.46	3.72	3.98	4.24	4.50
1.45	8.9 %	3.63	3.75	3.87	4.00	4.14	4.29	4.46	1.45	8.9 %	3.18	3.45	3.73	4.00	4.27	4.54	4.81
1.40	8.7 %	3.89	4.02	4.15	4.30	4.45	4.62	4.81	1.40	8.7 %	3.44	3.73	4.01	4.30	4.58	4.86	5.15
1.35	8.4 %	4.17	4.31	4.46	4.62	4.80	4.99	5.20	1.35	8.4 %	3.73	4.03	4.32	4.62	4.92	5.21	5.51
1.29	8.2 %	4.47	4.62	4.79	4.97	5.17	5.39	5.63	1.29	8.2 %	4.04	4.35	4.66	4.97	5.28	5.59	5.90
1.19	7.7 %	5.15	5.34	5.56	5.79	6.04	6.32	6.64	1.19	7.7 %	4.76	5.10	5.44	5.79	6.13	6.47	6.81

- Strong double-digit mid-term growth reflects vast growth potential of patent-protected plating system (LOQTEQ)
- EBITDA margin is expected to reach mid-term target of 20% in 2026e, translating into an EBIT margin of 14%
- Elevated working capital is expected to normalise to 35% in the long-term

Valuation	2017	2018	2019	2020	2021e	2022e	2023e
Price / Book	9.6 x	13.9 x	14.4 x	1.2 x	1.4 x	1.5 x	1.5 x
Book value per share ex intangibles	1.07	0.75	0.46	2.28	2.24	2.07	2.11
EV / Sales	36.4 x	44.7 x	23.1 x	1.8 x	1.7 x	1.5 x	1.4 x
EV / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	21.0 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	96.9 x
EV / EBIT adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	96.9 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.	n.a.
P / E adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
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 %	-6.4 %	-2.4 %	2.8 %
*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	12.0	15.4	17.5
Change Sales yoy	-25.8 %	-1.1 %	8.9 %	-20.6 %	28.7 %	28.5 %	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	12.0	15.4	17.5
Material expenses	1.9	2.3	2.4	1.0	1.7	1.9	1.7
Gross profit	9.8	10.3	10.6	8.0	10.3	13.6	15.7
<i>Gross profit margin</i>	<i>89.9 %</i>	<i>95.5 %</i>	<i>90.3 %</i>	<i>85.3 %</i>	<i>86.0 %</i>	<i>88.0 %</i>	<i>90.0 %</i>
Personnel expenses	7.4	7.8	8.2	6.5	6.4	7.9	8.4
Other operating income	0.8	0.5	1.2	1.0	0.9	0.9	1.0
Other operating expenses	9.4	9.4	8.8	7.2	6.0	6.8	7.2
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	-1.1	-0.2	1.2
<i>Margin</i>	<i>-57.0 %</i>	<i>-59.5 %</i>	<i>-43.8 %</i>	<i>-51.1 %</i>	<i>-9.5 %</i>	<i>-1.2 %</i>	<i>6.7 %</i>
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	-2.2	-0.8	0.6
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	-2.5	-1.1	0.3
<i>Margin</i>	<i>-73.3 %</i>	<i>-75.5 %</i>	<i>-168.4 %</i>	<i>-84.6 %</i>	<i>-20.5 %</i>	<i>-6.9 %</i>	<i>1.5 %</i>
EBIT adj.	-8.0	-8.1	-19.8	-7.9	-2.5	-1.1	0.3
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	-3.0	-1.5	-0.2
<i>Margin</i>	<i>-85.3 %</i>	<i>-71.0 %</i>	<i>-170.7 %</i>	<i>-94.5 %</i>	<i>-25.1 %</i>	<i>-9.6 %</i>	<i>-1.0 %</i>
Total taxes	0.0	0.0	-0.6	0.1	-0.1	-0.1	0.0
Net income from continuing operations	-9.3	-7.6	-19.4	-8.9	-2.9	-1.4	-0.1
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	-2.9	-1.4	-0.1
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	-2.9	-1.4	-0.1
<i>Margin</i>	<i>-82.0 %</i>	<i>-72.5 %</i>	<i>-166.3 %</i>	<i>-94.3 %</i>	<i>-24.2 %</i>	<i>-8.9 %</i>	<i>-0.7 %</i>
Number of shares, average	28.6	28.7	32.1	3.2	5.0	4.9	4.9
EPS	-0.31	-0.27	-0.61	-2.74	-0.58	-0.28	-0.02
EPS adj.	-0.31	-0.27	-0.61	-2.74	-0.58	-0.28	-0.02

*Adjustments made for:

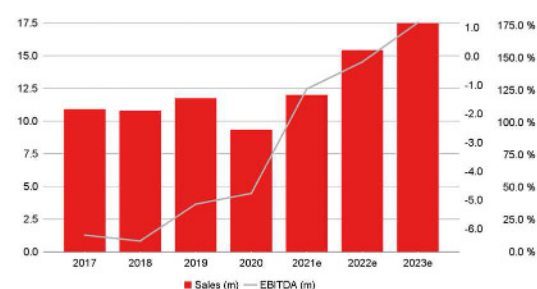
Guidance: Sales EUR 12m, upper half of EBITDA range EUR -2.0 to -0.7m

Financial Ratios

	2017	2018	2019	2020	2021e	2022e	2023e
Total Operating Costs / Sales	164.0 %	176.8 %	154.6 %	147.1 %	109.5 %	101.2 %	93.3 %
Operating Leverage	n.a.	-1.7 x	16.1 x	2.9 x	-2.4 x	-2.0 x	n.a.
EBITDA / Interest expenses	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	2.8 x
Tax rate (EBT)	0.3 %	0.2 %	3.0 %	-1.4 %	3.3 %	6.8 %	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	118,227	151,911	172,109

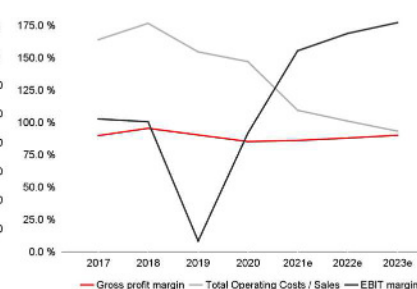
Sales, EBITDA

in EUR m

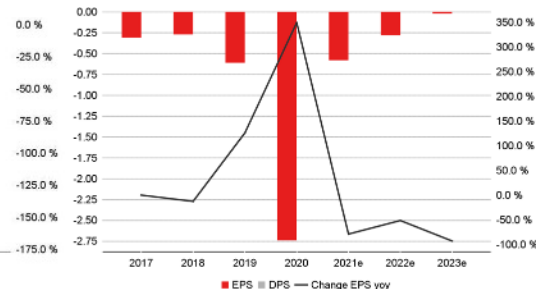


Operating Performance

in %



Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

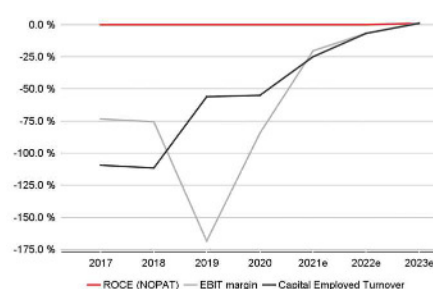
Consolidated balance sheet

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	9.0	11.5	13.0
Accounts receivable	2.5	2.7	1.9	1.8	2.0	2.5	2.9
Liquid assets	13.3	4.3	2.9	0.9	3.7	3.1	2.9
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	17.0	19.5	21.1
Total Assets	50.5	42.2	26.3	19.7	23.5	25.8	27.4
Liabilities and shareholders' equity							
Subscribed capital	28.6	28.7	32.1	3.2	4.9	4.9	4.9
Capital reserve	19.9	20.0	20.1	21.6	24.9	24.9	24.9
Retained earnings	12.1	11.9	11.8	11.7	8.9	7.5	7.4
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	13.7	12.6	12.8
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	13.7	12.6	12.8
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	4.8	7.5	8.5
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	2.5	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	9.8	13.2	14.6
Total liabilities and shareholders' equity	50.5	42.2	26.3	19.7	23.5	25.8	27.4

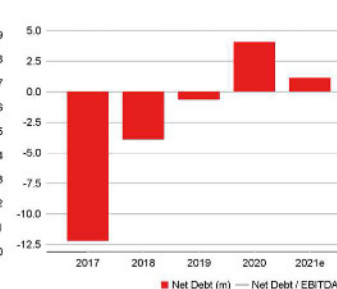
Financial Ratios

	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 %	-44.9 %	-21.6 %	-1.9 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.0 %
ROE	-18.4 %	-20.2 %	-72.6 %	-60.3 %	-24.3 %	-10.5 %	-0.9 %
Adj. ROE	-18.4 %	-20.2 %	-72.6 %	-60.3 %	-24.3 %	-10.5 %	-0.9 %
Balance sheet quality							
Net Debt	-12.2	-3.9	-0.6	4.1	1.1	4.4	5.6
Net Financial Debt	-12.2	-3.9	-0.6	4.1	1.1	4.4	5.6
Net Gearing	-28.7 %	-11.2 %	-3.4 %	39.5 %	8.3 %	35.1 %	44.2 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	480.9 %
Book Value / Share	1.5	1.2	0.6	3.2	2.7	2.6	2.6
Book value per share ex intangibles	1.1	0.8	0.5	2.3	2.2	2.1	2.1

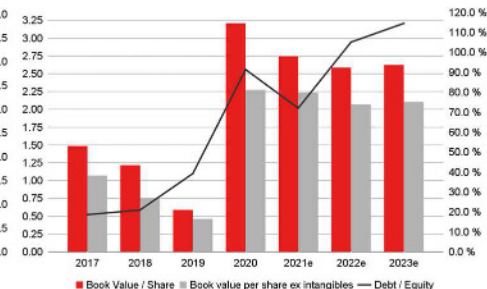
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Consolidated cash flow statement

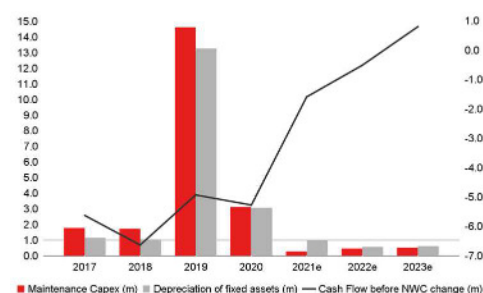
In EUR m	2017	2018	2019	2020	2021e	2022e	2023e
Net income	-9.3	-7.6	-19.9	-8.5	-2.9	-1.4	-0.1
Depreciation of fixed assets	1.2	1.1	13.3	3.1	1.0	0.6	0.6
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.6	0.7	1.5	0.0	0.3	0.3	0.3
Increase/decrease in long-term provisions	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	-1.6	-0.5	0.8
Increase / decrease in inventory	0.1	0.6	0.4	1.4	-2.0	-2.5	-1.5
Increase / decrease in accounts receivable	0.0	0.0	-0.8	0.9	-0.2	-0.5	-0.4
Increase / decrease in accounts payable	0.0	0.0	-0.4	-0.7	0.6	0.7	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	-1.6	-2.3	-1.5
Net cash provided by operating activities [1]	-5.4	-5.9	-5.8	-3.7	-3.2	-2.8	-0.7
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	-0.2	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	4.8	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	5.7	2.7	1.0
Change in liquid funds [1]+[2]+[3]	-10.5	-9.0	-1.3	-2.0	2.8	-0.6	-0.2
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	3.7	3.1	2.9

Financial Ratios

	2017	2018	2019	2020	2021e	2022e	2023e
Cash Flow							
FCF	-7.5	-8.9	-7.5	-4.1	-3.5	-3.3	-1.2
Free Cash Flow / Sales	-68.6 %	-82.5 %	-63.6 %	-43.8 %	-29.4 %	-21.2 %	-7.0 %
Free Cash Flow Potential	-7.6	-8.3	-19.3	-7.9	-1.3	-0.6	0.7
Free Cash Flow / Net Profit	83.7 %	113.8 %	38.2 %	46.5 %	121.1 %	237.7 %	1024.2 %
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 %	11.3 %	6.8 %	5.3 %
Management of Funds							
Investment ratio	18.8 %	26.9 %	14.8 %	3.8 %	2.3 %	3.0 %	3.0 %
Maint. Capex / Sales	16.4 %	16.0 %	124.6 %	33.5 %	2.3 %	3.0 %	3.0 %
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 %	64.0 %	62.6 %	66.1 %
Trade Debtors / Trade Creditors	145.1 %	123.9 %	141.8 %	94.5 %	80.0 %	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	61	59	61
Payables payment period (days)	342	335	202	707	543	631	752
Cash conversion cycle (Days)	1,619	1,255	1,027	1,918	1,473	1,697	2,025

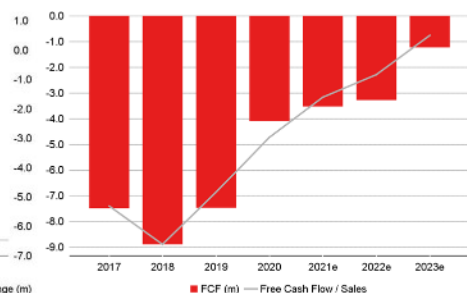
CAPEX and Cash Flow

in EUR m



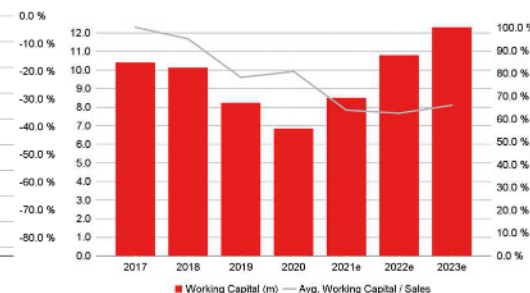
Source: Warburg Research

Free Cash Flow Generation



Source: Warburg Research

Working Capital



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Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
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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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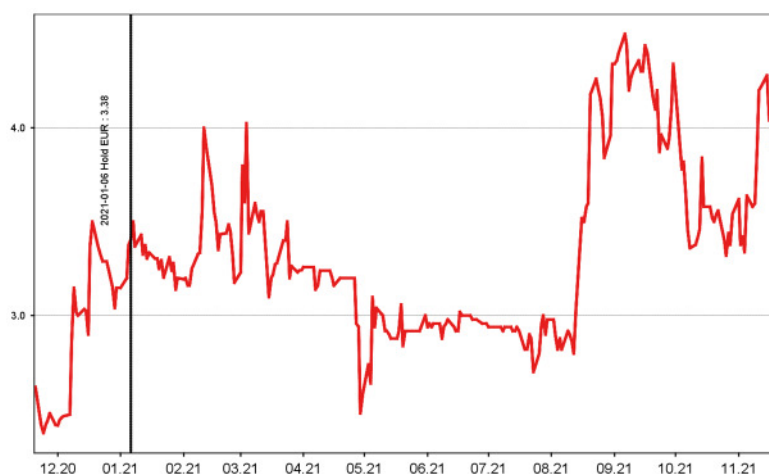
Rating	Number of stocks	% of Universe
Buy	154	71
Hold	56	26
Sell	5	2
Rating suspended	3	1
Total	218	100

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	49	83
Hold	8	14
Sell	0	0
Rating suspended	2	3
Total	59	100

PRICE AND RATING HISTORY AAP IMPLANTATE AS OF 19.11.2021



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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