

# company note

## Datagroup (D6H GY) | IT-Services

November 22, 2023

### Revenue burdens should disappear soon

Following the publication of Datagroup's preliminary FY'22/23 results, we confirm our BUY recommendation with an unchanged PT of EUR 86. 2023 was a year marked by headwinds. The loss of corona-related revenues from vaccination centres, IFRS 15 accounting changes and the transformation of low-margin business impacted revenues by around EUR 40m in FY'22/23. The companies CORBOX services remain in high demand and thus were able to almost completely offset mentioned headwinds. Through improvements in operational efficiency and focus on more profitable IT-services, Datagroup was able to increase EBIT and EBITDA overproportionately to sales. Yesterday's preliminary results support our case that Datagroup continues to establish themselves as one of the key IT service providers in Germany, with healthy customer growth and stickiness. By investing in the strategic growth areas of AI, cyber security & cloud, the company is setting the course for profitable growth. Shares are trading at a significant discount vs. peers - we see potential for a multiple expansion once revenue growth is gaining back momentum.

**Revenues** in FY'22/23 declined by -0.7% y/y to EUR 498m. **EBITDA** increased by 4.9% y/y to EUR 80.2m, which corresponds to a margin of 16.1%. **EBIT** increased by 9.3% y/y to a total of EUR 45.3m and a margin of 9.3%. **EPS** saw an increase of 28% y/y to EUR 3.39.

**Valuation:** Shares are trading at 7.0x 12m fwd EV/EBITDA and thus at a discount of 24% to the 5Y historical average and 35% to peers. We continue to value Datagroup shares based on the weighted average of our DCF model and peer comparison, which derive a new fair value of EUR 86 per share.

Fundamentals (in EUR m) <sup>1</sup>	2020/21	2021/22	2022/23	2023/24e	2024/25e	2025/26e
Sales	445	501	498	530	567	610
EBITDA	67	76	80	86	91	100
EBIT	29	41	45	49	54	59
EPS adj. (EUR)	3.05	3.18	4.10	4.24	4.56	5.14
DPS (EUR)	0.00	1.00	1.10	1.20	1.30	1.45
BVPS (EUR)	11.28	15.32	17.69	17.91	20.75	23.93
Net Debt incl. Provisions	214	174	176	154	128	98
Ratios <sup>1</sup>	2020/21	2021/22	2022/23	2023/24e	2024/25e	2025/26e
EV/EBITDA	13.0	8.1	6.9	7.0	6.3	5.4
EV/EBIT	30.5	15.0	12.2	12.3	10.6	9.1
P/E adj.	26.0	16.9	11.0	12.6	11.7	10.4
Dividend yield (%)	0.0	1.9	2.4	2.2	2.4	2.7
EBITDA margin (%)	15.1	15.2	16.1	16.2	16.1	16.4
EBIT margin (%)	6.4	8.3	9.1	9.2	9.5	9.7
Net debt/EBITDA	3.2	2.3	2.2	1.8	1.4	1.0
PBV	7.0	3.5	2.6	3.0	2.6	2.2

<sup>1</sup>Sources: Bloomberg, Metzler Research

**Buy**



**unchanged**

**Price\***

**EUR 53.40**

**Price target**

**EUR 86.00 (unchanged)**

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

Market Cap (EUR m) <sup>1</sup>	377
Enterprise Value (EUR m) <sup>1</sup>	554
Free Float (%) <sup>1</sup>	42.3

Price (in EUR)<sup>1</sup>



Performance (in %) <sup>1</sup>	1m	3m	12m
Share	3.7	-2.2	-16.8
Rel. to SDAX	-1.7	-1.5	-20.3

Changes in estimates (in %) <sup>1</sup>	2023/24e	2024/25e	2025/26e
Sales	-1.1	-1.2	0.0
EBIT	0.1	1.6	0.0
EPS	-0.0	1.6	0.0

### Sponsored Research



**Author: Oliver Frey**

Financial Analyst Equities

+49 69 2104-4360

Oliver.Frey@metzler.com

## FY'22/23 marked by headwinds - Focus on CORBOX services and operational efficiency increased profitability

### FY'22/23 results: EUR m

	Q1 2021	Q2 2021	Q3 2021	Q4 2021	FY 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	FY 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	FY 2023	Metzler FY 2023e	Consensus FY 2023e
Sales	109	103	119	114	445	123	124	125	129	501	128	123	124	123	498	503	502
Growth y-o-y (in %)	31	18	27	21	24	13	21	5	13	13	4	-1	-1	-5	-1	0	0
thereof Services	87	90	97	72	346	102	102	102	99	406	101	101	103	101	405	405	n/a
thereof Trade	22	13	22	41	98	21	22	23	29	95	27	22	21	22	93	98	n/a
EBITDA	15	15	17	20	67	19	18	21	18	76	20	20	20	21	80	80	79
Margin %	13.7	15.0	14.0	17.8	15.1	15.6	14.6	16.7	14.1	15.2	15.4	16.0	16.3	16.8	16.1	16.1	15.8
EBIT	7	7	8	7	29	10	10	12	9	41	12	11	11	11	45	46	46
Margin %	6.0	7.1	6.5	6.5	6.4	8.5	8.1	9.7	6.8	8.3	9.0	9.2	9.3	9.0	9.1	9.1	9.1
EPS	0.41	0.89	0.63	0.59	2.49	0.76	0.73	0.90	0.25	2.64	0.87	0.87	0.82	0.83	3.39	3.41	3.4

Source: Metzler Research, Bloomberg

In the past year, topline growth has been impacted by headwinds resulting from the loss of corona-related business, IFRS 15 related accounting changes and the transformation of low-margin business, which totaled around EUR 40m in FY'22/23. Revenues declined by -0.7% y/y to EUR 498m and the company was thus able to almost completely offset mentioned headwinds. The Service segment saw a revenue decline of -0.2% y/y to EUR 405m while the Trade segment declined by -2.8% y/y to EUR 92.6m. Datagroup keeps transforming their low-margin business to improve profitability. This will lead to weaker growth in the short term, but will be rewarded with higher margins and earnings stability.

CORBOX services continue to be very well received. 20 new contracts, 24 expansions and 34 extensions were realised in the last 12 months. A strong intake of new logos gives a good indication of the growth trajectory in the coming 9-12 months, as the intake will convert into revenues after a successful onboarding and transition phase.

Despite a slight decline in revenues, Datagroup was able to increase profitability. Further improvements in operational efficiency decreased total cost of materials and personnel expenses by -1.6% y/y. EBITDA grew by 4.9% to EUR 80.2m, which corresponds to a margin of 16.1% (up from 15.2% last year). EBIT improved by 9.3% y/y to a total of EUR 45.3m (EBIT-margin: 9.1% compared to 8.3% last year).

Net debt increased by 1% y/y to EUR 176m and remains at reasonable levels. A net debt/EBITDA ratio of around 2.2x provides sufficient scope for continuing M&A activities in the future. Management expects that ~50% of future revenue growth will come from anorganic growth. Datagroup already looks back on a strong track record with around 30 acquisitions over the last decade.

## Valuation - PT of EUR 86

Our PT is derived as the equally weighted average of a DCF valuation (fair value: EUR 83) and our peer group analysis (fair value: EUR 89).

Our DCF valuation includes three stages. Phase I includes our detailed estimates starting from FY 2024e to FY 2026e. Phase II is the transition phase (FY2027e to FY 2031e). Our terminal value calculation is finally based on our FY 2031 estimates. We use the following assumptions:

- **Sales:** Despite the recent challenges, we assume improving momentum in the years to come. We assume that growth gradually declines between FY 2027 and FY 2031 to our terminal growth rate of 1.5%.
- **EBIT margin:** We are assuming a terminal EBIT margin of 10%.
- **WACC:** We calculate a WACC for Cherry of 7.5% based on the following underlying parameters: (a) Risk free rate of 2.5%, (b) market risk premium of 6.5%, and (c) a projected beta of 1.0. The cost of equity amounts to 9.0% and our cost of debt estimate totals 6.0%.

DCF valuation Datagroup									
	FY24e	FY25e	FY26e	FY27e	FY28e	FY29e	FY30e	FY31e	TV-year
Revenue (in EURm)	530	567	610	655	688	712	727	737	
Y-o-y (in %)	6.5	7.0	7.5	7.5	5.0	3.5	2.0	1.5	
EBIT (in EURm)	49	54	59	63	66	69	71	74	
Margin (in %)	9.2	9.5	9.7	9.7	9.7	9.7	9.8	10.0	
Taxes (in EURm)	14	16	17	20	21	21	22	23	
Tax rate (in %)	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	
D&A (in EURm)	37	38	40	39	39	39	38	37	
in % of sales	7.0	6.6	6.6	6.0	5.7	5.5	5.2	5.0	
Gross cash flow (in EURm)	72	76	82	83	85	87	87	88	
Capex (in EURm)	18	20	22	23	24	25	25	26	
in % of sales	3.4	3.5	3.6	3.5	3.5	3.5	3.5	3.5	
Decrease in NWC (in EURm)	-8	-5	-5	-3	-4	-4	-4	-4	
in % of sales	1.4	0.8	0.3	0.5	0.5	0.5	0.5	0.5	
Free cash flow (in EURm)	46	51	55	57	57	58	57	58	974
Present value FCF (in EURm)	43	45	45	43	40	38	35	33	550
Implied equity value and fair value per share				WACC Assumptions					
Enterprise value (in EURm)	871			Beta	1.0				
Net financial debt (in EURm)	176			Risk-free rate	2.5				
Equity value (in EURm)	695			Risk premium	6.5				
Fair value share price (in EUR)	83			WACC	7.5				

Source: Metzler Research

Our DCF model is sensitive to selected input factors. We hence provide a sensitivity analysis of our estimated fair value vs. the terminal growth rate and WACC.

# company note

## Sensitivity analysis

In EUR

		Terminal sales growth (in %)				
		0.7	1.1	1.5	1.9	2.3
<b>EBIT margin (in %)</b>	8	64.4	67.5	71.1	75.2	79.9
	9	69.8	73.3	77.3	81.8	87.0
	10	75.2	79.1	83	88.4	94.1
	11	80.6	84.8	89.5	94.9	101.2
	12	86.1	90.6	95.7	101.5	108.2

Sources: Metzler Research

**Peer group analysis derives a fair value of EUR 89 per share**

Datagroup shares are currently trading at around 7.0x 12m fwd EBITDA and thus at a 35% discount to peers. We believe they should trade in line with peers and that the gap is closing, as earnings stability and predictability continue to improve and profitability metrics remain above peer average.

## Peer comparison

Peers	BB Ticker	Price	M' Cap in EURm	Sales CAGR** '23-'25	EBITDA Margin		EV/EBITDA	
					12m	24m	12m	24m
Adesso SE	ADN1 GY	99.3 €	647 €	9.0%	9.0%	9.7%	8.6x	7.1x
Allgeier SE	AEIN GY	20.7 €	237 €	7.0%	11.8%	12.2%	7.7x	6.7x
Bechtle AG *	BC8 GY	47.0 €	5,922 €	5.7%	7.8%	7.8%	11.5x	10.7x
CANCOM SE	COK GY	27.6 €	1,074 €	10.8%	7.6%	7.6%	7.8x	7.4x
Nagarro SE	NA9 GY	84.9 €	1,170 €	6.8%	13.5%	14.3%	10.3x	8.6x
Softcat PLC	SCT LN	12.7 €	2,907 €	8.4%	14.6%	14.6%	14.7x	13.3x
CDW Corp/DE	CDW US	217.2 €	26,591 €	3.5%	9.6%	9.6%	15.8x	14.8x
<b>Peers (mean)</b>				<b>7.3%</b>	<b>10.6%</b>	<b>10.8%</b>	<b>10.9x</b>	<b>9.8x</b>
<b>Datagroup SE</b>	<b>D6H GY</b>	<b>53.5 €</b>	<b>447 €</b>	<b>4.0%</b>	<b>15.8%</b>	<b>15.8%</b>	<b>7.0x</b>	<b>6.6x</b>

Source: Bloomberg, Metzler Research \* = Metzler Coverage

\*\* Calculation based on LTM sales and 24m fwd sales

Applying this valuation level (12m forward EBITDA 10.8x), we derive a fair value of EUR 89 per share.

## Fair value derived from our peer group

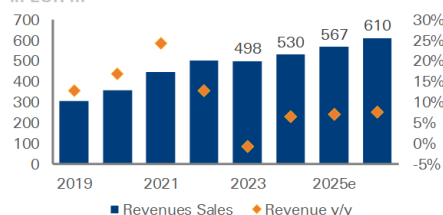
EV/EBITDA 12m forward	10.9x
Datagroup EBITDA 12m forward	EUR 84.4m
Implied Enterprise Value	EUR 920m
Net Debt	EUR 176m
Implied Equity Value	EUR 744m
Outstanding shares	8.349m
Datagroup value per share	EUR 89

Source: Bloomberg, Metzler Research

## Datagroup in a nutshell

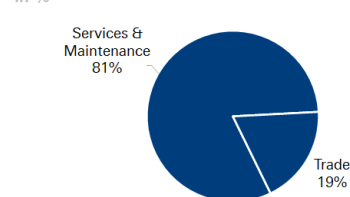
Datagroup is among Germany's top IT service providers and operates IT-Infrastructure and business applications with a clear focus on recurring cloud-related services. Customers can select from a range of solutions (e.g. Network Services, Application Management Services and SAP services), which are based on standardized processes and backed by service level agreements (SLAs). The company is a one-stop-shop for its customers, which often outsource their IT processes completely to Datagroup on the basis of multi-year contracts. Our positive stance is based on consistent and healthy top-line growth, a strongly diversified customer base, its focus on small & mid-sized companies and typical German Mittelstand companies as well as a high but still growing proportion of recurring revenues. Its organizational and structural setup with central supply units and decentralized sales and services give the company an edge in terms of quality and costs. By offering centralized and standardized services based on an SLA approach, Datagroup continues gaining market share, especially vs. smaller competitors.

**Revenue development**  
in EUR m



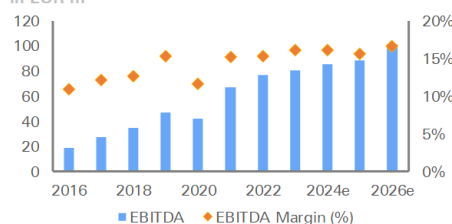
Source: Company data, Metzler Research

**Revenue Split**  
in %



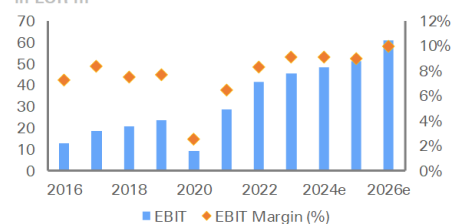
Source: Company data, Metzler Research

**EBITDA development**  
in EUR m



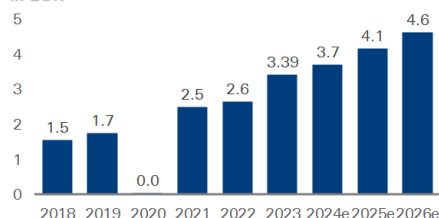
Source: Company data, Metzler Research

**EBIT development**  
in EUR m



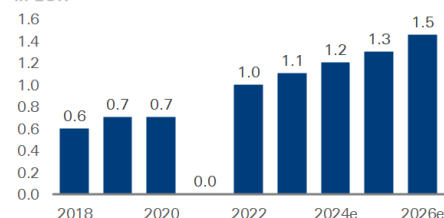
Source: Company data, Metzler Research

**EPS development**  
in EUR



Source: Company data, Metzler Research

**DPS development**  
in EUR

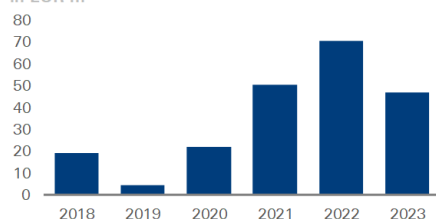


Source: Company data, Metzler Research

# company note

## OCF

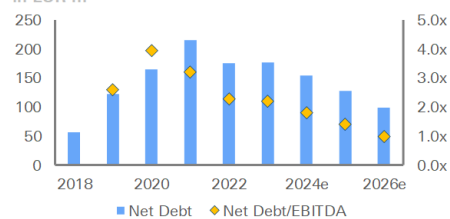
in EUR m



Source: Company data, Metzler Research

## Net debt / EBITDA

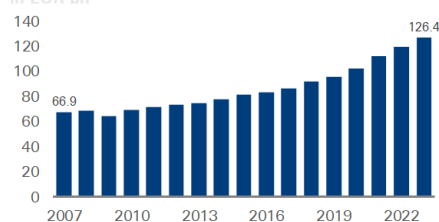
in EUR m



Source: Company data, Metzler Research

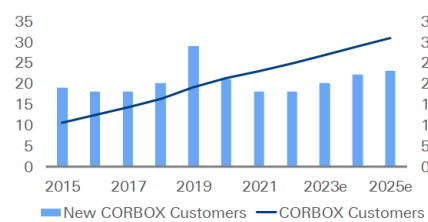
## German IT-market

in EUR bn



Source: Bitkom, IDC

## CORBOX: Customer development



Source: Company data, Metzler Research

# company note

## Key Data

### Company profile

CEO: Andreas Baresel

CFO: Oliver Thome

Pliezhausen, Germany

### Major shareholders

HHS Beteiligungsgesellschaft mbH (53.6%), Management and Supervisory Board (4.1%)

### Key figures

P&L (in EUR m)	2020/21	%	2021/22	%	2022/23	%	2023/24e	%	2024/25e	%	2025/26e	%
<b>Sales</b>	<b>445</b>	<b>24.1</b>	<b>501</b>	<b>12.8</b>	<b>498</b>	<b>-0.7</b>	<b>530</b>	<b>6.5</b>	<b>567</b>	<b>7.0</b>	<b>610</b>	<b>7.5</b>
<b>EBITDA</b>	<b>67</b>	<b>60.9</b>	<b>76</b>	<b>13.6</b>	<b>80</b>	<b>4.9</b>	<b>86</b>	<b>7.1</b>	<b>91</b>	<b>6.3</b>	<b>100</b>	<b>9.2</b>
EBITDA margin (%)	15.1	29.6	15.2	0.8	16.1	5.7	16.2	0.6	16.1	-0.6	16.4	1.6
<b>EBIT</b>	<b>29</b>	<b>218.8</b>	<b>41</b>	<b>44.7</b>	<b>45</b>	<b>9.3</b>	<b>49</b>	<b>7.7</b>	<b>54</b>	<b>10.3</b>	<b>59</b>	<b>10.3</b>
EBIT margin (%)	6.4	156.8	8.3	28.3	9.1	10.1	9.2	1.2	9.5	3.0	9.7	2.6
<b>Financial result</b>	<b>-2</b>	<b>18.9</b>	<b>-5</b>	<b>-144.9</b>	<b>-4</b>	<b>13.6</b>	<b>-4</b>	<b>4.1</b>	<b>-4</b>	<b>3.2</b>	<b>-4</b>	<b>3.3</b>
<b>EBT</b>	<b>27</b>	<b>304.2</b>	<b>37</b>	<b>37.4</b>	<b>41</b>	<b>12.3</b>	<b>45</b>	<b>8.9</b>	<b>50</b>	<b>11.4</b>	<b>56</b>	<b>11.4</b>
Taxes	6	-5.7	15	145.1	13	-11.8	14	9.0	16	9.7	17	11.4
Tax rate (%)	22.4	n.a.	40.0	n.a.	31.5	n.a.	31.5	n.a.	31.0	n.a.	31.0	n.a.
Net income	21	n.m.	22	6.3	28	28.3	31	8.9	35	12.2	38	11.4
Minority interests	0	n.a.	-0	n.a.	0	100.0	0	n.a.	0	n.a.	0	n.a.
<b>Net Income after minorities</b>	<b>21</b>	<b>n.m.</b>	<b>22</b>	<b>5.6</b>	<b>28</b>	<b>29.2</b>	<b>31</b>	<b>8.9</b>	<b>35</b>	<b>12.2</b>	<b>38</b>	<b>11.4</b>
Number of shares outstanding (m)	8	0.0	8	0.0	8	0.0	8	0.0	8	0.0	8	0.0
<b>EPS adj. (EUR)</b>	<b>3.05</b>	<b>n.m.</b>	<b>3.18</b>	<b>4.2</b>	<b>4.10</b>	<b>29.1</b>	<b>4.24</b>	<b>3.3</b>	<b>4.56</b>	<b>7.7</b>	<b>5.14</b>	<b>12.7</b>
<b>DPS (EUR)</b>	<b>0.00</b>	<b>-100.0</b>	<b>1.00</b>	<b>n.a.</b>	<b>1.10</b>	<b>10.0</b>	<b>1.20</b>	<b>9.1</b>	<b>1.30</b>	<b>8.3</b>	<b>1.45</b>	<b>11.5</b>
Dividend yield (%)	0.0	n.a.	1.9	n.a.	2.4	n.a.	2.2	n.a.	2.4	n.a.	2.7	n.a.
Cash Flow (in EUR m)	2020/21	%	2021/22	%	2022/23	%	2023/24e	%	2024/25e	%	2025/26e	%
<b>Gross Cash Flow</b>	<b>63</b>	<b>151.4</b>	<b>60</b>	<b>-5.4</b>	<b>55</b>	<b>-7.3</b>	<b>68</b>	<b>22.5</b>	<b>72</b>	<b>6.2</b>	<b>79</b>	<b>9.3</b>
<b>Increase in working capital</b>	<b>14</b>	<b>n.a.</b>	<b>-10</b>	<b>n.a.</b>	<b>7</b>	<b>n.a.</b>	<b>1</b>	<b>n.a.</b>	<b>17</b>	<b>n.a.</b>	<b>-4</b>	<b>n.a.</b>
<b>Capital expenditures</b>	<b>11</b>	<b>-50.4</b>	<b>9</b>	<b>-20.2</b>	<b>17</b>	<b>93.0</b>	<b>18</b>	<b>5.9</b>	<b>20</b>	<b>11.1</b>	<b>22</b>	<b>10.0</b>
D+A/Capex (%)	350.0	n.a.	397.3	n.a.	205.4	n.a.	206.1	n.a.	187.7	n.a.	183.5	n.a.
<b>Free cash flow (Metzler definition)</b>	<b>38</b>	<b>798.6</b>	<b>61</b>	<b>62.9</b>	<b>31</b>	<b>-49.6</b>	<b>49</b>	<b>58.5</b>	<b>35</b>	<b>-28.3</b>	<b>61</b>	<b>72.6</b>
Free cash flow yield (%)	5.7	n.a.	13.7	n.a.	8.2	n.a.	11.0	n.a.	7.9	n.a.	13.6	n.a.
Dividend paid	0	-100.0	8	n.a.	9	10.0	10	9.1	11	8.3	12	11.5
<b>Free cash flow (post dividend)</b>	<b>2</b>	<b>-94.3</b>	<b>34</b>	<b>n.m.</b>	<b>40</b>	<b>17.8</b>	<b>59</b>	<b>47.2</b>	<b>46</b>	<b>-22.1</b>	<b>73</b>	<b>58.2</b>
Balance sheet (in EUR m)	2020/21	%	2021/22	%	2022/23	%	2023/24e	%	2024/25e	%	2025/26e	%
<b>Assets</b>	<b>463</b>	<b>20.1</b>	<b>484</b>	<b>4.4</b>	<b>465</b>	<b>-3.8</b>	<b>468</b>	<b>0.5</b>	<b>492</b>	<b>5.3</b>	<b>520</b>	<b>5.6</b>
<b>Goodwill</b>	<b>126</b>	<b>101.5</b>	<b>151</b>	<b>20.2</b>	<b>157</b>	<b>3.7</b>	<b>157</b>	<b>0.0</b>	<b>157</b>	<b>0.0</b>	<b>157</b>	<b>0.0</b>
<b>Shareholders' equity</b>	<b>94</b>	<b>42.1</b>	<b>127</b>	<b>35.6</b>	<b>147</b>	<b>15.6</b>	<b>149</b>	<b>1.2</b>	<b>173</b>	<b>15.9</b>	<b>199</b>	<b>15.3</b>
Equity/total assets (%)	20.3	n.a.	26.4	n.a.	31.7	n.a.	31.9	n.a.	35.1	n.a.	38.3	n.a.
<b>Net Debt incl. Provisions</b>	<b>214</b>	<b>30.4</b>	<b>174</b>	<b>-18.6</b>	<b>176</b>	<b>1.2</b>	<b>154</b>	<b>-12.7</b>	<b>128</b>	<b>-17.2</b>	<b>98</b>	<b>-23.0</b>
<b>thereof pension provisions</b>	<b>64</b>	<b>-12.0</b>	<b>36</b>	<b>-43.6</b>	<b>36</b>	<b>-0.6</b>	<b>36</b>	<b>0.0</b>	<b>36</b>	<b>0.0</b>	<b>36</b>	<b>0.0</b>
Gearing (%)	227.8	n.a.	136.8	n.a.	119.7	n.a.	103.3	n.a.	73.8	n.a.	49.3	n.a.
Net debt/EBITDA	3.2	n.a.	2.3	n.a.	2.2	n.a.	1.8	n.a.	1.4	n.a.	1.0	n.a.

Sources: Bloomberg, Metzler Research

## Disclosures

### Recommendation history

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

Date of dissemination	Metzler recommendation *		Current price **	Price target *	Author ***
	Previous	Current			
Issuer/Financial Instrument (ISIN): Bechtle (DE0005158703)					
13.11.2023	Buy	Buy	43.10 EUR	52.00 EUR	Frey, Oliver
14.08.2023	Buy	Buy	42.72 EUR	50.00 EUR	Frey, Oliver
12.05.2023	Buy	Buy	39.06 EUR	50.00 EUR	Frey, Oliver
21.03.2023	Buy	Buy	39.99 EUR	50.00 EUR	Frey, Oliver
Issuer/Financial Instrument (ISIN): Datagroup (DE000A0JC8S7)					
29.08.2023	Buy	Buy	53.60 EUR	86.00 EUR	Frey, Oliver
24.05.2023	Buy	Buy	56.40 EUR	88.00 EUR	Frey, Oliver
10.03.2023	Buy	Buy	65.90 EUR	93.00 EUR	Frey, Oliver
22.02.2023	Buy	Buy	70.40 EUR	93.00 EUR	Frey, Oliver
23.11.2022	Buy	Buy	64.20 EUR	93.00 EUR	Frey, Oliver

\* 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

### Datagroup

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: November 22, 2023 08:25 AM CET

Initial release: November 22, 2023 08:25 AM CET



# company note

## 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 (*Wertpapierhandelsgesetz*)**

### Persons responsible for this document

The company responsible for preparing this document is B. Metzler seel. Sohn & Co. AG, Unterrmainanlage 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:

[www.metzler.com/disclaimer-capital-markets-en](http://www.metzler.com/disclaimer-capital-markets-en).

### 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.

## Definition of categories for investment recommendations

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](http://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 [www.metzler.com/disclaimer-capital-markets-en](http://www.metzler.com/disclaimer-capital-markets-en).

## 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 [www.metzler.com/disclaimer-capital-markets-en](http://www.metzler.com/disclaimer-capital-markets-en).

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

# company note

## 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	Pascal Spano	Head of Research	4365
Fax +49 69 283159			
	Guido Hoymann	Head of Equity Research	398
		Transport, Utilities/Renewables	
	Stephan Bauer	Industrial Technology	4363
	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-Vorwick	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
	Sebastian Sachs	FI/FX Strategy	526
	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
	Markus Tozman		4174
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

# company note

	Christoph Hirth		513
	Adrian Takacs		512
Fixed Income (FI)	Sebastian Luther	Head of Fixed Income	688
FI Sales	Minush Nori	Head of Fixed Income Sales	689
	Silke Amelung		289
	Claudia Ruiu		683
	Simon Tabath		280
FI Trading/ALM	Burkhard Brod	Head of ALM	659
	Bettina Koch		291
	Susanne Kraus		658
	Christian Bernhard	Head of Fixed Income Trading	266
	Dirk Lagler		685
Foreign Exchange (FX)	Özgür Atasever	Head of Foreign Exchange	281
FX Sales	Tobias Martin	Head of FX Sales & Trading	614
	Steffen Völker		293
FX Trading	Rainer Jäger		276
	Andreas Zellmann		610
Currency Management	Dominik Müller	Head of Currency Management	274
CM Advisory	Achim Walde	Head of Advisory	275
	Jens Rotterdam		282
CM Operations	Simon Wesch	Head of Operations	350
	Tessa Feller		1696
	Florian Konz		1773
	Sergii Piskun	Senior Quantitative Analyst	237