

<b>Buy</b>  <b>EUR 60.00</b>  <b>Price</b> EUR 16.60 <b>Upside</b> 261.4 %	<b>Value Indicators:</b> EUR SotP: 60.00	<b>Warburg ESG Risk Score:</b> 2.4 <b>ESG Score (MSCI based):</b> 3.0 Balance Sheet Score: 3.3 Market Liquidity Score: 1.0	<b>Description:</b> Brockhaus invests into high tech German Mittelstand companies
	<b>Market Snapshot:</b> EUR m Market cap: 172.4 No. of shares (m): 10.4 EV: 430.6 Freefloat MC: 133.8 Ø Trad. Vol. (30d): 92.35 th	<b>Shareholders:</b> Freefloat 77.60 % Kayne Anderson Rudnick Inv. 10.00 % DWS Investment 7.20 % Marco Brockhaus 22.40 %	<b>Key Figures (WRe):</b> 2022e Beta: 1.7 Price / Book: 0.8 x Equity Ratio: 42 % Net Fin. Debt / EBITDA: 1.5 x Net Debt / EBITDA: 1.5 x

## First Glance: Q3 marks new peak in sales and adj. EBITDA margin

### Brockhaus 3Q 22 review

(EURm)	3Q 22 a	WRe est	delta	3Q 21 a	YOY	2Q 22 a	QOQ
Revenues (pro forma)	50,6	44,0	15,0%	11,7	333%	46,4	9%
Adj EBITDA (pro forma)	20,8	17,2	20,9%	2,5	720%	19,2	8%
adj. EBITDA margin (pro forma)	41,1%	39,1%		21,7%		41,4%	-1%

(pro forma = acquisition treated as consolidated for 12 months; for Q3 there is not difference between pro forma and reported figures)

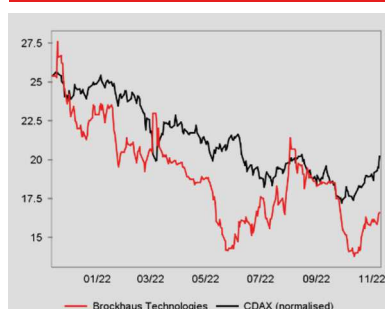
Brockhaus had already released promising key performance indicators and commentary in early October, hinting at a strong Q3 development. Furthermore, the company had lifted its sales guidance at the upper end of its forecast corridor for sales of EUR 140-150m. Now the company has published preliminary figures for sales and adj. EBITDA and raised its guidance for FY 22e again.

Both sales and adj. EBITDA were a significant beat of our forecast. A yoy comparison is futile as the Q3 21 figures do not include Bikeleasing, but the October statement already indicated that the number of lease contracts concluded is likely to show a growth rate of above 45%. This should be a good indication of the strong performance of this business. The sequential improvement in group sales represents a sizable growth of 9%. Furthermore, Brockhaus stated that the combined sales increase of Palas and IHSE for the 9M period was 12%, compared to growth of just 3% for the businesses after the 6M period. Consequently, our 20% growth expectation for these businesses in Q3 is actually a little shy. That said, the majority of the beat of our sales forecast is likely to stem from Bikeleasing.

With respect to adj. EBITDA, Brockhaus beat our estimates by 21% and the adj. EBITDA margin was 41.1% in Q3, only slightly below Q2. Again, the beat of our forecast is likely mainly driven by Bikeleasing, as the growth of Palas and IHSE should dilute the group margin, as we again assume an adj. EBITDA margin of 50% or even higher for Bikeleasing.

On the back of the strong figures, Brockhaus has raised its FY 22e forecast again and now expects EUR 150-155m in sales and an adj. EBITDA margin of 35%. We understand that Q4 is seasonally a weak quarter for Bikeleasing and the performance of Q2 and Q3 should not be extrapolated. However, even the residual to the upper end of the range looks conservative to us in light of the Q3 performance. Even at the upper end of the sales guidance, the 35% adj. EBITDA margin target implies a Q4 result below Q1 22, and both Palas and IHSE rather have a seasonally stronger year-end. To our understanding, no special items or developments are expected and are part of the guidance. The Q3 development further shows us that the Bikeleasing business has so far experienced only a limited impact, if any, from consumer restraint. We would even assume that the subsidised leasing could experience a special boost in a weaker macro environment.

We will update our model following the release of the detailed Q3 figures on 14 November. Nevertheless, we would already assume that consensus will have to raise its assumptions for adj. EBITDA in the range of 10% or more for FY 22e. The stock remains a clear Buy for us, and the ongoing sound operational development throughout the year has shown why the stock is on our best ideas list.



### Rel. Performance vs CDAX:

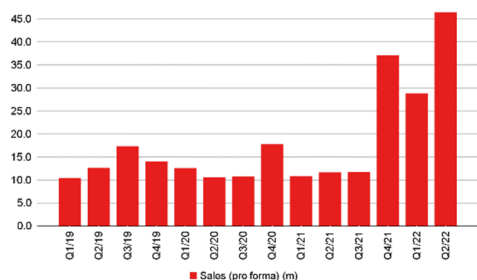
1 month:	0.7 %
6 months:	-3.7 %
Year to date:	-8.8 %
Trailing 12 months:	-14.1 %

### Company events:

14.11.22 Q3

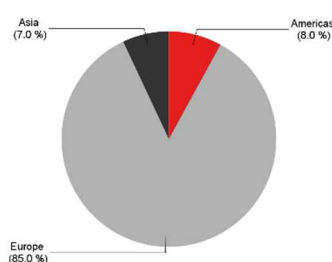
FY End: 31.12. in EUR m	CAGR (21-24e)	2018	2019	2020	2021	2022e	2023e	2024e
<b>Sales (pro forma)</b>	28.0 %	11.7	54.3	51.6	126.5	149.9	204.4	265.1
yoy		n.a.	n.a.	-5.0 %	145.3 %	18.5 %	36.3 %	29.7 %
<b>Sales</b>	63.8 %	1.1	16.6	51.6	60.3	149.9	204.4	265.1
Change Sales yoy		n.a.	1408.3 %	211.5 %	16.9 %	148.6 %	36.3 %	29.7 %
<b>EBITDA (pro forma)</b>	33.1 %	3.7	16.2	12.3	48.2	56.9	84.9	113.7
Margin (pro forma)		31.9 %	29.8 %	23.8 %	38.1 %	38.0 %	41.5 %	42.9 %
<b>EBITDA</b>	546.9 %	-1.3	1.3	8.3	0.4	56.6	84.9	113.7
Margin		-119.7 %	7.7 %	16.2 %	0.7 %	37.8 %	41.5 %	42.9 %
<b>EBIT</b>	-	-1.6	-2.3	-1.0	-9.3	45.6	69.1	95.6
Margin		-141.9 %	-13.7 %	-2.0 %	-15.4 %	30.4 %	33.8 %	36.1 %
<b>Net income</b>	-	-1.7	-3.8	-6.8	-15.9	13.9	24.4	37.9
<b>EPS</b>	-	-0.66	-1.32	-0.81	-1.52	1.27	2.23	3.47
<b>FCFPS</b>		-0.30	1.47	0.57	-0.71	2.23	4.16	6.43
<b>FCF / Market cap</b>		n.a.	n.a.	1.8 %	-2.9 %	13.4 %	25.1 %	38.7 %
<b>EV / Sales</b>		n.a.	n.a.	3.6 x	6.0 x	2.9 x	1.9 x	1.2 x
<b>EV / EBITDA</b>		n.a.	n.a.	22.4 x	859.3 x	7.8 x	4.6 x	2.8 x
<b>EV / EBIT</b>		n.a.	n.a.	n.a.	n.a.	9.6 x	5.7 x	3.4 x
<b>P / E</b>		n.a.	n.a.	n.a.	n.a.	13.1 x	7.4 x	4.8 x
<b>FCF Potential Yield</b>		n.a.	n.a.	2.8 %	-1.1 %	10.3 %	16.8 %	26.7 %
<b>Net Debt</b>		-14.6	44.2	-69.3	110.6	86.2	40.7	-29.7
<b>ROCE (NOPAT)</b>		n.a.	n.a.	n.a.	n.a.	9.2 %	14.4 %	20.5 %
<b>Guidance:</b>	Pro forma sales of EUR 140-150m and adj. EBITDA pro forma of EUR 49-53m							

**Sales (pro forma) development**  
in EUR m



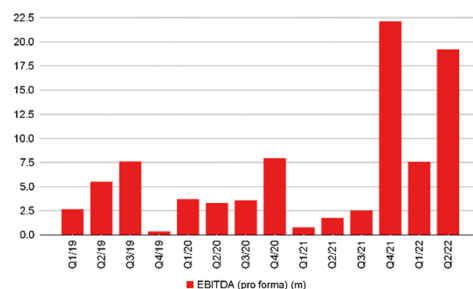
Source: Warburg Research

**Sales by regions**  
2021; in %



Source: Warburg Research

**adj. EBITDA (pro forma) development**  
in EUR m



Source: Warburg Research

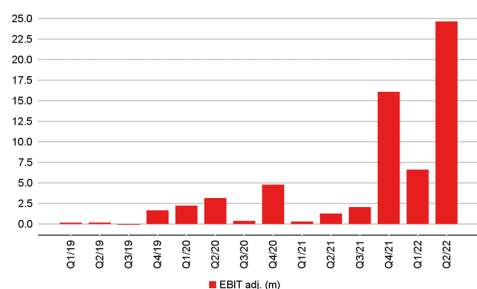
## Company Background

- Founded in 2017 by CEO Marco Brockhaus and other team members as the successor to three private equity funds.
- In contrast to the limited lifetime of a PE fund, the structure of a holding company precludes forced exits and management influence is increased.
- IPO in 2020
- Portfolio companies are managed by a lean holding with around 10 employees

## Competitive Quality

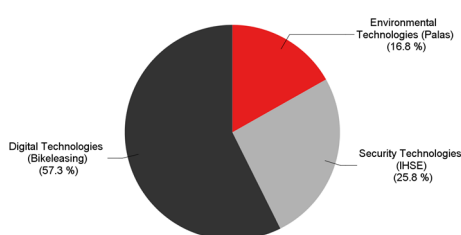
- Brockhaus has an extensive network and over 20 years of expertise in PE transactions to support portfolio companies to grow and expand into new markets
- Focus of investment is scalable B2B business models in high-tech German Mittelstand companies that generate high margins and superior cash returns
- Typically, the companies invested in are not large enough to go to the capital market alone but are champions in their niches
- Brockhaus' investments represent a niche that asset managers have little or no access to.

**adj. EBIT development**  
in EUR m



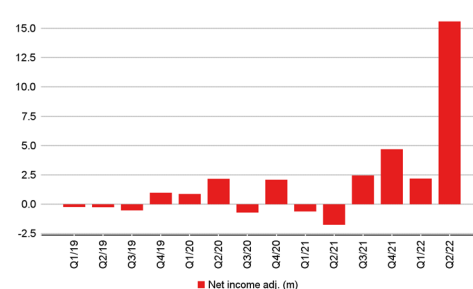
Source: Warburg Research

**Sales by segments**  
2021; in %



Source: Warburg Research

**adj. Net income development**  
in EUR m



Source: Warburg Research

## Sum of the parts

(EURm)	2022	WACC -1%	WACC +1%
Equity value Palas (DCF)	93	114	77
Share Brockhaus	70%	70%	70%
	65	80	54
Equity value IHSE (DCF)	115	145	93
Share Brockhaus	100%	100%	100%
	115	145	93
Equity value Bikeleasing (DCF)	1.169	1.228	1.116
Share Brockhaus	52%	52%	52%
	611	642	583
FY 22e adj. EBITDA Holding	-7	-7	-7
Discount factor	7%	6%	8%
Value holding	-122	-146	-104
Sum of the Parts	670	721	626
Less net debt holding	15	15	15
<b>Equity value Brockhaus Technologies</b>	<b>655</b>	<b>706</b>	<b>611</b>
Number of shares	10,95	10,95	10,95
Value per share	<b>59,80</b>	<b>64,45</b>	<b>55,80</b>

- Palas, IHSE and Bikeleasing valued by separate DCF models
- Debt at portfolio company level is included in DCF model. Remaining debt at holding level is subtracted separately.
- Holding cost are discounted in a single stage model with same WACC as portfolio companies.
- Holding cost are expected to be subject to inflation of 4% p.a. subtracted from the discount rate.
- Deal generating capability of holding is a hidden reserve and not valued currently

Valuation	2018	2019	2020	2021	2022e	2023e	2024e
Price / Book	n.a.	n.a.	1.1 x	1.1 x	0.8 x	0.7 x	0.6 x
Book value per share ex intangibles	46.59	-41.67	6.81	-16.15	-14.10	-9.65	-2.95
EV / Sales	n.a.	n.a.	3.6 x	6.0 x	2.9 x	1.9 x	1.2 x
EV / EBITDA	n.a.	n.a.	22.4 x	859.3 x	7.8 x	4.6 x	2.8 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	9.6 x	5.7 x	3.4 x
EV / EBIT adj.*	n.a.	n.a.	17.6 x	18.3 x	8.2 x	5.1 x	3.1 x
P / FCF	n.a.	n.a.	54.1 x	n.a.	7.5 x	4.0 x	2.6 x
P / E	n.a.	n.a.	n.a.	n.a.	13.1 x	7.4 x	4.8 x
P / E adj.*	n.a.	n.a.	57.9 x	52.2 x	9.1 x	5.9 x	4.1 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield (on market EV)	n.a.	n.a.	2.8 %	-1.1 %	10.3 %	16.8 %	26.7 %
*Adjustments made for: -							

Company Specific Items	2018	2019	2020	2021	2022e	2023e	2024e
Sales (pro forma)	11.7	54.3	51.6	126.5	149.9	204.4	265.1
yoy	n.a.	n.a.	-5.0 %	145.3 %	18.5 %	36.3 %	29.7 %
EBITDA (pro forma)	3.7	16.2	12.3	48.2	56.9	84.9	113.7
Margin (pro forma)	31.9 %	29.8 %	23.8 %	38.1 %	38.0 %	41.5 %	42.9 %

## Consolidated profit & loss

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
<b>Sales</b>	<b>1.1</b>	<b>16.6</b>	<b>51.6</b>	<b>60.3</b>	<b>149.9</b>	<b>204.4</b>	<b>265.1</b>
Change Sales yoy	n.a.	1408.3 %	211.5 %	16.9 %	148.6 %	36.3 %	29.7 %
Increase / decrease in inventory	-0.1	0.2	-0.1	-0.2	0.0	0.0	0.0
Own work capitalised	0.0	0.8	0.9	1.4	0.0	0.0	0.0
<b>Total Sales</b>	<b>1.1</b>	<b>17.5</b>	<b>52.3</b>	<b>61.5</b>	<b>149.9</b>	<b>204.4</b>	<b>265.1</b>
Material expenses	0.2	4.3	13.8	14.2	16.5	38.8	50.4
<b>Gross profit</b>	<b>0.8</b>	<b>13.2</b>	<b>38.6</b>	<b>47.3</b>	<b>133.4</b>	<b>165.5</b>	<b>214.7</b>
<b>Gross profit margin</b>	<b>75.8 %</b>	<b>80.0 %</b>	<b>74.7 %</b>	<b>78.4 %</b>	<b>89.0 %</b>	<b>81.0 %</b>	<b>81.0 %</b>
Personnel expenses	0.7	6.8	19.5	21.8	43.5	57.2	74.2
Other operating income	0.3	0.4	1.5	2.0	1.5	2.0	2.7
Other operating expenses	1.6	5.6	12.0	26.9	34.8	25.5	29.5
Unfrequent items	0.0	0.0	-0.1	-0.2	0.0	0.0	0.0
<b>EBITDA</b>	<b>-1.3</b>	<b>1.3</b>	<b>8.3</b>	<b>0.4</b>	<b>56.6</b>	<b>84.9</b>	<b>113.7</b>
<b>Margin</b>	<b>-119.7 %</b>	<b>7.7 %</b>	<b>16.2 %</b>	<b>0.7 %</b>	<b>37.8 %</b>	<b>41.5 %</b>	<b>42.9 %</b>
Depreciation of fixed assets	0.0	0.8	1.7	2.1	2.8	3.7	4.8
<b>EBITA</b>	<b>-1.3</b>	<b>0.4</b>	<b>6.7</b>	<b>-1.7</b>	<b>53.8</b>	<b>81.2</b>	<b>108.9</b>
Amortisation of intangible assets	0.2	2.7	7.7	7.6	8.1	12.1	13.3
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBIT</b>	<b>-1.6</b>	<b>-2.3</b>	<b>-1.0</b>	<b>-9.3</b>	<b>45.6</b>	<b>69.1</b>	<b>95.6</b>
<b>Margin</b>	<b>-141.9 %</b>	<b>-13.7 %</b>	<b>-2.0 %</b>	<b>-15.4 %</b>	<b>30.4 %</b>	<b>33.8 %</b>	<b>36.1 %</b>
<b>EBIT adj.</b>	<b>-1.6</b>	<b>1.9</b>	<b>10.6</b>	<b>19.7</b>	<b>53.9</b>	<b>77.4</b>	<b>103.9</b>
Interest income	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Interest expenses	0.0	1.2	3.9	6.2	12.0	11.1	7.8
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBT</b>	<b>-1.6</b>	<b>-3.4</b>	<b>-4.8</b>	<b>-15.4</b>	<b>33.6</b>	<b>58.0</b>	<b>87.9</b>
<b>Margin</b>	<b>-146.2 %</b>	<b>-20.5 %</b>	<b>-9.4 %</b>	<b>-25.5 %</b>	<b>22.4 %</b>	<b>28.4 %</b>	<b>33.1 %</b>
Total taxes	0.1	0.4	1.9	3.4	9.4	16.2	24.5
<b>Net income from continuing operations</b>	<b>-1.7</b>	<b>-3.8</b>	<b>-6.8</b>	<b>-18.8</b>	<b>24.2</b>	<b>41.9</b>	<b>63.4</b>
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income before minorities</b>	<b>-1.7</b>	<b>-3.8</b>	<b>-6.8</b>	<b>-18.8</b>	<b>24.2</b>	<b>41.9</b>	<b>63.4</b>
Minority interest	0.0	0.0	0.0	-2.9	10.3	17.4	25.4
<b>Net income</b>	<b>-1.7</b>	<b>-3.8</b>	<b>-6.8</b>	<b>-15.9</b>	<b>13.9</b>	<b>24.4</b>	<b>37.9</b>
<b>Margin</b>	<b>-151.5 %</b>	<b>-23.1 %</b>	<b>-13.1 %</b>	<b>-26.3 %</b>	<b>9.3 %</b>	<b>12.0 %</b>	<b>14.3 %</b>
Number of shares, average	2.5	2.9	8.3	10.4	10.9	10.9	10.9
<b>EPS</b>	<b>-0.66</b>	<b>-1.32</b>	<b>-0.81</b>	<b>-1.52</b>	<b>1.27</b>	<b>2.23</b>	<b>3.47</b>
EPS adj.	-0.66	-0.01	0.53	0.46	1.82	2.79	4.02

\*Adjustments made for:

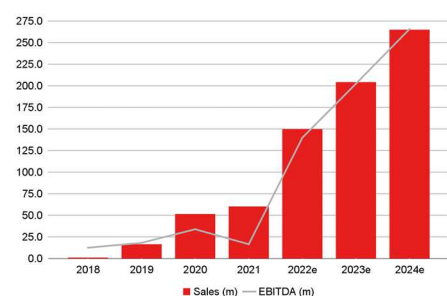
**Guidance: Pro forma sales of EUR 140-150m and adj. EBITDA pro forma of EUR 49-53m**

## Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Total Operating Costs / Sales	214.2 %	98.2 %	85.0 %	101.0 %	62.2 %	58.5 %	57.1 %
Operating Leverage	n.a.	0.0 x	-0.3 x	46.5 x	n.a.	1.4 x	1.3 x
EBITDA / Interest expenses	n.m.	1.1 x	2.1 x	0.1 x	4.7 x	7.6 x	14.7 x
Tax rate (EBT)	-3.7 %	-12.9 %	-39.7 %	-22.0 %	28.0 %	27.9 %	27.9 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

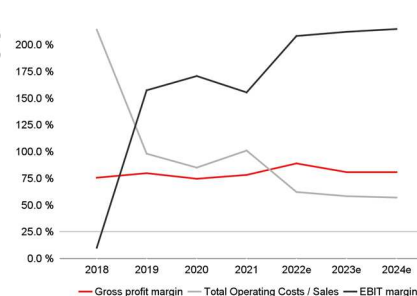
### Sales, EBITDA

in EUR m

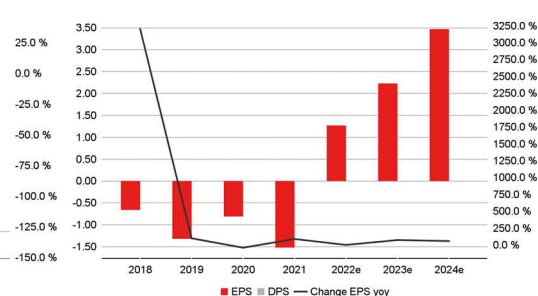


### Operating Performance

in %



### Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

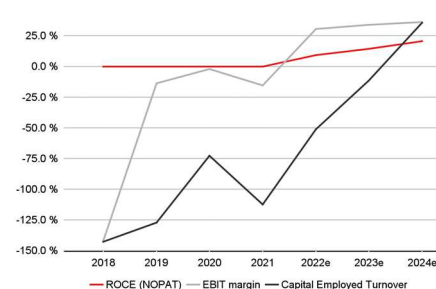
## Consolidated balance sheet

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
<b>Assets</b>							
Goodwill and other intangible assets	0.0	160.6	152.7	398.9	385.4	373.4	360.1
thereof other intangible assets	0.0	0.0	53.7	147.7	139.6	127.5	114.2
thereof Goodwill	0.0	91.4	91.4	243.6	243.6	243.6	243.6
Property, plant and equipment	0.8	11.3	11.7	16.2	15.6	14.6	13.1
Financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	32.2	1.0	0.6	82.7	99.5	145.9	198.5
<b>Fixed assets</b>	<b>33.0</b>	<b>172.9</b>	<b>165.0</b>	<b>497.7</b>	<b>500.6</b>	<b>533.9</b>	<b>571.6</b>
Inventories	4.3	10.7	9.7	12.6	15.0	20.4	26.5
Accounts receivable	1.4	5.9	7.2	20.2	22.6	30.8	39.9
Liquid assets	31.6	17.2	123.5	30.3	29.7	35.2	80.6
Other short-term assets	0.1	1.1	0.9	53.7	61.6	83.4	108.2
<b>Current assets</b>	<b>37.3</b>	<b>34.8</b>	<b>141.4</b>	<b>116.8</b>	<b>128.9</b>	<b>169.9</b>	<b>255.2</b>
<b>Total Assets</b>	<b>70.3</b>	<b>207.7</b>	<b>306.4</b>	<b>614.5</b>	<b>629.5</b>	<b>703.7</b>	<b>826.8</b>
<b>Liabilities and shareholders' equity</b>							
Subscribed capital	4.2	6.6	10.4	10.4	10.4	10.4	10.4
Capital reserve	42.1	118.7	227.7	227.7	227.7	227.7	227.7
Retained earnings	-2.6	0.0	0.0	0.0	13.9	38.0	75.7
Other equity components	3.0	-6.5	-14.6	-16.0	-20.8	-8.4	14.1
Shareholders' equity	46.6	118.9	223.4	222.0	231.1	267.7	327.8
Minority interest	0.0	0.0	0.0	32.9	32.9	32.9	32.9
<b>Total equity</b>	<b>46.6</b>	<b>118.9</b>	<b>223.4</b>	<b>254.9</b>	<b>264.0</b>	<b>300.5</b>	<b>360.7</b>
Provisions	0.3	0.6	2.2	4.9	6.9	6.9	6.9
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	17.0	61.3	54.3	140.9	115.9	75.9	50.9
Short-term financial liabilities	1.0	5.4	6.1	17.0	42.0	2.0	2.0
Accounts payable	2.8	3.1	2.5	12.7	15.6	21.3	27.6
Other liabilities	3.7	23.8	24.0	201.0	227.1	299.0	380.7
<b>Liabilities</b>	<b>23.8</b>	<b>88.8</b>	<b>83.0</b>	<b>359.6</b>	<b>365.5</b>	<b>403.1</b>	<b>466.1</b>
<b>Total liabilities and shareholders' equity</b>	<b>70.3</b>	<b>207.7</b>	<b>306.4</b>	<b>614.5</b>	<b>629.5</b>	<b>703.7</b>	<b>826.8</b>

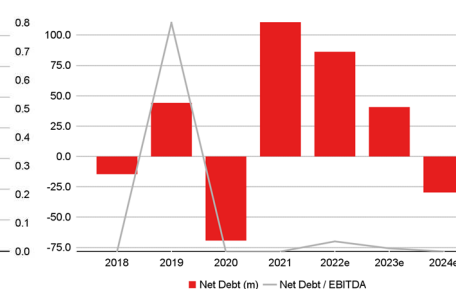
## Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
<b>Efficiency of Capital Employment</b>							
Operating Assets Turnover	0.3 x	0.7 x	2.0 x	1.7 x	4.0 x	4.6 x	5.1 x
Capital Employed Turnover	0.0 x	0.1 x	0.3 x	0.2 x	0.4 x	0.6 x	0.8 x
ROA	-5.0 %	-2.2 %	-4.1 %	-3.2 %	2.8 %	4.6 %	6.6 %
<b>Return on Capital</b>							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	9.2 %	14.4 %	20.5 %
ROE	-6.8 %	-4.6 %	-3.9 %	-7.1 %	6.1 %	9.8 %	12.7 %
Adj. ROE	-6.8 %	0.0 %	2.6 %	2.1 %	8.8 %	12.2 %	14.8 %
<b>Balance sheet quality</b>							
Net Debt	-14.6	44.2	-69.3	110.6	86.2	40.7	-29.7
Net Financial Debt	-14.6	44.2	-69.3	110.6	86.2	40.7	-29.7
Net Gearing	-31.3 %	37.1 %	-31.0 %	43.4 %	32.7 %	13.5 %	-8.2 %
Net Fin. Debt / EBITDA	n.a.	3482.1 %	n.a.	n.a.	152.3 %	47.9 %	n.a.
Book Value / Share	46.6	118.9	21.5	20.3	21.1	24.5	29.9
Book value per share ex intangibles	46.6	-41.7	6.8	-16.2	-14.1	-9.7	-2.9

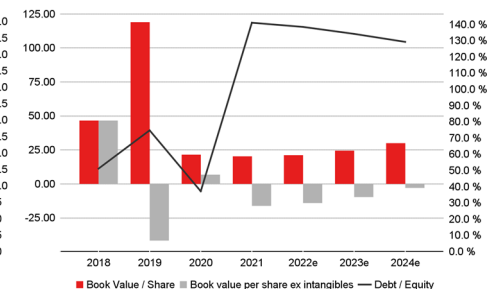
### ROCE Development



### Net debt in EUR m



### Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

## Consolidated cash flow statement

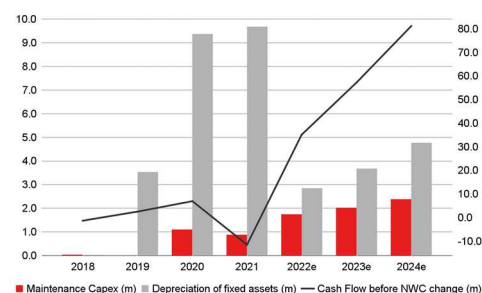
In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	-1.7	-3.8	-6.8	-18.8	24.2	41.6	63.1
Depreciation of fixed assets	0.0	3.5	9.4	9.7	2.8	3.7	4.8
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.2	2.7	7.7	7.6	8.1	12.1	13.3
Increase/decrease in long-term provisions	0.0	0.1	0.0	-0.1	0.0	0.0	0.0
Other non-cash income and expenses	0.1	0.0	-3.4	-9.9	0.0	0.0	0.0
<b>Cash Flow before NWC change</b>	<b>-1.4</b>	<b>2.6</b>	<b>7.0</b>	<b>-11.5</b>	<b>35.2</b>	<b>57.3</b>	<b>81.1</b>
Increase / decrease in inventory	0.5	0.5	-1.1	-2.3	-2.4	-5.4	-6.1
Increase / decrease in accounts receivable	0.0	0.0	0.0	0.0	-2.4	-8.2	-9.1
Increase / decrease in accounts payable	0.1	1.2	-0.2	7.6	2.9	5.7	6.3
Increase / decrease in other working capital positions	0.0	0.0	0.0	0.0	-6.5	-1.2	1.3
Increase / decrease in working capital (total)	0.6	1.7	-1.3	5.3	-8.5	-9.1	-7.6
<b>Net cash provided by operating activities [1]</b>	<b>-0.7</b>	<b>4.3</b>	<b>5.7</b>	<b>-6.2</b>	<b>26.7</b>	<b>48.2</b>	<b>73.5</b>
Investments in intangible assets	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Investments in property, plant and equipment	0.0	0.0	-1.0	-1.2	-2.3	-2.7	-3.2
Payments for acquisitions	0.0	0.0	-0.1	-142.1	0.0	0.0	0.0
Financial investments	0.0	0.0	-0.4	-0.8	0.0	0.0	0.0
Income from asset disposals	-26.0	0.1	0.0	0.1	0.0	0.0	0.0
<b>Net cash provided by investing activities [2]</b>	<b>-26.0</b>	<b>0.1</b>	<b>-1.4</b>	<b>-144.0</b>	<b>-2.3</b>	<b>-2.7</b>	<b>-3.2</b>
Change in financial liabilities	12.7	17.2	0.0	58.0	-25.0	-40.0	-25.0
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	0.0	56.5	112.7	0.0	0.0	0.0	0.0
Other	0.0	-2.2	-10.4	-2.4	0.0	0.0	0.0
<b>Net cash provided by financing activities [3]</b>	<b>12.7</b>	<b>71.5</b>	<b>102.3</b>	<b>55.7</b>	<b>-25.0</b>	<b>-40.0</b>	<b>-25.0</b>
<b>Change in liquid funds [1]+[2]+[3]</b>	<b>-14.0</b>	<b>75.9</b>	<b>106.6</b>	<b>-94.5</b>	<b>-0.6</b>	<b>5.5</b>	<b>45.4</b>
Effects of exchange-rate changes on cash	0.0	0.0	0.2	0.3	0.0	0.0	0.0
Cash and cash equivalent at end of period	-11.5	107.5	124.0	29.3	29.7	35.2	80.6

## Financial Ratios

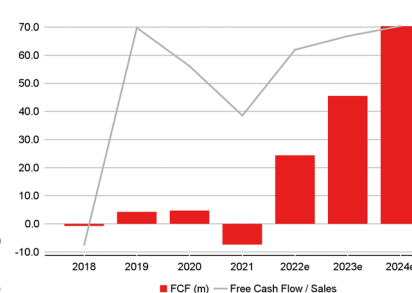
	2018	2019	2020	2021	2022e	2023e	2024e
<b>Cash Flow</b>							
FCF	-0.7	4.3	4.7	-7.4	24.4	45.5	70.4
Free Cash Flow / Sales	-68.2 %	25.8 %	9.2 %	-12.2 %	16.3 %	22.3 %	26.5 %
Free Cash Flow Potential	-1.4	0.8	5.3	-3.8	45.5	66.4	86.5
Free Cash Flow / Net Profit	45.0 %	-111.6 %	-70.0 %	46.5 %	175.7 %	186.3 %	185.4 %
Interest Received / Avg. Cash	0.0 %	0.2 %	0.1 %	0.1 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	0.5 %	3.0 %	6.7 %	6.3 %	9.3 %	11.6 %	12.2 %
<b>Management of Funds</b>							
Investment ratio	0.0 %	0.0 %	2.0 %	1.9 %	1.6 %	1.3 %	1.2 %
Maint. Capex / Sales	3.2 %	0.0 %	2.1 %	1.5 %	1.2 %	1.0 %	0.9 %
Capex / Dep	0.0 %	0.0 %	11.2 %	12.1 %	21.1 %	17.1 %	17.6 %
Avg. Working Capital / Sales	129.3 %	49.1 %	27.0 %	28.5 %	14.0 %	12.7 %	13.0 %
Trade Debtors / Trade Creditors	48.8 %	188.4 %	284.5 %	158.4 %	144.9 %	144.6 %	144.6 %
Inventory Turnover	0.1 x	0.4 x	1.4 x	1.1 x	1.1 x	1.9 x	1.9 x
Receivables collection period (days)	458	129	51	122	55	55	55
Payables payment period (days)	4,677	264	67	326	345	200	200
Cash conversion cycle (Days)	2,883	772	241	118	42	47	47

## CAPEX and Cash Flow

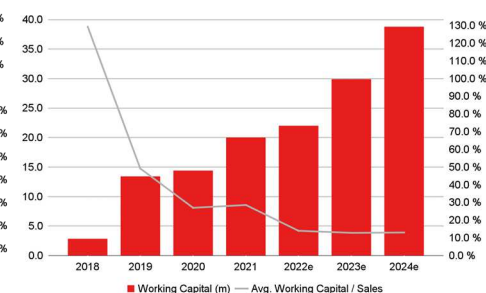
in EUR m



## Free Cash Flow Generation



## Working Capital



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research



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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.

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- "	<b>Rating suspended:</b>	The available information currently does not permit an evaluation of the company.

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Rating	Number of stocks	% of Universe
Buy	163	75
Hold	43	20
Sell	6	3
Rating suspended	4	2
<b>Total</b>	<b>216</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	46	82
Hold	7	13
Sell	1	2
Rating suspended	2	4
<b>Total</b>	<b>56</b>	<b>100</b>

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