

Buy EUR 23.50 (EUR 24.50) Price EUR 3.00 Upside 683.3 %	Value Indicators: EUR DCF: 23.55	Warburg ESG Risk Score: 3.5 ESG Score (MSCI based): n.a. Balance Sheet Score: 5.0 Market Liquidity Score: 2.0	Description: Exasol develops and offers high-performance data warehousing and data analytics solutions
	Market Snapshot: EUR m Market cap: 73.3 No. of shares (m): 24.4 EV: 58.7 Freefloat MC: 45.1 Ø Trad. Vol. (30d): 56.57 th	Shareholders: Freefloat: 61.50 % Supervisory board: 28.70 % Management: 0.30 % Hesz'sche Privatstiftung: 7.10 % Treasury stocks: 2.40 %	Key Figures (WRe): 2022e Beta: 1.3 Price / Book: 4.9 x Equity Ratio: 56 %

ARR guidance cut but EBITDA target increased

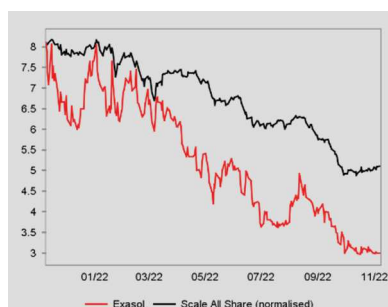
in EUR m	Q1/21	Q2/21	Q3/21	Q4/21	Q1/22	Q2/22	Q3/22p	2021	2022e
ARR	25.3	26.5	27.5	30.5	31.5	32.5	33.9	30.5	36.9
yoy	37.3%	27.4%	27.9%	21.0%	24.5%	22.6%	23.3%	37.0%	21.0%
qoq	5.0%	4.7%	3.8%	11.0%	3.2%	3.2%	4.3%		
Sales	6.1	6.9	6.2	8.2	7.7	8.4	8.7	27.5	32.8
yoy	26.7%	31.3%	-18.4%	40.8%	26.2%	21.7%	39.3%	16.4%	19.3%
qoq	4.3%	14.4%	-9.8%	32.4%	-6.5%	9.1%	3.2%		
adj. EBITDA	-5.1	-10.4	-8.7	-6.7	-3.8	-2.2	-2.7	-30.9	-14.3
margin	-83.6%	-150.7%	-139.8%	-81.3%	-49.4%	-26.2%	-31.4%	-112.5%	-43.5%
Liquid funds	56.6	46.6	33.4	27.2	26.6	19.3	16.9	27.2	12.6
Cash burn	12.9	10.0	13.2	6.2	0.6	7.3	2.4	42.3	14.6

Exasol published preliminary results for Q3, which were roughly in line with our estimates, and adjusted its guidance for the full year. The ARR grew by 23% yoy to EUR 33.9m (WRe 34.4m). This was below the company's expectations at the beginning of the year and is mainly explained by the economic environment. While the company gained 14 new customers in H1/22 (H1/21: 8), the average ticket size was smaller. Moreover, the ticket sizes of the projects in the pipeline are also lower. Against this background, Exasol reduced its ARR guidance for the full year to EUR 35.5-37.0m from EUR 38.5-40.0m. Considering Exasol's success with its land-and-expand approach, we still expect these customers to form a good basis for future growth but, for this year, we have reduced our ARR estimate from EUR 38.7m to EUR 36.9m.

Despite the weaker ARR growth, the operating performance was solid. Sales grew by 39% to EUR 8.7m (WRe EUR 8.5m) and the adjusted EBITDA reached EUR -2.7m (WRe EUR -3.0m) after EUR -8.7m in Q3/21. The cash burn was reduced significantly from EUR 13.2m to EUR 2.4m resulting in liquid funds of EUR 16.9m after the first nine months. With the implementation of successful cost-cutting and cost-efficiency measures, Exasol is still on track to reach cash neutrality next year. The company also increased its ad. EBITDA target range from EUR -14m to -16m to EUR -13m to -14m and is now aiming for liquid funds of EUR 11-13m by the end of the year (previously EUR 10-12m).

We have adjusted our estimates and lowered the expected ARR growth for the current year and 2023. As a result, we have also reduced our target price to EUR 23.50 (24.50). We confirm our Buy recommendation but, despite the significant upside, we are not expecting a notable improvement in the sentiment towards the stock as long as the ARR growth momentum is below the expected growth path.

Changes in Estimates:				Comment on Changes:			
FY End: 31.12. in EUR m	2022e (old)	+ / -	2023e (old)	+ / -	2024e (old)	+ / -	
ARR	38.7	-4.2 %	54.9	-9.2 %	77.6	-7.2 %	<ul style="list-style-type: none"> 2022 sales and EBITDA increased after strong 9M performance ARR growth reduced to reflect the smaller average ticket size in the current economic environment Reduction in 2023 and 2024 sales and EBITDA, due to lower ARR and lower economies of scale
Sales	33.4	1.2 %	45.2	-6.7 %	64.0	-8.2 %	
EBITDA	-12.0	n.m.	-1.5	n.m.	9.2	-54.5 %	
EPS	-0.63	n.m.	-0.18	n.m.	0.26	-80.8 %	

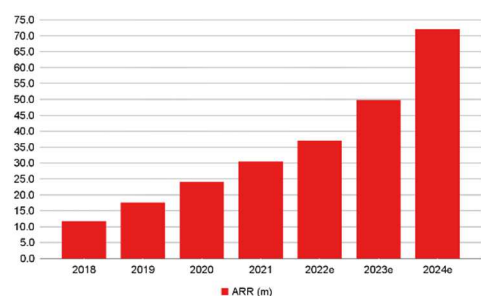


Rel. Performance vs Scale All	
1 month:	-6.6 %
6 months:	-9.1 %
Year to date:	-24.8 %
Trailing 12 months:	-26.6 %

Company events:
16.11.22 Q3

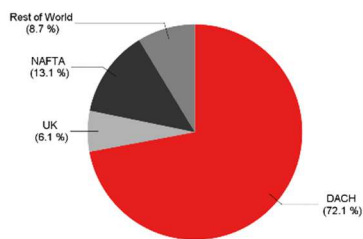
FY End: 31.12. in EUR m	CAGR (21-24e)	2018	2019	2020	2021	2022e	2023e	2024e	
ARR	33.2 %	11.8	17.6	24.1	30.5	37.1	49.8	72.1	
Sales	28.8 %	17.7	21.6	23.6	27.5	33.8	42.2	58.7	
Change Sales yoy		4.4 %	22.0 %	9.2 %	16.4 %	23.1 %	24.8 %	39.2 %	
Gross profit margin		98.7 %	97.3 %	94.5 %	96.5 %	92.0 %	92.0 %	92.0 %	
EBITDA	-	1.8	-11.0	-29.9	-25.7	-11.1	-4.2	4.2	
Margin		10.0 %	-50.7 %	-126.9 %	-93.5 %	-32.7 %	-10.0 %	7.1 %	
EBIT	-	-0.1	-13.2	-34.1	-28.5	-13.9	-7.2	1.2	
Margin		-0.6 %	-60.8 %	-144.5 %	-103.8 %	-41.2 %	-17.0 %	2.1 %	
EBIT adj.		0.5	-4.1	-11.6	-34.4	-15.9	-7.2	1.2	
Margin		2.6 %	-18.7 %	-49.2 %	-125.3 %	-47.1 %	-17.0 %	2.1 %	
Net income	-	-0.6	-14.0	-34.3	-29.3	-14.2	-7.3	1.3	
EPS	-	-0.04	-0.89	-1.70	-1.45	-0.59	-0.30	0.05	
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		-0.05	-0.03	-0.70	-2.01	-0.94	-0.20	0.20	
FCF / Market cap		n.a.	n.a.	-4.1 %	-11.7 %	-31.0 %	-6.7 %	6.7 %	
EV / Sales		n.a.	n.a.	11.8 x	11.6 x	1.7 x	1.5 x	1.0 x	
EV / EBITDA		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14.1 x	
EV / EBIT		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	47.5 x	
P / E		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	60.0 x	
FCF Potential Yield		n.a.	n.a.	-10.8 %	-8.3 %	-19.3 %	-6.9 %	7.1 %	
Net Debt		0.3	1.6	-69.4	-27.2	-14.6	-9.7	-14.6	
Guidance:		ARR EUR 38.5-40m., adj. EBITDA EUR -14m to -16m, liquid funds EUR 10-12m							

ARR development
in EUR m



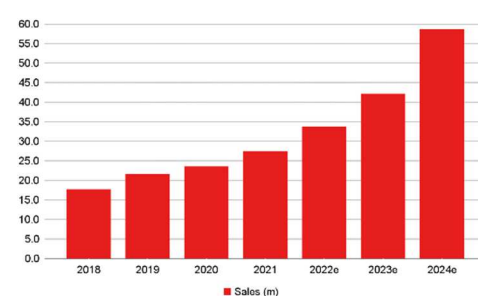
Source: Warburg Research

Sales by regions
2021; in %



Source: Warburg Research

Sales development
in EUR m



Source: Warburg Research

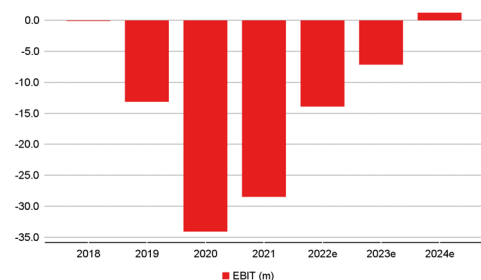
Company Background

- Exasol, headquartered in Nuremberg, Germany, is a technologically leading provider of database solutions for high-performance data warehousing and data analytics
- With its origins as a university spin-off, the company has a history of more than two decades in data science, especially in the field of high-performance computing
- The leading performance of its database solutions is based on a deeply integrated in-memory and massively parallel processing (MPP) architecture
- The customer base consists of approx. 200 enterprises worldwide from a variety of industries including top-tier companies such as Adidas, Zalando, Revolut and Piedmont Healthcare
- While the company is currently expanding its geographical footprint, the largest part of its revenue (70.3%) is still generated in the DACH region, followed by Northern America with 13.1% and the UK with 6.8%

Competitive Quality

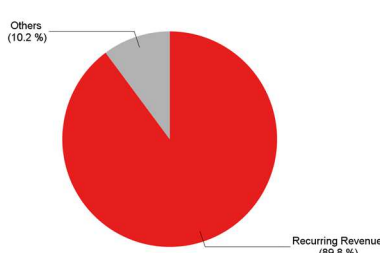
- Exasol offers the world's fastest database for data analytics and data warehousing according to the relevant independent benchmark research
- Leading technology based on more than two decades in high-performance computing, massive parallel processing and in-memory technology deeply rooted in its database architecture
- Surveys show best-in-class customer satisfaction with the solutions and the customer support as reflected in a low churn-rate
- High scalability through R&D focuses on core application with a vast array of applications and automated deployment and tuning algorithms
- Increasing sales share of subscription-based recurring revenue reached 80.5% in 2020 and, in combination with high customer loyalty, provides a high level of visibility

EBIT development
in EUR m



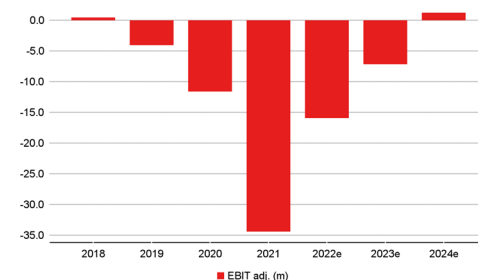
Source: Warburg Research

Sales by segments
2021; in %



Source: Warburg Research

Adj. EBIT 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	33.8	42.2	58.7	82.4	110.9	145.8	185.0	227.3	272.3	324.0	379.1	436.0	446.9	
Sales change	23.1 %	24.8 %	39.2 %	40.3 %	34.7 %	31.4 %	26.9 %	22.9 %	19.8 %	19.0 %	17.0 %	15.0 %	2.5 %	2.5 %
EBIT	-13.9	-7.2	1.2	16.9	32.3	40.8	53.6	68.2	79.0	90.7	102.4	113.4	111.7	
EBIT-margin	-41.2 %	-17.0 %	2.1 %	20.5 %	29.1 %	28.0 %	29.0 %	30.0 %	29.0 %	28.0 %	27.0 %	26.0 %	25.0 %	
Tax rate (EBT)	-2.0 %	-2.0 %	0.0 %	14.0 %	17.0 %	19.0 %	21.0 %	23.0 %	25.0 %	27.0 %	29.0 %	30.0 %	30.0 %	
NOPAT	-14.2	-7.3	1.2	14.6	26.8	33.1	42.4	52.5	59.2	66.2	72.7	79.4	78.2	
Depreciation	2.9	2.9	2.9	3.5	4.2	4.8	5.5	6.8	8.2	9.7	11.4	13.1	13.4	
in % of Sales	8.5 %	6.9 %	5.0 %	4.3 %	3.8 %	3.3 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	
Changes in provisions	-11.6	-1.3	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	-0.7	-1.3	-1.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
- Capex	0.5	0.5	0.5	2.5	3.3	4.4	5.5	6.8	8.2	9.7	11.4	13.1	13.4	
Capex in % of Sales	1.5 %	1.2 %	0.9 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	
- Other	-10.1	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)	-12.6	-4.9	4.9	13.3	27.7	33.5	42.4	52.5	59.2	66.2	72.7	79.4	78.2	80
PV of FCF	-12.5	-4.4	4.0	9.9	18.7	20.5	23.6	26.5	27.2	27.6	27.5	27.3	24.4	328
share of PVs	-2.35 %			42.51 %										59.85 %

Model parameter		Valuation (m)	
Derivation of WACC:		Derivation of Beta:	
Debt ratio	0.00 %	Financial Strength	1.50
Cost of debt (after tax)	4.2 %	Liquidity (share)	1.30
Market return	8.25 %	Cyclicality	0.80
Risk free rate	2.75 %	Transparency	1.50
		Others	1.60
WACC	10.12 %	Beta	1.34
		Present values 2034e	220
		Terminal Value	328
		Financial liabilities	0
		Pension liabilities	0
		Hybrid capital	0
		Minority interest	0
		Market val. of investments	0
		Liquidity	27
		No. of shares (m)	24.4
		Equity Value	576
		Value per share (EUR)	23.55

Sensitivity Value per Share (EUR)															
Beta	WACC	Terminal Growth							Delta EBIT-margin						
		1.75 %	2.00 %	2.25 %	2.50 %	2.75 %	3.00 %	3.25 %	-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.52	11.1 %	19.24	19.51	19.79	20.09	20.41	20.75	21.11	18.89	19.29	19.69	20.09	20.49	20.89	21.29
1.43	10.6 %	20.70	21.02	21.35	21.71	22.09	22.49	22.92	20.42	20.85	21.28	21.71	22.14	22.57	23.00
1.39	10.4 %	21.50	21.84	22.21	22.60	23.01	23.46	23.93	21.25	21.70	22.15	22.60	23.05	23.50	23.95
1.34	10.1 %	22.35	22.72	23.12	23.55	24.01	24.49	25.02	22.15	22.62	23.08	23.55	24.02	24.49	24.96
1.29	9.9 %	23.25	23.66	24.10	24.57	25.07	25.61	26.19	23.11	23.59	24.08	24.57	25.06	25.55	26.04
1.25	9.6 %	24.22	24.67	25.15	25.67	26.22	26.81	27.45	24.14	24.65	25.16	25.67	26.18	26.69	27.20
1.16	9.1 %	26.36	26.90	27.49	28.12	28.79	29.53	30.32	26.44	27.00	27.56	28.12	28.67	29.23	29.79

- The estimated cash burn between 2021 and 2023 should reduce the net cash position to EUR 6.1m.
- The decline in profitability from 2028 onwards reflects the limited visibility.
- The WACC reflects the expected cash burn, the limited visibility of the expected growth and the target debt ratio of 0%.
- The changes in provisions are associated with the pay-out for the Stock Appreciation Right obligations.
- The EUR 16.6m cash inflow in the "others" line comes from disposal from treasury shares to cover SAR obligations.

Valuation	2018	2019	2020	2021	2022e	2023e	2024e
Price / Book	n.a.	n.a.	7.2 x	18.1 x	4.9 x	9.6 x	8.3 x
Book value per share ex intangibles	-0.85	-1.23	1.72	0.45	0.36	0.15	0.30
EV / Sales	n.a.	n.a.	11.8 x	11.6 x	1.7 x	1.5 x	1.0 x
EV / EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14.1 x
EV / EBIT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	47.5 x
EV / EBIT adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	47.5 x
P / FCF	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	16.4 x
P / E	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	60.0 x
P / E adj.*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	60.0 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.	-10.8 %	-8.3 %	-19.3 %	-6.9 %	7.1 %

*Adjustments made for: Figures are adjusted for non-cash charges for the stock option programme and IPO costs in 2020

Company Specific Items	2018	2019	2020	2021	2022e	2023e	2024e
ARR	11.8	17.6	24.1	30.5	37.1	49.8	72.1

Consolidated profit & loss

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Sales	17.7	21.6	23.6	27.5	33.8	42.2	58.7
Change Sales yoy	4.4 %	22.0 %	9.2 %	16.4 %	23.1 %	24.8 %	39.2 %
Increase / decrease in inventory	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Own work capitalised	1.4	1.8	1.9	2.2	0.0	0.0	0.0
Total Sales	19.1	23.4	25.5	29.7	33.8	42.2	58.7
Material expenses	1.6	2.4	3.2	3.2	2.7	3.4	4.7
Gross profit	17.5	21.0	22.3	26.5	31.1	38.8	54.0
<i>Gross profit margin</i>	<i>98.7 %</i>	<i>97.3 %</i>	<i>94.5 %</i>	<i>96.5 %</i>	<i>92.0 %</i>	<i>92.0 %</i>	<i>92.0 %</i>
Personnel expenses	10.7	24.3	37.3	39.3	30.8	30.6	33.4
Other operating income	0.3	0.3	0.4	8.2	3.3	0.7	0.8
Other operating expenses	5.3	8.0	15.3	21.1	14.6	13.1	17.3
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	1.8	-11.0	-29.9	-25.7	-11.1	-4.2	4.2
<i>Margin</i>	<i>10.0 %</i>	<i>-50.7 %</i>	<i>-126.9 %</i>	<i>-93.5 %</i>	<i>-32.7 %</i>	<i>-10.0 %</i>	<i>7.1 %</i>
Depreciation of fixed assets	0.3	0.4	0.5	0.6	0.6	0.7	0.7
EBITA	1.5	-11.4	-30.4	-26.3	-11.6	-4.9	3.5
Amortisation of intangible assets	1.1	1.3	3.2	2.1	2.2	2.2	2.3
Goodwill amortisation	0.5	0.5	0.5	0.1	0.0	0.0	0.0
EBIT	-0.1	-13.2	-34.1	-28.5	-13.9	-7.2	1.2
<i>Margin</i>	<i>-0.6 %</i>	<i>-60.8 %</i>	<i>-144.5 %</i>	<i>-103.8 %</i>	<i>-41.2 %</i>	<i>-17.0 %</i>	<i>2.1 %</i>
EBIT adj.	0.5	-4.1	-11.6	-34.4	-15.9	-7.2	1.2
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenses	0.5	0.7	0.2	0.0	0.0	0.0	0.0
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	-0.6	-13.8	-34.3	-28.5	-13.9	-7.2	1.2
<i>Margin</i>	<i>-3.5 %</i>	<i>-64.1 %</i>	<i>-145.4 %</i>	<i>-103.6 %</i>	<i>-41.2 %</i>	<i>-17.0 %</i>	<i>2.1 %</i>
Total taxes	0.0	0.1	0.0	0.8	0.3	0.1	0.0
Net income from continuing operations	-0.6	-14.0	-34.3	-29.3	-14.2	-7.3	1.3
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	-0.6	-14.0	-34.3	-29.3	-14.2	-7.3	1.3
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	-0.6	-14.0	-34.3	-29.3	-14.2	-7.3	1.3
<i>Margin</i>	<i>-3.6 %</i>	<i>-64.7 %</i>	<i>-145.4 %</i>	<i>-106.7 %</i>	<i>-42.0 %</i>	<i>-17.3 %</i>	<i>2.1 %</i>
Number of shares, average	15.7	15.7	20.2	20.2	24.1	24.4	24.4
EPS	-0.04	-0.89	-1.70	-1.45	-0.59	-0.30	0.05
EPS adj.	-0.04	-0.89	-1.70	-1.45	-0.59	-0.30	0.05

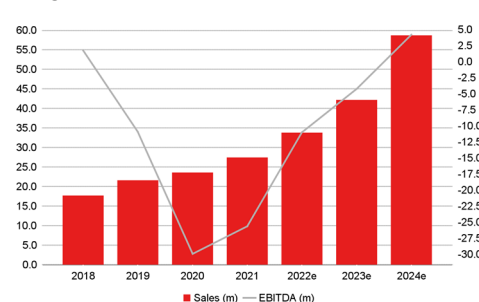
*Adjustments made for: Figures are adjusted for non-cash charges for the stock option programme and IPO costs in 2020

Guidance: ARR EUR 38.5-40m., adj. EBITDA EUR -14m to -16m, liquid funds EUR 10-12m

Financial Ratios

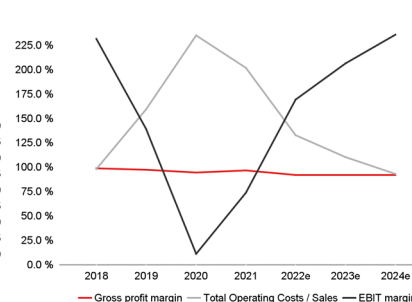
	2018	2019	2020	2021	2022e	2023e	2024e
Total Operating Costs / Sales	97.9 %	159.1 %	235.1 %	201.6 %	132.7 %	110.0 %	92.9 %
Operating Leverage	n.a.	601.6 x	17.3 x	-1.0 x	-2.2 x	-2.0 x	n.a.
EBITDA / Interest expenses	3.4 x	n.m.	n.m.	n.m.	n.m.	n.m.	524.7 x
Tax rate (EBT)	-1.1 %	-0.9 %	0.0 %	-3.0 %	-2.0 %	-2.0 %	-2.0 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	162,518	145,048	105,826	96,686	109,064	128,229	153,713

Sales, EBITDA
in EUR m



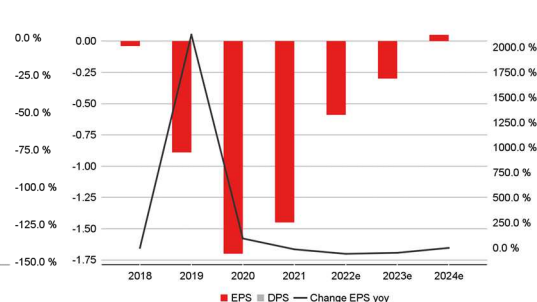
Source: Warburg Research

Operating Performance
in %



Source: Warburg Research

Performance per Share



Source: Warburg Research

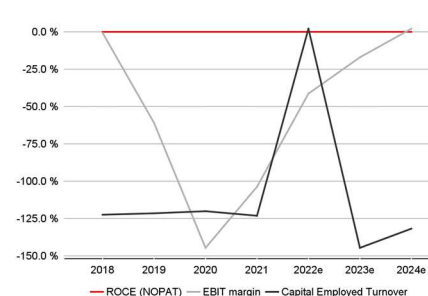
Consolidated balance sheet

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Assets							
Goodwill and other intangible assets	6.7	7.2	7.1	8.4	6.1	3.9	1.6
thereof other intangible assets	2.0	1.9	1.1	0.8	0.6	0.3	0.0
thereof Goodwill	1.0	0.5	0.3	0.2	0.2	0.2	0.2
Property, plant and equipment	0.6	0.6	0.6	1.0	0.9	0.7	0.5
Financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed assets	7.4	7.9	7.7	9.4	7.0	4.6	2.2
Inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts receivable	4.9	1.8	3.3	2.9	2.8	2.4	2.4
Liquid assets	1.1	0.6	69.5	27.2	14.6	9.7	14.6
Other short-term assets	0.7	0.7	1.6	2.1	2.1	2.1	2.1
Current assets	6.8	3.2	74.4	32.1	19.5	14.2	19.1
Total Assets	14.2	11.1	82.1	41.5	26.5	18.8	21.2
Liabilities and shareholders' equity							
Subscribed capital	15.7	15.7	24.4	24.4	24.4	24.4	24.4
Capital reserve	13.0	13.5	107.7	107.7	117.2	117.2	117.2
Retained earnings	-35.3	-49.3	-83.6	-112.9	-127.1	-134.4	-133.2
Other equity components	0.2	8.2	-0.2	-0.2	0.4	0.4	0.4
Shareholders' equity	-6.5	-12.0	48.3	19.0	14.9	7.6	8.9
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	-6.5	-12.0	48.3	19.0	14.9	7.6	8.9
Provisions	1.4	11.5	27.2	13.6	2.0	0.7	0.7
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	1.4	2.2	0.1	0.0	0.0	0.0	0.0
Short-term financial liabilities	1.3	2.1	0.0	0.0	0.0	0.0	0.0
Accounts payable	1.0	1.5	1.1	1.2	1.9	2.8	4.0
Other liabilities	16.9	7.9	5.5	7.6	7.6	7.6	7.6
Liabilities	20.7	23.1	33.8	22.5	11.5	11.1	12.3
Total liabilities and shareholders' equity	14.2	11.1	82.1	41.5	26.5	18.8	21.2

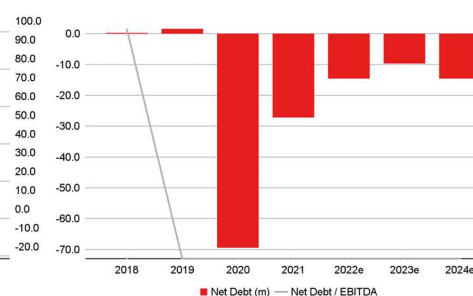
Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Efficiency of Capital Employment							
Operating Assets Turnover	3.8 x	21.8 x	8.5 x	10.4 x	18.8 x	143.9 x	-55.0 x
Capital Employed Turnover	-2.8 x	-2.1 x	-1.1 x	-3.4 x	95.9 x	-20.5 x	-10.3 x
ROA	-8.6 %	-177.6 %	-444.2 %	-313.1 %	-202.9 %	-159.3 %	58.3 %
Return on Capital							
ROCE (NOPAT)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ROE	10.3 %	151.1 %	-189.2 %	-87.1 %	-83.7 %	-64.8 %	15.2 %
Adj. ROE	10.3 %	151.1 %	-189.2 %	-87.1 %	-83.7 %	-64.8 %	15.2 %
Balance sheet quality							
Net Debt	0.3	1.6	-69.4	-27.2	-14.6	-9.7	-14.6
Net Financial Debt	0.3	1.6	-69.4	-27.2	-14.6	-9.7	-14.6
Net Gearing	-4.2 %	-13.1 %	-143.8 %	-142.8 %	-97.6 %	-127.1 %	-164.2 %
Net Fin. Debt / EBITDA	15.4 %	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Book Value / Share	-0.4	-0.8	2.0	0.8	0.6	0.3	0.4
Book value per share ex intangibles	-0.8	-1.2	1.7	0.4	0.4	0.2	0.3

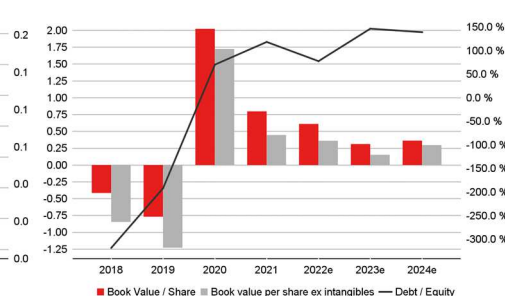
ROCE Development



Net debt in EUR m



Book Value per Share in EUR



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

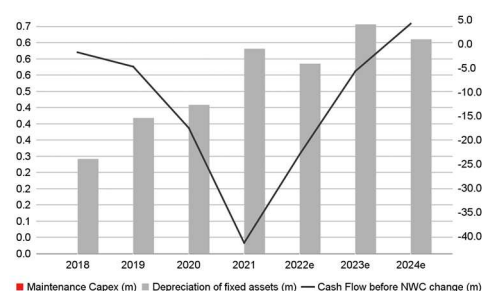
Consolidated cash flow statement

In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	-0.6	-14.0	-34.3	-29.3	-14.2	-7.3	1.3
Depreciation of fixed assets	0.3	0.4	0.5	0.6	0.6	0.7	0.7
Amortisation of goodwill	0.5	0.5	0.5	0.1	0.0	0.0	0.0
Amortisation of intangible assets	1.1	1.3	3.2	2.1	2.2	2.2	2.3
Increase/decrease in long-term provisions	-0.2	9.8	15.9	-12.6	-11.6	-1.3	0.0
Other non-cash income and expenses	-2.8	-2.7	-3.3	-2.3	0.0	0.0	0.0
Cash Flow before NWC change	-1.8	-4.7	-17.5	-41.4	-22.9	-5.7	4.2
Increase / decrease in inventory	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Increase / decrease in accounts receivable	-1.0	2.5	-2.8	-1.5	0.1	0.4	0.0
Increase / decrease in accounts payable	4.0	4.5	9.0	6.8	0.7	0.9	1.2
Increase / decrease in other working capital positions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	3.0	7.0	6.2	5.3	0.7	1.3	1.2
Net cash provided by operating activities [1]	1.2	2.2	-11.3	-36.1	-22.2	-4.4	5.4
Investments in intangible assets	-1.4	-2.3	-2.4	-3.4	0.0	0.0	0.0
Investments in property, plant and equipment	-0.6	-0.4	-0.4	-1.0	-0.5	-0.5	-0.5
Payments for acquisitions	0.0	0.0	-0.9	0.0	0.0	0.0	0.0
Financial investments	0.0	0.0	35.6	-35.5	0.0	0.0	0.0
Income from asset disposals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash provided by investing activities [2]	-2.1	-2.7	-39.3	31.1	-0.5	-0.5	-0.5
Change in financial liabilities	0.8	-0.9	-3.8	-0.2	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	0.0	0.0	2.6	0.0	10.1	0.0	0.0
Capital measures	0.0	0.0	87.2	-1.6	0.0	0.0	0.0
Other	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Net cash provided by financing activities [3]	0.9	-0.9	85.9	-1.8	10.1	0.0	0.0
Change in liquid funds [1]+[2]+[3]	0.0	-1.4	35.3	-6.8	-12.6	-4.9	4.9
Effects of exchange-rate changes on cash	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Cash and cash equivalent at end of period	-0.1	-1.5	33.9	27.2	14.6	9.7	14.6

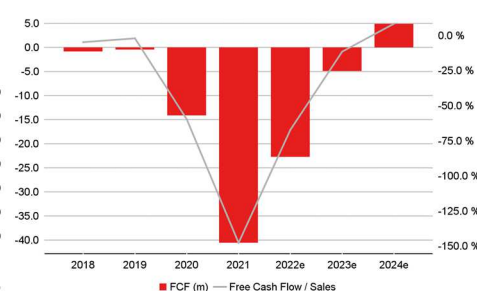
Financial Ratios

	2018	2019	2020	2021	2022e	2023e	2024e
Cash Flow							
FCF	-0.8	-0.5	-14.1	-40.5	-22.7	-4.9	4.9
Free Cash Flow / Sales	-4.7 %	-2.1 %	-59.8 %	-147.6 %	-67.1 %	-11.6 %	8.3 %
Free Cash Flow Potential	1.8	-11.1	-29.9	-26.5	-11.3	-4.4	4.2
Free Cash Flow / Net Profit	132.9 %	3.2 %	41.1 %	138.3 %	159.8 %	66.9 %	389.7 %
Interest Received / Avg. Cash	0.0 %	0.1 %	0.0 %	0.1 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	50.4 %	39.1 %	18.9 %	15.8 %	27.1 %	27.1 %	27.1 %
Management of Funds							
Investment ratio	11.7 %	12.4 %	11.9 %	16.2 %	1.5 %	1.2 %	0.9 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	110.7 %	121.9 %	67.2 %	157.4 %	17.5 %	17.2 %	17.0 %
Avg. Working Capital / Sales	21.8 %	10.0 %	5.4 %	7.0 %	3.8 %	0.6 %	-1.7 %
Trade Debtors / Trade Creditors	511.6 %	122.8 %	298.8 %	234.0 %	147.4 %	85.7 %	60.0 %
Inventory Turnover	n.a.	n.a.	160.8 x	n.a.	n.a.	n.a.	n.a.
Receivables collection period (days)	102	31	50	38	30	21	15
Payables payment period (days)	216	227	123	140	256	303	311
Cash conversion cycle (Days)	n.a.	n.a.	-70	n.a.	n.a.	n.a.	n.a.

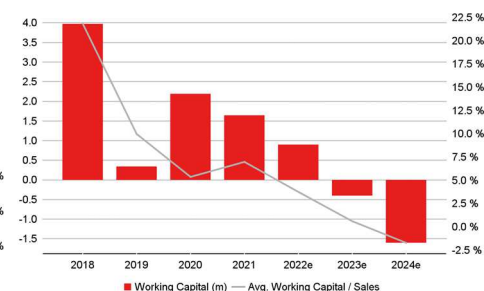
CAPEX and Cash Flow in EUR m



Free Cash Flow Generation



Working Capital



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

LEGAL DISCLAIMER

This research report ("investment recommendation") was prepared by the Warburg Research GmbH, a fully owned subsidiary of the M.M.Warburg & CO (AG & Co.) KGaA and is passed on by the M.M.Warburg & CO (AG & Co.) KGaA. It is intended solely for the recipient and may not be passed on to another company without their prior consent, regardless of whether the company is part of the same corporation or not. It contains selected information and does not purport to be complete. The investment recommendation is based on publicly available information and data ("information") believed to be accurate and complete. Warburg Research GmbH neither examines the information for accuracy and completeness, nor guarantees its accuracy and completeness. Possible errors or incompleteness of the information do not constitute grounds for liability of M.M.Warburg & CO (AG & Co.) KGaA or Warburg Research GmbH for damages of any kind whatsoever, and M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are not liable for indirect and/or direct and/or consequential damages. In particular, neither M.M.Warburg & CO (AG & Co.) KGaA nor Warburg Research GmbH are liable for the statements, plans or other details contained in these investment recommendations concerning the examined companies, their affiliated companies, strategies, economic situations, market and competitive situations, regulatory environment, etc. Although due care has been taken in compiling this investment recommendation, it cannot be excluded that it is incomplete or contains errors. M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH, their shareholders and employees are not liable for the accuracy and completeness of the statements, estimations and the conclusions derived from the information contained in this investment recommendation. Provided a investment recommendation is being transmitted in connection with an existing contractual relationship, i.e. financial advisory or similar services, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH shall be restricted to gross negligence and wilful misconduct. In case of failure in essential tasks, M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are liable for normal negligence. In any case, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH is limited to typical, expectable damages. This investment recommendation does not constitute an offer or a solicitation of an offer for the purchase or sale of any security. Partners, directors or employees of M.M.Warburg & CO (AG & Co.) KGaA, Warburg Research GmbH or affiliated companies may serve in a position of responsibility, i.e. on the board of directors of companies mentioned in the report. Opinions expressed in this investment recommendation are subject to change without notice. The views expressed in this research report accurately reflect the research analyst's personal views about the subject securities and issuers. Unless otherwise specified in the research report, no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in the research report. All rights reserved.

COPYRIGHT NOTICE

This work including all its parts is protected by copyright. Any use beyond the limits provided by copyright law without permission is prohibited and punishable. This applies, in particular, to reproductions, translations, microfilming, and storage and processing on electronic media of the entire content or parts thereof.

DISCLOSURE ACCORDING TO §85 OF THE GERMAN SECURITIES TRADING ACT (WPHG), MAR AND MIFID II INCL. COMMISSION DELEGATED REGULATION (EU) 2016/958 AND (EU) 2017/565

The valuation underlying the investment recommendation for the company analysed here is based on generally accepted and widely used methods of fundamental analysis, such as e.g. DCF Model, Free Cash Flow Value Potential, NAV, Peer Group Comparison or Sum of the Parts Model (see also <http://www.mmwarburg.de/disclaimer/disclaimer.htm#Valuation>). The result of this fundamental valuation is modified to take into consideration the analyst's assessment as regards the expected development of investor sentiment and its impact on the share price.

Independent of the applied valuation methods, there is the risk that the price target will not be met, for instance because of unforeseen changes in demand for the company's products, changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, tax rate etc. For investments in foreign markets and instruments there are further risks, generally based on exchange rate changes or changes in political and social conditions.

This commentary reflects the opinion of the relevant author at the point in time of its compilation. A change in the fundamental factors underlying the valuation can mean that the valuation is subsequently no longer accurate. Whether, or in what time frame, an update of this commentary follows is not determined in advance.

Additional internal and organisational arrangements to prevent or to deal with conflicts of interest have been implemented. Among these are the spatial separation of Warburg Research GmbH from M.M.Warburg & CO (AG & Co.) KGaA and the creation of areas of confidentiality. This prevents the exchange of information, which could form the basis of conflicts of interest for Warburg Research GmbH in terms of the analysed issuers or their financial instruments.

The analysts of Warburg Research GmbH do not receive a gratuity – directly or indirectly – from the investment banking activities of M.M.Warburg & CO (AG & Co.) KGaA or of any company within the Warburg-Group.

All prices of financial instruments given in this investment recommendation are the closing prices on the last stock-market trading day before the publication date stated, unless another point in time is explicitly stated.

M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are subject to the supervision of the Federal Financial Supervisory Authority, BaFin. M.M.Warburg & CO (AG & Co.) KGaA is additionally subject to the supervision of the European Central Bank (ECB).

SOURCES

All data and consensus estimates have been obtained from FactSet except where stated otherwise.

The **Warburg ESG Risk Score** is based on information © 2020 MSCI ESG Research LLC. Reproduced by permission. Although Warburg Research's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information (the "Information") from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for, or a component, of any financial instruments or products indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damage (including lost profits) even if notified of the possibility.

Additional information for clients in the United States

1. This research report (the "Report") is a product of Warburg Research GmbH, Germany, a fully owned subsidiary of M.M.Warburg & CO (AG & Co.) KGaA, Germany (in the following collectively "Warburg"). Warburg is the employer of the research analyst(s), who have prepared the Report. The research analyst(s) reside outside the United States and are not associated persons of any U.S. regulated broker-dealer and therefore are not subject to the supervision of any U.S. regulated broker-dealer.
2. The Report is provided in the United States for distribution solely to "major U.S. institutional investors" under Rule 15a-6 of the U.S. Securities Exchange Act of 1934 by CIC.
3. CIC (Crédit Industriel et Commercial) and M.M. Warburg & CO have concluded a Research Distribution Agreement that gives CIC Market Solutions exclusive distribution in France, the US and Canada of the Warburg Research GmbH research product.
4. The research reports are distributed in the United States of America by CIC ("CIC") pursuant to a SEC Rule 15a-6 agreement with CIC Market Solutions Inc ("CICI"), a U.S. registered broker-dealer and a related company of CIC, and are distributed solely to persons who qualify as "Major U.S. Institutional Investors" as defined in SEC Rule 15a-6 under the Securities Exchange Act of 1934.
5. Any person who is not a Major U.S. Institutional Investor must not rely on this communication. The delivery of this research report to any person in the United States of America is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein.

Reference in accordance with section 85 of the German Securities Trading Act (WpHG) and Art. 20 MAR regarding possible conflicts of interest with companies analysed:

- 1- Warburg Research, or an affiliated company, or an employee of one of these companies responsible for the compilation of the research, hold a **share of more than 5%** of the equity capital of the analysed company.
- 2- Warburg Research, or an affiliated company, within the last twelve months participated in the **management of a consortium** for an issue in the course of a public offering of such financial instruments, which are, or the issuer of which is, the subject of the investment recommendation.
- 3- Companies affiliated with Warburg Research **manage financial instruments**, which are, or the issuers of which are, subject of the investment recommendation, in a market based on the provision of buy or sell contracts.
- 4- MMWB, Warburg Research, or an affiliated company, reached an agreement with the issuer to provide **investment banking and/or investment services** and the relevant agreement was in force in the last 12 months or there arose for this period, based on the relevant agreement, the obligation to provide or to receive a service or compensation - provided that this disclosure does not result in the disclosure of confidential business information.
- 5- The company compiling the analysis or an affiliated company had reached an **agreement on the compilation of the investment recommendation** with the analysed company.
- 6a- Warburg Research, or an affiliated company, holds a **net long position of more than 0.5%** of the total issued share capital of the analysed company.
- 6b- Warburg Research, or an affiliated company, holds a **net short position of more than 0.5%** of the total issued share capital of the analysed company.
- 6c- The issuer holds shares of more than 5% of the total issued capital of Warburg Research or an affiliated company.
- 7- The company preparing the analysis as well as its affiliated companies and employees have **other important interests** in relation to the analysed company, such as, for example, the exercising of mandates at analysed companies.

Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
Exasol	5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A0LR9G9.htm

INVESTMENT RECOMMENDATION

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.

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING

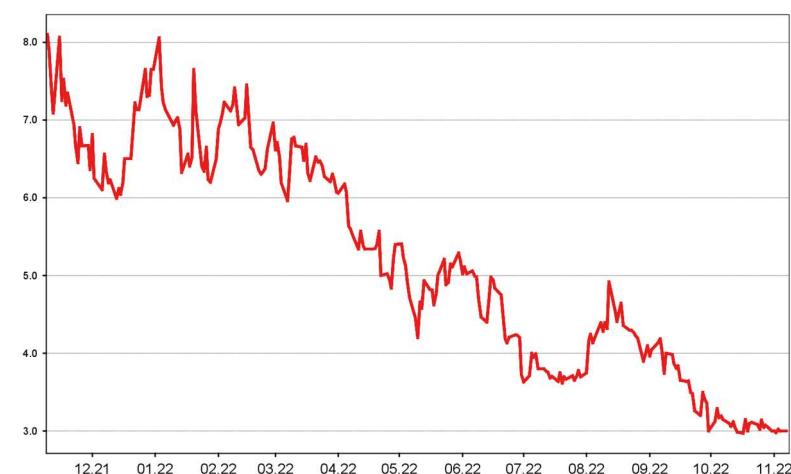
Rating	Number of stocks	% of Universe
Buy	163	75
Hold	43	20
Sell	6	3
Rating suspended	4	2
Total	216	100

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	46	82
Hold	7	13
Sell	1	2
Rating suspended	2	4
Total	56	100

PRICE AND RATING HISTORY EXASOL AS OF 08.11.2022



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.

EQUITIES

Matthias Rode +49 40 3282-2678
Head of Equities mrode@mmwarburg.com

RESEARCH

Michael Heider +49 40 309537-280
Head of Research mheider@warburg-research.com

Henner Rüschemeyer +49 40 309537-270
Head of Research hrueschmeier@warburg-research.com

Stefan Augustin +49 40 309537-168
Cap. Goods, Engineering saugustin@warburg-research.com

Jan Bauer +49 40 309537-155
Renewables jbauer@warburg-research.com

Christian Cohrs +49 40 309537-175
Industrials & Transportation ccohrs@warburg-research.com

Dr. Christian Ehmann +49 40 309537-167
BioTech, Life Science cehmann@warburg-research.com

Felix Ellmann +49 40 309537-120
Software, IT fellmann@warburg-research.com

Jörg Philipp Frey +49 40 309537-258
Retail, Consumer Goods jfrey@warburg-research.com

Marius Fuhrberg +49 40 309537-185
Financial Services mfuhrberg@warburg-research.com

Mustafa Hidir +49 40 309537-230
Automobiles, Car Suppliers mhidir@warburg-research.com

Philipp Kaiser +49 40 309537-260
Real Estate, Construction pkaiser@warburg-research.com

Thilo Kleibauer +49 40 309537-257
Retail, Consumer Goods tkleibauer@warburg-research.com

Andreas Pläsier +49 40 309537-246
Banks, Financial Services aplaesier@warburg-research.com

Malte Schaumann +49 40 309537-170
Technology mschaumann@warburg-research.com

Oliver Schwarz +49 40 309537-250
Chemicals, Agriculture oschwarz@warburg-research.com

Simon Stippig +49 40 309537-265
Real Estate, Telco sstippig@warburg-research.com

Cansu Tatar +49 40 309537-248
Cap. Goods, Engineering ctatar@warburg-research.com

Marc-René Tonn +49 40 309537-259
Automobiles, Car Suppliers mtonn@warburg-research.com

Robert-Jan van der Horst +49 40 309537-290
Technology rvanderhorst@warburg-research.com

Andreas Wolf +49 40 309537-140
Software, IT awolf@warburg-research.com

INSTITUTIONAL EQUITY SALES

Marc Niemann +49 40 3282-2660
Head of Equity Sales, Germany mniemann@mmwarburg.com

Klaus Schilling +49 69 5050-7400
Head of Equity Sales, Germany kschilling@mmwarburg.com

Tim Beckmann +49 40 3282-2665
United Kingdom tbeckmann@mmwarburg.com

Lea Bogdanova +49 69 5050-7411
United Kingdom, Ireland lbogdanova@mmwarburg.com

Jens Buchmüller +49 69 5050-7415
Scandinavia, Austria jbuchmueller@mmwarburg.com

Matthias Fritsch +49 40 3282-2696
United Kingdom mfritsch@mmwarburg.com

Maximilian Martin +49 69 5050-7413
Austria, Poland mmartin@mmwarburg.com

Christopher Seedorf +49 40 3282-2695
Switzerland cseedorf@mmwarburg.com

Sophie Hauer +49 69 5050-7417
Roadshow/Marketing shauer@mmwarburg.com

Juliane Niemann +49 40 3282-2694
Roadshow/Marketing jniemann@mmwarburg.com

SALES TRADING

Oliver Merckel +49 40 3282-2634
Head of Sales Trading omerckel@mmwarburg.com

Elyaz Dust +49 40 3282-2702
Sales Trading edust@mmwarburg.com

Michael Ilgenstein +49 40 3282-2700
Sales Trading milgenstein@mmwarburg.com

Marcel Magiera +49 40 3282-2662
Sales Trading mmagiera@mmwarburg.com

Bastian Quast +49 40 3282-2701
Sales Trading bquast@mmwarburg.com

Jörg Treptow +49 40 3282-2658
Sales Trading jtreptow@mmwarburg.com

MACRO RESEARCH

Carsten Klude +49 40 3282-2572
Macro Research cklude@mmwarburg.com

Dr. Christian Jasperneite +49 40 3282-2439
Investment Strategy cjasperneite@mmwarburg.com

Our research can be found under:

Warburg Research research.mmwarburg.com/en/index.html
Bloomberg RESP MMWA GO
FactSet www.factset.com

Refinitiv www.refinitiv.com
Capital IQ www.capitaliq.com

For access please contact:

Andrea Schaper +49 40 3282-2632
Sales Assistance aschaper@mmwarburg.com

Kerstin Muthig +49 40 3282-2703
Sales Assistance kmuthig@mmwarburg.com