(CDAX, Technology, BKHT GR)



Buy EUR 66.00		Value Indicators: SotP:		Warburg ESG Risk Score: ESG Score (MSCI based): Balance Sheet Score: Market Liquidity Score:	3.0 3.3 1.0	Description: Brockhaus invests into high German Mittelstand compan	
		Market Snapshot:	EUR m	Shareholders:		Key Figures (WRe):	2022e
		Market cap:	166.7	Freefloat	77.60 %	Beta:	1.7
Price	EUR 16.05	No. of shares (m):	10.4	Kayne Anderson Rudnick Inv.	10.00 %	Price / Book:	0.8 x
Upside	311.2 %	EV:	430.2	DWS Investment	7.20 %	Equity Ratio:	42 %
ороля.	V /v	Freefloat MC:	129.4	Marco Brockhaus	22.40 %	Net Fin. Debt / EBITDA:	1.5 x
		Ø Trad. Vol. (30d):	41.26 th			Net Debt / EBITDA:	1.5 x

Bikeleasing business strong in Q1; Refinancing mix dilutive in the quarter

URm)	1Q 22 a	WRe est	delta	1Q 21 a	YOY
Revenues (pro forma)	28,8	21,5	34,0%	10,8	166%
t/o Palas	4,1	4,4	-7%	4,8	-15%
t/o IHSE	7,2	6,8	7%	6,1	20%
t/o Bikeleasing	17,5	10,3	69%	n.a.	
Adj EBITDA (pro forma)	7,6	6,9	10,8%	0,8	846%
adj. EBITDA margin (pro					
forma)	26,4%	31,9%		7,4%	
t/o Palas	0,9	1,4	-33%	1,6	-41%
t/o IHSE	2,1	1,7	22%	0,7	199%
t/o Bikeleasing	5,9	5,3	12%	n.a.	
Revenues (consolidated)	28,8	21,5	34,0%	10,8	166%
adj. EBITDA (consolidated)	7,6	6,9	11%	0,8	846%
Net income (consolidated)	-1,3	0,4	n.m.	-2,9	n.m.

(pro forma = acquisition treated as consolidated for 12 months)

Q1 revenues were stronger than we were anticipating, mainly driven by Bikeleasing. We were aware of a seasonal effect in Q1 but overestimated this with respect to sales. Unfortunately, comparable Q1 IFRS figures are not available but the company outlined that in Q1 2021 and Q1 2020, Bikeleasing generated around 15% of the annual bike leases. The number of leasing contracts in Q1 increased by 65% to a level of 20k. Bikeleasing EBITDA margin amounted to 33.6% which is lower than our forecast. One major effect is that in Q1, Bikeleasing refinanced the vast majority of new leasing contracts with a green bond, which means that no contracts were forfeited. Traditional forfeiting in the leasing business is effectively a recognition of sales with an EBITDA margin of 100%. The green bond volume is well filled at the end of Q1 22 which means that, by Q2, there will be more traditional refinancing and we would expect a respective margin effect. If we assume that Q1 22 reflects only 15% of FY 22 business, our forecast is fully on track.

Trade working capital at Bikeleasing ramped up by about EUR 5m. This effect is due to a certain time lag between the initial purchase of the bikes by Bikeleasing before these are passed on to the contract partners. Hence there is a ramp-up as the bike season nears, which will reverse going into the winter season again.

IHSE showed a first improvement in sales as projects returned as well as a sound 28% EBITDA margin. Palas had a strong comparison basis as there was still a sizable amount of Covid-related business in Q1 21. Nevertheless, we regard the business prospects as sound.

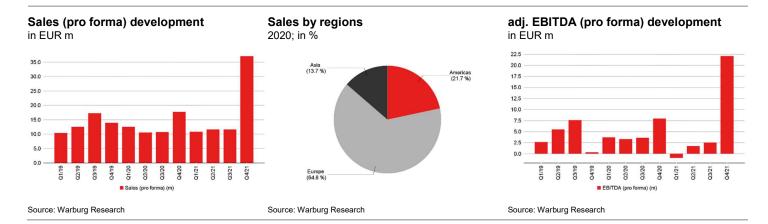


Rel. Performance vs CDAX:	
1 month:	-10.1 %
6 months:	-17.9 %
Year to date:	-13.5 %
Trailing 12 months:	-19.4 %

Company events:	
16.05.22	Q1
22.06.22	AGM
24.08.22	Q2
14.11.22	Q3

FY End: 31.12. in EUR m	CAGR (21-24e)	2018	2019	2020	2021	2022e	2023e	2024e
Sales (pro forma)	27.4 %	11.7	54.3	51.6	126.5	149.1	202.7	261.4
yoy		n.a.	n.a.	-5.0 %	145.3 %	17.9 %	35.9 %	28.9 %
Sales	63.0 %	1.1	16.6	51.6	60.3	149.1	202.7	261.4
Change Sales yoy		n.a.	1408.3 %	211.5 %	16.9 %	147.2 %	35.9 %	28.9 %
EBITDA (pro forma)	31.9 %	3.7	16.2	12.3	48.2	57.1	83.1	110.6
Margin (pro forma)		31.9 %	29.8 %	23.8 %	38.1 %	38.3 %	41.0 %	42.3 %
EBITDA	540.9 %	-1.3	1.3	8.3	0.4	56.8	83.1	110.6
Margin		-119.7 %	7.7 %	16.2 %	0.7 %	38.1 %	41.0 %	42.3 %
EBIT	-	-1.6	-2.3	-1.0	-9.3	45.8	67.4	92.6
Margin		-141.9 %	-13.7 %	-2.0 %	-15.4 %	30.7 %	33.2 %	35.4 %
Net income	-	-1.7	-3.8	- 6.8	-15.9	24.4	40.6	61.2
EPS	-	-0.66	-1.32	-0.81	-1.52	2.22	3.71	5.59
FCFPS		-0.30	1.47	0.57	-0.71	2.24	4.04	6.24
FCF / Market cap		n.a.	n.a.	1.8 %	-2.9 %	14.0 %	25.2 %	38.9 %
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	7.7 x	4.8 x	3.0 x
EV / EBIT		n.a.	n.a.	n.a.	n.a.	9.6 x	5.9 x	3.5 x
P/E		n.a.	n.a.	n.a.	n.a.	7.2 x	4.3 x	2.9 x
FCF Potential Yield		n.a.	n.a.	2.8 %	-1.1 %	10.4 %	16.5 %	25.8 %
Net Debt		-14.6	44.2	-69.3	110.6	86.0	41.8	-26.5
ROCE (NOPAT)		n.a.	n.a.	n.a.	n.a.	9.2 %	14.0 %	19.8 %
Guidance:	Pro forma sal	les of EUR 1	40-150m and	adj. EBITDA	pro forma o	f EUR 49-53m	1	



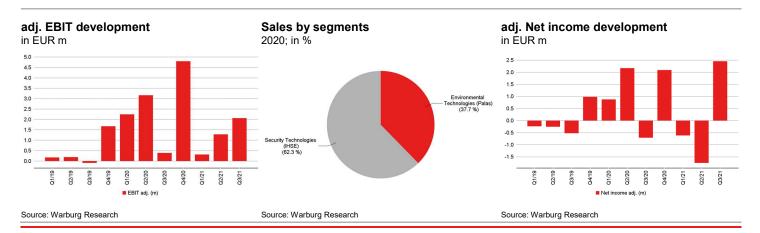


Company Background

- 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.





Sum of the parts

(EURm)	2022	WACC -1%	WACC +1%
Equity value Palas (DCF)	112	138	92
Share Brockhaus	70%	70%	70%
	78	96	64
Equity value IHSE (DCF)	139	176	112
Share Brockhaus	100%	100%	100%
	139	176	112
Equity value Bikeleasing (DCF)	1.259	1.329	1.197
Share Brockhaus	52%	52%	52%
	658	694	625
FY 22e adj. EBITDA Holding	-7	-7	-7
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Discount factor	6%	5%	7%
Value holding	-136	-168	-115
Sum of the Parts	738	799	687
Less net debt holding	15	15	15
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Equity value Brockhaus Technologies	723	784	672
Number of shares	10,95	10,95	10,95
Value per share	66,09	71,59	61,38

- 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	0.5 x
Book value per share ex intangibles	46.59	-41.67	6.81	-16.15	-14.05	-9.71	-3.19
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	7.7 x	4.8 x	3.0 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	9.6 x	5.9 x	3.5 x
EV / EBIT adj.*	n.a.	n.a.	17.6 x	18.3 x	8.1 x	5.2 x	3.2 x
P / FCF	n.a.	n.a.	54.1 x	n.a.	7.2 x	4.0 x	2.6 x
P/E	n.a.	n.a.	n.a.	n.a.	7.2 x	4.3 x	2.9 x
P / E adj.*	n.a.	n.a.	57.9 x	52.2 x	5.8 x	3.8 x	2.6 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 %	10.4 %	16.5 %	25.8 %
*Adjustments made for: -							

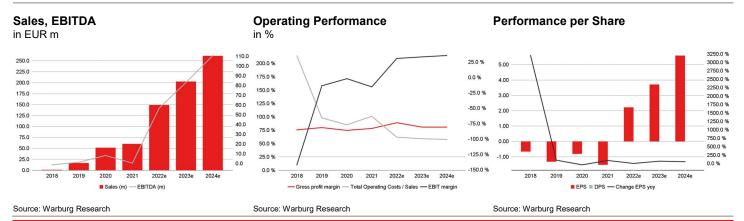
Company Specific Items							
	2018	2019	2020	2021	2022e	2023e	2024e
Sales (pro forma)	11.7	54.3	51.6	126.5	149.1	202.7	261.4
yoy	n.a.	n.a.	-5.0 %	145.3 %	17.9 %	35.9 %	28.9 %
EBITDA (pro forma)	3.7	16.2	12.3	48.2	57.1	83.1	110.6
Margin (pro forma)	31.9 %	29.8 %	23.8 %	38.1 %	38.3 %	41.0 %	42.3 %



Consolidated profit & loss							
In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Sales	1.1	16.6	51.6	60.3	149.1	202.7	261.4
Change Sales yoy	n.a.	1408.3 %	211.5 %	16.9 %	147.2 %	35.9 %	28.9 %
Increase / decrease in inventory	-0.1	0.2	-0.1	-0.2	0.0	0.0	0.0
Own work capitalised	0.0	8.0	0.9	1.4	0.0	0.0	0.0
Total Sales	1.1	17.5	52.3	61.5	149.1	202.7	261.4
Material expenses	0.2	4.3	13.8	14.2	16.4	38.5	49.7
Gross profit	0.8	13.2	38.6	47.3	132.7	164.2	211.7
Gross profit margin	75.8 %	80.0 %	74.7 %	78.4 %	89.0 %	81.0 %	81.0 %
Personnel expenses	0.7	6.8	19.5	21.8	43.3	56.8	73.2
Other operating income	0.3	0.4	1.5	2.0	1.5	2.0	2.6
Other operating expenses	1.6	5.6	12.0	26.9	34.2	26.4	30.6
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	56.8	83.1	110.6
Margin	-119.7 %	7.7 %	16.2 %	0.7 %	38.1 %	41.0 %	42.3 %
Depreciation of fixed assets	0.0	0.8	1.7	2.1	2.8	3.6	4.7
EBITA	-1.3	0.4	6.7	-1.7	54.0	79.4	105.9
Amortisation of intangible assets	0.2	2.7	7.7	7.6	8.1	12.1	13.2
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	45.8	67.4	92.6
Margin	-141.9 %	-13.7 %	-2.0 %	-15.4 %	30.7 %	33.2 %	35.4 %
EBIT adj.	-1.6	1.9	10.6	19.7	54.1	75.7	100.9
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	33.8	56.3	84.9
Margin	-146.2 %	-20.5 %	-9.4 %	-25.5 %	22.7 %	27.8 %	32.5 %
Total taxes	0.1	0.4	1.9	3.4	9.5	15.7	23.7
Net income from continuing operations	-1.7	-3.8	-6.8	-18.8	24.4	40.6	61.2
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	24.4	40.6	61.2
Minority interest	0.0	0.0	0.0	-2.9	0.0	0.0	0.0
Net income	-1.7	-3.8	-6.8	-15.9	24.4	40.6	61.2
Margin	-151.5 %	-23.1 %	-13.1 %	-26.3 %	16.3 %	20.0 %	23.4 %
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	2.22	3.71	5.59
EPS adj.	-0.66	-0.01	0.53	0.46	2.78	4.26	6.15
*Adjustments made for:							

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

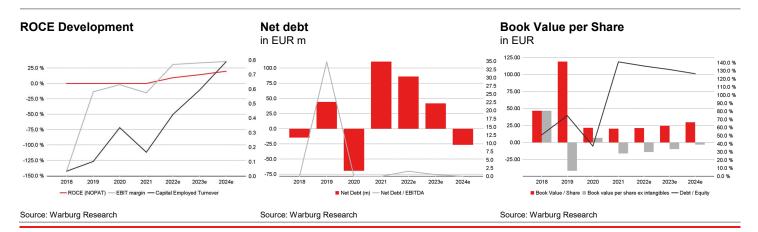
Financial Ratios							
	2018	2019	2020	2021	2022e	2023e	2024e
Total Operating Costs / Sales	214.2 %	98.2 %	85.0 %	101.0 %	61.9 %	59.0 %	57.7 %
Operating Leverage	n.a.	0.0 x	-0.3 x	46.5 x	n.a.	1.3 x	1.3 x
EBITDA / Interest expenses	n.m.	1.1 x	2.1 x	0.1 x	4.7 x	7.5 x	14.3 x
Tax rate (EBT)	-3.7 %	-12.9 %	-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.





Consolidated balance sheet							
In EUR m	2018	2019	2020	2021	2022e	2023e	2024
Assets							
Goodwill and other intangible assets	0.0	160.6	152.7	398.9	385.4	373.4	360.2
thereof other intangible assets	0.0	0.0	53.7	147.7	139.6	127.5	114.3
thereof Goodwill	0.0	91.4	91.4	243.6	243.6	243.6	243.6
Property, plant and equipment	8.0	11.3	11.7	16.2	15.7	14.8	13.3
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	95.7	140.5	190.1
Fixed assets	33.0	172.9	165.0	497.7	496.9	528.7	563.6
Inventories	4.3	10.7	9.7	12.6	14.9	20.3	26.1
Accounts receivable	1.4	5.9	7.2	20.2	22.5	30.5	39.4
Liquid assets	31.6	17.2	123.5	30.3	29.9	34.1	77.4
Other short-term assets	0.1	1.1	0.9	53.7	59.8	80.9	104.2
Current assets	37.3	34.8	141.4	116.8	127.1	165.8	247.2
Total Assets	70.3	207.7	306.4	614.5	624.0	694.5	810.8
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	24.4	64.7	125.6
Other equity components	3.0	-6.5	-14.6	-16.0	-30.8	-35.6	-38.4
Shareholders' equity	46.6	118.9	223.4	222.0	231.6	267.1	325.2
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	264.5	300.0	358.1
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	15.5	21.1	27.2
Other liabilities	3.7	23.8	24.0	201.0	221.2	290.7	367.7
Liabilities	23.8	88.8	83.0	359.6	359.6	394.6	452.7
Total liabilities and shareholders' equity	70.3	207.7	306.4	614.5	624.0	694.5	810.8

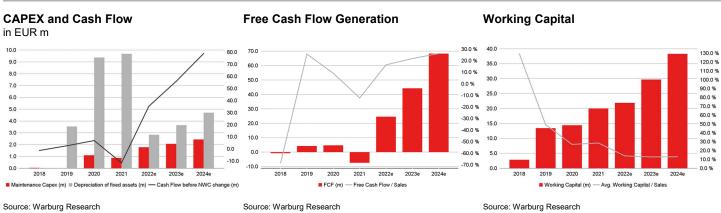
Financial Ratios							
	2018	2019	2020	2021	2022e	2023e	2024e
Efficiency of Capital Employment							
Operating Assets Turnover	0.3 x	0.7 x	2.0 x	1.7 x	4.0 x	4.6 x	5.1 x
Capital Employed Turnover	0.0 x	0.1 x	0.3 x	0.2 x	0.4 x	0.6 x	0.8 x
ROA	-5.0 %	-2.2 %	-4.1 %	-3.2 %	4.9 %	7.7 %	10.9 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	9.2 %	14.0 %	19.8 %
ROE	-6.8 %	-4.6 %	-3.9 %	-7.1 %	10.7 %	16.3 %	20.7 %
Adj. ROE	-6.8 %	0.0 %	2.6 %	2.1 %	13.4 %	18.7 %	22.7 %
Balance sheet quality							
Net Debt	-14.6	44.2	-69.3	110.6	86.0	41.8	-26.5
Net Financial Debt	-14.6	44.2	-69.3	110.6	86.0	41.8	-26.5
Net Gearing	-31.3 %	37.1 %	-31.0 %	43.4 %	32.5 %	13.9 %	-7.4 %
Net Fin. Debt / EBITDA	n.a.	3482.1 %	n.a.	n.a.	151.4 %	50.3 %	n.a.
Book Value / Share	46.6	118.9	21.5	20.3	21.2	24.4	29.7
Book value per share ex intangibles	46.6	-41.7	6.8	-16.2	-14.1	-9.7	-3.2





Consolidated cash flow statement							
In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	-1.7	-3.8	-6.8	-18.8	24.4	40.3	60.9
Depreciation of fixed assets	0.0	3.5	9.4	9.7	2.8	3.6	4.7
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	13.2
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	35.3	56.0	78.8
Increase / decrease in inventory	0.5	0.5	-1.1	-2.3	-2.3	-5.4	- 5.8
Increase / decrease in accounts receivable	0.0	0.0	0.0	0.0	-2.3	-8.0	- 8.9
Increase / decrease in accounts payable	0.1	1.2	-0.2	7.6	2.8	5.6	6.1
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	-8.4	- 9.0	-7.3
Net cash provided by operating activities [1]	-0.7	4.3	5.7	-6.2	26.9	47.0	71.5
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	-2.4	-2.8	-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
Net cash provided by investing activities [2]	-26.0	0.1	-1.4	-144.0	-2.4	-2.8	-3.2
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
Net cash provided by financing activities [3]	12.7	71.5	102.3	55.7	-25.0	-40.0	-25.0
Change in liquid funds [1]+[2]+[3]	-14.0	75.9	106.6	-94.5	-0.4	4.2	43.3
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	29.9	34.1	77.4

Financial Ratios							
	2018	2019	2020	2021	2022e	2023e	2024e
Cash Flow							
FCF	-0.7	4.3	4.7	-7.4	24.6	44.2	68.3
Free Cash Flow / Sales	-68.2 %	25.8 %	9.2 %	-12.2 %	16.5 %	21.8 %	26.1 %
Free Cash Flow Potential	-1.4	0.8	5.3	-3.8	45.6	65.0	84.2
Free Cash Flow / Net Profit	45.0 %	-111.6 %	-70.0 %	46.5 %	100.9 %	109.0 %	111.6 %
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 %
Management of Funds							
Investment ratio	0.0 %	0.0 %	2.0 %	1.9 %	1.6 %	1.4 %	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 %	21.6 %	17.5 %	18.1 %
Avg. Working Capital / Sales	129.3 %	49.1 %	27.0 %	28.5 %	14.1 %	12.7 %	13.0 %
Trade Debtors / Trade Creditors	48.8 %	188.4 %	284.5 %	158.4 %	145.2 %	144.5 %	144.9 %
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



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Investment recommendation: expected direction of the share price development of the financial instrument up to the given <u>price target</u> in the opinion of the analyst who covers this financial instrument.

"_"	Rating suspended:	The available information currently does not permit an evaluation of the company.
-S-	Sell:	The price of the analysed financial instrument is expected to fall over the next 12 months.
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WARRIEG RESEARCH GMRH -	- ANALYSED RESEARCH UNIVERSE BY RATING
WANDONG NEGERINGII GIVIDII -	

Rating	Number of stocks	% of Universe
Buy	170	80
Hold	37	17
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 BROCKHAUS TECHNOLOGIES AS OF 16.05.2022



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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