

Hold EUR 4.00 (EUR 4.30) Price EUR 2.98 Upside 34.2 %	Value Indicators: EUR DCF: 4.03	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: 17.8 No. of shares (m): 6.0 EV: 22.3 Freefloat MC: 9.2 Ø Trad. Vol. (30d): 6.23 th	Shareholders: Freefloat 51.65 % <i>Noes Beheer B.V.</i> 13.79 % <i>Juergen Krebs</i> 13.73 % <i>Ratio Capital Management B.V.</i> 12.52 % <i>Axxion S.A.</i> 8.31 %	Key Figures (WRe): 2022e Beta: 1.4 Price / Book: 1.5 x Equity Ratio: 47 %

Pick-up needed to reach FY 22 targets

Stated Figures Q1/2022:

aap Implantate - Q1 2022

in EUR m	Q1/22	Q1/22e	Q1/21	yoy	2022e	2021	yoy
Sales	2.9	3.5	2.7	5.7%	14.1	12.2	15.6%
EBITDA	-0.48	-0.30	-0.2	153.7%	-1.3	-1.1	23.3%
<i>margin</i>	<i>-16.7%</i>	<i>-8.6%</i>	<i>-6.9%</i>		<i>-9.4%</i>	<i>-8.8%</i>	

Comment on Figures:

- Sales rose by 6% yoy to EUR 2.9m in Q1 (WRe: EUR 3.5m) supported by solid growth in EMEA and North America.
- EBITDA came in at EUR -0.5m (WRe: -0.3m)
- aap confirmed its 2022 outlook for sales of EUR 14-16m (WRe: EUR 15.6m) and EBITDA of EUR -0.5m to -1.7m (WRe: EUR -0.8m)

aap Implantate reported slightly weaker Q1 results than expected. Sales growth of 6% yoy was driven by 19% growth yoy in EMEA and 5% in North America while LATAM and APAC declined by 26% yoy and 34% yoy, respectively. Overall, the effects of COVID were behind the lower sales than expected. aap is still seeing negative COVID effects in the lower number of surgeries performed because of COVID-related absence of hospital staff. In the US, January and February were particularly weak while the situation has started to improve considerably since March. Moreover, mobility has not yet returned to pre-crisis levels while the Ukraine war had a negative effect on business operations in Eastern Europe. EBITDA came in at EUR -0.5m (WR: -0.3m) due to ramp-up costs related to aap's silver coating technology and the planned increase in personnel to expand business in Europe and the Americas.

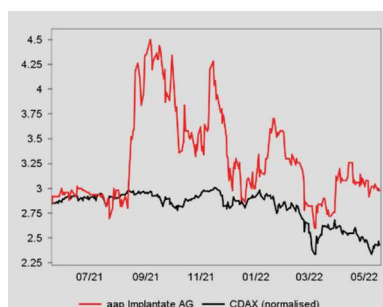
The FY 22 guidance was confirmed, which implies accelerating growth in the coming quarters on the back of a strong pipeline in terms of new customers as well as an ongoing rebound in the US, which has been signaled since March. Moreover, increasing mobility looks set to support aap's business activity. Profitability should remain slightly negative owing to costs related to the development of the promising silver coating technology (i.e. clinical study). Adjusted for these costs, EBITDA should be in positive territory in 2022. Still, given the weaker-than-expected Q1 results, we adjust our estimates and now expect aap to reach the low end of its FY 22 guidance. Hence, news-flow looks set to remain mixed and we confirm our Hold rating. We increase our risk-free rate to 2.0% (from 1.5%) which leads to a new PT of EUR 4.

Changes in Estimates:

FY End: 31.12. in EUR m	2022e (old)	+ / -	2023e (old)	+ / -	2024e (old)	+ / -
Sales	15.6	-9.6 %	17.7	-7.9 %	n.a.	n.m.
EBITDA	-0.8	n.m.	1.2	-29.8 %	n.a.	n.m.
EPS	-0.41	n.m.	-0.02	n.m.	n.a.	n.m.

Comment on Changes:

- Sales estimates are cut to reflect a slower recovery than expected
- Cut in EBITDA estimates due to lower operating leverage



Rel. Performance vs CDAX:

1 month:	1.9 %
6 months:	-5.7 %
Year to date:	15.8 %
Trailing 12 months:	10.5 %

Company events:

01.06.22	AGM
12.08.22	Q2

FY End: 31.12. in EUR m	CAGR (21-24e)	2018	2019	2020	2021	2022e	2023e	2024e
Sales	15.1 %	10.8	11.7	9.3	12.2	14.1	16.3	18.6
Change Sales yoy		-1.1 %	8.9 %	-20.6 %	30.8 %	15.6 %	15.6 %	14.1 %
EBITDA	-	-6.4	-5.1	-4.8	-1.1	-1.3	0.8	2.2
<i>Margin</i>		<i>-59.5 %</i>	<i>-43.8 %</i>	<i>-51.1 %</i>	<i>-8.8 %</i>	<i>-9.4 %</i>	<i>5.1 %</i>	<i>11.9 %</i>
EBITDA adj.		-6.4	-5.1	-3.4	-1.6	-1.3	0.8	2.2
<i>Margin</i>		<i>-59.5 %</i>	<i>-43.8 %</i>	<i>-36.3 %</i>	<i>-12.9 %</i>	<i>-9.4 %</i>	<i>5.1 %</i>	<i>11.9 %</i>
EBIT	-	-8.1	-19.8	-7.9	-2.4	-2.2	-0.1	1.2
<i>Margin</i>		<i>-75.5 %</i>	<i>-168.4 %</i>	<i>-84.6 %</i>	<i>-19.6 %</i>	<i>-15.5 %</i>	<i>-0.5 %</i>	<i>6.3 %</i>
Net income	-	-7.8	-19.5	-8.8	-2.8	-2.5	-0.4	0.5
EPS	-	-0.27	-0.61	-2.74	-0.48	-0.42	-0.06	0.09
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	-0.57	-0.26	-0.11
FCF / Market cap		-1.8 %	-2.7 %	-31.9 %	-17.8 %	-19.0 %	-8.6 %	-3.8 %
EV / Sales		44.7 x	23.1 x	1.8 x	1.7 x	1.6 x	1.5 x	1.3 x
EV / EBITDA		n.a.	n.a.	n.a.	n.a.	n.a.	28.5 x	11.1 x
EV / EBIT		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	20.9 x
P / E		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	33.1 x
FCF Potential Yield		-1.7 %	-7.1 %	-46.5 %	-5.9 %	-7.4 %	2.0 %	5.9 %
Net Debt		-3.9	-0.6	4.1	1.2	4.5	6.1	6.8
ROCE (NOPAT)		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4.6 %
Guidance:		Sales EUR 14 - 16m, upper half of EBITDA range EUR -1.7 to -0.5m						

Analyst

Cansu Tatar

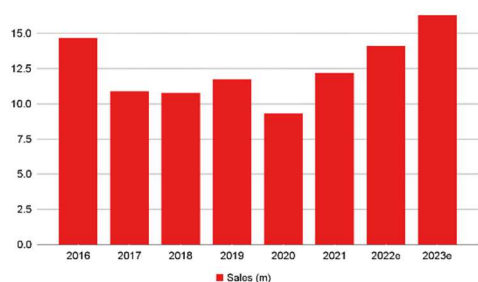
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COMMENT

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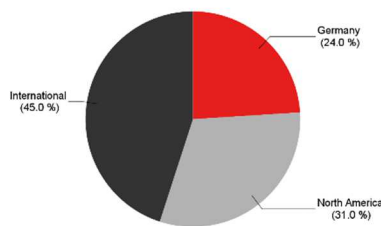
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Sales development
in EUR m



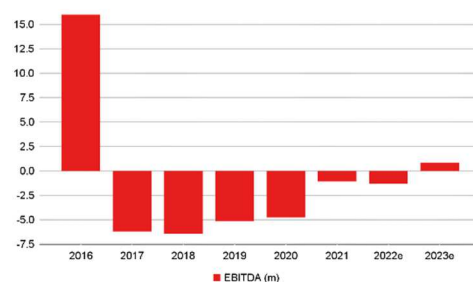
Source: Warburg Research

Sales by regions
2021; in %



Source: Warburg Research

EBITDA development
in EUR m



Source: Warburg Research

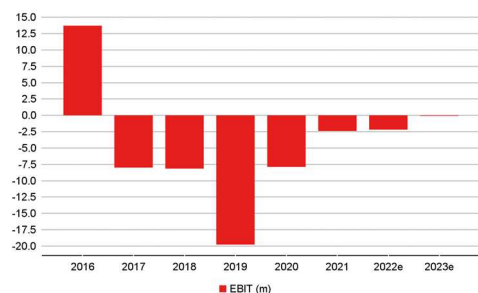
Company Background

- 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

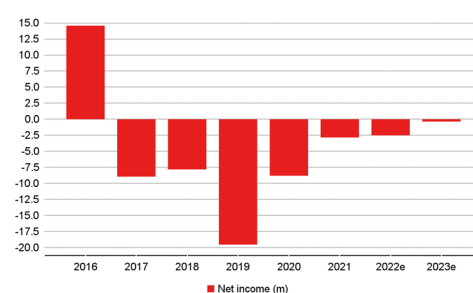
- aap Implantate AG has developed a patent protected anatomical plating system (LOQTEQ), which provides significant improvements for surgeons, hospitals and clinics as well as patients.
- Additionally, aap Implantate AG has a promising development pipeline with an antibacterial silver coating for the 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	14.1	16.3	18.6	20.9	23.3	25.8	28.2	30.6	32.7	34.6	36.0	37.1	38.2	2.5 %
Sales change	15.6 %	15.6 %	14.1 %	12.5 %	11.4 %	10.6 %	9.6 %	8.3 %	6.8 %	5.8 %	4.2 %	3.0 %	3.0 %	
EBIT	-2.2	-0.1	1.2	1.9	2.8	3.1	3.4	3.7	3.9	4.1	4.3	4.4	4.5	11.7 %
EBIT-margin	-15.5 %	-0.5 %	6.3 %	9.0 %	12.0 %	12.0 %	12.0 %	12.0 %	12.0 %	12.0 %	11.9 %	11.8 %	11.7 %	
Tax rate (EBT)	3.8 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	3.2
NOPAT	-2.1	-0.1	0.8	1.4	2.0	2.2	2.4	2.6	2.8	3.0	3.1	3.1	3.2	
Depreciation	0.9	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	3.0 %
in % of Sales	6.1 %	5.6 %	5.6 %	5.2 %	4.8 %	4.4 %	4.0 %	3.6 %	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	4.3
Change in Liquidity from														
- Working Capital	1.3	1.6	1.7	0.8	0.9	0.8	0.7	0.4	0.2	-0.4	-0.8	-1.0	-1.1	4.03
- Capex	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.1	
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)	-3.0	-1.2	-0.4	1.0	1.5	1.8	2.1	2.4	2.7	3.4	3.8	4.2	4.3	19
PV of FCF	-3.0	-1.1	-0.3	0.8	1.1	1.2	1.2	1.3	1.3	1.6	1.6	1.6	1.5	
share of PVs	-15.94 %			47.32 %										68.61 %

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	7.50 %	Cyclicality	1.00
Risk free rate	2.00 %	Transparency	1.20
		Others	1.40
WACC	9.11 %	Beta	1.40

Valuation (m)

Present values 2034e	9		
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)	6.0
Equity Value	24	Value per share (EUR)	4.03

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	10.1 %	2.94	3.01	3.08	3.16	3.25	3.34	3.44	1.61	10.1 %	2.50	2.72	2.94	3.16	3.38	3.60	3.82
1.51	9.6 %	3.29	3.38	3.47	3.56	3.67	3.78	3.90	1.51	9.6 %	2.86	3.09	3.33	3.56	3.80	4.03	4.27
1.45	9.4 %	3.49	3.58	3.68	3.79	3.90	4.02	4.16	1.45	9.4 %	3.05	3.30	3.54	3.79	4.03	4.27	4.52
1.40	9.1 %	3.70	3.80	3.91	4.03	4.15	4.29	4.44	1.40	9.1 %	3.26	3.52	3.77	4.03	4.28	4.53	4.79
1.35	8.9 %	3.92	4.03	4.15	4.29	4.43	4.58	4.75	1.35	8.9 %	3.49	3.76	4.02	4.29	4.55	4.81	5.08
1.29	8.6 %	4.16	4.29	4.42	4.57	4.72	4.90	5.08	1.29	8.6 %	3.74	4.02	4.29	4.57	4.84	5.12	5.39
1.19	8.1 %	4.71	4.86	5.02	5.21	5.40	5.62	5.86	1.19	8.1 %	4.30	4.60	4.90	5.21	5.51	5.81	6.11

- 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	1.5 x	1.5 x	1.5 x	1.4 x
Book value per share ex intangibles	0.75	0.46	2.28	1.88	1.51	1.50	1.64
EV / Sales	44.7 x	23.1 x	1.8 x	1.7 x	1.6 x	1.5 x	1.3 x
EV / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	28.5 x	11.1 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	20.9 x
EV / EBIT adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	20.9 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.	33.1 x
P / E adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	33.1 x
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 %	-5.9 %	-7.4 %	2.0 %	5.9 %
*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	14.1	16.3	18.6
Change Sales yoy	-1.1 %	8.9 %	-20.6 %	30.8 %	15.6 %	15.6 %	14.1 %
Increase / decrease in inventory	0.0	0.0	-0.5	0.0	0.0	0.0	0.0
Own work capitalised	1.9	1.2	0.1	0.0	0.0	0.0	0.0
Total Sales	12.6	13.0	9.0	12.2	14.1	16.3	18.6
Material expenses	2.3	2.4	1.0	1.7	1.8	2.0	2.1
Gross profit	10.3	10.6	8.0	10.5	12.3	14.3	16.5
Gross profit margin	95.5 %	90.3 %	85.3 %	86.0 %	87.0 %	88.0 %	88.5 %
Personnel expenses	7.8	8.2	6.5	6.5	7.2	7.3	7.6
Other operating income	0.5	1.2	1.0	0.9	0.9	1.0	1.0
Other operating expenses	9.4	8.8	7.2	6.0	7.3	7.2	7.6
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	-6.4	-5.1	-4.8	-1.1	-1.3	0.8	2.2
Margin	-59.5 %	-43.8 %	-51.1 %	-8.8 %	-9.4 %	5.1 %	11.9 %
Depreciation of fixed assets	1.1	13.1	3.1	1.0	0.6	0.6	0.7
EBITA	-7.5	-18.2	-7.8	-2.1	-1.9	0.2	1.5
Amortisation of intangible assets	0.7	1.5	0.0	0.3	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	-2.4	-2.2	-0.1	1.2
Margin	-75.5 %	-168.4 %	-84.6 %	-19.6 %	-15.5 %	-0.5 %	6.3 %
EBIT adj.	-8.1	-19.8	-7.9	-2.4	-2.2	-0.1	1.2
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenses	0.0	0.5	0.3	0.6	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	-2.6	-0.5	0.7
Margin	-71.0 %	-170.7 %	-94.5 %	-24.1 %	-18.5 %	-3.1 %	4.0 %
Total taxes	0.0	-0.6	0.1	-0.1	-0.1	-0.1	0.2
Net income from continuing operations	-7.6	-19.4	-8.9	-2.8	-2.5	-0.4	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	-2.8	-2.5	-0.4	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	-2.8	-2.5	-0.4	0.5
Margin	-72.5 %	-166.3 %	-94.3 %	-23.3 %	-17.8 %	-2.2 %	2.9 %
Number of shares, average	28.7	32.1	3.2	6.0	6.0	6.0	6.0
EPS	-0.27	-0.61	-2.74	-0.48	-0.42	-0.06	0.09
EPS adj.	-0.27	-0.61	-2.74	-0.48	-0.42	-0.06	0.09

*Adjustments made for:

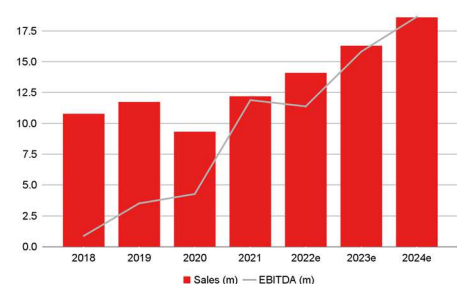
Guidance: Sales EUR 14 - 16m, upper half of EBITDA range EUR -1.7 to -0.5m

Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Total Operating Costs / Sales	176.8 %	154.6 %	147.1 %	108.8 %	109.4 %	94.9 %	88.1 %
Operating Leverage	-1.7 x	16.1 x	2.9 x	-2.3 x	-0.5 x	-6.2 x	n.a.
EBITDA / Interest expenses	n.m.	n.m.	n.m.	n.m.	n.m.	2.0 x	5.3 x
Tax rate (EBT)	0.2 %	3.0 %	-1.4 %	3.4 %	3.8 %	28.0 %	28.0 %
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	120,197	138,916	160,591	183,251

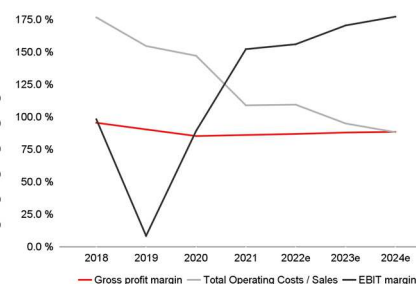
Sales, EBITDA

in EUR m

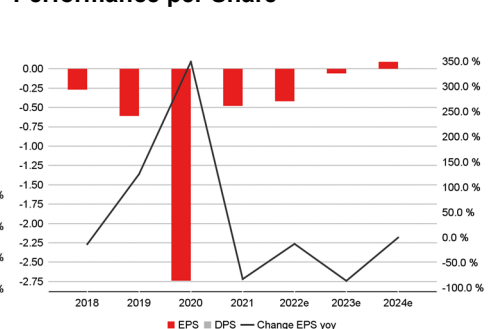


Operating Performance

in %



Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

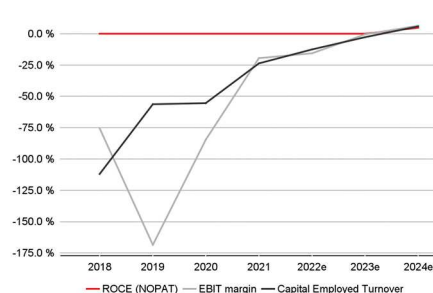
Consolidated balance sheet

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Assets							
Goodwill and other intangible assets	13.3	4.1	3.0	2.5	2.5	2.5	2.5
thereof other intangible assets	0.2	0.1	0.0	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	6.9	6.2	4.3	3.5	3.4	3.3	3.1
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	6.5	6.3	6.2	6.0
Inventories	9.6	7.7	7.0	9.1	10.5	12.2	13.9
Accounts receivable	2.7	1.9	1.8	2.0	2.3	2.7	3.1
Liquid assets	4.3	2.9	0.9	3.6	3.0	2.4	2.7
Other short-term assets	4.8	3.1	2.4	2.4	2.4	2.4	2.4
Current assets	21.3	15.6	12.0	17.1	18.1	19.7	22.1
Total Assets	42.2	26.3	19.7	23.6	24.5	25.9	28.1
Liabilities and shareholders' equity							
Subscribed capital	28.7	32.1	3.2	4.9	4.9	4.9	4.9
Capital reserve	20.0	20.1	21.6	24.9	24.9	24.9	24.9
Retained earnings	11.9	11.8	11.7	8.9	6.4	6.1	6.6
Other equity components	-25.7	-45.1	-26.2	-25.0	-24.7	-24.4	-24.1
Shareholders' equity	34.9	18.9	10.3	13.7	11.5	11.5	12.3
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	34.9	18.9	10.3	13.7	11.5	11.5	12.3
Provisions	0.3	0.4	0.6	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)	0.3	2.3	5.0	4.8	7.5	8.5	9.5
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	2.5	2.9	3.4	3.8
Other liabilities	4.5	3.4	1.9	1.9	1.9	1.9	1.9
Liabilities	7.3	7.4	9.4	9.8	12.9	14.4	15.8
Total liabilities and shareholders' equity	42.2	26.3	19.7	23.6	24.5	25.9	28.1

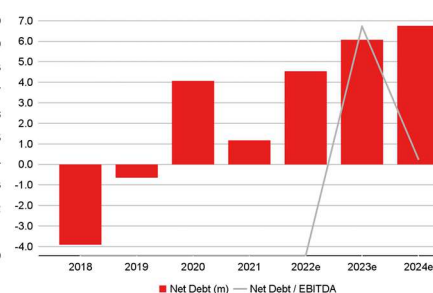
Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Efficiency of Capital Employment							
Operating Assets Turnover	0.6 x	0.8 x	0.8 x	1.0 x	1.1 x	1.1 x	1.1 x
Capital Employed Turnover	0.3 x	0.6 x	0.6 x	0.8 x	0.9 x	0.9 x	1.0 x
ROA	-37.4 %	-181.8 %	-114.6 %	-43.9 %	-39.6 %	-5.8 %	9.0 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4.6 %
ROE	-20.2 %	-72.6 %	-60.3 %	-23.7 %	-19.8 %	-3.1 %	4.5 %
Adj. ROE	-20.2 %	-72.6 %	-60.3 %	-23.7 %	-19.8 %	-3.1 %	4.5 %
Balance sheet quality							
Net Debt	-3.9	-0.6	4.1	1.2	4.5	6.1	6.8
Net Financial Debt	-3.9	-0.6	4.1	1.2	4.5	6.1	6.8
Net Gearing	-11.2 %	-3.4 %	39.5 %	8.5 %	39.4 %	53.0 %	54.9 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	725.4 %	305.6 %
Book Value / Share	1.2	0.6	3.2	2.3	1.9	1.9	2.1
Book value per share ex intangibles	0.8	0.5	2.3	1.9	1.5	1.5	1.6

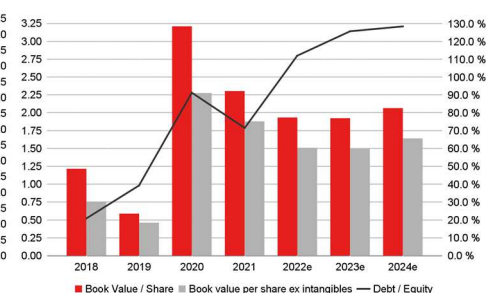
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Consolidated cash flow statement

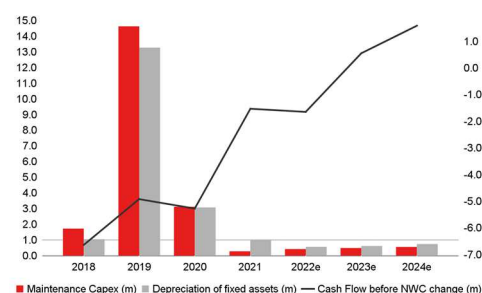
In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	-7.6	-19.9	-8.5	-2.8	-2.5	-0.4	0.5
Depreciation of fixed assets	1.1	13.3	3.1	1.0	0.6	0.6	0.7
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.7	1.5	0.0	0.3	0.3	0.3	0.3
Increase/decrease in long-term provisions	-0.5	0.1	0.2	0.0	0.0	0.0	0.0
Other non-cash income and expenses	-0.2	0.1	-0.1	0.0	0.0	0.0	0.0
Cash Flow before NWC change	-6.6	-4.9	-5.3	-1.5	-1.6	0.6	1.6
Increase / decrease in inventory	0.6	0.4	1.4	-2.1	-1.4	-1.7	-1.7
Increase / decrease in accounts receivable	0.0	-0.8	0.9	-0.2	-0.3	-0.4	-0.4
Increase / decrease in accounts payable	0.0	-0.4	-0.7	0.6	0.4	0.5	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	-1.7	-1.3	-1.6	-1.7
Net cash provided by operating activities [1]	-5.9	-5.8	-3.7	-3.3	-2.9	-1.0	-0.1
Investments in intangible assets	-2.2	-1.0	0.0	0.0	0.0	0.0	0.0
Investments in property, plant and equipment	-0.7	-0.7	-0.4	-0.3	-0.4	-0.5	-0.6
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	0.4	-0.4	-0.5	-0.6
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	4.8	0.0	0.0	0.0
Other	0.6	1.3	2.0	1.0	0.0	0.0	0.0
Net cash provided by financing activities [3]	-0.2	4.1	1.8	5.7	2.7	1.0	1.0
Change in liquid funds [1]+[2]+[3]	-9.0	-1.3	-2.0	2.7	-0.7	-0.5	0.3
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	3.6	3.0	2.4	2.7

Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Cash Flow							
FCF	-8.9	-7.5	-4.1	-3.6	-3.4	-1.5	-0.7
Free Cash Flow / Sales	-82.5 %	-63.6 %	-43.8 %	-29.1 %	-23.9 %	-9.4 %	-3.7 %
Free Cash Flow Potential	-8.3	-19.3	-7.9	-1.3	-1.6	0.5	1.4
Free Cash Flow / Net Profit	113.8 %	38.2 %	46.5 %	125.1 %	134.4 %	428.0 %	-125.7 %
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 %	11.3 %	6.8 %	5.3 %	4.7 %
Management of Funds							
Investment ratio	26.9 %	14.8 %	3.8 %	2.3 %	3.0 %	3.0 %	3.0 %
Maint. Capex / Sales	16.0 %	124.6 %	33.5 %	2.3 %	3.0 %	3.0 %	3.0 %
Capex / Dep	167.7 %	11.8 %	11.2 %	21.3 %	49.1 %	53.5 %	53.7 %
Avg. Working Capital / Sales	95.3 %	78.2 %	80.9 %	63.3 %	65.6 %	65.6 %	66.4 %
Trade Debtors / Trade Creditors	123.9 %	141.8 %	94.5 %	80.0 %	79.3 %	79.4 %	81.6 %
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	60	60	60	61
Payables payment period (days)	335	202	707	534	577	634	648
Cash conversion cycle (Days)	1,255	1,027	1,918	1,470	1,573	1,703	1,784

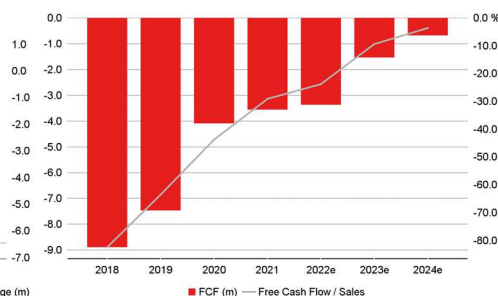
CAPEX and Cash Flow

in EUR m



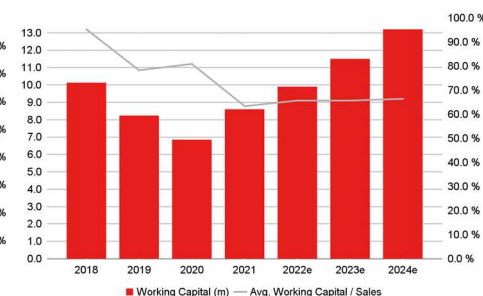
Source: Warburg Research

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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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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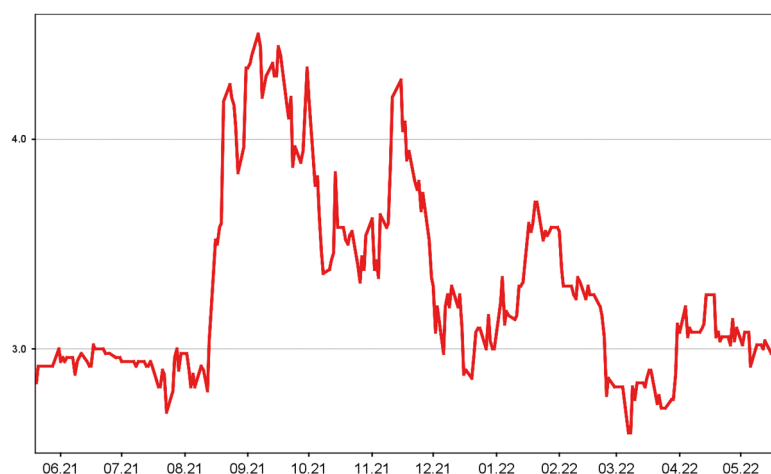
Rating	Number of stocks	% of Universe
Buy	169	80
Hold	38	18
Sell	3	1
Rating suspended	2	1
Total	212	100

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	50	86
Hold	6	10
Sell	0	0
Rating suspended	2	3
Total	58	100

PRICE AND RATING HISTORY AAP IMPLANTATE AS OF 19.05.2022



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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