

Deutsche Rohstoff AG

Germany / Energy Frankfurt Bloomberg: DR0 GR ISIN: DE000A0XYG76

Q3 results/2nd Occidental JV RATING PRICE TARGET

BUY € 38.00

Return Potential 45.0% Risk Rating High

ANNUAL EBITDA SET TO EXCEED €100M UNTIL AT LEAST END 2024

Q3 results showed a 220% jump in revenue to €46.0m (Q3/21: €14.4m) while EBITDA more than trebled to €38.3m (Q3/21: €12.2m). The very strong performance was driven by increases in realised pricing, volume and the USDEUR exchange rate of 71%, 60% and 17% respectively. Despite a 12.2% sequential decline in volume, Q3/22 EBITDA was very close to the Q2/22 figure of €38.8m. We estimate that this was a function of a stable realised euro-denominated price for oil and an increase in the realised natural gas price in euro terms. On 10 October DRAG announced a second JV with Occidental Petroleum which will drill and bring into production 15 wells (5 in 2023 and 10 in 2024). We expect these wells to generate revenue of ca. €50m during the 12 months from mid-2024. High commodity prices, robust production from existing wells, and the second Occidental JV have prompted management to raise EBITDA guidance for 2022 and 2023 by 4% to €128m-€133m and 10% to €125m€140m respectively compared with previous guidance given at the end of April. DRAG have also given first guidance for 2024 which calls for EBITDA of over €100m. We have raised our price target from €36.00 to €38.00 to reflect the positive impact onour forecasts of the second Occidental JV and the recent increase in DRAG's stake in its Cub Creek subsidiary from 88.5% to 98.0%. The increases to our forecasts outweigh an upward revision to our WACC estimate from 10% to 11% due to the rise in the yield on the 10 year German government bond from 1.2% to 2.2% since our most recent note of 13 July. Our valuation is based on DCF methodology and is also supported by EV/EBITDA multiples which are below 2x out to 2024. We maintain our Buy recommendation.

Q3/22 revenue up vs Q2/22 despite volume decline As figure 1 overleaf shows, Q3/22 volume was 61% above the Q3/21 figure. The main drivers of the growth were Cub Creek's Knight Pad and Bright Rock's Buster well which respectively began producing in November and October 2021. Q3/22 volume fell 12.2% vs Q2/22 but revenue climbed 4.1%. (p.t.o.)

FINANCIAL HISTORY & PROJECTIONS

	2019	2020	2021	2022E	2023E	2024E
Revenue (€m)	41.20	38.68	73.32	156.90	185.24	144.13
Y-o-y growth	-62.2%	-6.1%	89.5%	114.0%	18.1%	-22.2%
EBITDA (€m)	22.73	23.93	66.06	132.06	146.62	109.10
EBITDA margin	55.2%	61.9%	90.1%	84.2%	79.2%	75.7%
Net income (€m)	0.31	-15.51	24.79	62.81	75.65	49.91
EPS (diluted) (€)	0.06	-3.13	5.00	12.68	15.27	10.08
DPS (€)	0.10	0.00	0.60	1.00	1.00	1.00
FCF (€m)	-14.79	-22.85	-1.01	30.27	9.16	49.58
Net gearing	75.9%	202.6%	100.2%	36.3%	21.8%	1.2%
Liquid assets (€m)	66.64	22.82	23.49	43.21	38.60	13.23

RISKS

Risks include negative movements in the oil price and other raw materials prices, dry well risk, mechanical failure, loss of key personnel.

COMPANY PROFILE

Deutsche Rohstoff AG (DRAG) is a resources company with a portfolio of properties in oil/gas and so-called high tech metals such as tin and tungsten. The business model is based on production in well-explored areas in politically stable countries. DRAG is based in Mannheim, Germany.

MARKET DAT	As of 10	Nov 2022			
Closing Price			€ 26.20		
Shares outstand	ling		5.00m		
Market Capitalis	ation	€	130.95m		
52-week Range		€ 19.35 / 33.10			
Avg. Volume (12	2 Months)		19,481		
Multiples	2021	2022E	2023E		
P/E	5.1	2.0	1.7		
EV/Sales	2.6	1.2	1.0		

1.5

3.8%

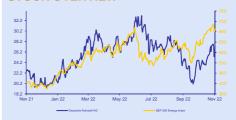
1.3

3.8%

STOCK OVERVIEW

EV/EBITDA

Div. Yield



2.3%

COMPANY DATA	As of 30 Sep 2022
Liquid Assets	€ 34.28m
Current Assets	€ 67.23m
Intangible Assets	€ 32.87m
Total Assets	€ 347.08m
Current Liabilities	€ 33.05m
Shareholders' Equity	€ 135.00m

SHAREHOLDERS

Management	10.0%
Institutional shareholders	30.0%
Free float	60.0%

Figure 1: Recent quarterly results

	Q1 21A	Q2 21A	Q3 21A	9M 21A	Q4 21A	FY 21A	Q1 22A	Q2 22A	Q3 22A	9M 22A
Production (BOE)	578,912	833,107	535,785	1,947,804	611,281	2,589,189	709,511	980,021	859,976	2,549,508
у-о-у % Δ	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	22.6%	17.6%	60.5%	30.9%
sequential % Δ	n.a.	43.9%	-35.7%	n.a.	14.1%	n.a.	16.1%	38.1%	-12.2%	n.a.
Revenue	17,924	20,890	14,374	53,188	20,133	73,321	28,083	44,158	45,951	118,192
v-o-v % Δ	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	56.7%	111.4%	219.7%	122.2%
sequential % Δ	n.a.	16.5%	-31.2%	n.a.	40.1%	n.a.	39.5%	57.2%	4.1%	n.a.
Other operating income	9,501	4,385	3,919	17,805	5,169	22,974	4,173	5,251	5,600	15,069
as % revenue	53.0%	21.0%	27.3%	33.5%	25.7%	31.3%	14.9%	11.9%	12.2%	12.7%
Costs	-6,132	-6,652	-6,098	-18,883	-11,354	-30,237	-7,045	-10,613	-13,259	-30,932
as % revenue	-34.2%	-31.8%	-42.4%	-35.5%	-56.4%	-41.2%	-25.1%	-24.0%	-28.9%	-26.2%
EBITDA	21,293	18,623	12,195	52,110	13,948	66,058	25,212	38,796	38,292	102,330
margin (%)	118.8%	89.1%	84.8%	98.0%	69.3%	90.1%	89.8%	87.9%	83.3%	86.6%

Source: DRAG

Unit pricing increased due partly to slightly higher than expected oil production and lower than expected gas production at Cub Creek's Knight pad. During Q3/22 we estimate that the company received twice as much for a BOE of oil than for a BOE of gas (USD84 vs. USD40). As figure 2 shows, Q3/22 pricing also benefitted from a lower hedge quota in the oil business compared with H1/22. This allowed the company to benefit to a greater extent from market pricing above its hedges. We also estimate that compared with H1/22, Q3/22 saw an 86% increase in the realised natural gas price in euro terms. Meanwhile, the USDEUR exchange rate was 7.7% stronger in Q3/22 than in H1/22. The EBITDA margin came in at 83.3% in Q3/22 vs. 87.9% in Q2/22 and 84.8% in Q3/21. The Q3/22 EBITDA margin narrowed compared with the Q3/21 figure mainly because other operating income accounted for a lower proportion of sales (12.2% in Q3/22 vs. 27.3% in Q3/21). We gather that costs as a percentage of revenue were higher in Q3/22 than in Q2/22 because of higher gas volumes and associated processing fees.

Figure 2: Volume, pricing, hedging: recent history and forecasts by commodity

		-			-		_
	H1 22	Q3/22	9M22	Q4/22	FY/22	FY/23	FY/24
Av EURUSD	1.08	1.01	1.06	0.99	1.05	1.02	1.02
Oil volume (BOE)	930,658	420,597	1,351,255	482,719	1,833,974	2,235,485	1,880,870
% total	55.1%	48.9%	53.0%	56.4%	53.9%	61.1%	59.3%
Hedged bbl	633,000	130,000	763,000	171,500	934,500	300,000	23,000
% hedged	68.0%	30.9%	56.5%	35.5%	51.0%	13.4%	1.2%
Average hedging price (USD/bbl)	61.35	64.11	61.82	68	62.95	74.00	79.83
Unhedged bbl	297,658	290,597	588,255	311,219	899,474	1,935,485	1,857,870
Mkt price/NYMEX futures strip (USD/bbl)	101.54	93.32	98.98	87.32	95.91	80.78	73.96
Realised price before hedges (USD/bbl)	96.26	96.26	96.26	82.32	92.59	74.87	69.03
Gain/loss on hedges (USD/bbl)	-23.22	-12.30	-19.82	-6.87	-18.49	-0.91	0.07
Realised price after hedges (USD/bbl)	73.04	83.96	76.44	75.46	74.10	73.40	67.67
Realised price after hedges (€/bbl)	67.36	83.40	71.86	76.24	70.86	71.96	66.35
hedge gain/loss (€)	-19,928,327	-5,137,574	-25,175,667	-3,348,102	-31,808,443	-1,993,873	132,438
hedge gain/loss (USD)	-21,609,879	-5,171,995	-26,781,874	-3,313,952	-33,916,197	-2,033,750	135,087
Gas volume (BOE)	580,577	350,791	931,368	286,369	1,217,737	1,088,199	1,010,731
% total	34.4%	40.8%	36.5%	33.5%	35.8%	29.7%	31.9%
Gas volume (MMBtu)	3,587,968	2,167,888	5,755,856	1,769,761	7,306,424	6,529,192	6,064,386
Hedged MMBtu	2,372,084	657,251	3,029,335	657,251	3,314,762	1,325,000	167,500
% hedged	66.1%	30.3%	52.6%	37.1%	45.4%	20.3%	2.8%
Hedged mcf	2,302,994	843,689	3,146,683	843,689	3,884,000	1,286,408	162,621
Average hedging price (USD/MMBtu)	2.92	3.20	2.98	3.52	3.09	3.90	3.78
Unhedged MMBtu	1,215,885	1,510,636	2,726,521	1,112,510	4,210,855	5,204,192	5,896,886
Mkt price/NYMEX futures strip (USD/MMBtu)	6.06	8.20	6.74	6.25	6.17	5.13	4.63
Realised price before hedges (USD/MMBtu)	5.81	7.95	6.49	6.00	5.92	4.88	4.38
Gain/loss on hedges (USD/MMbtu)	-2.08	-1.51	-1.87	-1.02	-1.26	-0.25	-0.02
Realised price after hedges (USD/MMBtu)	3.73	6.43	4.62	4.99	4.66	4.63	4.35
Realised price after hedges (€/bbl)	3.44	6.39	4.35	5.04	4.46	4.54	4.27
hedge gain/loss (€)	-6,871,673	-3,262,426	-10,134,099	-1,815,221	-10,713,215	-1,591,299	-139,173
hedge gain/loss (USD)	-7,451,505	-3,284,284	-10,735,789	-1,796,706	-9,208,064	-1,623,125	-141,956
NGL volume (BOE - unhedged)	178,298	88,588	266,886	86,098	352,983	336,766	281,346
% total	10.6%	10.3%	10.5%	10.1%	10.4%	9.2%	8.9%
Realised price before/after hedging (USD/bbl)	48.45	29.85	42.25	26.81	38.39	26.02	26.02
Realised price before/after hedging (EUR/bbl)	44.68	29.65	39.71	27.09	36.71	25.51	25.51
All commodities realised price after hedging (USD/BOE)	53.28	60.35	55.38	55.62	54.19	55.72	51.00
All commodities average realised after hedging (EUR/BOE)	49.13	59.95	52.06	56.19	51.82	54.63	50.00
Total hedge gain/loss (€)	-26,800,000	-8,400,000	-35,200,000	-5,163,323	-42,521,658	-3,585,172	-6,735
Total hedge gain/loss (USD)	-29,061,384	-8,456,280	-37,517,664	-5,110,657	-43,124,261	-3,656,875	-6,870

Source: DRAG; First Berlin Equity Research estimates

Commercial production from first Occidental JV to start this quarter DRAG announced in February that its Salt Creek subsidiary would participate in 18 wells to be drilled by Occidental in Wyoming. The expected investment was USD65m and we gather that the working interest was originally planned at ca. 40%. Commercial production from the first six of these wells will begin during the current quarter. The balance of the drilling programme now comprises 10 rather than 12 wells. These wells are scheduled to come on stream in H1/23. The expected investment for all 16 wells has risen to USD75m due to a) an increase in DRAG's working interest (we assume 45% rather than 40%) b) optimisation of

the well design and c) inflationary pressures. Due to lower well density, management expect

higher output per well from these 10 wells than the originally planned 12 wells.

On 10 October DRAG announced that it will participate in a further 15 Occidental wells in Wyoming. Total investment will be USD75m and we assume that the working interest will be similar to that for the first 16 wells. We expect the first five of the 15 wells to come online in early Q4/23 and the remaining 10 in Q2/24. We expect these wells to generate revenue of ca. €50m during the 12 months from mid-2024.

Figure 3: Announced or currently underway CAPEX programmes

(USDm)	2022	2023	2024
Cub Creek 5-well drilling	15	25	0
programme in Wyoming			
Salt Creek participation in 16 Occidental wells in Wyoming	34	33	0
Salt Creek participation in 15 Occidental wells in Wyoming	0	40	35
Salt Creek participation in 46 partner-operated wells in Utah	14	0	0
Investment im minority stakes in Cub Creek and Bright Rock	16	0	0
Total	79	98	35

Source: DRAG; First Berlin Equity Research estimates

Two Occidental JVs account for ca. 70% of so far announced 2022-24 CAPEX plans Figure 3 summarises the CAPEX programmes currently underway or announced by DRAG. The Occidental wells account for ca. 70% of total CAPEX of USD212m. The five new Cub Creek wells in Wyoming (80% working interest) are scheduled to come on line in mid-2023. The partner-operated wells in Utah were until recently housed in DRAG's Bright Rock subsidiary. DRAG transferred them to its Salt Creek subsidiary in keeping with its new policy of managing all partner-operated wells through this company. The first of 46 partner-operated wells in Utah (average working interest: 5%) began producing in September. The remaining wells were originally scheduled to come online in roughly equal increments over the following six months. However, on 14 October, DRAG announced that the start of production from some of these wells has been delayed until Q1/23.

DRAG raises 2022 sales and EBITDA guidance by 6.6% and 4.4% respectively Based on consistently strong commodity prices, robust production figures, as well as the appreciation of the USDEUR exchange rate, DRAG has raised its guidance for 2022 as shown in figure 4 overleaf. 2022 sales and EBITDA guidance are now respectively 6.6% and 4.4% higher than the corresponding figures given as guidance by the company under its higher commodity price scenario in late April. DRAG has increased 2022 guidance despite stating that this year's output will come in at the lower end of the previously guided 3.40-3.65m BOE range due to the above-mentioned late production starts at some Utah wells. Our own numbers are towards the top end of company guidance because our Q4/22 gas price and USDEUR exchange rate assumptions are slightly above DRAG's expectations.

2023 sales/EBITDA guidance raised by 10.3% and 10.4% respectively DRAG's new 2023 higher price commodity scenario guidance entails increases in expected sales and EBITDA of 10.3% and 10.4% respectively compared with the corresponding figures published in late April. The increases are based on the recently announced second JV with Occidental and the postponement of the start of production at some Utah wells into 2023.

Figure 4: DRAG guidance and FB forecasts

	DRAG	DRAG	DRAG		DRAG	DRAG FB Forecast		recast			
€m	25.04.22 (base case)	25.04.22 (higher commodity price scenario)	14.10.22 (base case)	% Δ (base case 25.04.22)	14.10.22 (higher commodity price scenario)	% Δ (higher price (scenario 25.04.22)	13.07.22	09.11.22	New FB forecast vs. (higher commodity price scenario)		
2022 volume (mBOE)	3.40-3.65	3.40-3.65	3.40-3.65	0.0%	3.40-3.65	0.0%	3.48	3.40	-3.4%		
2023 volume (mBOE)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.12	3.66	n.a.		
2024 volume (mBOE)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.17	n.a.		
2022 revenue	130-140	140-150	152-157	14.4%	152-157	6.6%	157	157	1.6%		
2022 EBITDA	110-120	120-130	128-133	13.5%	128-133	4.4%	132	132	1.2%		
2023 revenue	125-135	140-150	140-160	15.4%	155-175	10.3%	156	185	12.3%		
2023 EBITDA	100-110	115-125	110-125	11.9%	125-140	10.4%	129	147	10.7%		
2024 revenue	n.a.	n.a.	155-175	n.a.	>120	n.a.	156	144	20.1%		
2024 EBITDA	n.a.	n.a.	100-110	n.a.	>100	n.a.	129	109	9.1%		
2022 oil price assumption (USD)*	85.00	92.00	85.00	0.0%	85.00	-7.6%	98.56	87.32	2.7%		
2022 gas price assumption (USD)*	4.00	4.00	6.00	50.0%	6.00	50.0%	6.75	6.25	4.2%		
2023 oil price assumption (USD)	75.00	85.00	75.00	0.0%	85.00	0.0%	81.48	80.78	-5.0%		
2023 gas price assumption (USD)	4.00	4.00	4.00	0.0%	4.00	0.0%	4.60	5.13	28.1%		
2024 oil price assumption (USD)	n.a.	n.a.	75.00	n.a.	75.00	n.a.	n.a.	73.96	-1.4%		
2024 gas price assumption (USD)	n.a.	n.a.	4.00	n.a.	4.00	n.a.	n.a.	4.63	15.7%		
2022 USDEUR exchange rate*	0.89	0.89	1.00	14.4%	1.00	n.a.	0.99	1.01	13.2%		
2023 USDEUR exchange rate*	0.89	0.89	0.89	0.0%	0.89	n.a.	0.99	0.98	9.8%		
2024 USDEUR exchange rate*	0.89	0.89	0.89	n.a.	0.89	n.a.	0.99	0.98	9.8%		

Source: DRAG; First Berlin Equity Research estimates

Our 2023 oil price forecast is based on the NYMEX futures strip. Although the NYMEX futures strip indicates an average 2023 oil price 5.0% below the USD85.00 featured in DRAG's higher commodity price scenario, our forecasts are again near the top end of DRAG's guidance. This is because both the current gas strip and the USDEUR exchange rate are above DRAG's assumptions.

DRAG has also published first guidance for 2024. This calls for revenue and EBITDA of >€120m and >€100m respectively. Our forecasts are above these numbers mainly because we use the current USDEUR rate of 0.98. DRAG's assumption is 0.89.

Figure 5 below summarises our near-term forecasts. Our expectations for 2022 are nearly unchanged, but we have raised our numbers for 2023 to reflect the contribution from the second Occidental JV. As figure 2 shows, we also expect 2023 results to benefit from a 5.4% increase in cross-commodity realised pricing to €54.63/BOE (2022: €51.82/BOE). This is a function of both the lower hedging quota in 2023, which will allow DRAG to realise prices above 2022 hedges, and the higher USDEUR exchange rate. We also present a detailed 2024 forecast for the first time.

Figure 5: Changes to our forecasts

All figures in € 000s	2022E	2022E	Δ	2023E	2023E	Δ	2024E
	New	Old		New	Old		New
Revenue	156,903	157,340	-0.3%	185,238	156,311	18.5%	144,130
EBITDA	132,056	131,624	0.3%	146,623	128,715	13.9%	109,103
Dep. and amort.	42,000	41,819	0.4%	44,000	37,418	17.6%	40,047
Op. income (EBIT)	90,056	89,804	0%	102,623	91,297	12%	69,057
Net financial result	-5,778	-6,778	n.a.	-5,250	-6,186	n.a.	-4,896
Pre-tax income (EBT)	84,278	83,026	1.5%	97,373	85,111	14.4%	64,161
Income taxes	-16,434	-17,436	n.a.	-20,448	-17,873	n.a.	-13,474
Net before mins.	67,844	65,591	3.4%	76,925	67,238	14.4%	50,687
Minority interests	-5,030	-11,565	n.a.	-1,279	-6,493	n.a.	-774
Net inc. after mins.	62,813	54,026	16.3%	75,646	60,745	24.5%	49,913
EPS (€)	12.68	10.91	16.3%	15.27	12.26	24.6%	10.08

Source: First Berlin Equity Research estimates

Figure 6 shows the volume assumptions underlying our P&L estimates. In our most recent note of 13 July, we modelled 2023 volume of 3.12mBOE. Due mainly to the start of production from the first new wells at second Occidental JV as well as the postponement of production starts in Utah into 2023, we now model volume of 3.66mBOE. Figure 6 also shows the impact of the transfer of the non-operated wells in Utah from Bright Rock to Salt Creek.

Figure 6: 2020 and 2021 oil/gas/NGL volume by subsidiary and forecasts for 2022E-2024E

вое	FY/20A	FY/21A	FY/22E	FY/23E	FY/24E
Cub Creek Energy	807,470	1,963,641	2,531,023	2,030,949	1,602,240
change	0.1%	143.2%	28.9%	-19.8%	-21.1%
of which:					
oil	392,221	821,221	1,301,296	1,093,762	809,008
gas + NGL	415,249	1,142,420	1,229,727	937,187	793,232
gas + NGL as % total	51.4%	58.2%	48.6%	46.1%	49.5%
Elster Oil & Gas	592,187	341,561	298,974	239,299	211,823
change of which:	-20.2%	-42.3%	-12.5%	-20.0%	-11.5%
oil	198,342	112,731	88,618	66,144	54,313
gas + NGL	393,845	228,830	210,356	173,155	157,510
gas + NGL as % total	66.5%	67.0%	70.4%	72.4%	74.4%
Salt Creek Oil & Gas	21,688	24,074	162,629	1,297,499	1,286,625
change	-45.5%	11.0%	575.5%	697.8%	-0.8%
of which:					
oil	16,682	14,960	124,437	996,985	958,341
gas + NGL	5,006	9,114	38,191	300,514	328,284
gas + NGL as % total	23.1%	37.9%	23.5%	23.2%	25.5%
Bright Rock Energy	120,729	259,913	412,069	92,703	72,259
change of which:	111.7%	115.3%	58.5%	-77.5%	-22.1%
oil	96,774	210,176	319,623	78,594	59,208
gas + NGL	23,955	49,737	92,447	14,109	13,051
gas + NGL as % total	19.8%	19.1%	22.4%	15.2%	18.1%
Total	1,542,074	2,589,189	3,404,694	3,660,449	3,172,947
change	-6.3%	67.9%	31.5%	7.5%	-13.3%
of which:					
oil	704,019	1,159,088	1,833,974	2,235,485	1,880,870
gas + NGL	838,055	1,435,947	1,570,720	1,424,964	1,292,077
gas + NGL as % total	54.3%	55.5%	46.1%	38.9%	40.7%
NGL as % total		15.1%	10.4%	9.2%	8.9%
Total BOEPD	4,225	7,094	9,328	10,029	8,693
change	-6.3%	67.9%	31.5%	7.5%	-13.3%

Source: DRAG; First Berlin Equity Research estimates

Our current forecasts suggest DRAG will be close to a net cash position by end 2024 Based on our current volume/pricing/CAPEX forecasts and assuming no further project announcements, we expect DRAG will be close to a net cash position by the end of 2024 (see figure 7 overleaf).

Figure 7: Evolution of DRAG's net debt position

€000's	FY/20	FY/21	9M/22	FY/22E	FY/23E	FY/24E
Cash at bank	8,210	12,700	25,879	32,421	27,807	2,437
Securities classified as current assets	14,606	10,792	8,405	10,792	10,792	10,792
Total liquid assets	22,816	23,492	34,284	43,213	38,599	13,229
Securities classified as non-current assets	13,214	13,630	9,567	13,630	13,630	13,630
Total cash, current/non-current securities	36,030	37,122	43,851	56,843	52,229	26,859
Bonds	114,419	97,761	109,815	109,815	100,000	0
Bank liabilities	13,962	19,631	26	0	0	30,000
Total interest bearing debt	128,381	117,392	109,841	109,815	100,000	30,000
		Walliand				
Equity	45,589	80,074	134,995	145,928	218,889	264,623
Net interest-bearing debt	92,351	80,270	65,990	52,972	47,771	3,141
Net gearing	202.6%	100.2%	48.9%	36.3%	21.8%	1.2%
Op. cashflow before working cap. expenditure	11,279	44,915	112,354	109,844	120,925	90,734
Cash inflow/(outflow) from working capital	2,712	6,907	-4,303	1,427	4,239	-6,150
Op. cashflow after working cap. expenditure	13,991	51,822	108,051	111,271	125,164	84,584
Investments in intangibles	-6,110	-10,953	2,063	-5,000	-5,000	-5,000
Investments in PPE	-30,731	-41,876	-72,287	-76,000	-111,000	-30,000
Other cashflow from investing	-11,889	23,483	5,012	0	0	0
Cashflow from investing activities	-48,730	-29,346	-65,212	-81,000	-116,000	-35,000
Cashflow after investing	-34,740	22,477	42,839	30,271	9,164	49,584

Source: DRAG; First Berlin Equity Research estimates

VALUATION

Figure 8: Changes to our valuation model

€m	New	Old	% ∆
DCF valuation Cub Creek Energy (DRAG's stake 98.0%)	175.7	188.1	-6.6%
DCF valuation Elster Oil & Gas (DRAG's stake: 93.0%)	18.9	21.8	-13.1%
DCF valuation Salt Creek Oil & Gas/Bright Rock Energy	56.7	42.9	32.1%
(DRAG's stakes: 100.0%/ 99%)			
PV10 hedging gains/(losses)	-14.3	-30.2	n.a.
Subtotal: US oil and gas activities	237.0	222.6	6.5%
Almonty (12.18% equity stake	25.7	30.0	-14.4%
plus promissory notes and debentures)			
Ceritech (DRAG's stake: 72.46%)	1.5	2.0	-24.8%
Northern Oil and Gas (DRAG's stake: 0.29%)	8.3	9.8	-14.9%
Rhein Petroleum (DRAG's stake: 10%)	2.5	2.5	0.0%
Tin International (DRAG's stake: 94.4%)	1.7	0.2	759.5%
Holding company costs	-10.0	-10.0	0.0%
Total enterprise value	266.7	257.2	3.7%
Cash and securities held in current assets	34.3	51.6	-33.6%
Bonds	109.8	110.7	-0.8%
Other debt	0.0	19.7	-99.9%
Net debt	75.6	78.8	-4.1%
Total equity value	191.2	178.4	7.2%
No shares (m)	5.00	4.95	0.9%
Equity value per share (€)	38.25	36.00	6.3%

Source: First Berlin Equity Research estimates



Price target raised from €36.00 to €38.00. Buy recommendation maintained Figure 8 shows changes to our valuation model. The change in our valuation of DRAG's oil and gas producing subsidiaries is influenced by the following:

- the 15 wells to be drilled by the second JV between Salt Creek and Occidental
- the USD15.5m invested by DRAG since the end of June to raise its stake in Cub Creek from 88.5% to 98%, and its stake in Bright Rock above 98.86%
- the reduction in our estimate of the PV of hedging losses. This is a function of passing of the Q3/22 numbers out of the figures
- the fall in the long end of the oil futures curve
- the increase in our WACC estimate from 10% to 11%

The net impact of these different factors raises our valuation of DRAG's oil and gas business by 6.5% to €237m. Our valuations of DRAG's stakes in Almonty and Northern Oil and Gas (NOG) have moved in line with DRAG's stakes in these companies and their share prices. The net debt calculation shown in figure 9 is based on cash and cash equivalents held in current assets, as we have valued most of the securities held in non-current assets (Almonty, NOG) individually. The share count is now 4.99mm (previously: 4.95m) due to bond conversion. We now see fair value for the DRAG share at €38 (previously: €36). We maintain our Buy recommendation.

Figure 9: DCF Valuation of Cub Creek Energy*

USD 000s	Q4 22E	2023E	2024E	2025E	2026E
Production (working interest): barrels of oil equivalent (000s)	645	2,031	1,602	1,261	1,069
Unhedged average oil price after transport costs (WTI -USD/barrel)		75.78	68.96	64.64	61.16
Net revenue (working interest after royalty and ad valorem tax)	35,362	99,107	69,343	50,109	40,301
Cash operating costs	4,970	21,853	18,041	14,824	12,573
EBITDA	30,392	77,254	51,302	35,285	27,728
Depreciation	9,024	28,433	22,431	17,648	14,967
EBIT	21,368	48,821	28,870	17,637	12,761
NOPLAT	16,881	38,569	22,808	13,933	10,081
Tax Rate (%)	21.0%	21.0%	21.0%	21.0%	21.0%
CAPEX	-3,000	-25,000	0	0	0
Working capital expenditure	-688	1,181	-3,450	-3,529	-2,216
Free cashflow	22,217	43,183	41,789	28,052	22,833
PV free cashflow (11% discount rate)	21,902	38,351	33,435	20,220	14,827
Sum PV free cashflows	182,892				

Source: DRAG; First Berlin Equity Research estimates



Figure 10: DCF Valuation of Elster Oil & Gas*

USD 000s	Q4 22E	2023E	2024E	2025E	2026E
Production (working interest): barrels of oil equivalent (000s)	65	239	212	191	173
Unhedged average oil price after transport costs (WTI -USD/barrel)		75.78	68.96	64.64	61.16
Net revenue (working interest after royalty and ad valorem tax)	2,938	9,109	7,184	6,100	5,292
Cash operating costs	502	2,575	2,385	2,241	2,038
EBITDA	2,435	6,534	4,799	3,859	3,254
Depreciation	652	2,393	2,118	1,906	1,733
EBIT	1,784	4,141	2,681	1,953	1,521
NOPLAT	1,409	3,271	2,118	1,543	1,202
Tax Rate (%)	21.0%	21.0%	21.0%	21.0%	21.0%
CAPEX	0	0	0	0	0
Working capital expenditure	73	432	-627	-642	-403
Free cashflow	2,133	6,097	3,609	2,807	2,532
PV free cashflow (11% discount rate)	2,103	5,415	2,887	2,024	1,644
Sum PV free cashflows	20,770				

Source: DRAG; First Berlin Equity Research estimates

Figure 11: DCF Valuation of Salt Creek Oil & Gas, Bright Rock Energy*

USD 000s	Q4 22E	2023E	2024E	2025E	2026E
Production (working interest): barrels of oil equivalent (000s)	145	1,390	1,359	982	693
Unhedged average oil price after transport costs (WTI -USD/barrel)		75.78	68.96	64.64	61.16
Net revenue (working interest after royalty and ad valorem tax)	9,586	81,640	71,400	47,918	31,604
Cash operating costs	1,121	14,959	15,301	11,552	8,149
EBITDA	8,465	66,682	56,099	36,366	23,456
Depreciation	1,454	13,902	13,589	9,823	6,929
EBIT	7,010	52,780	42,510	26,543	16,526
NOPLAT	5,538	41,696	33,583	20,969	13,056
Tax Rate (%)	21.0%	21.0%	21.0%	21.0%	21.0%
CAPEX	-12,000	-73,000	-35,000	0	0
Working capital expenditure	92	-1,783	2,298	-2,246	-1,410
Free cashflow	-4,916	-19,185	14,470	28,547	18,575
PV free cashflow (11% discount rate)	-2,423	-17,039	11,577	20,577	12,062
Sum PV free cashflows	58,388				

Source: DRAG; First Berlin Equity Research estimates

^{*} our valuation models for CCE, EOG, SCOG and BRE extend to 2039 but for reasons of space we show numbers only out to 2026



INCOME STATEMENT

All figures in € 000s	2019A	2020A	2021A	2022E	2023E	2024E
Revenues	41,204	38,683	73,321	156,903	185,238	144,130
Cost of materials	11,342	11,630	18,106	26,504	29,427	26,441
Personnel/G&A expenses	11,559	12,118	12,118	14,985	11,484	10,576
Net other operating income	4,422	8,999	22,962	16,641	2,297	1,991
EBITDA	22,725	23,935	66,058	132,056	146,623	109,103
Depreciation and amortisation	17,095	40,070	33,469	42,000	44,000	40,047
Operating income (EBIT)	5,630	-16,135	32,590	90,056	102,623	69,057
Net financial result	-5,368	-6,388	96	-5,778	-5,250	-4,896
Other financial items	0	0	0	0	0	0
Pre-tax income (EBT)	262	-22,524	27,056	84,278	97,373	64,161
Taxes	-76	6,425	-699	-16,434	-20,448	-13,474
Profit before minorities	186	-16,099	26,357	67,844	76,925	50,687
Minority interests	122	589	-1,563	-5,030	-1,279	-774
Net income / loss	308	-15,510	24,794	62,813	75,646	49,913
EPS (in €)	0.06	-3.13	5.00	12.68	15.27	10.08
Ratios						
EBITDA margin on revenues	55.2%	61.9%	90.1%	84.2%	79.2%	75.7%
EBIT margin on revenues	13.7%	-41.7%	44.4%	57.4%	55.4%	47.9%
Net margin on revenues	0.7%	-40.1%	33.8%	40.0%	40.8%	34.6%
Tax rate	29.0%	-28.5%	2.6%	19.5%	21.0%	21.0%
Y-Y Growth						
Revenues	-62.2%	-6.1%	89.5%	114.0%	18.1%	-22.2%
Operating income	-85.9%	n.m.	n.m.	176.3%	14.0%	-32.7%
Net income/ loss	-97.8%	n.m.	n.m.	153.3%	20.4%	-34.0%



BALANCE SHEET

All figures in € 000s	2019A	2020A	2021A	2022E	2023E	2024E
Assets						
Current assets, total	80,455	36,354	53,151	74,779	75,474	42,401
Cash and cash equivalents	66,637	22,815	23,492	43,213	38,599	13,229
Inventories	165	186	175	374	442	344
Receivables	9,935	3,505	17,898	25,104	29,638	23,061
Prepayments	1,156	1,047	893	1,569	1,852	1,441
Other current assets	1,161	7,327	8,529	2,354	2,779	2,162
Deferred tax assets	1,401	1,474	2,164	2,164	2,164	2,164
Non-current assets, total	198,470	170,368	211,840	250,840	322,840	317,793
Intangible assets	22,136	21,892	29,821	32,165	34,509	36,853
Land and buildings	0	0	0	0	0	0
Producing oil plants	138,433	110,203	143,612	178,929	246,042	238,921
Exploration and evaluation	648	2,227	5,225	6,510	8,952	8,693
Plant and machinery	143	123	111	138	190	185
Other equipment	331	225	107	133	183	178
Equity investments	16,688	17,773	14,552	14,552	14,552	14,552
Loans to other investors	1,902	4,711	4,782	4,782	4,782	4,782
Securities classified as fixed assets	18,189	13,214	13,630	13,630	13,630	13,630
Total assets	278,925	206,722	264,991	325,619	398,314	360,195
Shareholders' equity & debt						
Current liabilities, total	26,927	27,077	31,790	31,311	125,378	19,746
Bank debt	22	190	1,089	0	0	0
Bond debt	0	16,658	0	9,815	100,000	0
Accounts payable	17,114	2,901	20,764	2,354	2,779	2,162
Other current liabilities	9,791	7,328	9,937	19,142	22,599	17,584
Long-term liabilities, total	139,089	111,533	116,303	100,000	0	30,000
Bond debt	131,077	97,761	97,761	100,000	0	0
Bank debt	8,012	13,772	18,542	0	0	30,000
Other long term liabilities	0	0	0	0	0	0
Provisions	25,222	7,336	18,842	31,381	37,048	28,826
Minority interests	7,184	6,170	7,351	12,381	13,660	14,434
Shareholders' equity	64,317	39,419	72,723	133,546	205,229	250,188
Consolidated equity	71,501	45,589	80,074	145,928	218,889	264,623
Deferred tax liabilities	16,186	15,187	17,982	17,000	17,000	17,000
Total consolidated equity and debt	278,925	206,722	264,991	325,619	398,314	360,195
Ratios					***************************************	
Current ratio (x)	2.99	1.34	1.67	2.39	0.60	2.15
Quick ratio (x)	2.98	1.34	1.67	2.38	0.60	2.13
Financial leverage	75.9%	202.6%	100.2%	36.3%	21.8%	1.2%
Book value per share (€)	12.98	7.96	14.68	26.96	41.43	50.50
Net cash (debt)	-54,285	-92,352	-80,270	-52,972	-47,771	-3,141
Return on equity (ROE)	0.3%	-27.5%	41.9%	60.0%	42.2%	0.0%



CASH FLOW STATEMENT

All figures in € 000s	2019A	2020A	2021A	2022E	2023E	2024E
Net profit before minorities	186	-16,099	26,357	67,844	76,925	50,687
Writedow ns/w riteups of fixed assets	16,307	37,702	32,805	42,000	44,000	40,047
Increase/decrease in provisions	17,380	-11,411	-927	0	0	0
Changes in working capital	-9,195	2,712	6,907	1,427	4,239	-6,150
Gains/losses from disposal of fixed assets	-31	-286	-736	0	0	0
Gains/losses from disposal of securities	0	-1,433	-18,093	0	0	0
Interest expense/income	5,368	6,388	5,533	0	0	0
Tax paid/received	76	-6,425	792	0	0	0
Income tax payments	158	0	0	0	0	0
Other	-16,311	2,843	-816	0	0	0
Operating cash flow	13,938	13,991	51,822	111,271	125,164	84,584
Investment in property, plant equipment	-22,513	-30,731	-41,876	-76,000	-111,000	-30,000
Investment in intangible assets	-6,214	-6,110	-10,953	-5,000	-5,000	-5,000
Free cash flow	-14,789	-22,850	-1,007	30,271	9,164	49,584
Proceeds from disposal of intangible assets	0	119	1,633	0	0	0
Management of short term financial assets, other	-5,511	-12,008	21,850	0	0	0
Investing cash flow	-34,238	-48,730	-29,346	-81,000	-116,000	-35,000
Equity financing	-18	-97	0	0	0	0
Debt financing	62,000	7,322	19,006	-6,488	0	0
Debt repayment	-16,115	-16,658	-31,729	-1,089	-9,815	-70,000
Interest paid	-6,638	-7,515	-6,515	0	0	0
Dividends, share buybacks	-3,937	-743	-328	-2,972	-3,963	-4,954
Other	0	0	-145	0	0	0
Financing cash flow	35,292	-17,691	-19,711	-10,549	-13,778	-74,954
Other	1,004	8,608	-2,088	0	0	0
Change in cash and equivalents	6,647	-43,822	677	19,721	-4,614	-25,370
FX/consolidation effects	0	0	0	0	0	0
Cash and current cash equivs., start of the year	59,990	66,637	22,815	23,492	43,213	38,599
Cash and current cash equivs., end of the year	66,637	22,815	23,492	43,213	38,599	13,229
EBITDA/share (in €)	4.60	4.83	13.33	26.66	29.60	22.02
Y-Y Growth				····		
Operating cash flow	-79.7%	0.4%	270.4%	114.7%	12.5%	-32.4%
Free cash flow	n.m.	n.m.	n.m.	n.m.	-69.7%	441.1%
EBITDA/share	-76.8%	5.1%	176.0%	99.9%	11.0%	-25.6%



Imprint / Disclaimer

First Berlin Equity Research

First Berlin Equity Research GmbH ist ein von der BaFin betreffend die Einhaltung der Pflichten des §85 Abs. 1 S. 1 WpHG, des Art. 20 Abs. 1 Marktmissbrauchsverordnung (MAR) und der Markets Financial Instruments Directive (MiFID) II, Markets in Financial Instruments Directive (MiFID) II Durchführungsverordnung und der Markets in Financial Instruments Regulations (MiFIR) beaufsichtigtes Unternehmen.

First Berlin Equity Research GmbH is one of the companies monitored by BaFin with regard to its compliance with the requirements of Section 85 (1) sentence 1 of the German Securities Trading Act [WpHG], art. 20 (1) Market Abuse Regulation (MAR) and Markets in Financial Instruments Directive (MiFID) II, Markets in Financial Instruments Directive (MiFID) II Commission Delegated Regulation and Markets in Financial Instruments Regulations (MiFIR).

Anschrift:

First Berlin Equity Research GmbH Mohrenstr. 34 10117 Berlin Germany

Vertreten durch den Geschäftsführer: Martin Bailey

Telefon: +49 (0) 30-80 93 9 680 Fax: +49 (0) 30-80 93 9 687 E-Mail: <u>info@firstberlin.com</u>

Amtsgericht Berlin Charlottenburg HR B 103329 B

UST-Id.: 251601797

Ggf. Inhaltlich Verantwortlicher gem. § 6 MDStV

First Berlin Equity Research GmbH

Authored by: Simon Scholes, Analyst

All publications of the last 12 months were authored by Simon Scholes.

Company responsible for preparation: First Berlin Equity Research GmbH, Mohrenstraße 34, 10117

The production of this recommendation was completed on 11 November 2022 at 13:23

Person responsible for forwarding or distributing this financial analysis: Martin Bailey

Copyright© 2022 First Berlin Equity Research GmbH No part of this financial analysis may be copied, photocopied, duplicated or distributed in any form or media whatsoever without prior written permission from First Berlin Equity Research GmbH. First Berlin Equity Research GmbH shall be identified as the source in the case of quotations. Further information is available on request.

INFORMATION PURSUANT TO SECTION 85 (1) SENTENCE 1 OF THE GERMAN SECURITIES TRADING ACT [WPHG], TO ART. 20 (1) OF REGULATION (EU) NO 596/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF APRIL 16, 2014, ON MARKET ABUSE (MARKET ABUSE REGULATION) AND TO ART. 37 OF COMMISSION DELEGATED REGULATION (EU) NO 2017/565 (MIFID) II.

First Berlin Equity Research GmbH (hereinafter referred to as: "First Berlin") prepares financial analyses while taking the relevant regulatory provisions, in particular section 85 (1) sentence 1 of the German Securities Trading Act [WpHG], art. 20 (1) of Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) and art. 37 of Commission Delegated Regulation (EU) no. 2017/565 (MiFID II) into consideration. In the following First Berlin provides investors with information about the statutory provisions that are to be observed in the preparation of financial analyses.

CONFLICTS OF INTEREST

In accordance with art. 37 (1) of Commission Delegated Regulation (EU) no. 2017/565 (MiFID) II and art. 20 (1) of Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) investment firms which produce, or arrange for the production of, investment research that is intended or likely to be subsequently disseminated to clients of the firm or to the public, under their own responsibility or that of a member of their group, shall ensure the implementation of all the measures set forth in accordance with Article 34 (2) lit. (b) of Regulation (EU) 2017/565 in relation to the financial analysts involved in the production of the investment research and other relevant persons whose responsibilities or business interests may conflict with the interests of the persons to whom the investment research is disseminated. In accordance with art. 34 (3) of Regulation (EU) 2017/565 the procedures and measures referred to in paragraph 2 lit. (b) of such article shall be designed to ensure that relevant persons engaged in different business activities involving a conflict of interests carry on those activities at a level of independence appropriate to the size and activities of the investment firm and of the group to which it belongs, and to the risk of damage to the interests of clients.

In addition, First Berlin shall pursuant to Article 5 of the Commission Delegated Regulation (EU) 2016/958 disclose in their recommendations all relationships and circumstances that may reasonably be expected to impair the objectivity of the financial analyses, including interests or conflicts of interest, on their part or on the part of any natural or legal person working for them under a contract, including a contract of employment, or otherwise, who was involved in producing financial analyses, concerning any financial instrument or the issuer to which the recommendation directly or indirectly relates.

With regard to the financial analyses of Deutsche Rohstoff AG the following relationships and circumstances exist which may reasonably be expected to impair the objectivity of the financial analyses: The author, First Berlin, or a company associated with First Berlin reached an agreement with the Deutsche Rohstoff AG for preparation of a financial analysis for which remuneration is a used.

Furthermore, First Berlin offers a range of services that go beyond the preparation of financial analyses. Although First Berlin strives to avoid conflicts of interest wherever possible, First Berlin may maintain the following relations with the analysed company, which in particular may constitute a potential conflict of interest:

- The author, First Berlin, or a company associated with First Berlin owns a net long or short position exceeding the threshold of 0.5 % of the total issued share capital of the analysed company;
- The author, First Berlin, or a company associated with First Berlin holds an interest of more than five percent in the share capital of the analysed company;



- The author, First Berlin, or a company associated with First Berlin provided investment banking or consulting services for the analysed company within the past twelve months for which remuneration was or was to be paid;
- The author, First Berlin, or a company associated with First Berlin reached an agreement with the analysed company for preparation of a financial analysis for which remuneration is owed;
- The author, First Berlin, or a company associated with First Berlin has other significant financial interests in the analysed company;

With regard to the financial analyses of Deutsche Rohstoff AG the following of the aforementioned potential conflicts of interests or the potential conflicts of interest mentioned in Article 6 paragraph 1 of the Commission Delegated Regulation (EU) 2016/958 exist: The author, First Berlin, or a company associated with First Berlin reached an agreement with the Deutsche Rohstoff AG for preparation of a financial analysis for which remuneration is owed.

In order to avoid and, if necessary, manage possible conflicts of interest both the author of the financial analysis and First Berlin shall be obliged to neither hold nor in any way trade the securities of the company analyzed. The remuneration of the author of the financial analysis stands in no direct or indirect connection with the recommendations or opinions represented in the financial analysis. Furthermore, the remuneration of the author of the financial analysis is neither coupled directly to financial transactions nor to stock exchange trading volume or asset management fees.

INFORMATION PURSUANT TO SECTION 64 OF THE GERMAN SECURITIES TRADING ACT [WPHG], DIRECTIVE 2014/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 15 MAY 2014 ON MARKETS IN FINANCIAL INSTRUMENTS AND AMENDING DIRECTIVE 2002/92/EC AND DIRECTIVE 2011/61/EU, ACCOMPANIED BY THE MARKETS IN FINANCIAL INSTRUMENTS REGULATION (MIFIR, REG. EU NO. 600/2014).

First Berlin notes that is has concluded a contract with the issuer to prepare financial analyses and is paid for that by the issuer. First Berlin makes the financial analysis simultaneously available for all interested security financial services companies. First Berlin thus believes that it fulfils the requirements of section 64 WpHG for minor non-monetary benefits.

PRICE TARGET DATES

Unless otherwise indicated, current prices refer to the closing prices of the previous trading day.

AGREEMENT WITH THE ANALYSED COMPANY AND MAINTENANCE OF OBJECTIVITY

The present financial analysis is based on the author's own knowledge and research. The author prepared this study without any direct or indirect influence exerted on the part of the analysed company. Parts of the financial analysis were possibly provided to the analysed company prior to publication in order to avoid inaccuracies in the representation of facts. However, no substantial changes were made at the request of the analysed company following any such provision.

ASSET VALUATION SYSTEM

First Berlin's system for asset valuation is divided into an asset recommendation and a risk assessment.

ASSET RECOMMENDATION

The recommendations determined in accordance with the share price trend anticipated by First Berlin in the respectively indicated investment period are as follows:

Category			2
Current market	capitalisation (in €)	0 - 2 billion	> 2 billion
Strong Buy ¹	An expected favourable price trend of:	> 50%	> 30%
Buy	An expected favourable price trend of:	> 25%	> 15%
Add	An expected favourable price trend of:	0% to 25%	0% to 15%
Reduce	An expected negative price trend of:	0% to -15%	0% to -10%
Sell	An expected negative price trend of:	< -15%	< -10%

¹ The expected price trend is in combination with sizable confidence in the quality and forecast security of management.

Our recommendation system places each company into one of two market capitalisation categories. Category 1 companies have a market capitalisation of $\in 0 - \in 2$ billion, and Category 2 companies have a market capitalisation of $> \in 2$ billion. The expected return thresholds underlying our recommendation system are lower for Category 2 companies than for Category 1 companies. This reflects the generally lower level of risk associated with higher market capitalisation companies.

RISK ASSESSMENT

The First Berlin categories for risk assessment are low, average, high and speculative. They are determined by ten factors: Corporate governance, quality of earnings, management strength, balance sheet and financial risk, competitive position, standard of financial disclosure, regulatory and political uncertainty, strength of brandname, market capitalisation and free float. These risk factors are incorporated into the First Berlin valuation models and are thus included in the target prices. First Berlin customers may request the models.

RECOMMENDATION & PRICE TARGET HISTORY

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	22 July 2010	€7.45	Buy	€13.20
232	↓	↓	\downarrow	↓
33	15 April 2020	€8.36	Add	€9.50
34	19 October 2020	€7.82	Add	€9.50
35	20 April 2021	€12.05	Buy	€17.00
36	29 July 2021	€15.50	Buy	€24.00
37	7 October 2021	€21.10	Buy	€28.00
38	13 December 2021	€20.50	Buy	€31.00
39	9 June 2022	€32.00	Buy	€43.00
40	13 July 2022	€27.40	Buy	€36.00
41	Today	€26.20	Buy	€38.00

INVESTMENT HORIZON

Unless otherwise stated in the financial analysis, the ratings refer to an investment period of twelve months.



UPDATES

At the time of publication of this financial analysis it is not certain whether, when and on what occasion an update will be provided. In general First Berlin strives to review the financial analysis for its topicality and, if required, to update it in a very timely manner in connection with the reporting obligations of the analysed company or on the occasion of ad hoc notifications.

The opinions contained in the financial analysis reflect the assessment of the author on the day of publication of the financial analysis. The author of the financial analysis reserves the right to change such opinion without prior notification

Legally required information regarding

- key sources of information in the preparation of this research report
- valuation methods and principles
- sensitivity of valuation parameters

can be accessed through the following internet link: https://firstberlin.com/disclaimer-english-link/

SUPERVISORY AUTHORITY: Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority) [BaFin], Graurheindorferstraße 108, 53117 Bonn and Marie-Curie-Straße 24-28, 60439 Frankfurt am Main

EXCLUSION OF LIABILITY (DISCLAIMER)

RELIABILITY OF INFORMATION AND SOURCES OF INFORMATION

The information contained in this study is based on sources considered by the author to be reliable. Comprehensive verification of the accuracy and completeness of information and the reliability of sources of information has neither been carried out by the author nor by First Berlin. As a result no warranty of any kind whatsoever shall be assumed for the accuracy and completeness of information and the reliability of sources of information, and neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be liable for any direct or indirect damage incurred through reliance on the accuracy and completeness of information and the reliability of sources of information.

RELIABILITY OF ESTIMATES AND FORECASTS

The author of the financial analysis made estimates and forecasts to the best of the author's knowledge. These estimates and forecasts reflect the author's personal opinion and judgement. The premises for estimates and forecasts as well as the author's perspective on such premises are subject to constant change. Expectations with regard to the future performance of a financial instrument are the result of a measurement at a single point in time and may change at any time. The result of a financial analysis always describes only one possible future development - the one that is most probable from the perspective of the author - of a number of possible future developments.

Any and all market values or target prices indicated for the company analysed in this financial analysis may not be achieved due to various risk factors, including but not limited to market volatility, sector volatility, the actions of the analysed company, economic climate, failure to achieve earnings and/or sales forecasts, unavailability of complete and precise information and/or a subsequently occurring event which affects the underlying assumptions of the author and/or other sources on which the author relies in this document. Past performance is not an indicator of future results; past values cannot be carried over into the future.

Consequently, no warranty of any kind whatsoever shall be assumed for the accuracy of estimates and forecasts, and neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be liable for any direct or indirect damage incurred through reliance on the correctness of estimates and forecasts

INFORMATION PURPOSES, NO RECOMMENDATION, SOLICITATION, NO OFFER FOR THE **PURCHASE OF SECURITIES**

The present financial analysis serves information purposes. It is intended to support institutional investors in making their own investment decisions; however in no way provide the investor with investment advice. Neither the author, nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be considered to be acting as an investment advisor or portfolio manager vis-à-vis an investor. Each investor must form his own independent opinion with regard to the suitability of an investment in view of his own investment objectives, experience, tax situation, financial position and other

The financial analysis does not represent a recommendation or solicitation and is not an offer for the purchase of the security specified in this financial analysis. Consequently, neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall as a result be liable for losses incurred through direct or indirect employment or use of any kind whatsoever of information or statements arising out of this financial analysis

A decision concerning an investment in securities should take place on the basis of independent investment analyses and procedures as well as other studies including, but not limited to, information memoranda, sales or issuing prospectuses and not on the basis of this document.

NO ESTABLISHMENT OF CONTRACTUAL OBLIGATIONS

By taking note of this financial analysis the recipient neither becomes a customer of First Berlin, nor does First Berlin incur any contractual, quasi-contractual or pre-contractual obligations and/or responsibilities toward the recipient. In particular no information contract shall be established between First Berlin and the recipient of this information.

NO OBLIGATION TO UPDATE

First Berlin, the author and/or the person responsible for passing on or distributing the financial analysis shall not be obliged to update the financial analysis. Investors must keep themselves informed about the current course of business and any changes in the current course of business of the analysed company.

DUPLICATION

Dispatch or duplication of this document is not permitted without the prior written consent of First Berlin.

SEVERABILITY

Should any provision of this disclaimer prove to be illegal, invalid or unenforceable under the respectively applicable law, then such provision shall be treated as if it were not an integral component of this disclaimer; in no way shall it affect the legality, validity or enforceability of the remaining provisions.

APPLICABLE LAW, PLACE OF JURISDICTION

The preparation of this financial analysis shall be subject to the law obtaining in the Federal Republic of Germany. The place of jurisdiction for any disputes shall be Berlin (Germany).

NOTICE OF DISCLAIMER

By taking note of this financial analysis the recipient confirms the binding nature of the above explanations.

By using this document or relying on it in any manner whatsoever the recipient accepts the above restrictions as binding for the

QUALIFIED INSTITUTIONAL INVESTORS

First Berlin financial analyses are intended exclusively for qualified institutional investors.

This report is not intended for distribution in the USA and/or Canada.