

Buy EUR 64.00 (EUR 60.00) Price EUR 18.20 Upside 251.6 %	Value Indicators: EUR SotP: 64.00	Warburg ESG Risk Score: 2.4 ESG Score (MSCI based): 3.0 Balance Sheet Score: 3.3 Market Liquidity Score: 1.0	Description: Brockhaus invests into high tech German Mittelstand companies
	Market Snapshot: EUR m Market cap: 189.0 No. of shares (m): 10.4 EV: 441.5 Freefloat MC: 146.7 Ø Trad. Vol. (30d): 96.50 th	Shareholders: Freefloat: 77.60 % Kayne Anderson Rudnick Inv.: 10.00 % DWS Investment: 7.20 % Marco Brockhaus: 22.40 %	Key Figures (WRe): 2022e Beta: 1.7 Price / Book: 0.8 x Equity Ratio: 41 % Net Fin. Debt / EBITDA: 1.4 x Net Debt / EBITDA: 1.4 x

Strong Q3 figures trigger increase in FY22 forecast

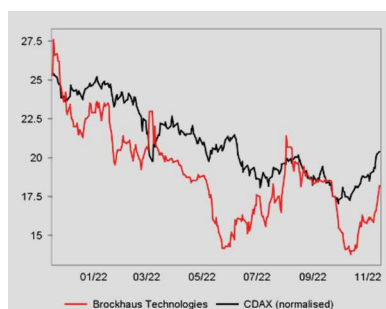
Stated Figures Q3/2022:								Comment on Figures:	
(EURm)	3Q 22 a	WRe est	delta	3Q 21 a	YOY	2Q 22 a	QOQ		
Revenues (pro forma)	50,6	44,0	15,0%	11,7	333%	46,4	9%	<ul style="list-style-type: none"> In Q3 21, Bikeleasing was not consolidated. WRe unchanged post preliminary key figures reported Nov 10. Q3 22 includes a non-cash positive one-off in the financial result of EUR 4.4m for the release of the earn-out provision for kvm-tec. Tax rate was negative in Q3 22 due to deferred taxes reversed in connection with PPA accounting. Cash tax rate is unchanged. Higher sales and lower EBITDA at Bikeleasing in Q3 vs Q2 is due to the sale of a legacy leasing portfolio from Hoffmann Leasing prior the acquisition by Bikeleasing and a higher level of lease returns executed. 	
t/o Palas	6,1	5,2	18%	4,2	44%	4,1	51%		
t/o IHSE	9,2	8,8	5%	7,4	24%	7,7	20%		
t/o Bikeleasing	35,4	30,0	18%	n.a.		34,6	2%		
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%		
t/o Palas	2,4	1,1	122%	1,0	135%	0,9	171%		
t/o IHSE	2,4	2,4	0%	2,8	-16%	0,9	167%		
t/o Bikeleasing	17,1	15,0	13%	n.a.		18,7	-9%		
Revenues (consolidated)	50,6	44,0	-34,5%	11,7	147%	46,4	9%		
adj. EBITDA (consolidated)	20,8	17,2	21%	2,5	720%	19,2	8%		
Net income (consolidated)	14,7	7,8	102%	-2,9	n.m.	6,1	159%		

Brockhaus has reported strong Q3 development. Bikeleasing had a robust Q3 with another expansion of the onboarded client base (basis for future revenue growth) by 3,000 companies with around 400k employees. Thanks to a continued focus on forfeiting lease contracts, the adj. EBITDA margin stood at health 48%. IHSE grew sales by 20% yoy and returning the margin to 26% after 20% in H1 22. However, we feel that kvm-tec is a bit behind the curve, leading to the release of the earn-out provision. Palas posted strong sales growth of 43% thanks to backlog conversion, leading to an adj. EBITDA margin of 40%. Post 9M 22, sales to Asia are up by 67%, despite the delay in the certification for the Chinese market due to Covid lockdowns. A change to the zero-Covid policy could speed up the process.

Deleverage and FCF in Q3 trailed behind the Q2-level despite a similarly strong EBITA development. As well as a further increase in working capital of around EUR 3m, there was a significant impact from the sale of a tranche of the lease portfolio of roughly EUR 10m but the cash inflow will be recorded in Q4. Hence, we are anticipating very high cash generation in Q4 as we also expect working capital to be reduced.

We remain fully convinced regarding Brockhaus's earning potential. Even though Q4 is expected to be a seasonally weaker quarter for Bikeleasing, we raise our FY 22e forecast for adj. EBITDA by 8%, which is well above the upper end of guidance range. Our FY 23e estimates are very conservative due to the current macro environment. Stock remains Buy as the SotP-based PT moves to EUR 64.

Changes in Estimates:							Comment on Changes:	
FY End: 31.12. in EUR m	2022e (old)	+ / -	2023e (old)	+ / -	2024e (old)	+ / -		
Sales	149.9	9.6 %	204.4	4.1 %	265.1	5.6 %	<ul style="list-style-type: none"> For IHSE, we lowered our FY 22e adj. EBITDA by 13%. For FY 23e / FY 24e the impact is -7% and -4%. This is due to kvm-tec's slower ramp-up. For Palas, we cut FY 23 adj. EBITDA by 3% on the China certification delay. No change to Bikeleasing EBITDA in FY 23e and FY 24e. 	
EBITDA adj.	56.9	6.0 %	85.2	-1.6 %	114.0	-0.8 %		
Net income	13.9	7.8 %	24.4	-4.9 %	37.9	-2.9 %		

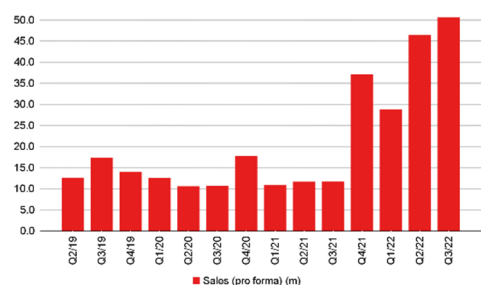


Rel. Performance vs CDAX:	
1 month:	14.4 %
6 months:	14.4 %
Year to date:	-3.3 %
Trailing 12 months:	-9.0 %

Company events:	

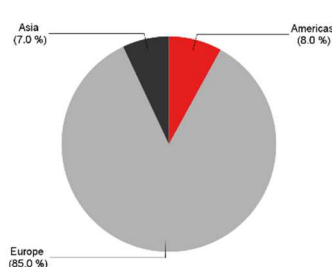
FY End: 31.12. in EUR m	CAGR (21-24e)	2018	2019	2020	2021	2022e	2023e	2024e
Sales (pro forma)	30.3 %	11.7	54.3	51.6	126.5	164.3	212.7	280.0
yoy		n.a.	n.a.	-5.0 %	145.3 %	29.8 %	29.5 %	31.6 %
Sales	66.8 %	1.1	16.6	51.6	60.3	164.3	212.7	280.0
Change Sales yoy		n.a.	1408.3 %	211.5 %	16.9 %	172.3 %	29.5 %	31.6 %
EBITDA (pro forma)	32.8 %	3.7	16.2	12.3	48.2	60.4	83.6	112.8
Margin (pro forma)		31.9 %	29.8 %	23.8 %	38.1 %	36.7 %	39.3 %	40.3 %
EBITDA	545.2 %	-1.3	1.3	8.3	0.4	60.1	83.6	112.8
Margin		-119.7 %	7.7 %	16.2 %	0.7 %	36.6 %	39.3 %	40.3 %
EBIT		-1.6	-2.3	-1.0	-9.3	48.8	67.5	94.2
Margin		-141.9 %	-13.7 %	-2.0 %	-15.4 %	29.7 %	31.7 %	33.6 %
Net income		-1.7	-3.8	-6.8	-15.9	15.0	23.3	36.8
EPS		-0.66	-1.32	-0.81	-1.52	1.37	2.12	3.36
FCFPS		-0.30	1.47	0.57	-0.71	2.62	4.36	6.30
FCF / Market cap		n.a.	n.a.	1.8 %	-2.9 %	14.4 %	24.0 %	34.6 %
EV / Sales		n.a.	n.a.	3.6 x	6.0 x	2.7 x	1.9 x	1.2 x
EV / EBITDA		n.a.	n.a.	22.4 x	859.3 x	7.5 x	4.8 x	3.0 x
EV / EBIT		n.a.	n.a.	n.a.	n.a.	9.3 x	6.0 x	3.6 x
P / E		n.a.	n.a.	n.a.	n.a.	13.3 x	8.6 x	5.4 x
FCF Potential Yield		n.a.	n.a.	2.8 %	-1.1 %	10.6 %	16.2 %	25.7 %
Net Debt		-14.6	44.2	-69.3	110.6	81.9	34.2	-34.7
ROCE (NOPAT)		n.a.	n.a.	n.a.	n.a.	9.8 %	14.3 %	21.5 %
Guidance:	Pro forma sales of EUR 150-155m and adj. EBITDA pro forma of EUR 53-54m							

Sales (pro forma) development in EUR m



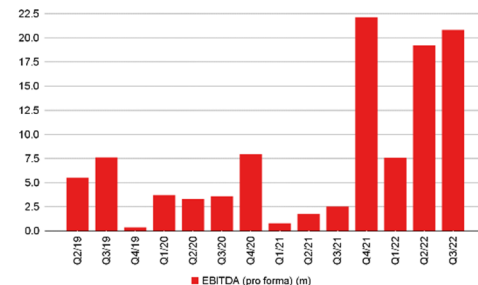
Source: Warburg Research

Sales by regions 2021; in %



Source: Warburg Research

adj. EBITDA (pro forma) development in EUR m



Source: Warburg Research

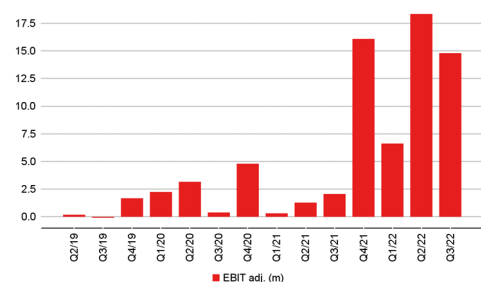
Company Background

- 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

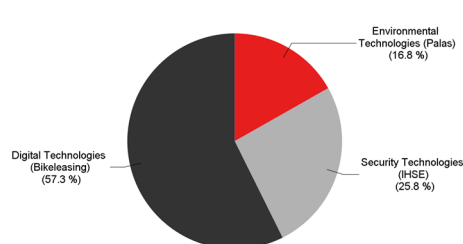
- Brockhaus has an extensive network and over 20 years of expertise in PE transactions to support portfolio companies to grow and expand into new markets
- Focus of investment is scalable B2B business models in high-tech German Mittelstand companies that generate high margins and superior cash returns
- 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



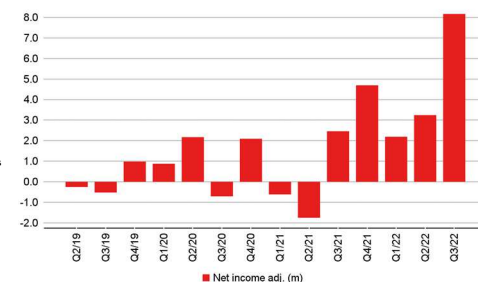
Source: Warburg Research

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)	89	109	73
Share Brockhaus	70%	70%	70%
	62	76	51
Equity value IHSE (DCF)	107	136	86
Share Brockhaus	100%	100%	100%
	107	136	86
Equity value Bikeleasing (DCF)	1.232	1.295	1.175
Share Brockhaus	52%	52%	52%
	644	677	614
FY 22e adj. EBITDA Holding	-6	-6	-6
Discount factor	7%	6%	8%
Value holding	-96	-116	-83
Sum of the Parts	717	773	668
Less net debt holding	14	14	14
Equity value Brockhaus Technologies	703	759	654
Number of shares	10,95	10,95	10,95
Value per share	64,18	69,34	59,79

- 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	0.8 x	0.7 x
Book value per share ex intangibles	46.59	-41.67	6.81	-16.15	-13.48	-10.10	-5.07
EV / Sales	n.a.	n.a.	3.6 x	6.0 x	2.7 x	1.9 x	1.2 x
EV / EBITDA	n.a.	n.a.	22.4 x	859.3 x	7.5 x	4.8 x	3.0 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	9.3 x	6.0 x	3.6 x
EV / EBIT adj.*	n.a.	n.a.	17.6 x	18.3 x	7.9 x	5.3 x	3.3 x
P / FCF	n.a.	n.a.	54.1 x	n.a.	6.9 x	4.2 x	2.9 x
P / E	n.a.	n.a.	n.a.	n.a.	13.3 x	8.6 x	5.4 x
P / E adj.*	n.a.	n.a.	57.9 x	52.2 x	9.5 x	6.8 x	4.6 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 %	10.6 %	16.2 %	25.7 %

*Adjustments made for: -

Company Specific Items							
	2018	2019	2020	2021	2022e	2023e	2024e
Sales (pro forma)	11.7	54.3	51.6	126.5	164.3	212.7	280.0
yoy	n.a.	n.a.	-5.0 %	145.3 %	29.8 %	29.5 %	31.6 %
EBITDA (pro forma)	3.7	16.2	12.3	48.2	60.4	83.6	112.8
Margin (pro forma)	31.9 %	29.8 %	23.8 %	38.1 %	36.7 %	39.3 %	40.3 %

Consolidated profit & loss

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Sales	1.1	16.6	51.6	60.3	164.3	212.7	280.0
Change Sales yoy	n.a.	1408.3 %	211.5 %	16.9 %	172.3 %	29.5 %	31.6 %
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
Total Sales	1.1	17.5	52.3	61.5	164.3	212.7	280.0
Material expenses	0.2	4.3	13.8	14.2	18.1	40.4	53.2
Gross profit	0.8	13.2	38.6	47.3	146.2	172.3	226.8
<i>Gross profit margin</i>	<i>75.8 %</i>	<i>80.0 %</i>	<i>74.7 %</i>	<i>78.4 %</i>	<i>89.0 %</i>	<i>81.0 %</i>	<i>81.0 %</i>
Personnel expenses	0.7	6.8	19.5	21.8	47.6	59.5	78.4
Other operating income	0.3	0.4	1.5	2.0	1.6	2.1	2.8
Other operating expenses	1.6	5.6	12.0	26.9	40.1	31.3	38.4
Unfrequent items	0.0	0.0	-0.1	-0.2	0.0	0.0	0.0
EBITDA	-1.3	1.3	8.3	0.4	60.1	83.6	112.8
<i>Margin</i>	<i>-119.7 %</i>	<i>7.7 %</i>	<i>16.2 %</i>	<i>0.7 %</i>	<i>36.6 %</i>	<i>39.3 %</i>	<i>40.3 %</i>
Depreciation of fixed assets	0.0	0.8	1.7	2.1	3.1	3.8	5.0
EBITA	-1.3	0.4	6.7	-1.7	56.9	79.7	107.8
Amortisation of intangible assets	0.2	2.7	7.7	7.6	8.2	12.3	13.6
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	-1.6	-2.3	-1.0	-9.3	48.8	67.5	94.2
<i>Margin</i>	<i>-141.9 %</i>	<i>-13.7 %</i>	<i>-2.0 %</i>	<i>-15.4 %</i>	<i>29.7 %</i>	<i>31.7 %</i>	<i>33.6 %</i>
EBIT adj.	-1.6	1.9	10.6	19.7	57.1	75.8	102.5
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
EBT	-1.6	-3.4	-4.8	-15.4	36.8	56.4	86.4
<i>Margin</i>	<i>-146.2 %</i>	<i>-20.5 %</i>	<i>-9.4 %</i>	<i>-25.5 %</i>	<i>22.4 %</i>	<i>26.5 %</i>	<i>30.9 %</i>
Total taxes	0.1	0.4	1.9	3.4	10.3	15.7	24.1
Net income from continuing operations	-1.7	-3.8	-6.8	-18.8	26.5	40.7	62.3
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income before minorities	-1.7	-3.8	-6.8	-18.8	26.5	40.7	62.3
Minority interest	0.0	0.0	0.0	-2.9	11.5	17.4	25.5
Net income	-1.7	-3.8	-6.8	-15.9	15.0	23.3	36.8
<i>Margin</i>	<i>-151.5 %</i>	<i>-23.1 %</i>	<i>-13.1 %</i>	<i>-26.3 %</i>	<i>9.1 %</i>	<i>10.9 %</i>	<i>13.2 %</i>
Number of shares, average	2.5	2.9	8.3	10.4	10.9	10.9	10.9
EPS	-0.66	-1.32	-0.81	-1.52	1.37	2.12	3.36
EPS adj.	-0.66	-0.01	0.53	0.46	1.92	2.68	3.92

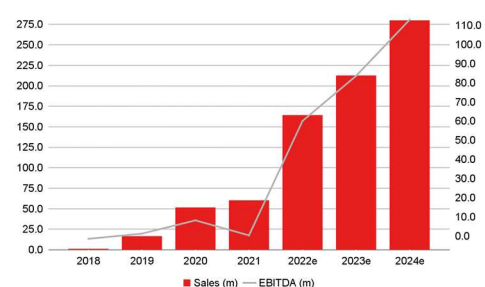
*Adjustments made for:

Guidance: Pro forma sales of EUR 150-155m and adj. EBITDA pro forma of EUR 53-54m

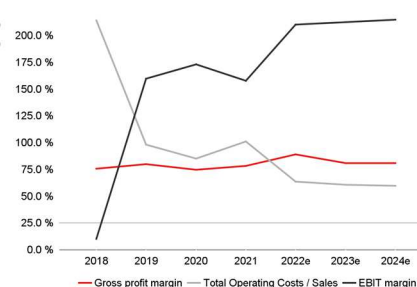
Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Total Operating Costs / Sales	214.2 %	98.2 %	85.0 %	101.0 %	63.4 %	60.7 %	59.7 %
Operating Leverage	n.a.	0.0 x	-0.3 x	46.5 x	n.a.	1.3 x	1.2 x
EBITDA / Interest expenses	n.m.	1.1 x	2.1 x	0.1 x	5.0 x	7.5 x	14.6 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.

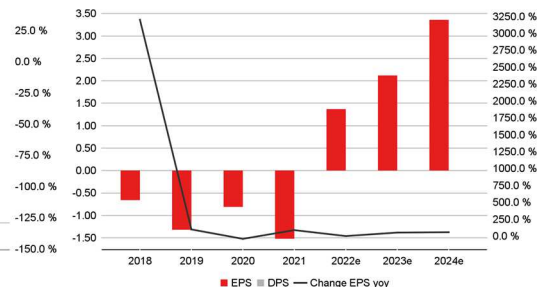
Sales, EBITDA
in EUR m



Operating Performance
in %



Performance per Share



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

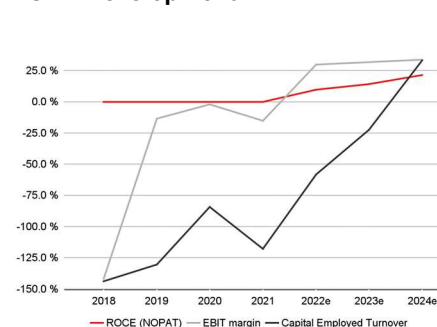
Consolidated balance sheet

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Assets							
Goodwill and other intangible assets	0.0	160.6	152.7	398.9	385.4	373.2	359.6
thereof other intangible assets	0.0	0.0	53.7	147.7	139.5	127.3	113.7
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	15.3	14.1	12.2
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	118.5	158.6	219.4
Fixed assets	33.0	172.9	165.0	497.7	519.3	545.9	591.1
Inventories	4.3	10.7	9.7	12.6	16.4	21.3	28.0
Accounts receivable	1.4	5.9	7.2	20.2	27.0	32.0	42.2
Liquid assets	31.6	17.2	123.5	30.3	24.0	31.7	75.7
Other short-term assets	0.1	1.1	0.9	53.7	70.6	78.3	89.9
Current assets	37.3	34.8	141.4	116.8	138.0	163.3	235.7
Total Assets	70.3	207.7	306.4	614.5	657.3	709.2	826.9
Liabilities and shareholders' equity							
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	15.0	37.9	74.4
Other equity components	3.0	-6.5	-14.6	-16.0	-15.1	-13.3	-8.4
Shareholders' equity	46.6	118.9	223.4	222.0	237.9	262.7	304.1
Minority interest	0.0	0.0	0.0	32.9	32.9	32.9	32.9
Total equity	46.6	118.9	223.4	254.9	270.8	295.5	337.0
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	105.9	65.9	40.9
Short-term financial liabilities	1.0	5.4	6.1	17.0	32.0	-8.0	-8.0
Accounts payable	2.8	3.1	2.5	12.7	17.1	22.1	29.1
Other liabilities	3.7	23.8	24.0	201.0	256.6	318.8	413.0
Liabilities	23.8	88.8	83.0	359.6	386.5	413.7	490.0
Total liabilities and shareholders' equity	70.3	207.7	306.4	614.5	657.3	709.2	826.9

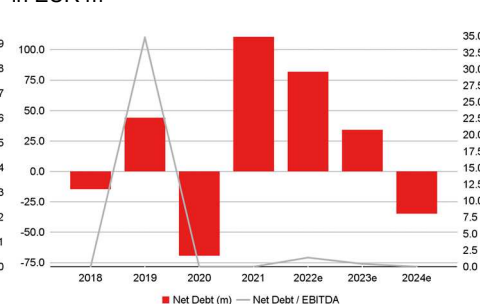
Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Efficiency of Capital Employment							
Operating Assets Turnover	0.3 x	0.7 x	2.0 x	1.7 x	3.9 x	4.7 x	5.3 x
Capital Employed Turnover	0.0 x	0.1 x	0.3 x	0.2 x	0.5 x	0.6 x	0.9 x
ROA	-5.0 %	-2.2 %	-4.1 %	-3.2 %	2.9 %	4.3 %	6.2 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	9.8 %	14.3 %	21.5 %
ROE	-6.8 %	-4.6 %	-3.9 %	-7.1 %	6.5 %	9.3 %	13.0 %
Adj. ROE	-6.8 %	0.0 %	2.6 %	2.1 %	9.1 %	11.7 %	15.1 %
Balance sheet quality							
Net Debt	-14.6	44.2	-69.3	110.6	81.9	34.2	-34.7
Net Financial Debt	-14.6	44.2	-69.3	110.6	81.9	34.2	-34.7
Net Gearing	-31.3 %	37.1 %	-31.0 %	43.4 %	30.3 %	11.6 %	-10.3 %
Net Fin. Debt / EBITDA	n.a.	3482.1 %	n.a.	n.a.	136.4 %	40.9 %	n.a.
Book Value / Share	46.6	118.9	21.5	20.3	21.7	24.0	27.8
Book value per share ex intangibles	46.6	-41.7	6.8	-16.2	-13.5	-10.1	-5.1

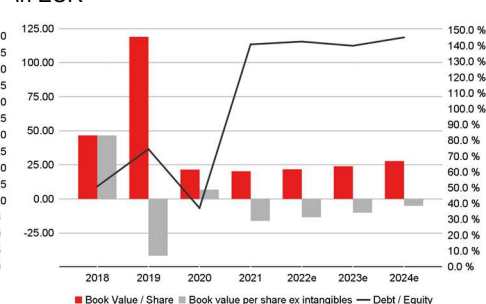
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

Consolidated cash flow statement

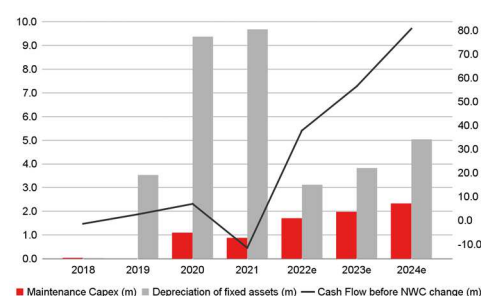
In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	-1.7	-3.8	-6.8	-18.8	26.5	40.4	62.0
Depreciation of fixed assets	0.0	3.5	9.4	9.7	3.1	3.8	5.0
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.2	2.7	7.7	7.6	8.2	12.3	13.6
Increase/decrease in long-term provisions	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
Cash Flow before NWC change	-1.4	2.6	7.0	-11.5	37.8	56.5	80.6
Increase / decrease in inventory	0.5	0.5	-1.1	-2.3	-3.8	-4.9	-6.7
Increase / decrease in accounts receivable	0.0	0.0	0.0	0.0	-6.8	-5.0	-10.2
Increase / decrease in accounts payable	0.1	1.2	-0.2	7.6	4.4	5.0	7.0
Increase / decrease in other working capital positions	0.0	0.0	0.0	0.0	-0.5	-1.2	1.3
Increase / decrease in working capital (total)	0.6	1.7	-1.3	5.3	-6.8	-6.1	-8.6
Net cash provided by operating activities [1]	-0.7	4.3	5.7	-6.2	31.0	50.4	72.0
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	-2.6	-3.1
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
Net cash provided by investing activities [2]	-26.0	0.1	-1.4	-144.0	-2.3	-2.6	-3.1
Change in financial liabilities	12.7	17.2	0.0	58.0	-35.0	-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
Net cash provided by financing activities [3]	12.7	71.5	102.3	55.7	-35.0	-40.0	-25.0
Change in liquid funds [1]+[2]+[3]	-14.0	75.9	106.6	-94.5	-6.3	7.7	43.9
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	24.0	31.7	75.7

Financial Ratios

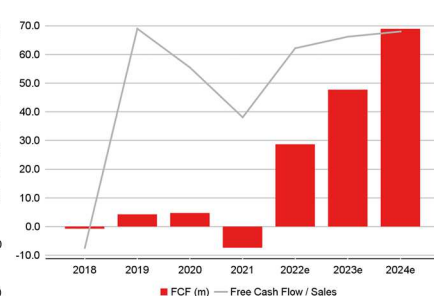
	2018	2019	2020	2021	2022e	2023e	2024e
Cash Flow							
FCF	-0.7	4.3	4.7	-7.4	28.7	47.7	68.9
Free Cash Flow / Sales	-68.2 %	25.8 %	9.2 %	-12.2 %	17.5 %	22.4 %	24.6 %
Free Cash Flow Potential	-1.4	0.8	5.3	-3.8	48.1	65.6	86.1
Free Cash Flow / Net Profit	45.0 %	-111.6 %	-70.0 %	46.5 %	191.8 %	205.2 %	187.2 %
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 %	9.7 %	12.9 %	14.5 %
Management of Funds							
Investment ratio	0.0 %	0.0 %	2.0 %	1.9 %	1.4 %	1.2 %	1.1 %
Maint. Capex / Sales	3.2 %	0.0 %	2.1 %	1.5 %	1.0 %	0.9 %	0.8 %
Capex / Dep	0.0 %	0.0 %	11.2 %	12.1 %	20.2 %	16.4 %	16.7 %
Avg. Working Capital / Sales	129.3 %	49.1 %	27.0 %	28.5 %	14.1 %	13.5 %	12.9 %
Trade Debtors / Trade Creditors	48.8 %	188.4 %	284.5 %	158.4 %	157.9 %	144.8 %	145.0 %
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	60	55	55
Payables payment period (days)	4,677	264	67	326	345	200	200
Cash conversion cycle (Days)	2,883	772	241	118	46	48	47

CAPEX and Cash Flow

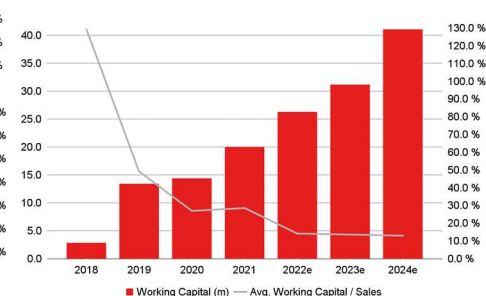
in EUR m



Free Cash Flow Generation



Working Capital



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

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Brockhaus Technologies	3, 5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A2GSU42.htm

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-B-	Buy:	The price of the analysed financial instrument is expected to rise over the next 12 months.
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“-“	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	162	75
Hold	43	20
Sell	6	3
Rating suspended	4	2
Total	215	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	45	82
Hold	7	13
Sell	1	2
Rating suspended	2	4
Total	55	100

PRICE AND RATING HISTORY BROCKHAUS TECHNOLOGIES AS OF 15.11.2022



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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