

Hold EUR 1.80 (EUR 2.70) Price EUR 1.38 Upside 30.4 %	Value Indicators: EUR DCF: 1.97	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: 9.1 No. of shares (m): 6.6 EV: 16.7 Freefloat MC: 3.9 Ø Trad. Vol. (30d): 2.80 th	Shareholders: Freefloat 42.55 % Noes Beheer B.V. 12.51 % Juergen Krebs 12.45 % Ratio Capital Management B.V. 11.36 % Axxion S.A. 7.53 %	Key Figures (WRe): 2022e Beta: 1.4 Price / Book: 0.8 x Equity Ratio: 47 %

Ongoing challenges reflected in Q3 results

Stated Figures Q3/2022: aap Implantate - Q3 2022							
in EUR m	Q3/22	Q3/22e	Q3/21	yoy	9M/22	9M/21	yoy
Sales	3.0	3.6	3.0	1.3%	8.5	8.9	-4.5%
EBITDA	-0.40	0.20	0.3	-	-1.5	0.1	nm
margin	-13.2%	5.6%	9.1%	-	-17.6%	-	-

Comment on Figures:

- Sales increased slightly by 1% yoy to EUR 3.0m (WRe: EUR 3.6m), showing a sequential improvement compared to H1 (-7.0% yoy).
- EBITDA of EUR -0.4m was lower than expected (WRe: -0.2m) due to a lack of operating leverage and high cost inflation
- As a result, aap specified its FY 22 guidance and is now expecting the low ends of the previous guidance ranges (EUR 11.5-13.5m sales, WRe: EUR 11.7m; EBITDA of EUR -1.1m to EUR -2m, WRe: EUR -1.9m).

aap Implantate reported soft Q3 results and specified its FY 22 guidance. Sales rose slightly by 1% yoy in Q3. The strong performance in North America (45% yoy) was not sufficient to compensate for weaker demand in EMEA (-7% yoy), APAC (-27% yoy) and LATAM (-22% yoy). FX-adj. sales declined slightly, by 3% yoy, in Q3. Not only were sales in APAC burdened by price pressure in China but EMEA was faced with lower demand from hospitals and less willingness to invest into new projects/technologies, due to economic uncertainty. EBITDA of EUR -0.4m was lower than expected (WRe: -0.2m), owing to ramp-up costs related to its silver coating technology, the planned increase in personnel to expand business in Europe and Americas, as well as unplanned cost increases with regards to energy and raw materials.

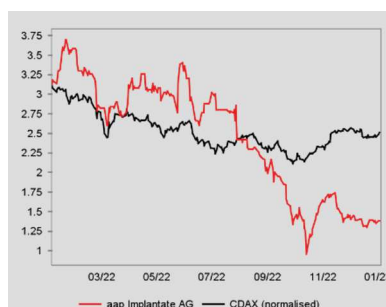
As a result, aap specified its FY 22 guidance. Management now expects sales to be at the lower end of the EUR 11.5-13.5m range (WRe: EUR 11.7m) and EBITDA at the lower end of the EUR -1.1m to EUR -2m range (WRe: EUR -1.9m). In Q4, this implies a 9%-decline in sales yoy and EUR -0.5m EBITDA, which should be achievable. Profitability should remain slightly negative due to cost inflation and the development of the promising silver coating technology.

Overall, we were already expecting the lower end of the FY 22 guidance range. However, given the ongoing economic uncertainty and upcoming recession in Europe, we turn more conservative especially for FY 23e and beyond. Hence, visibility of a turnaround remains low and we confirm our Hold rating with a new PT of EUR 1.80.

Changes in Estimates:						
FY End: 31.12. in EUR m	2022e (old)	+ / -	2023e (old)	+ / -	2024e (old)	+ / -
Sales	12.0	-2.5 %	14.0	-8.6 %	16.0	-7.5 %
EBITDA	-1.7	n.m.	0.5	n.m.	2.0	-52.8 %
EPS	-0.49	n.m.	-0.13	n.m.	0.08	n.m.

Comment on Changes:

- Sales estimates are cut due to high economic uncertainty and subsequent adverse effects on aap's order development
- Greater cut in EBITDA estimates due to negative operating leverage and high cost inflation

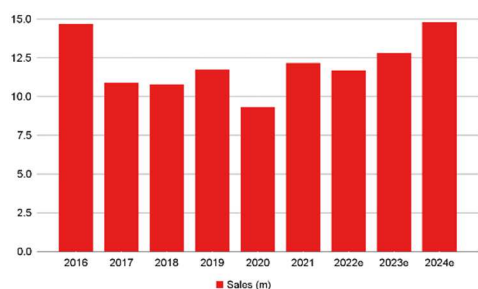


Rel. Performance vs CDAX:	
1 month:	0.8 %
6 months:	-62.6 %
Year to date:	-0.1 %
Trailing 12 months:	-39.6 %

Company events:	
31.03.23	FY 2022
11.08.23	Q2

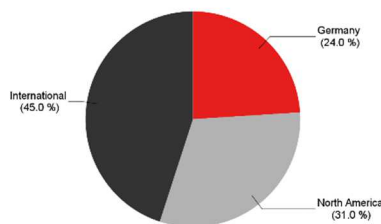
FY End: 31.12. in EUR m	CAGR (21-24e)	2018	2019	2020	2021	2022e	2023e	2024e
Sales	6.8 %	10.8	11.7	9.3	12.2	11.7	12.8	14.8
Change Sales yoy		-1.1 %	8.9 %	-20.6 %	30.5 %	-3.8 %	9.4 %	15.6 %
EBITDA	-	-6.4	-5.1	-4.8	-0.8	-1.9	-0.9	0.9
Margin		-59.5 %	-43.8 %	-51.1 %	-6.2 %	-15.8 %	-6.7 %	6.3 %
EBITDA adj.		-6.4	-5.1	-3.4	-1.3	-1.9	-0.9	0.9
Margin		-59.5 %	-43.8 %	-36.3 %	-10.3 %	-15.8 %	-6.7 %	6.3 %
EBIT	-	-8.1	-19.8	-7.9	-2.6	-2.7	-1.8	-0.1
Margin		-75.5 %	-168.4 %	-84.6 %	-21.4 %	-23.4 %	-14.0 %	-0.9 %
Net income	-	-7.8	-19.5	-8.8	-2.5	-3.1	-2.1	-0.5
EPS	-	-0.27	-0.61	-2.74	-0.50	-0.46	-0.32	-0.08
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		-0.31	-0.23	-1.28	-0.60	-0.37	-0.36	-0.18
FCF / Market cap		-1.8 %	-2.7 %	-31.9 %	-18.0 %	-26.5 %	-25.9 %	-13.3 %
EV / Sales		44.7 x	23.1 x	1.8 x	1.7 x	1.2 x	1.3 x	1.2 x
EV / EBITDA		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	19.3 x
EV / EBIT		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.
FCF Potential Yield		-1.7 %	-7.1 %	-46.5 %	-4.5 %	-14.7 %	-6.8 %	2.8 %
Net Debt		-3.9	-0.6	4.1	4.1	5.3	7.6	8.8
ROCE (NOPAT)		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Guidance:	Lower end of EUR 11.5-13.5m revenue and EUR -2m to EUR -1.1m EBITDA							

Sales development
in EUR m



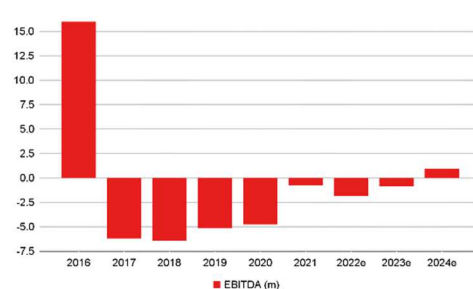
Source: Warburg Research

Sales by regions
2021; in %



Source: Warburg Research

EBITDA development
in EUR m



Source: Warburg Research

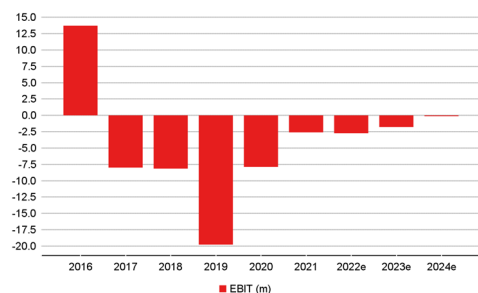
Company Background

- 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

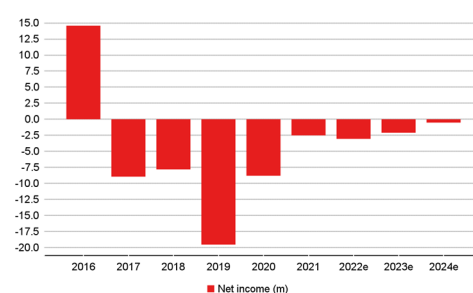
- aap Implantate AG has developed a patent protected anatomical plating system (LOQTEQ), which provides significant improvements for surgeons, hospitals and clinics as well as patients.
- Additionally, aap Implantate AG has a promising development pipeline with an antibacterial silver coating for the 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
	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	
Sales	11.7	12.8	14.8	16.7	18.7	20.8	22.9	24.9	26.9	28.8	30.5	32.1	33.3	2.0 %
Sales change	-3.8 %	9.4 %	15.6 %	13.0 %	12.0 %	11.0 %	10.0 %	9.0 %	8.0 %	7.0 %	6.0 %	5.0 %	4.0 %	
EBIT	-2.7	-1.8	-0.1	1.2	1.9	2.5	2.7	3.0	3.2	3.5	3.7	3.8	3.7	11.0 %
EBIT-margin	-23.4 %	-14.0 %	-0.9 %	7.0 %	10.0 %	12.0 %	12.0 %	12.0 %	12.0 %	12.0 %	12.0 %	12.0 %	11.0 %	
Tax rate (EBT)	3.2 %	5.0 %	5.0 %	10.0 %	15.0 %	20.0 %	27.0 %	27.0 %	27.0 %	27.0 %	27.0 %	27.0 %	27.0 %	2.7
NOPAT	-2.6	-1.7	-0.1	1.1	1.6	2.0	2.0	2.2	2.4	2.5	2.7	2.8	2.7	
Depreciation	0.9	0.9	1.1	1.1	1.2	1.2	1.3	1.3	0.8	0.9	0.9	1.0	1.0	3.0 %
in % of Sales	7.5 %	7.3 %	7.1 %	6.7 %	6.3 %	5.9 %	5.5 %	5.1 %	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	3.0 %
Change in Liquidity from														
- Working Capital	-0.1	0.8	1.3	1.1	0.8	0.7	0.6	0.4	0.3	-0.2	-0.4	-0.6	-0.8	3.0 %
- Capex	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	
Capex in % of Sales	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	0.0
- 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)	-2.0	-2.0	-0.8	0.6	1.4	1.9	2.0	2.3	2.1	2.7	3.1	3.4	3.5	3
PV of FCF	-2.0	-1.8	-0.7	0.4	1.0	1.2	1.1	1.2	1.0	1.2	1.2	1.2	1.1	
share of PVs	-25.89 %			62.26 %										63.63 %

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	8.25 %	Cyclicality	1.00
Risk free rate	2.75 %	Transparency	1.20
		Others	1.40
WACC	9.75 %	Beta	1.40

Valuation (m)

Present values 2034e	6		
Terminal Value	11		
Financial liabilities	5		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	1	No. of shares (m)	6.6
Equity Value	13	Value per share (EUR)	1.97

Sensitivity Value per Share (EUR)

		Terminal Growth									Delta EBIT-margin						
Beta	WACC	1.25 %	1.50 %	1.75 %	2.00 %	2.25 %	2.50 %	2.75 %	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	10.7 %	1.42	1.45	1.49	1.53	1.56	1.60	1.65	1.61	10.7 %	1.06	1.21	1.37	1.53	1.68	1.84	1.99
1.51	10.2 %	1.61	1.65	1.69	1.74	1.78	1.83	1.88	1.51	10.2 %	1.24	1.40	1.57	1.74	1.90	2.07	2.23
1.45	10.0 %	1.72	1.76	1.80	1.85	1.90	1.95	2.01	1.45	10.0 %	1.34	1.51	1.68	1.85	2.02	2.19	2.36
1.40	9.7 %	1.83	1.87	1.92	1.97	2.03	2.09	2.15	1.40	9.7 %	1.44	1.62	1.80	1.97	2.15	2.33	2.50
1.35	9.5 %	1.94	1.99	2.05	2.10	2.16	2.23	2.30	1.35	9.5 %	1.55	1.74	1.92	2.10	2.29	2.47	2.65
1.29	9.2 %	2.07	2.12	2.18	2.24	2.31	2.38	2.46	1.29	9.2 %	1.67	1.86	2.05	2.24	2.43	2.62	2.81
1.19	8.7 %	2.34	2.41	2.48	2.56	2.64	2.73	2.82	1.19	8.7 %	1.94	2.15	2.35	2.56	2.76	2.97	3.17

- 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	2018	2019	2020	2021	2022e	2023e	2024e
Price / Book	13.9 x	14.4 x	1.2 x	1.3 x	0.8 x	0.9 x	0.9 x
Book value per share ex intangibles	0.75	0.46	2.28	1.72	1.08	0.85	0.86
EV / Sales	44.7 x	23.1 x	1.8 x	1.7 x	1.2 x	1.3 x	1.2 x
EV / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	19.3 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
EV / EBIT adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
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)	-1.7 %	-7.1 %	-46.5 %	-4.5 %	-14.7 %	-6.8 %	2.8 %
*Adjustments made for: -							

Consolidated profit & loss

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Sales	10.8	11.7	9.3	12.2	11.7	12.8	14.8
Change Sales yoy	-1.1 %	8.9 %	-20.6 %	30.5 %	-3.8 %	9.4 %	15.6 %
Increase / decrease in inventory	0.0	0.0	-0.5	0.4	0.0	0.0	0.0
Own work capitalised	1.9	1.2	0.1	0.1	0.0	0.0	0.0
Total Sales	12.6	13.0	9.0	12.7	11.7	12.8	14.8
Material expenses	2.3	2.4	1.0	1.8	1.5	1.6	1.7
Gross profit	10.3	10.6	8.0	10.9	10.2	11.2	13.1
Gross profit margin	95.5 %	90.3 %	85.3 %	89.6 %	87.0 %	87.5 %	88.5 %
Personnel expenses	7.8	8.2	6.5	6.7	5.9	6.1	6.2
Other operating income	0.5	1.2	1.0	1.6	0.9	1.0	1.0
Other operating expenses	9.4	8.8	7.2	6.6	7.0	6.9	7.0
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	-6.4	-5.1	-4.8	-0.8	-1.9	-0.9	0.9
Margin	-59.5 %	-43.8 %	-51.1 %	-6.2 %	-15.8 %	-6.7 %	6.3 %
Depreciation of fixed assets	1.1	13.1	3.1	1.8	0.6	0.6	0.8
EBITA	-7.5	-18.2	-7.8	-2.6	-2.4	-1.5	0.2
Amortisation of intangible assets	0.7	1.5	0.0	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	-8.1	-19.8	-7.9	-2.6	-2.7	-1.8	-0.1
Margin	-75.5 %	-168.4 %	-84.6 %	-21.4 %	-23.4 %	-14.0 %	-0.9 %
EBIT adj.	-8.1	-19.8	-7.9	-2.6	-2.7	-1.8	-0.1
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenses	0.0	0.5	0.3	0.3	0.4	0.4	0.4
Other financial income (loss)	0.5	0.2	-0.6	0.0	0.0	0.0	0.0
EBT	-7.7	-20.0	-8.8	-2.9	-3.2	-2.2	-0.6
Margin	-71.0 %	-170.7 %	-94.5 %	-23.5 %	-26.9 %	-17.2 %	-3.7 %
Total taxes	0.0	-0.6	0.1	-0.3	-0.1	-0.1	0.0
Net income from continuing operations	-7.6	-19.4	-8.9	-2.5	-3.1	-2.1	-0.5
Income from discontinued operations (net of tax)	-0.2	-0.1	0.1	0.0	0.0	0.0	0.0
Net income before minorities	-7.8	-19.5	-8.8	-2.5	-3.1	-2.1	-0.5
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	-7.8	-19.5	-8.8	-2.5	-3.1	-2.1	-0.5
Margin	-72.5 %	-166.3 %	-94.3 %	-20.6 %	-26.1 %	-16.4 %	-3.5 %
Number of shares, average	28.7	32.1	3.2	5.0	6.6	6.6	6.6
EPS	-0.27	-0.61	-2.74	-0.50	-0.46	-0.32	-0.08
EPS adj.	-0.27	-0.61	-2.74	-0.50	-0.46	-0.32	-0.08

*Adjustments made for:

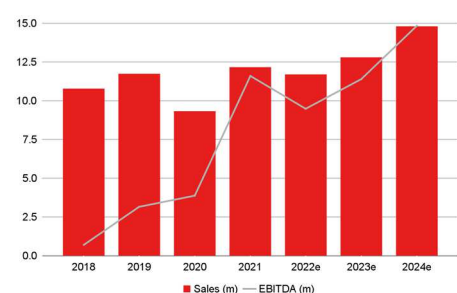
Guidance: Lower end of EUR 11.5-13.5m revenue and EUR -2m to EUR -1.1m EBITDA

Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Total Operating Costs / Sales	176.8 %	154.6 %	147.1 %	110.8 %	115.8 %	106.7 %	93.7 %
Operating Leverage	-1.7 x	16.1 x	2.9 x	-2.2 x	-1.3 x	-3.7 x	-5.9 x
EBITDA / Interest expenses	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	2.2 x
Tax rate (EBT)	0.2 %	3.0 %	-1.4 %	12.0 %	3.2 %	5.0 %	5.0 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	74,352	80,959	91,882	119,862	115,271	126,108	145,813

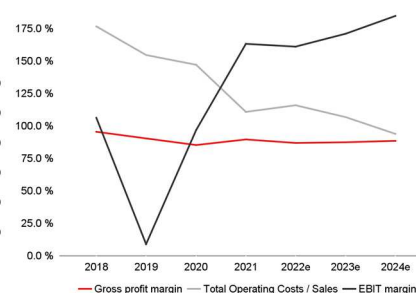
Sales, EBITDA

in EUR m

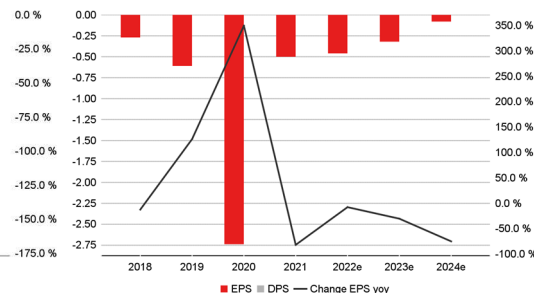


Operating Performance

in %



Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

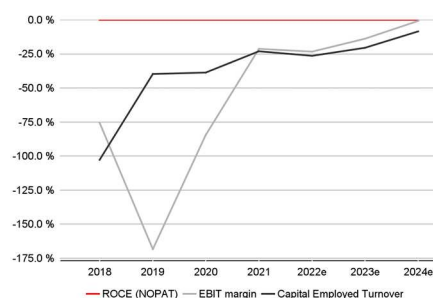
Consolidated balance sheet

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Assets							
Goodwill and other intangible assets	13.3	4.1	3.0	4.2	4.2	4.2	4.2
thereof other intangible assets	0.2	0.1	0.0	0.1	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	6.9	6.2	4.3	3.4	3.4	3.4	3.4
Financial assets	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	0.6	0.4	0.4	0.4	0.4	0.4	0.4
Fixed assets	20.9	10.7	7.7	8.0	8.0	8.0	8.0
Inventories	9.6	7.7	7.0	7.3	7.3	8.0	9.3
Accounts receivable	2.7	1.9	1.8	3.1	2.9	3.2	3.6
Liquid assets	4.3	2.9	0.9	2.1	3.6	2.3	2.1
Other short-term assets	4.8	3.1	2.4	2.5	2.5	2.5	2.5
Current assets	21.3	15.6	12.0	15.0	16.3	15.9	17.4
Total Assets	42.2	26.3	19.7	23.0	24.2	23.9	25.4
Liabilities and shareholders' equity							
Subscribed capital	28.7	32.1	3.2	5.0	6.6	6.6	6.6
Capital reserve	20.0	20.1	21.6	25.0	25.0	25.0	25.0
Retained earnings	11.9	11.8	11.7	11.7	8.7	6.6	6.1
Other equity components	-25.7	-45.1	-26.2	-28.9	-28.9	-28.3	-27.7
Shareholders' equity	34.9	18.9	10.3	12.8	11.3	9.8	9.9
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	34.9	18.9	10.3	12.8	11.3	9.8	9.9
Provisions	0.3	0.4	0.6	0.3	0.3	0.3	0.3
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	0.3	2.3	5.0	6.2	8.9	9.9	10.9
Short-term financial liabilities	0.0	0.5	0.4	0.4	0.4	0.4	0.4
Accounts payable	2.1	1.3	1.9	2.3	2.2	2.4	2.8
Other liabilities	4.5	3.4	1.9	1.5	1.5	1.5	1.5
Liabilities	7.3	7.4	9.4	10.3	12.9	14.1	15.5
Total liabilities and shareholders' equity	42.2	26.3	19.7	23.0	24.2	23.9	25.4

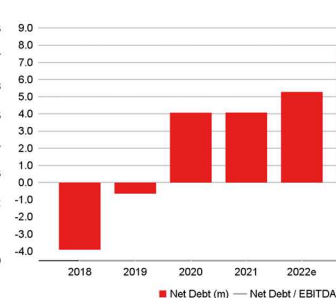
Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Efficiency of Capital Employment							
Operating Assets Turnover	0.6 x	0.8 x	0.8 x	1.1 x	1.0 x	1.1 x	1.1 x
Capital Employed Turnover	0.3 x	0.6 x	0.6 x	0.7 x	0.7 x	0.7 x	0.8 x
ROA	-37.4 %	-181.8 %	-114.6 %	-31.5 %	-38.3 %	-26.3 %	-6.6 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ROE	-20.2 %	-72.6 %	-60.3 %	-21.8 %	-25.4 %	-19.9 %	-5.3 %
Adj. ROE	-20.2 %	-72.6 %	-60.3 %	-21.8 %	-25.4 %	-19.9 %	-5.3 %
Balance sheet quality							
Net Debt	-3.9	-0.6	4.1	4.1	5.3	7.6	8.8
Net Financial Debt	-3.9	-0.6	4.1	4.1	5.3	7.6	8.8
Net Gearing	-11.2 %	-3.4 %	39.5 %	31.9 %	46.7 %	77.9 %	89.5 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	954.2 %
Book Value / Share	1.2	0.6	3.2	2.6	1.7	1.5	1.5
Book value per share ex intangibles	0.8	0.5	2.3	1.7	1.1	0.9	0.9

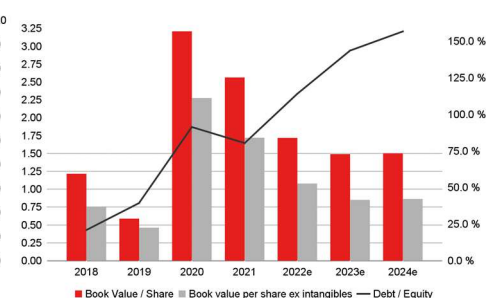
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Consolidated cash flow statement

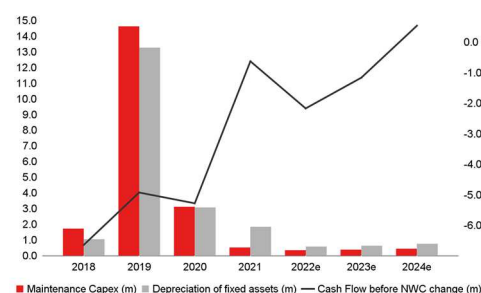
In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	-7.6	-19.9	-8.5	-2.5	-3.1	-2.1	-0.5
Depreciation of fixed assets	1.1	13.3	3.1	1.8	0.6	0.6	0.8
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.7	1.5	0.0	0.0	0.3	0.3	0.3
Increase/decrease in long-term provisions	-0.5	0.1	0.2	-0.3	0.0	0.0	0.0
Other non-cash income and expenses	-0.2	0.1	-0.1	0.3	0.0	0.0	0.0
Cash Flow before NWC change	-6.6	-4.9	-5.3	-0.6	-2.2	-1.2	0.5
Increase / decrease in inventory	0.6	0.4	1.4	-1.3	0.0	-0.7	-1.3
Increase / decrease in accounts receivable	0.0	-0.8	0.9	-0.1	0.2	-0.3	-0.4
Increase / decrease in accounts payable	0.0	-0.4	-0.7	-0.5	-0.1	0.2	0.4
Increase / decrease in other working capital positions	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	0.7	-0.8	1.6	-1.8	0.1	-0.8	-1.3
Net cash provided by operating activities [1]	-5.9	-5.8	-3.7	-2.5	-2.0	-2.0	-0.8
Investments in intangible assets	-2.2	-1.0	-0.1	-0.2	0.0	0.0	0.0
Investments in property, plant and equipment	-0.7	-0.7	-0.3	-0.3	-0.4	-0.4	-0.4
Payments for acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial investments	0.0	-2.0	0.0	0.0	0.0	0.0	0.0
Income from asset disposals	0.0	0.0	0.3	0.6	0.0	0.0	0.0
Net cash provided by investing activities [2]	-3.0	0.3	-0.1	0.2	-0.4	-0.4	-0.4
Change in financial liabilities	-0.8	-0.5	-0.3	0.2	2.7	1.0	1.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.1	3.4	0.0	0.0	1.2	0.0	0.0
Other	0.6	1.3	2.0	3.3	0.0	0.0	0.0
Net cash provided by financing activities [3]	-0.2	4.1	1.8	3.5	3.9	1.0	1.0
Change in liquid funds [1]+[2]+[3]	-9.0	-1.3	-2.0	1.2	1.5	-1.3	-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	4.3	2.9	0.9	2.1	3.6	2.3	2.1

Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Cash Flow							
FCF	-8.9	-7.5	-4.1	-3.0	-2.4	-2.3	-1.2
Free Cash Flow / Sales	-82.5 %	-63.6 %	-43.8 %	-24.6 %	-20.5 %	-18.4 %	-8.2 %
Free Cash Flow Potential	-8.3	-19.3	-7.9	-0.9	-2.1	-1.1	0.5
Free Cash Flow / Net Profit	113.8 %	38.2 %	46.5 %	119.1 %	78.6 %	112.0 %	231.6 %
Interest Received / Avg. Cash	0.0 %	0.0 %	0.5 %	0.0 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	4.2 %	38.5 %	9.4 %	5.1 %	5.6 %	4.5 %	4.0 %
Management of Funds							
Investment ratio	26.9 %	14.8 %	4.4 %	4.3 %	3.0 %	3.0 %	3.0 %
Maint. Capex / Sales	16.0 %	124.6 %	33.5 %	4.3 %	3.0 %	3.0 %	3.0 %
Capex / Dep	167.7 %	11.8 %	13.3 %	28.4 %	39.9 %	41.2 %	42.0 %
Avg. Working Capital / Sales	95.3 %	78.2 %	80.9 %	61.5 %	68.9 %	65.6 %	63.9 %
Trade Debtors / Trade Creditors	123.9 %	141.8 %	94.5 %	135.4 %	131.8 %	133.3 %	128.6 %
Inventory Turnover	0.2 x	0.3 x	0.1 x	0.2 x	0.2 x	0.2 x	0.2 x
Receivables collection period (days)	90	58	71	93	90	91	89
Payables payment period (days)	335	202	707	460	528	548	600
Cash conversion cycle (Days)	1,255	1,027	1,918	1,104	1,314	1,369	1,483

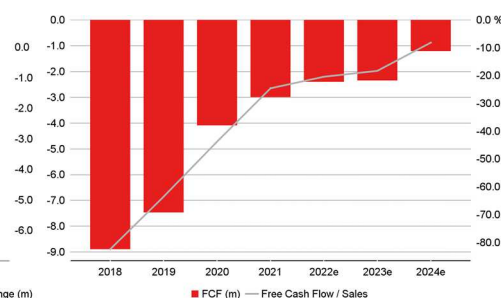
CAPEX and Cash Flow

in EUR m



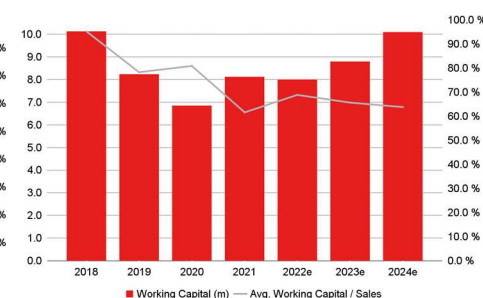
Source: Warburg Research

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)
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-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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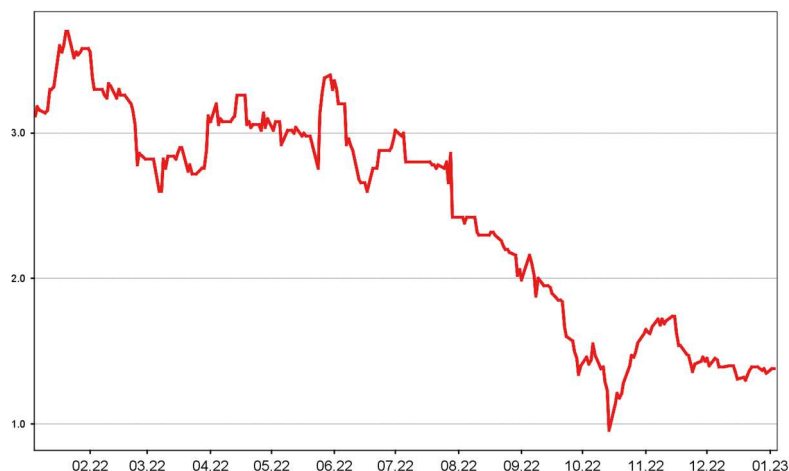
Rating	Number of stocks	% of Universe
Buy	161	75
Hold	43	20
Sell	6	3
Rating suspended	4	2
Total	214	100

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	44	86
Hold	6	12
Sell	0	0
Rating suspended	1	2
Total	51	100

PRICE AND RATING HISTORY AAP IMPLANTATE AS OF 04.01.2023



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