

<b>Hold</b>  <b>EUR 3.77</b>  Price <b>EUR 3.30</b> <b>Upside 14.4 %</b>	<b>Value Indicators:</b> EUR DCF: 3.77	<b>Warburg ESG Risk Score: 1.8</b> ESG Score (MSCI based): 3.0 Balance Sheet Score: 2.5 Market Liquidity Score: 0.0	<b>Description:</b> Producer of implants to mend broken bones
	<b>Market Snapshot:</b> EUR m Market cap: 10.6 No. of shares (m): 3.2 EV: 14.9 Freefloat MC: 5.4 Ø Trad. Vol. (30d): 5.60 th	<b>Shareholders:</b> Freefloat 50.8 % Ratio Capital Management 16.3 % Noes Beheer B.V. 13.6 % Jürgen W. Krebs 9.9 % Deepblue Holding AG 4.9 %	<b>Key Figures (WRe):</b> 2020e Beta: 1.7 Price / Book: 0.8 x Equity Ratio: 63 %

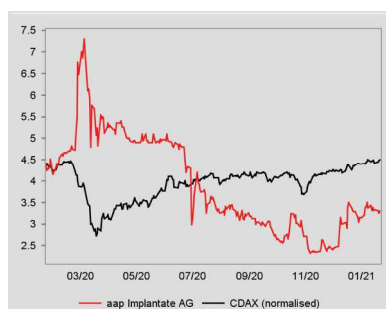
## First Glance: Preliminary 2020 figures, positive outlook reflect strong US sales

aap Implantate announced late on Thursday preliminary sales figures for 2020 and an initial outlook for 2021. Both are positively impacted by strong US sales, which reflect the successful implementation of the new distribution strategy in this important region. Earnings for 2020 have not yet been released.

Core FY sales of EUR 9.3m are in the upper half of the given guidance range despite the strong negative impact of lockdown measures in the context of the Covid-19 pandemic. Group sales declined by 21%, with sales in Germany also down by 21%, International (excluding US) down 39% as aap's core markets here include Spain, South Africa and Mexico. The shining star was the US business achieving sales growth of 41%.

aap's outlook for 2021 foresees sales growth of between 29% and 61%, or in absolute figures EUR 12.0-15.0m. This is above our current estimate and reflects the strong sales growth in the US. The planned sales growth in the US is not only based on the sustainable business with existing customers but also reflects contracts concluded with US-wide purchasing associations and networks, which will drive growth further. The guidance is based on the assumption of a recovery from Q2 onwards. EBITDA is expected to come in at between minus EUR 2.8-0.8m excluding R&D project costs for silver coating or magnesium technology, which will be most likely partnered, and is in line with our expectations at the midpoint.

Assessment: aap's preliminary figures and outlook for 2021 reflect the successful implementation of the new strategy in regard to regions and products, which result in dynamic growth in the US, an increased margin and a significantly reduced cost level. In view of this, breakeven at operating level remains achievable in 2022.

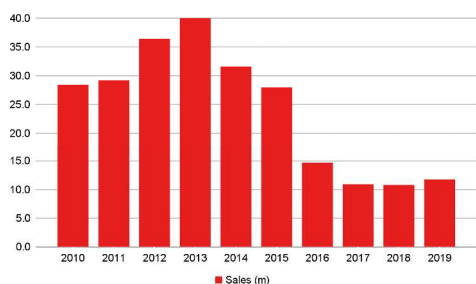


<b>Rel. Performance vs CDAX:</b>	
1 month:	-5.4 %
6 months:	-15.8 %
Year to date:	2.3 %
Trailing 12 months:	-26.3 %

<b>Company events:</b>	
31.03.21	FY 2020
13.08.21	Q2

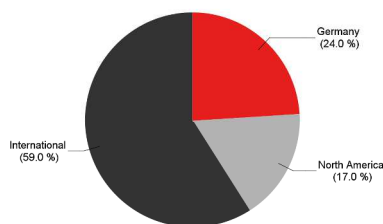
FY End: 31.12. in EUR m	CAGR (19-22e)	2016	2017	2018	2019	2020e	2021e	2022e
<b>Sales</b>	0.7 %	14.7	10.9	10.8	11.7	9.4	10.6	12.0
<b>Change Sales yoy</b>		-47.5 %	-25.8 %	-1.1 %	8.9 %	-19.6 %	12.4 %	12.9 %
<b>EBITDA</b>	-	16.0	-6.2	-6.4	-5.1	-5.5	-1.8	-0.1
<b>Margin</b>		109.0 %	-57.0 %	-59.5 %	-43.8 %	-58.3 %	-17.4 %	-0.5 %
<b>EBITDA adj.</b>		-7.9	-6.2	-6.4	-5.1	-5.5	-1.8	-0.1
<b>Margin</b>		-53.7 %	-57.0 %	-59.5 %	-43.8 %	-58.3 %	-17.4 %	-0.5 %
<b>EBIT</b>	-	13.7	-8.0	-8.1	-19.8	-8.3	-2.7	-0.9
<b>Margin</b>		93.4 %	-73.3 %	-75.5 %	-168.4 %	-88.0 %	-25.1 %	-7.7 %
<b>Net income</b>	-	14.6	-8.9	-7.8	-19.5	-8.3	-2.8	-1.1
<b>EPS</b>	-	0.47	-0.31	-0.27	-0.61	-2.59	-0.88	-0.34
<b>DPS</b>	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Dividend Yield</b>		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>FCFPS</b>		-0.30	-0.26	-0.31	-0.23	-1.47	-0.89	-0.52
<b>FCF / Market cap</b>		-2.3 %	-1.8 %	-1.8 %	-2.7 %	-44.6 %	-26.9 %	-15.9 %
<b>EV / Sales</b>		25.9 x	36.4 x	44.7 x	23.1 x	1.3 x	1.4 x	1.4 x
<b>EV / EBITDA</b>		23.7 x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>EV / EBIT</b>		27.7 x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>P / E</b>		27.7 x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>FCF Potential Yield</b>		3.8 %	-1.9 %	-1.7 %	-7.1 %	-67.9 %	-17.2 %	-5.0 %
<b>Net Debt</b>		-21.5	-12.2	-3.9	-0.6	1.5	4.4	6.0
<b>ROCE (NOPAT)</b>		48.8 %	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Guidance:</b>		Sales EUR 8-10m, upper half; EBITDA EUR -5.9 to -4.5m						

Sales development in EUR m



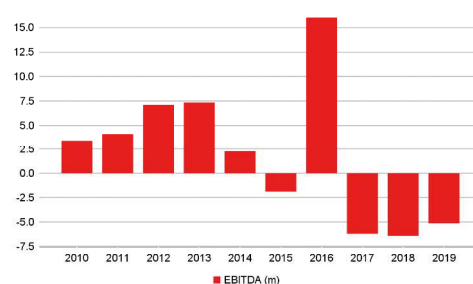
Source: Warburg Research

Sales by regions 2019; in %



Source: Warburg Research

EBITDA development in EUR m



Source: Warburg Research

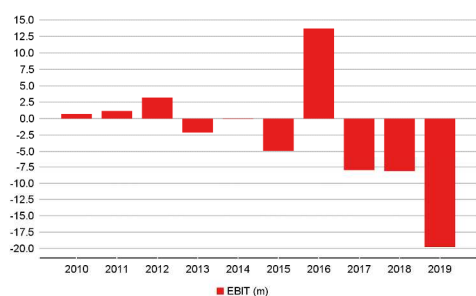
## Company Background

- 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 a 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 as Germany, North America as well as further European countries.
- The products are sold by direct sale, 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

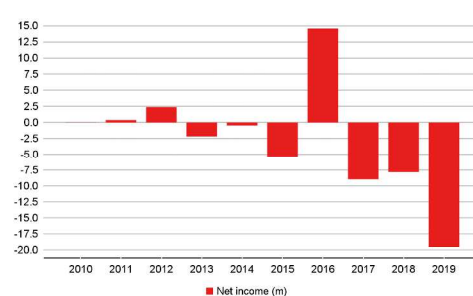
- aap Implantate AG has developed a patent protected anatomical plating system (LOQTEQ), which provides significant improvements for surgeons, hospitals and clinics as well as patients.
- Additionally aap has a promising development pipeline with an antibacterial silver coating for the implants as well 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
	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	
Sales	9.4	10.6	12.0	13.6	15.3	17.1	19.2	21.2	23.0	24.7	26.0	26.9	27.8	
Sales change	-19.6 %	12.4 %	12.9 %	13.2 %	12.6 %	12.2 %	11.8 %	10.7 %	8.7 %	7.1 %	5.3 %	3.5 %	3.3 %	2.5 %
EBIT	-8.3	-2.7	-0.9	0.3	1.1	2.0	2.4	3.0	3.4	3.7	3.9	4.0	4.2	
EBIT-margin	-88.0 %	-25.1 %	-7.7 %	2.2 %	7.2 %	11.4 %	12.7 %	14.0 %	14.8 %	15.0 %	15.0 %	15.0 %	15.0 %	
Tax rate (EBT)	1.2 %	3.4 %	8.5 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	28.0 %	
NOPAT	-8.2	-2.6	-0.8	0.2	0.8	1.4	1.8	2.1	2.5	2.7	2.8	2.9	3.0	
Depreciation	2.8	0.8	0.9	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0	0.8	0.8	
in % of Sales	29.7 %	7.8 %	7.2 %	4.5 %	4.3 %	4.1 %	4.0 %	3.9 %	3.9 %	3.9 %	4.0 %	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	-1.1	0.5	1.1	0.5	0.6	0.5	0.4	0.3	0.0	-0.2	-0.5	-0.7	-1.4	
- Capex	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	
Capex in % of Sales	3.7 %	3.3 %	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)	-4.6	-2.6	-1.4	-0.1	0.4	1.1	1.5	2.0	2.6	3.1	3.5	3.6	4.4	3
PV of FCF	-4.2	-2.2	-1.1	-0.1	0.3	0.6	0.8	0.9	1.1	1.2	1.2	1.1	1.2	11
share of PVs	<b>-65.25 %</b>			<b>73.23 %</b>										<b>92.02 %</b>

**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
<b>WACC</b>	<b>10.24 %</b>	<b>Beta</b>	<b>1.70</b>

**Valuation (m)**

Present values 2032e	1		
Terminal Value	11		
Financial liabilities	2		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	3	No. of shares (m)	3.2
<b>Equity Value</b>	<b>12</b>	<b>Value per share (EUR)</b>	<b>3.77</b>

**Sensitivity Value per Share (EUR)**

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		1.75 %	2.00 %	2.25 %	<b>2.50 %</b>	2.75 %	3.00 %	3.25 %			-1.5 pp	-1.0 pp	-0.5 pp	<b>+0.0 pp</b>	+0.5 pp	+1.0 pp	+1.5 pp
<b>1.91</b>	11.2 %	2.68	2.74	2.81	2.88	2.96	3.04	3.13	<b>1.91</b>	11.2 %	2.20	2.43	2.66	2.88	3.11	3.34	3.57
<b>1.81</b>	10.7 %	3.05	3.13	3.21	3.30	3.39	3.49	3.59	<b>1.81</b>	10.7 %	2.57	2.81	3.05	3.30	3.54	3.78	4.03
<b>1.75</b>	10.5 %	3.26	3.34	3.43	3.52	3.62	3.73	3.84	<b>1.75</b>	10.5 %	2.77	3.02	3.27	3.52	3.78	4.03	4.28
<b>1.70</b>	10.2 %	3.48	3.57	3.67	<b>3.77</b>	3.88	4.00	4.12	<b>1.70</b>	10.2 %	2.99	3.25	3.51	<b>3.77</b>	4.03	4.29	4.55
<b>1.65</b>	10.0 %	3.71	3.81	3.92	4.03	4.15	4.28	4.42	<b>1.65</b>	10.0 %	3.22	3.49	3.76	4.03	4.30	4.57	4.84
<b>1.59</b>	9.7 %	3.96	4.07	4.19	4.31	4.44	4.59	4.74	<b>1.59</b>	9.7 %	3.47	3.75	4.03	4.31	4.59	4.87	5.15
<b>1.49</b>	9.2 %	4.51	4.64	4.79	4.94	5.10	5.28	5.47	<b>1.49</b>	9.2 %	4.03	4.33	4.63	4.94	5.24	5.54	5.85

- High beta due to weak financial position and up to now only limited presence in the important region North America.

Valuation	2016	2017	2018	2019	2020e	2021e	2022e
Price / Book	7.3 x	9.6 x	13.9 x	14.4 x	0.8 x	0.9 x	1.0 x
Book value per share ex intangibles	1.42	1.07	0.75	0.46	3.40	2.61	2.37
EV / Sales	25.9 x	36.4 x	44.7 x	23.1 x	1.3 x	1.4 x	1.4 x
EV / EBITDA	23.7 x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
EV / EBIT	27.7 x	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	27.7 x	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)	3.8 %	-1.9 %	-1.7 %	-7.1 %	-67.9 %	-17.2 %	-5.0 %

\*Adjustments made for: -

**Consolidated profit & loss**

In EUR m	2016	2017	2018	2019	2020e	2021e	2022e
<b>Sales</b>	<b>14.7</b>	<b>10.9</b>	<b>10.8</b>	<b>11.7</b>	<b>9.4</b>	<b>10.6</b>	<b>12.0</b>
Change Sales yoy	-47.5 %	-25.8 %	-1.1 %	8.9 %	-19.6 %	12.4 %	12.9 %
Increase / decrease in inventory	1.3	-0.5	0.0	0.0	0.0	0.0	0.0
Own work capitalised	1.4	1.3	1.9	1.2	0.0	0.0	0.0
<b>Total Sales</b>	<b>17.4</b>	<b>11.7</b>	<b>12.6</b>	<b>13.0</b>	<b>9.4</b>	<b>10.6</b>	<b>12.0</b>
Material expenses	5.7	1.9	2.3	2.4	1.0	1.0	1.1
<b>Gross profit</b>	<b>11.6</b>	<b>9.8</b>	<b>10.3</b>	<b>10.6</b>	<b>8.4</b>	<b>9.7</b>	<b>10.9</b>
<i>Gross profit margin</i>	<i>79.1 %</i>	<i>89.9 %</i>	<i>95.5 %</i>	<i>90.3 %</i>	<i>89.4 %</i>	<i>91.0 %</i>	<i>91.0 %</i>
Personnel expenses	10.0	7.4	7.8	8.2	8.2	5.8	6.1
Other operating income	24.3	0.8	0.5	1.2	0.9	0.9	1.4
Other operating expenses	10.0	9.4	9.4	8.8	6.7	6.7	6.2
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBITDA</b>	<b>16.0</b>	<b>-6.2</b>	<b>-6.4</b>	<b>-5.1</b>	<b>-5.5</b>	<b>-1.8</b>	<b>-0.1</b>
<i>Margin</i>	<i>109.0 %</i>	<i>-57.0 %</i>	<i>-59.5 %</i>	<i>-43.8 %</i>	<i>-58.3 %</i>	<i>-17.4 %</i>	<i>-0.5 %</i>
Depreciation of fixed assets	1.1	1.2	1.1	13.1	1.0	0.5	0.6
<b>EBITA</b>	<b>14.9</b>	<b>-7.4</b>	<b>-7.5</b>	<b>-18.2</b>	<b>-6.5</b>	<b>-2.4</b>	<b>-0.6</b>
Amortisation of intangible assets	1.1	0.6	0.7	1.5	1.8	0.3	0.3
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBIT</b>	<b>13.7</b>	<b>-8.0</b>	<b>-8.1</b>	<b>-19.8</b>	<b>-8.3</b>	<b>-2.7</b>	<b>-0.9</b>
<i>Margin</i>	<i>93.4 %</i>	<i>-73.3 %</i>	<i>-75.5 %</i>	<i>-168.4 %</i>	<i>-88.0 %</i>	<i>-25.1 %</i>	<i>-7.7 %</i>
<b>EBIT adj.</b>	<b>-10.2</b>	<b>-8.0</b>	<b>-8.1</b>	<b>-19.8</b>	<b>-8.3</b>	<b>-2.7</b>	<b>-0.9</b>
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenses	0.0	0.0	0.0	0.5	0.1	0.3	0.3
Other financial income (loss)	0.3	-1.3	0.5	0.2	0.0	0.0	0.0
<b>EBT</b>	<b>14.0</b>	<b>-9.3</b>	<b>-7.7</b>	<b>-20.0</b>	<b>-8.4</b>	<b>-2.9</b>	<b>-1.2</b>
<i>Margin</i>	<i>95.6 %</i>	<i>-85.3 %</i>	<i>-71.0 %</i>	<i>-170.7 %</i>	<i>-89.1 %</i>	<i>-27.5 %</i>	<i>-9.8 %</i>
Total taxes	-0.6	0.0	0.0	-0.6	-0.1	-0.1	-0.1
<b>Net income from continuing operations</b>	<b>14.6</b>	<b>-9.3</b>	<b>-7.6</b>	<b>-19.4</b>	<b>-8.3</b>	<b>-2.8</b>	<b>-1.1</b>
Income from discontinued operations (net of tax)	-0.1	0.3	-0.2	-0.1	0.0	0.0	0.0
<b>Net income before minorities</b>	<b>14.6</b>	<b>-8.9</b>	<b>-7.8</b>	<b>-19.5</b>	<b>-8.3</b>	<b>-2.8</b>	<b>-1.1</b>
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income</b>	<b>14.6</b>	<b>-8.9</b>	<b>-7.8</b>	<b>-19.5</b>	<b>-8.3</b>	<b>-2.8</b>	<b>-1.1</b>
<i>Margin</i>	<i>99.2 %</i>	<i>-82.0 %</i>	<i>-72.5 %</i>	<i>-166.3 %</i>	<i>-88.0 %</i>	<i>-26.6 %</i>	<i>-9.0 %</i>
Number of shares, average	30.8	28.6	28.7	32.1	3.2	3.2	3.2
<b>EPS</b>	<b>0.47</b>	<b>-0.31</b>	<b>-0.27</b>	<b>-0.61</b>	<b>-2.59</b>	<b>-0.88</b>	<b>-0.34</b>
EPS adj.	-0.30	-0.31	-0.27	-0.61	-2.59	-0.88	-0.34

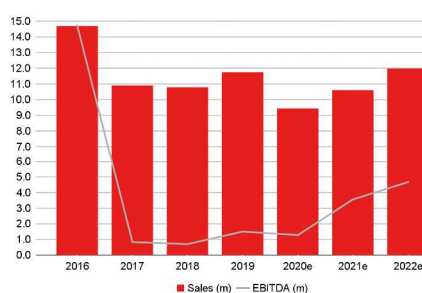
\*Adjustments made for:

**Guidance: Sales EUR 8-10m, upper half; EBITDA EUR -5.9 to -4.5m**

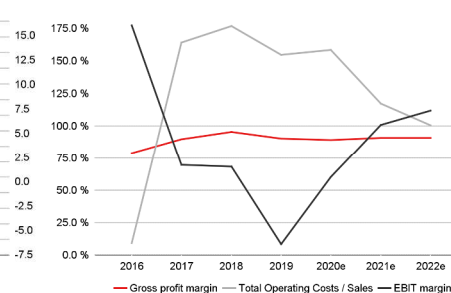
**Financial Ratios**

	2016	2017	2018	2019	2020e	2021e	2022e
Total Operating Costs / Sales	9.2 %	164.0 %	176.8 %	154.6 %	158.3 %	117.4 %	100.5 %
Operating Leverage	n.a.	n.a.	-1.7 x	16.1 x	3.0 x	-5.5 x	-5.1 x
EBITDA / Interest expenses	800.5 x	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
Tax rate (EBT)	-4.2 %	0.3 %	0.2 %	3.0 %	1.2 %	3.4 %	8.5 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	94,755	75,186	74,352	80,959	92,944	104,513	118,016

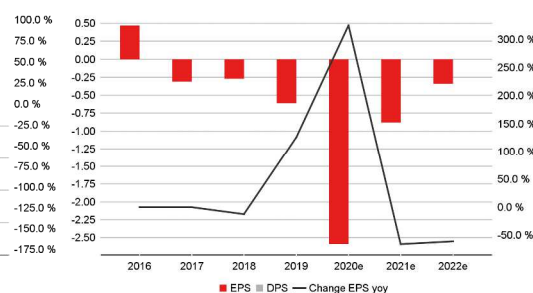
**Sales, EBITDA**  
in EUR m



**Operating Performance**  
in %



**Performance per Share**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

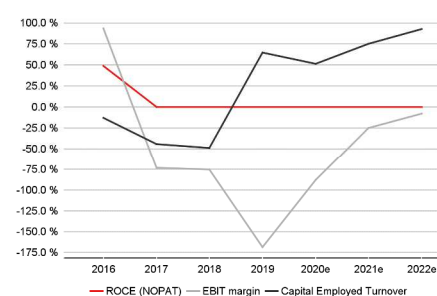
**Consolidated balance sheet**

In EUR m	2016	2017	2018	2019	2020e	2021e	2022e
<b>Assets</b>							
Goodwill and other intangible assets	11.1	11.8	13.3	4.1	3.1	3.1	3.1
thereof other intangible assets	0.1	0.1	0.2	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	7.6	7.2	6.9	6.2	5.6	5.4	5.2
Financial assets	0.2	0.2	0.2	0.0	0.0	0.0	0.0
Other long-term assets	1.8	1.1	0.6	0.4	0.4	0.4	0.4
<b>Fixed assets</b>	<b>20.8</b>	<b>20.3</b>	<b>20.9</b>	<b>10.7</b>	<b>9.1</b>	<b>8.9</b>	<b>8.7</b>
Inventories	11.1	9.6	9.6	7.7	6.3	7.1	8.0
Accounts receivable	2.9	2.5	2.7	1.9	1.9	1.7	2.0
Liquid assets	23.8	13.3	4.3	2.9	1.9	2.6	2.5
Other short-term assets	5.3	4.7	4.8	3.1	3.1	3.1	3.1
<b>Current assets</b>	<b>43.1</b>	<b>30.2</b>	<b>21.3</b>	<b>15.6</b>	<b>13.1</b>	<b>14.5</b>	<b>15.6</b>
<b>Total Assets</b>	<b>63.9</b>	<b>50.5</b>	<b>42.2</b>	<b>26.3</b>	<b>22.2</b>	<b>23.4</b>	<b>24.3</b>
<b>Liabilities and shareholders' equity</b>							
Subscribed capital	30.8	28.6	28.7	32.1	3.2	3.2	3.2
Capital reserve	17.5	19.9	20.0	20.1	2.0	2.0	2.0
Retained earnings	15.2	12.1	11.9	11.8	3.5	0.6	-0.4
Other equity components	-8.7	-18.0	-25.7	-45.1	5.3	5.6	5.9
Shareholders' equity	54.8	42.6	34.9	18.9	14.0	11.4	10.7
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total equity</b>	<b>54.8</b>	<b>42.6</b>	<b>34.9</b>	<b>18.9</b>	<b>14.0</b>	<b>11.4</b>	<b>10.7</b>
Provisions	0.4	0.8	0.3	0.4	0.4	0.4	0.4
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	2.3	1.1	0.3	2.3	3.4	7.0	8.6
thereof short-term financial liabilities	1.3	0.3	0.0	0.5	0.4	4.0	5.6
Accounts payable	2.5	1.8	2.1	1.3	1.1	1.2	1.3
Other liabilities	3.8	4.3	4.5	3.4	3.4	3.4	3.4
<b>Liabilities</b>	<b>9.1</b>	<b>7.9</b>	<b>7.3</b>	<b>7.4</b>	<b>8.3</b>	<b>12.0</b>	<b>13.7</b>
<b>Total liabilities and shareholders' equity</b>	<b>63.9</b>	<b>50.5</b>	<b>42.2</b>	<b>26.3</b>	<b>22.2</b>	<b>23.4</b>	<b>24.3</b>

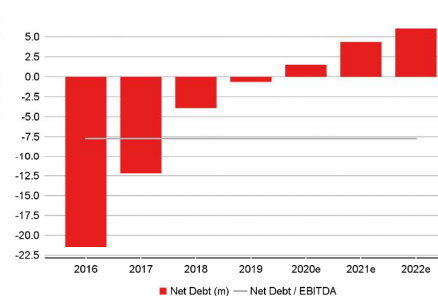
**Financial Ratios**

	2016	2017	2018	2019	2020e	2021e	2022e
<b>Efficiency of Capital Employment</b>							
Operating Assets Turnover	0.8 x	0.6 x	0.6 x	0.8 x	0.7 x	0.8 x	0.9 x
Capital Employed Turnover	0.4 x	0.4 x	0.3 x	0.6 x	0.6 x	0.7 x	0.7 x
ROA	70.2 %	-44.0 %	-37.4 %	-181.8 %	-91.4 %	-31.7 %	-12.4 %
<b>Return on Capital</b>							
ROCE (NOPAT)	48.8 %	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ROE	30.7 %	-18.4 %	-20.2 %	-72.6 %	-50.6 %	-22.2 %	-9.8 %
Adj. ROE	-19.6 %	-18.4 %	-20.2 %	-72.6 %	-50.6 %	-22.2 %	-9.8 %
<b>Balance sheet quality</b>							
Net Debt	-21.5	-12.2	-3.9	-0.6	1.5	4.4	6.0
Net Financial Debt	-21.5	-12.2	-3.9	-0.6	1.5	4.4	6.0
Net Gearing	-39.2 %	-28.7 %	-11.2 %	-3.4 %	10.8 %	38.1 %	56.6 %
Net Fin. Debt / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Book Value / Share	1.8	1.5	1.2	0.6	4.4	3.6	3.3
Book value per share ex intangibles	1.4	1.1	0.8	0.5	3.4	2.6	2.4

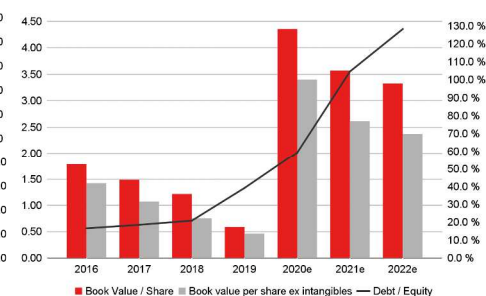
**ROCE Development**



**Net debt in EUR m**



**Book Value per Share in EUR**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

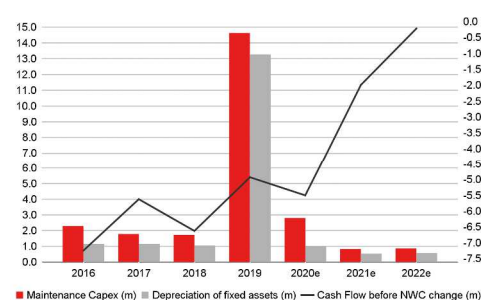
**Consolidated cash flow statement**

In EUR m	2016	2017	2018	2019	2020e	2021e	2022e
Net income	14.6	-9.3	-7.6	-19.9	-8.3	-2.8	-1.1
Depreciation of fixed assets	1.1	1.2	1.1	13.3	1.0	0.5	0.6
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	1.1	0.6	0.7	1.5	1.8	0.3	0.3
Increase/decrease in long-term provisions	0.4	0.3	-0.5	0.1	0.0	0.0	0.0
Other non-cash income and expenses	-24.6	1.5	-0.2	0.1	0.0	0.0	0.0
<b>Cash Flow before NWC change</b>	<b>-7.2</b>	<b>-5.6</b>	<b>-6.6</b>	<b>-4.9</b>	<b>-5.5</b>	<b>-2.0</b>	<b>-0.2</b>
Increase / decrease in inventory	0.1	0.1	0.6	0.4	1.4	-0.8	-0.9
Increase / decrease in accounts receivable	0.0	0.0	0.0	-0.8	0.0	0.2	-0.3
Increase / decrease in accounts payable	0.0	0.0	0.0	-0.4	-0.2	0.1	0.1
Increase / decrease in other working capital positions	-0.1	0.1	0.1	0.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	0.0	0.2	0.7	-0.8	1.1	-0.5	-1.1
<b>Net cash provided by operating activities [1]</b>	<b>-7.2</b>	<b>-5.4</b>	<b>-5.9</b>	<b>-5.8</b>	<b>-4.4</b>	<b>-2.5</b>	<b>-1.3</b>
Investments in intangible assets	-1.0	-1.3	-2.2	-1.0	0.0	0.0	0.0
Investments in property, plant and equipment	-1.0	-0.7	-0.7	-0.7	-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	0.0	0.0	-2.0	0.0	0.0	0.0
Income from asset disposals	31.9	0.5	0.0	0.0	0.0	0.0	0.0
<b>Net cash provided by investing activities [2]</b>	<b>29.8</b>	<b>-1.5</b>	<b>-3.0</b>	<b>0.3</b>	<b>-0.4</b>	<b>-0.4</b>	<b>-0.4</b>
Change in financial liabilities	-2.3	-1.4	-0.8	-0.5	1.1	3.6	1.6
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	0.0	-3.4	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.1	0.1	3.4	0.0	0.0	0.0
Other	-2.3	1.2	0.6	1.3	2.6	0.0	0.0
<b>Net cash provided by financing activities [3]</b>	<b>-4.6</b>	<b>-3.5</b>	<b>-0.2</b>	<b>4.1</b>	<b>3.6</b>	<b>3.6</b>	<b>1.6</b>
<b>Change in liquid funds [1]+[2]+[3]</b>	<b>18.1</b>	<b>-10.5</b>	<b>-9.0</b>	<b>-1.3</b>	<b>-1.1</b>	<b>0.8</b>	<b>-0.1</b>
Effects of exchange-rate changes on cash	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Cash and cash equivalent at end of period	23.8	13.3	4.3	2.9	1.9	2.6	2.5

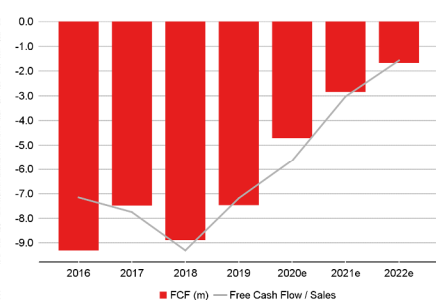
**Financial Ratios**

	2016	2017	2018	2019	2020e	2021e	2022e
<b>Cash Flow</b>							
FCF	-9.3	-7.5	-8.9	-7.5	-4.7	-2.8	-1.7
Free Cash Flow / Sales	-63.4 %	-68.6 %	-82.5 %	-63.6 %	-49.9 %	-26.8 %	-14.0 %
Free Cash Flow Potential	14.3	-7.6	-8.3	-19.3	-8.2	-2.6	-0.8
Free Cash Flow / Net Profit	-63.9 %	83.7 %	113.8 %	38.2 %	56.7 %	100.8 %	155.3 %
Interest Received / Avg. Cash	0.1 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	0.6 %	2.8 %	4.2 %	38.5 %	3.5 %	4.9 %	3.3 %
<b>Management of Funds</b>							
Investment ratio	13.6 %	18.8 %	26.9 %	14.8 %	3.7 %	3.3 %	3.0 %
Maint. Capex / Sales	15.6 %	16.4 %	16.0 %	124.6 %	29.7 %	7.8 %	7.2 %
Capex / Dep	87.2 %	114.8 %	167.7 %	11.8 %	12.5 %	42.3 %	41.7 %
Avg. Working Capital / Sales	76.8 %	100.2 %	95.3 %	78.2 %	81.3 %	69.3 %	68.0 %
Trade Debtors / Trade Creditors	115.5 %	145.1 %	123.9 %	141.8 %	172.7 %	141.7 %	153.8 %
Inventory Turnover	0.5 x	0.2 x	0.2 x	0.3 x	0.2 x	0.1 x	0.1 x
Receivables collection period (days)	73	85	90	58	74	58	61
Payables payment period (days)	162	342	335	202	402	459	440
Cash conversion cycle (Days)	614	1,619	1,255	1,027	1,972	2,314	2,329

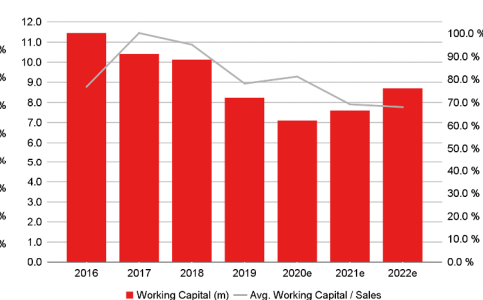
**CAPEX and Cash Flow**  
in EUR m



**Free Cash Flow Generation**



**Working Capital**



Source: Warburg Research

Source: Warburg Research

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

**WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING**

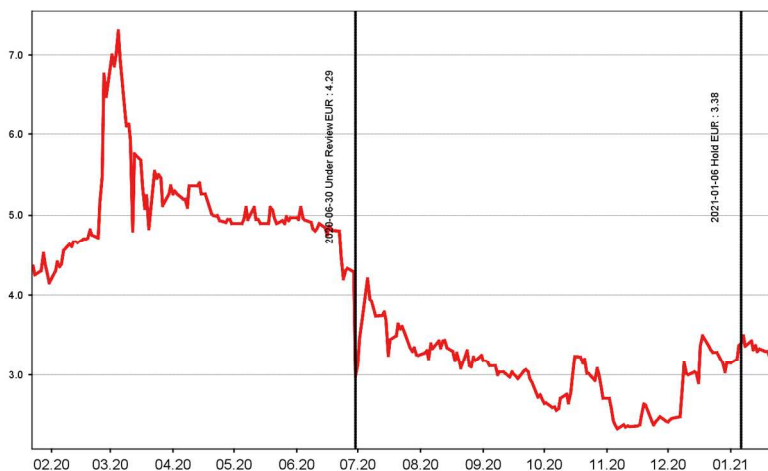
Rating	Number of stocks	% of Universe
Buy	129	63
Hold	60	29
Sell	8	4
Rating suspended	7	3
<b>Total</b>	<b>204</b>	<b>100</b>

**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	37	80
Hold	6	13
Sell	0	0
Rating suspended	3	7
<b>Total</b>	<b>46</b>	<b>100</b>

**PRICE AND RATING HISTORY AAP IMPLANTATE AS OF 22.01.2021**



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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