PNE (PNE3 GY) | Utilities/Renewables

March 28, 2024

# **Good earnings momentum**

Q4 was strong. And as a result, the company's EBITDA of EUR 39.9m came out at the upper end of its target range for FY 2023 of EUR 30m to 40m and above consensus (EUR 36.4m). Various projects could be sold before the end of the year. Power generation also delivered good results. The company's own portfolio reached a capacity of just under 370 MW at YE 2023. This is set to grow to around 500 MW in 2024. The company plans to expand its own portfolio to up to 1,500 MW by 2027. The expansion of the developer pipeline has also continued. The wind pipeline rose from 8.8 GW in Q3 to 9.2 GW, while the PV pipeline increased from 6.2 GWp to 7.4 GWp. For FY 2024 PNE expects EBITDA of EUR 40m to 50m (cons. EUR 59m). We need to adjust our estimates. This is primarily necessary because we are lowering our assumptions for the electricity price (see also our study 'We expect lower and less volatile electricity prices' dated February 12, 2024). We also take into account higher costs for complying with the KRITIS requirements to protect critical infrastructure and a somewhat slower expansion of the company's own portfolio. Unchanged investment case: PNE's earnings focus will shift to electricity generation. Here, the company's own capacity is to be more than quadrupled by 2027. The stability of earnings should continue to increase. The development activities with the larger but also more volatile value creation are thus sensibly flanked.

Valuation: We calculate a fair value of EUR 11.1 per share for PNE's development business. This results from our pipeline valuation approach. For the generation and services businesses, we calculate a fair value of EUR 5 per share based on peer multiples.

Fundamentals (in EUR m) <sup>1</sup>	2021	2022	2023	2024e	2025e	2026e
Sales	118	126	122	340	387	391
EBITDA	33	35	40	50	72	84
EBIT	9	6	6	13	27	31
EPS adj. (EUR)	0.33	0.20	-0.13	-0.03	0.11	0.16
DPS (EUR)	0.08	0.08	0.08	0.04	0.04	0.04
BVPS (EUR)	3.00	3.11	2.77	3.52	3.65	3.79
Net Debt incl. Provisions	369	451	685	623	543	572
Ratios <sup>1</sup>	2021	2022	2023	2024e	2025e	2026e
EV/EBITDA	31.0	58.8	43.6	33.3	21.8	19.1
EV/EBIT	109.4	335.8	303.0	130.7	58.4	51.5
P/E adj.	25.7	109.4	-110.4	-439.4	123.2	86.0
Dividend yield (%)	0.9	0.4	0.6	0.3	0.3	0.3
EBITDA margin (%)	27.7	28.1	32.8	14.6	18.6	21.4
EBIT margin (%)	7.9	4.9	4.7	3.7	7.0	8.0
Net debt/EBITDA	11.3	12.7	17.2	12.6	7.5	6.8
PBV	2.8	6.9	5.0	3.8	3.7	3.6

<sup>&</sup>lt;sup>1</sup>Sources: Bloomberg, Metzler Research, <sup>2</sup>Sources: ISS ESG, Metzler Research

# Buy



Price\*

**EUR 13.50** 

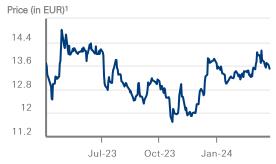
**Price target EUR 16.10** (18.00)

\* XETRA trading price at the close of the previous day unless stated otherwise in the Disclosures

Market Cap (EUR m) <sup>1</sup>	1,031
Enterprise Value (EUR m) <sup>1</sup>	1,653
Free Float (%) <sup>1</sup>	35.7

Metzler ESG analysis based on ISS ESG ≥ data2





Performance (in %) <sup>1</sup>	1m	3m	12m
Share	2.0	-2.0	-5.7
Rel. to TecDax	-0.0	-5.5	-12.1
Changes in estimates (in %)1	2024e	2025e	2026e
Sales	-8.3	-1.3	-10.8
EBIT	-48.2	-35.6	-26.7

## **Sponsored Research**



Author: Guido Hoymann
Financial Analyst Equities
+49 69 2104-398
GHoymann@metzler.com

#### FY 2023 result

FY 2023 EBITDA increased by 13% y-o-y. The more stable Service and Electricity Generation business areas drove the increase. This was despite higher costs for KRITIS requirements (IT, personnel) and lower electricity prices on the market.

The expansion of own generation capacity with more efficient plants and good wind speeds, particularly in Q4, led to a 37% y-o-y increase in electricity generation.

The proposed dividend for 2023 is EUR 0.04 plus a special dividend of EUR 0.04.

A strong Q4									
			FY 2023 / FY						Q4 2023 /
EURm	FY 2023	FY 2022	2022 (%)	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2022	Q4 2022 (%
Sales	121.5	126	-3.7	32.2	24.9	18.0	46.4	49.5	-6.3
EBITDA	39.9	35.4	12.7	8.6	9.5	-1.6	23.4	14.3	63.6
EBITDA Margin (%)	32.8	28.1		26.7	38.2	-8.9	50.4	28.9	
EBIT	5.7	6.2	-8.1	8.0	1.2	-10.9	14.6	6.6	121.2
EBIT Margin (%)	4.7	4.9		2.5	4.8	-60.6	31.5	13.3	
EBITDA by segment									
Project development	17.9	26.8	-33.0	-6.1	15.7	-13.0	21.3	33.1	
Services	6.5	6.1	7.1	2.0	2.6	1.7	0.2	1.5	
Electricity generation	60.3	57.7	4.5	15.0	13.3	12.2	19.8	14.8	
Consolidation	-44.9	-55.2		-2.4	-22.0	-2.6	-17.9	-35.2	
Pipeline Wind (MW)	9177	7587	21.0	8414	8622	8820	9177	7587	21.0
Pipeline PV (MW)	7424	4296	72.8	5400	5468	6207	7424	4296	72.8
Own generation capacity (MW)	370	319	16.0	350	346	348	370	319	16.0
Electricity generation (GWh)	695	509	36.5	204	121	96	274	163	68.1
Sources: PNE, Metzler Resear	ch								

## Outlook

Of the 370 MW IPP portfolio, around 60 MW are no longer in subsidization. PPA contracts exist for around 58% of the portfolio in 2024; this ratio will fall to around 35% in 2025 as things stand. For new parks, PNE will in any case secure state subsidies.

In any case, the company will endeavor to enter into (higher) PPAs. The company perceives the need for PPAs on the corporate side to be still high.

In 2024, the IPP portfolio should increase by around 100-120 MW to around 500 MW by the end of the year.

By the beginning of 2026, the capacities currently under construction for the IPP portfolio totaling around 281 MW should be connected to the grid; the IPP portfolio should then reach a size of around 650 MW.

The Service segment should again be impacted by KRITIS-related costs in 2024 and therefore not be able to show significant profit growth. Delayed project sales from the previous year should be made up for in 2024.

Overall, the company expects an EBITDA of EUR 40-50m for 2024.

### Pipeline update

The onhore wind pipeline grew by 4% q-o-q or 21% y-o-y; the PV pipeline by 20% q-o-q or 73% y-o-y.

In total, PNE's onshore wind and PV pipeline amounted to 16.6 GW at the end of 2023. On top of this comes the 2.5 GW offshore pipeline.

TOTAL	14887	1432	282	16601
Total PV	7070	354	0	7424
South Africa	1895	0	0	1895
USA	1371	0	0	1371
Canada	405	0	0	405
Spain	1041	3	0	1044
Romania	756	49	0	805
Poland	394	125	0	519
Italy	340	48	0	388
France	156	10	0	166
Germany	712	119	0	831
PV	1-II	III	IV	Total
Total Wind onshore	7817	1078	282	9177
South Africa	2021	30	0	2051
DSA Panama	224	68	0	292
Canada USA	505 577	0 169	0 '	505 746
Turkey	629		0	700
Spain		0 71	0	198
Sweden	198	0	0	
	300	0	0	300
Poland Romania	1221 0	•	0	1221 0
Italy	0	0	0	0
UK	-		0	
France	330 0	198 43	11	539 43
Germany	1812	499	271	2582
Wind onshore	development)	(Planning)	until handover)	Total
	(Exploration and	III	(Construction	
	1-11		IV	
Technology / Country		velopment phas		

Technology / Country	De	velopment phase		
	1-11	· · · · · · · · · · · · · · · · · · ·	. IV	
	(Exploration and	III	(Construction	
Vind onshore	development)	(Planning)	until handover)	Total
Germany	1808	522	198	2528
France	330	198	11	539
UK	0	43	0	43
Italy	0	0	0	0
Poland	1221	0	0	1221
Romania	0	0	0	0
Sweden	300	0	0	300
Spain	193	0	0	193
Turkey	629	71	0	700
Canada	505	0	0 7	505
USA	577	169	0	746
Panama	224	68	0	292
South Africa	1722	30	0	1752
Total Vind onshore	7509	1101	209	8819
P¥	I - II	III	IV	Total
Germany	708	0	0	708
France	156	10	0	166
Italy	315	76	0	391
Poland	351	99	0	450
Romania	499	62	0	561
Spain	863	3	0	866
Canada	405	0	0	405
USA	1372	0	0	1372
South Africa	1288	0	0	1288
Total P¥	5957	250	0	6207
TOTAL	13466	1351	209	15026

## Valuation

We value the project development business and the generation and services business separately.

We estimate an EBITDA 2025 of EUR 75m for the generation business and EUR 8m for the service business. Applying an average producer peer multiple of  $8.8 \times EV$  / EBITDA 2025e, we derive a fair value of EUR 5 per share for these two activities.

For the valuation of the developer business, we apply the pipeline approach. We believe that this approach is now well established in the market. It is also, in our opinion, entirely plausible, as pipelines have a high degree of fungibility, as project rights can be sold relatively easily and are also increasingly traded.

For the valuation of wind pipelines, we refer to four large pipeline sales in the last 3 years by Nordex (Metzler recommendation: Hold/ pt. EUR 9.9), BayWa (Metzler recommendation: BUY/ pt. EUR 52), Vento Ludens/Wind2 and Siemens Gamesa/ SSE. In all four cases, the buyers paid around EUR 150m per (pipeline) GW.

We apply the transaction multiple to PNE's European onshore wind pipeline (5.6 GW). For the PV pipeline we apply half the value per pipeline GW. We reduce the pipelines by the capacities needed for the expansion of the IPP portfolio. We calculate a value of EUR 11.1 per share for the developer business.

		Share price in	
	Bloomberg		EV/EBITDA
PNE Generation & Services - Peer group valuation	Ric	(27. March 2024)	
Boralex Inc.	BLX CN	28	9.1
EDP Renovaveis	EDPR PL	13	9.6
Oersted	ORSTED DC	385	7.8
Average			8.8
PNE Generation & Services			
EBITDA 2025e (EURm)	83		
Peer-Group Multiple	8.8		
Fair EV (EURm)	736		
Net debt 2025e (EURm; our			
assumption: Net debt allocation 2/3 to Generation / Services; 1/3 to Project Development)	353	,	
Fair value Generation & Services (EURm)	383	per share (EUR):	5.0
PNE Project Development - Pipeline valuation			
Wind-Pipeline (31.12.2023 in GW; Europe only)	5.6		
- wind-projects for own portfolio (IPP; in MW)	0.4		
Wind-Pipeline (net)	5.2		
Multiple (EURm/pipeline GW)	150		
Fair EV Wind (EURm)	777		
Estimate for US Business (up for sale)	11		
Fair EV PV net pipeline Europe (in EURm); GW-Multiple EUR 75m	251		
Net debt 2025e	190	,	
Fair value Project Development incl. (EURm)	850	per share (EUR):	11.1
		·	
		1	
TOTAL fair value	1233	per share (EUR)	16.1

# **Key Data**

#### Company profile

CEO: Markus Lesser CFO: Jörg Klowat Cuxhaven PNE offers the entire value chain of development, project planning, realization, financing, operation, sales and repowering of onshore wind farms in Germany and abroad. Offshore, PNE develops wind farms until they are ready for construction.

#### Major shareholders

Morgan Stanley (44.2%), Active Ownership Fund (11.99%), Enkraft (4.96%), Samson Rock Capital (3.13%)

ey	figures	

Ney ligures												
P&L (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Sales	118	7.3	126	7.2	122	-3.7	340	179.5	387	14.0	391	1.0
EBITDA	33	23.9	35	8.5	40	12.7	50	24.2	72	45.7	84	16.2
EBITDA margin (%)	27.7	15.5	28.1	1.2	32.8	17.0	14.6	-55.6	18.6	27.8	21.4	15.0
EBIT	9	13.4	6	-33.1	6	-7.3	13	120.1	27	113.1	31	15.4
EBIT margin (%)	7.9	5.6	4.9	-37.6	4.7	-3.7	3.7	-21.2	7.0	86.8	8.0	14.3
Financial result	-10	10.2	18	280.7	-14	-181.1	-16	-10.8	-15	6.3	-14	6.7
EBT	3	211.7	24	688.9	-9	-135.9	-3	62.5	12	476.7	17	42.7
Taxes	-22	-499.2	10	145.1	-0	-104.3	-1	-137.1	4	456.8	5	43.2
Tax rate (%)	-715.5	n.a.	40.9	n.a.	4.9	n.a.	31.3	n.a.	29.7	n.a.	29.8	n.a.
Net income	25	n.m.	14	-42.9	-8	-158.2	-2	71.4	8	456.8	12	43.2
Minority interests	-0	35.4	-1	-74.7	1	270.3	0	-100.0	0	n.a.	0	n.a.
Net Income after minorities	25	n.m.	15	-40.7	-10	-164.3	-2	75.5	8	456.8	12	43.2
Number of shares outstanding (m)	76	0.0	76	0.0	76	0.0	76	0.0	76	0.0	76	0.0
EPS adj. (EUR)	0.33	n.m.	0.20	-40.7	-0.13	-164.3	-0.03	75.5	0.11	456.8	0.16	43.2
DPS (EUR)	0.08	100.0	0.08	0.0	0.08	0.0	0.04	-50.0	0.04	0.0	0.04	0.0
Dividend yield (%)	0.9	n.a.	0.4	n.a.	0.6	n.a.	0.3	n.a.	0.3	n.a.	0.3	n.a.
Cash Flow (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	
Gross Cash Flow	24	247.1	25	4.2	78	216.7	35	-55.6	54	55.1	65	20.8
Increase in working capital	0	n.a.	34	n.a.	-241	n.a.	65	n.a.	80	n.a.	50	n.a.
Capital expenditures	2	0.0	2	0.0	3	30.0	1	-61.5	1	0.0	1	0.0
D+A/Capex (%)	1169.4	n.a.	1461.0	n.a.	1314.3	n.a.	3693.3	n.a.	4529.0	n.a.	5282.0	n.a.
Free cash flow (Metzler definition)	24	134.7	-11	-146.2	-166	n.m.	99	159.4	133	34.6	14	-89.6
Free cash flow yield (%)	3.7	n.a.	-0.7	n.a.	-15.7	n.a.	9.6	n.a.	12.9	n.a.	1.3	n.a.
Dividend paid	3	0.0	6	100.0	6	0.0	6	0.0	3	-50.0	3	0.0
Free cash flow (post dividend)	-61	28.8	-115	-88.1	-192	-67.0	62	132.5	80	27.4	-29	-136.7
Balance sheet (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Assets	827	24.6	920	11.3	1,102	19.7	1,028	-6.7	1,020	-0.8	994	-2.5
Goodwill	63	0.0	64	1.8	64	0.0	63	-1.7	63	0.0	63	0.0
Shareholders' equity	222	10.6	232	4.7	208	-10.3	261	25.4	271	3.8	282	4.1
Equity/total assets (%)	26.8	n.a.	25.2	n.a.	18.9	n.a.	25.4	n.a.	26.6	n.a.	28.4	n.a.
Net Debt incl. Provisions	369	39.4	451	22.3	685	51.8	623	-9.1	543	-12.8	572	5.4
thereof pension provisions	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.
Gearing (%)	166.3	n.a.	194.3	n.a.	329.1	n.a.	238.4	n.a.	200.3	n.a.	202.8	n.a.
Net debt/EBITDA	11.3	n.a.	12.7	n.a.	17.2	n.a.	12.6	n.a.	7.5	n.a.	6.8	n.a.

#### Structure

### EBITDA by division 2023



Sources: Bloomberg, Metzler Research

#### ESG discussion

PNE's project portfolio offers clear benefits for the environment through its contribution to combating climate change and transitioning to a sustainable energy system. ISS attributes the somewhat below-average performance in the 'Social' score primarily to the lack of data on the company's health and safety management structures in its overseas projects. PNE intends to prepare additional data in this regard and make it available in the foreseeable future.

# **Disclosures**

## **Recommendation history**

Recommendations for each financial instrument or issuer - mentioned in this document - published by Metzler in the past twelve months

Date of dissemi-	Metzler recomme		Current price **	Price target *	Author ***	
nation	Previous	Current	(104000)			
	nstrument (ISIN):	Bayvva (DE0005				
10.11.2023	Buy	Buy	32.35 EUR	52.00 EUR	Hoymann,	Guido
08.08.2023	Buy	Buy	35.55 EUR	60.00 EUR	Hoymann,	Guido
11.07.2023	Buy	Buy	37.90 EUR	62.00 EUR	Hoymann,	Guido
15.05.2023	Buy	Buy	37.15 EUR	62.00 EUR	Hoymann,	Guido
31.03.2023	Buy	Buy	40.45 EUR	69.00 EUR	Hoymann,	Guido
Issuer/Financial I	nstrument (ISIN):	Nordex (DE000A	\0D6554)			
01.03.2024	Hold	Hold	10.53 EUR	9.90 EUR	Hoymann,	Guido
12.02.2024	Hold	Hold	9.50 EUR	9.10 EUR	Hoymann,	Guido
22.01.2024	Buy	Hold	9.08 EUR	9.10 EUR	Hoymann,	Guido
15.11.2023	Buy	Buy	10.90 EUR	14.50 EUR	Hoymann,	Guido
12.10.2023	Buy	Buy	10.83 EUR	14.80 EUR	Hoymann,	Guido
13.07.2023	Buy	Buy	12.10 EUR	14.80 EUR	Hoymann,	Guido
31.03.2023	Buy	Buy	13.54 EUR	14.80 EUR	Hoymann,	Guido
Issuer/Financial I	nstrument (ISIN):	PNE (DE000A0J	BPG2)			
14.11.2023	Buy	Buy	12.10 EUR	18.00 EUR	Hoymann,	Guido
11.08.2023	Buy	Buy	13.00 EUR	18.30 EUR	Hoymann,	Guido
10.05.2023	Buy	Buy	14.00 EUR	19.30 EUR	Hoymann,	Guido
30.03.2023	Buy	Buy	14.40 EUR	19.30 EUR	Hoymann,	Guido
Issuer/Financial I	nstrument (ISIN):	Siemens Energy	(DE000ENER6Y0)			
07.03.2024	n.a.	Buy	13.94 EUR	23.70 EUR	Demeter, N	Nikolas

- \* Effective until the price target and/or investment recommendation is updated (FI/FX recommendations are valid solely at the time of publication)
- \*\* XETRA trading price at the close of the previous day unless stated otherwise herein
- \*\*\* All authors are financial analysts

### BayWa

- 6. Metzler, a company affiliated with Metzler and/or a person that has worked on compiling this report has reached an agreement with the issuer in the past twelve months about the provision of investment services according to Appendix I section A and B of guideline 2014/65/EU by the European Parliament and the Council or there was an obligation to pay or receive compensation within the same timeframe based on the same guideline.
- 13. Metzler, a company affiliated with Metzler and/or a person that has worked on compiling this report has reached an agreement with the issuer relating to the production of investment recommendations.

### PNE

13. Metzler, a company affiliated with Metzler and/or a person that has worked on compiling this report has reached an agreement with the issuer relating to the production of investment recommendations.

Compiled: March 28, 2024 07:57 AM CET Initial release: March 28, 2024 07:57 AM CET



# Disclaimer

This document has been prepared by B. Metzler seel. Sohn & Co. AG (Metzler) and is addressed exclusively to eligible counterparties and professional clients. It is thus not suitable for retail clients.

This document is based on information which is generally available and which Metzler believes to be fundamentally reliable. Metzler has not verified the accuracy or completeness of the information, however, and thus provides no warranty or representation in respect of the accuracy or completeness of the information, opinions, estimates, recommendations and forecasts contained in this document. Neither Metzler nor any of its shareholders or employees are liable for damage or any other disadvantage suffered due to inaccurate or incomplete information, opinions, estimates, recommendations or forecasts as a result of the distribution or use of or in connection to this document.

This document does not constitute or form part of any offer to buy or solicitation of any offer to buy securities, other financial instruments or other investment instruments. Neither does it take account of the particular investment objectives, financial situation or needs of individual recipients nor does it constitute personal investment advice. Metzler does not act as investment advisor or portfolio manager in preparing and publishing this document. Recipients must make their own investment decisions in accordance with their specific financial situation and investment objectives, based on independent processes and analyses, taking sales or other prospectuses, information memoranda and other investor information into account, and consult with an independent financial advisor where necessary. Recipients should note that any information regarding past performance should not be relied upon as an indication of future performance and should therefore not form the basis of any decision whether or not to invest in any financial instruments.

The information, opinions, estimates, recommendations and forecasts contained in this document reflect the personal views of the author at the time of publication on the financial instruments or issuers that form the subject of this document and do not necessarily reflect the opinions of Metzler, the issuer or third parties. They may also be subject to change on account of future events and developments. Metzler has no obligation to amend, supplement or update this document or to otherwise notify recipients in the event that any information, opinions, estimates, recommendations or forecasts stated herein should change or subsequently become inaccurate, incomplete or misleading. The model calculations contained in this document, if any, are examples showing the possible performance and are based on various assumptions (e.g. regarding earnings and volatility). The actual performance may be higher or lower, depending on market trends and on the correctness of assumptions underlying the model calculations. Accordingly, actual performance cannot be guaranteed, warranted or assured.

Recipients should assume that (a) Metzler is entitled to acquire orders for investment banking, securities or other services from or with companies which form the subject of research publications and that (b) analysts who were involved in preparing research publications may, within the scope of regulatory laws, be indirectly involved in the acquisition of such orders.

Metzler and its employees may hold positions in securities of the companies analysed or in other investment objects or may conduct transactions with such securities or investment objects.

This document is provided for information purposes only and may not be copied, duplicated, forwarded to third parties or otherwise published, in whole or in part, without Metzler's written consent. Metzler reserves all copyrights and rights of use, including those relating to electronic media. Insofar as Metzler provides hyperlinks to websites of the companies cited in research publications, this does not mean that Metzler confirms, recommends or warrants any data contained on the linked sites or data which can be accessed from such sites. Metzler accepts no liability for links or data, nor for any consequences which may arise as a result of following the links and/or using the data.

This document is subject to the laws of the Federal Republic of Germany. Venue of jurisdiction for any disputes shall be Frankfurt am Main, Germany.

By accepting this document the recipient declares his/her agreement with the above provisions.

Information in accordance with Regulation (EU) No. 596/2014, Delegated Regulation (EU) No. 2016/958 and section 85 (1) of the German Securities Trading Act (Wertpapier-handelsgesetz)

### Persons responsible for this document

The company responsible for preparing this document is B. Metzler seel. Sohn & Co. AG, Untermainanlage 1, 60329 Frankfurt am Main, Germany, which is subject to supervision by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*; BaFin), Marie-Curie-Straße 24–28, 60439 Frankfurt/Main, Germany, and by the European Central Bank (ECB), Sonnemannstraße 20, 60314 Frankfurt/Main, Germany.

#### Key information sources

The sources of information referred to when preparing research publications include publications by national and international media, the European Central Bank and other public authorities, information services (such as Reuters and Bloomberg), the financial press, published statistics, information published by rating agencies, annual reports and other information provided by the issuers.

## Valuation criteria and methods

Valuations are based on standard and acknowledged methods of fundamental and technical analysis (e.g. DCF model, peer-group analysis, sum-of-the-parts model, relative-value analysis). The valuation models are affected by macro-economic values such as interest rates, exchange rates, commodities prices and economic performance, as well as by market sentiments. Detailed information on the valuation principles and methods used by Metzler and the assumptions on which they are based is available at: <a href="https://www.metzler.com/disclaimer-capital-markets-en">www.metzler.com/disclaimer-capital-markets-en</a>.

#### Sensitivity of valuation parameters; risks

The figures on which the company valuations are based are date-specific estimates and thus carry inherent risks. They may be adjusted at any time without prior notice.



Irrespective of the valuation principles and methods used and the assumptions on which they are based, there is always a risk that a particular price target is not achieved or that the assumptions and forecasts prove inaccurate. This can, for instance, be the result of unexpected changes in demand, management, technology, economic or political developments, interest rates, costs, the competitive situation, the legal situation and other factors. Investments in foreign markets and instruments are subject to additional risks, as a result of changes in exchange rates or in the economic, political or social situation, for instance. This outline of risks makes no claim to be exhaustive.

#### <u>Definition of categories for investment recommendations</u>

The categories for investment recommendations in research publications by Metzler have the following meanings:

Shares:

BUY The price of the analysed financial instrument is expected to rise in the next 12 months.

HOLD The price of the analysed financial instrument is expected to largely remain stable in the next 12 months.

SELL The price of the analysed financial instrument is expected to fall in the next 12 months.

Bonds:

BUY The analysed financial instrument is expected to perform better than similar financial instruments.

HOLD The analysed financial instrument is not expected to perform significantly better or worse than similar financial instruments.

SELL The analysed financial instrument is expected to perform worse than similar financial instruments.

#### Summary of investment recommendations

A list of all investment recommendations for each financial instrument or issuer published by Metzler in the past twelve months can be found at www.metzler.com/disclaimer-capital-markets-en.

The quarterly quotation of the number of all investment recommendations given as "buy", "hold", "sell" or similar for the past 12 months as a proportion of the total number of investment recommendations made by Metzler and the quotation of the proportion of these categories relating to issuers to whom Metzler has provided services within the meaning of Annex I sections A and B of Regulation 2014/65/EU within the past 12 months can be accessed and downloaded at <a href="https://www.metzler.com/disclaimer-capital-markets-en">www.metzler.com/disclaimer-capital-markets-en</a>

#### Planned updates of this document

This document reflects the opinion of the respective author at the time of its preparation. Any changes of factors can cause information, opinions, estimates, recommendations and forecasts contained in this document to cease to be accurate. No decision has as yet been taken as to whether, and if so when, this document will be updated. If an investment recommendation is updated, the updated investment recommendation replaces the previous investment recommendation upon publication.

### Compliance arrangements; conflicts of interest

All analysts are bound by Metzler's internal compliance regulations which ensure that the research publications are prepared in accordance with statutory and regulatory provisions. The analysts are classified as working in a confidential sector and are thus required to observe the resulting statutory and regulatory provisions. This is monitored on a regular basis by the Compliance department and external auditors. The Compliance department ensures that potential conflicts of interest do not affect the original result of the analysis. Metzler has a binding Conflicts of Interest Policy in place which ensures that relevant conflicts of interest within Metzler, the Metzler Group, the analysts and staff of Metzler's Capital Markets division and persons associated with them are avoided or, if they cannot be avoided, are appropriately identified, managed, disclosed and monitored. A detailed description of Metzler's policy for avoiding conflicts of interest is available at <a href="https://www.metzler.com/disclaimer-capital-markets-en">www.metzler.com/disclaimer-capital-markets-en</a>.

Details of the conflicts of interests to be disclosed under regulatory requirements are published at www.metzler.com/disclosures-en.

### Remuneration

The remuneration of the Metzler staff members and other persons involved in preparing this document is in no way, either in whole or in any variable part, directly or materially linked to transactions in securities services or other transactions processed by Metzler.

#### **Prices**

All prices for financial instruments stated in this document are, unless otherwise stated, closing prices for the trading day preceding the respective stated publication date on the market which we regard as the most liquid market for the respective financial instrument.

### Scope of application

This document was prepared in the Federal Republic of Germany in line with the legal provisions valid there. It may therefore be possible that this document does not comply with all provisions relating to the preparation of such documents in other countries.



## Metzler Capital Markets

B. Metzler seel. Sohn & Co. AG Untermainanlage 1 60329 Frankfurt/Main, Germany Phone +49 69 2104-extension Fax +49 69 2104-679 www.metzler.com Mario Mattera

Head of Capital Markets

Research Fax +49 69 283159	Pascal Spano	Head of Research	4365
	Guido Hoymann	Head of Equity Research Transport, Utilities/Renewables	398
	Stephan Bauer	Industrial Technology	4363
	Nikolas Demeter	Transport, Utilities/Renewables	1787
	Felix Dennl	E-Commerce, Retail	239
	Oliver Frey	Software, Technology, Telecommunications	4360
	Alexander Neuberger	Industrial Technology, Small/Mid Caps	4366
	Jochen Schmitt	Financials, Real Estate	4359
	Thomas Schulte-Vor- wick	Basic Resources	234
	Pál Skirta	Mobility	525
	Uwe Hohmann	Equity Strategy	366
	Eugen Keller	Head of FI/FX Research	329
	Juliane Rack	FI/FX Strategy	1748
	Stoyan Toshev	FI/FX Strategy	528
Equities	Mustafa Ansary	Head of Equities	351
		Head of Equity Sales	
Sales	Eugenia Buchmüller		238
	Hugues Jaouen		4173
	Alexander Kravkov		4172
	Gerard O'Doherty		4189
	Jasmina Schul		1766
Trading	Sven Knauer	Head of Equity Trading	245
	Elyaz Dust		248
	Kirsten Fleer		246
	Stephan Schmelzle		247
	Thomas Seibert		228
Corporate Solutions	Dr. Karsten Iltgen	Head of Corporate Solutions	510
	Stephan Averdung		514
	Thomas Burkart		511
	Christoph Hirth		513



	Adrian Takacs		512
Fixed Income (FI)	Sebastian Luther	Head of Fixed Income	688
FI Sales	Minush Nori Silke Amelung Claudia Ruiu Simon Tabath	Head of Fixed Income Sales	689 289 683 280
FI Trading/ALM	Burkhard Brod Bettina Koch Susanne Kraus Christian Bernhard	Head of ALM  Head of Fixed Income Trading	659 291 658 266
	Dirk Lagler		685
Foreign Exchange (FX)	Özgur Atasever	Head of Foreign Exchange	281
FX Sales	Tobias Martin Steffen Völker	Head of FX Sales & Trading	614 293
FX Trading	Rainer Jäger Andreas Zellmann		276 610
Currency Management	Dominik Müller	Head of Currency Management	274
CM Advisory	Achim Walde	Head of Advisory	275
CM Operations	Simon Wesch Tessa Feller Florian Konz	Head of Operations	350 1696 1773
	Sergii Piskun	Senior Quantitative Analyst	237