

Photon Energy NV

Netherlands | Utilities | MCap EUR 157.8m

23 December 2022

UPDATE



Full takeover of Lerta; adj. est.; PT up; BUY

What's it all about?

Photon Energy yesterday announced the acquisition of the remaining stake in Poland-based Lerta S.A. for a consideration of c. EUR 10m in cash and shares. Lerta is an operator of a Virtual Power Plant, i.e. a network of decentralized small and medium scale renewable power plants together with storage systems and flexible power consumers. The transaction comes with significant growth opportunities as a growing share of renewables increases the need for more grid flexibility. Adjusting estimates to reflect the transaction and the less severe than expected impact of price caps and various taxes in 23E, we come to a new price target of EUR 4.40 (old: EUR 4.20). We reiterate to BUY.

IMPORTANT. Please refer to the last page of this report for "Important disclosures" and analyst(s) certifications.

BUY (BUY)

Target price	EUR 4.40 (4.20)
Current price	EUR 2.72
Up/downside	61.5%

 **ResearchHub** 

MAIN AUTHOR

Dr. Oliver Wojahn, CFA
o.wojahn@alsterresearch.com
+49 40 309 293-55

alsterresearch.com

This research is the product of AlsterResearch, which is registered with the BaFin in Germany.

Photon Energy NV

Netherlands | Utilities | MCap EUR 157.8m | EV EUR 246.9m

BUY (BUY)

Target price EUR 4.40 (4.20)
Current price EUR 2.72
Up/downside 61.5%

MAIN AUTHOR

Dr. Oliver Wojahn, CFA
o.wojahn@alsterresearch.com
+49 40 309 293-55

Full takeover of Lerta; adj. est.; PT up; BUY

Full acquisition of Lerta. Photon Energy yesterday announced the acquisition of the remaining stake in Poland-based Lerta S.A. Lerta operates a Virtual Power Plant (VPP) in Central and Eastern Europe, i.e. it manages a network of decentralized small and medium scale renewable power plants together with storage systems and flexible power consumers – without owning any of the underlying assets. Specifically, the proprietary software allows Lerta to forecast and optimize the output of renewable power plants and the load of industrial clients based on current prices and grid needs.

Financial details of the transaction. Photon Energy in prior financing rounds already had acquired a 56.75% stake in Lerta for c. EUR 9.7m. Now Photon Energy has agreed to buy the remaining 43.25% from the two founding shareholders for a combination of c. EUR 0.46m in cash and c. 3.6m shares (thereof c. 2.3m treasury shares and c. 1.3m shares to be newly issued). At the current share price, this is a slight (c. 10%) premium to the price recently paid to the two VC funds, which however was an all-cash transaction. On top, there is an earn-out provision for Lerta management for up to c. 2.4m additional shares, tied to an ambitious EVA target. The transaction is expected to close in Q1 2023. We have incorporated the full transaction into estimates, assuming no earn-out.

Strategically sound transaction. The transaction makes a lot of sense strategically. The growing share of renewables increases the need for more grid flexibility. With a license for energy trading in 6 markets, strong know-how in real-time asset aggregation (3rd biggest aggregator in Poland) and activities in the capacity / DSR market, Lerta's services are increasingly valuable and offer significant growth potential. The earn-out provision and shares in Photon Energy with a lock-up should ensure a high commitment of the former Lerta management.

Adjusting est., PT up. We adjust our estimates to reflect the Lerta transaction and to incorporate recent developments on the regulatory side, which lead us to believe that the 23E impact of price caps and various taxes will have a less severe impact than originally thought. We significantly upgrade operating profits for 23E (note that the downgrade in EPS is due to more cautious assumptions on the capacity ramp-up especially in Poland, leading to lower OCI – a non-cash effect). We reiterate to BUY with an upgraded price target of EUR 4.40 (old: EUR 4.20).

Photon Energy NV	2019	2020	2021	2022E	2023E	2024E
Sales	30.2	28.3	36.4	85.8	111.4	117.4
<i>Growth yoy</i>	48.9%	-6.3%	28.7%	136.0%	29.8%	5.4%
EBITDA	7.9	8.4	9.6	24.6	38.3	47.8
EBIT	1.1	-0.1	-0.7	12.8	23.3	25.5
Net profit*	-0.7	2.1	2.1	7.6	29.0	39.7
Net debt (net cash)	67.3	84.5	89.1	99.1	136.4	265.5
Net debt/EBITDA	8.5x	10.0x	9.3x	4.0x	3.6x	5.6x
EPS reported*	-0.01	0.04	0.04	0.13	0.50	0.69
DPS	0.00	0.00	0.00	0.00	0.00	0.00
<i>Dividend yield</i>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Gross profit margin	67.6%	83.6%	65.0%	56.6%	66.8%	75.1%
EBITDA margin	26.3%	29.9%	26.4%	28.7%	34.4%	40.7%
EBIT margin	3.5%	-0.5%	-2.0%	14.9%	21.0%	21.8%
ROCE	0.9%	-0.1%	-0.4%	6.1%	8.0%	5.3%
EV/EBITDA	28.3x	28.7x	25.8x	10.4x	7.7x	8.9x
EV/EBIT	213.4x	-1,706.8x	-347.3x	20.1x	12.6x	16.6x
PER	-192.0x	67.0x	70.7x	20.7x	5.4x	4.0x
FCF yield	0.5%	-0.8%	-1.6%	2.6%	6.5%	-0.6%

Source: Company data, AlsterResearch; * including OCI



Source: Company data, AlsterResearch

High/low 52 weeks 3.58 / 1.44
Price/Book Ratio 2.9x

Ticker / Symbols

ISIN NL0010391108
WKN A1T9KW
Bloomberg P7V:GR

Changes in estimates

		Sales	EBIT	EPS
2022E	old	85.8	12.4	0.18
	Δ	0.0%	2.9%	-27.5%
2023E	old	103.3	17.4	0.53
	Δ	7.8%	34.3%	-4.8%
2024E	old	118.2	23.6	0.91
	Δ	-0.7%	8.1%	-24.9%

Key share data

Number of shares: (in m pcs) 57.93
Book value per share: (in EUR) 0.95
Ø trading volume: (12 months) 1,000

Major shareholders

Solar Future 35.6%
Solar Power to the People 33.8%
Treasury Shares 1.8%
Lerta founders 5.8%
Free Float 23.0%

Company description

Photon Energy NV is a solar energy and water treatment solutions company based in the Netherlands that covers the entire lifecycle of its technologies. The Company develops projects in Australia, Hungary, Poland and Romania, and provides operations and maintenance services worldwide. The Company has offices in Europe and Australia.

Quarterly performance table

P&L data	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
Sales	5.1	4.6	9.9	10.2	11.7	9.1	23.2	35.4
yoy growth in %	-34.2%	-14.0%	10.9%	13.8%	130.3%	99.9%	135.7%	247.2%
Gross profit	1.9	4.1	7.1	8.1	4.4	6.2	14.3	20.3
Gross margin in %	37.4%	88.9%	72.4%	79.0%	37.3%	67.5%	61.4%	57.4%
EBITDA	-1.1	0.2	4.0	4.4	0.9	2.0	8.1	12.7
EBITDA margin in %	-21.8%	3.7%	40.5%	43.5%	8.0%	22.2%	35.0%	35.9%
EBIT	-3.0	-1.5	1.0	0.4	-1.0	0.5	4.6	9.7
EBIT margin in %	-59.7%	-32.3%	9.8%	4.1%	-8.9%	5.8%	20.0%	27.5%
EBT	-4.2	-3.1	-0.6	-1.1	-1.2	-1.3	2.6	7.3
taxes paid	0.1	0.1	0.3	0.3	-0.2	-0.1	0.6	1.3
tax rate in %	-3.6%	-3.9%	-53.7%	-30.9%	20.0%	10.5%	22.5%	18.1%
net profit	-4.4	-3.1	-0.8	-1.4	-1.0	-1.4	2.0	6.0
yoy growth in %	na%	na%	na%	na%	na%	na%	na%	na%
EPS	-0.08	-0.06	-0.02	-0.03	-0.02	-0.03	0.04	0.11

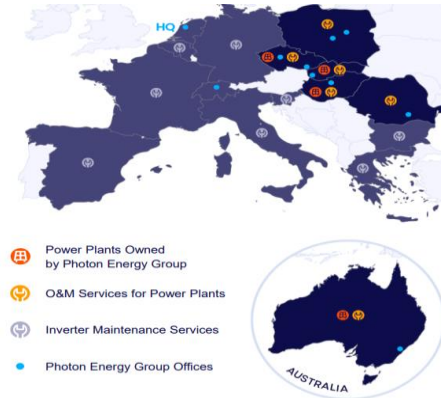
Source: Company data; AlsterResearch

Investment case in six charts

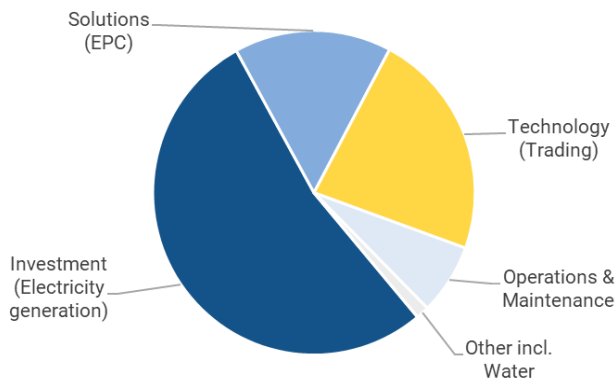
Business Model



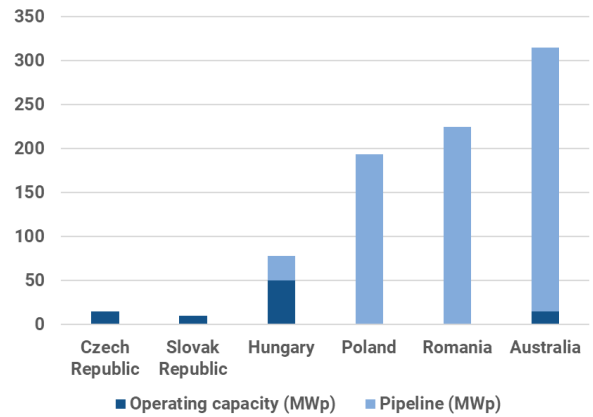
Geographical Presence



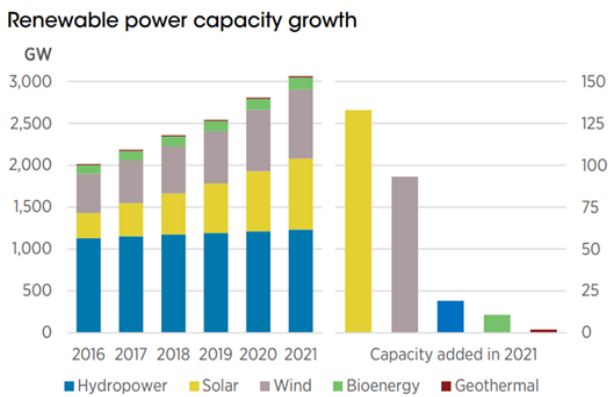
External Revenue Shares (2021)



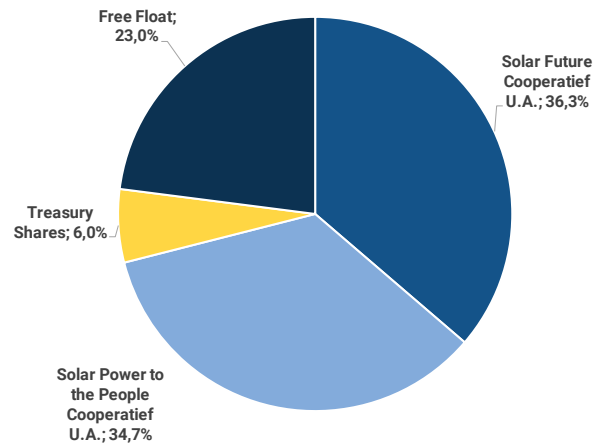
Capacity and pipeline



Fastest growing renewable energy



Major shareholders



Source: Company data; AlsterResearch; IRENA

SWOT analysis

Strengths

- early mover in the PV market with expertise in the whole system life cycle
- unique focus on and understanding of CEE market
- visible growth trajectory with a growing share of recurring revenue
- strong ESG credentials translating into lower cost of capital (-> green bond)
- transparent and detailed reporting and comprehensive capital market communications
- strong management team and high standards of corporate governance

Weaknesses

- still a relatively small player
- high leverage and capital needs to fulfill project pipeline
- strong seasonality in solar business (mitigated by Australian projects)
- analysis of underlying profitability complex due the nature of the business (FX and derivatives effects, strong contribution of OCI, capital gains on resale of projects and high share of internal revenues in business segments)

Opportunities

- fragmented competition in the 1 MWp – 20 MWp PV sweet spot
- solar power finally competitive without subsidies
- access to promising technology (RayGen) via equity participation
- catch up potential in CEE and a well filled project pipeline
- increasing electricity prices combined with a shift to selling electricity at market prices
- high prices for fossil energy and geopolitical tailwinds
- increasing interest in behind-the-meter projects
- PFAS water remediation potentially huge market

Threats

- water business line could distract focus
- volatile market prices and supply bottlenecks for solar panels
- large-scale project risk (cost overruns, change in market conditions during development etc.)
- regulatory risks, for example retroactive adjustments to feed-in tariffs or price caps

Valuation

DCF Model

The DCF model results in a **fair value of EUR 4.40 per share**. This includes the equity stakes in Raygen and Lerta only at book value, which could provide further upside.

Top-line growth: We expect Photon Energy NV to grow strongly, driven mostly by investments in electricity generation. Hence our growth estimates for 2022-29E is in the range of 15.8% p.a. The long-term growth rate is set at 2.0%.

Cash Flows. We expect Photon Energy to invest into growth over the whole planning period. In the normalized year, we set capex at the level of depreciation, leading to positive cash flows.

WACC. We set the historical equity beta to 0.89, leading to an unlevered beta of 0.70, roughly in line with the average 2017-2021 unlevered industry beta for Green & Renewable Energy in Western Europe. Combined with a risk-free rate of 2.0% and an equity risk premium of 6.0% this yields cost of equity of 10.1%. With pre-tax cost of borrowing at 6.5%, a tax rate of 30.0% and target debt/equity of 1.3 this results in a long-term WACC of 6.9%.

DCF (EUR m) (except per share data and beta)	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	Terminal value
NOPAT	8.9	16.3	17.9	21.1	32.3	40.9	47.0	50.9	
Depreciation & amortization	11.8	15.0	22.3	32.9	42.3	48.5	54.3	57.3	
Change in working capital	-6.2	-5.1	-2.4	-5.2	-6.3	-4.9	-4.2	-3.1	
Chg. in long-term provisions	6.0	5.1	-4.7	0.5	4.4	3.5	3.0	2.2	
Capex	-15.9	-59.3	-145.8	-206.6	-184.1	-119.4	-111.5	-57.1	
Cash flow	4.7	-27.9	-112.7	-157.3	-111.2	-31.4	-11.5	50.2	1,038.3
Present value	4.7	-26.1	-98.1	-127.5	-84.0	-22.1	-7.6	30.7	648.5
WACC	6.8%	6.9%	7.1%	7.2%	7.2%	7.3%	7.3%	7.3%	6.9%

DCF per share derived from	
Total present value	318.5
Mid-year adj. total present value	329.6
Net debt / cash at start of year	89.1
Financial assets	14.1
Provisions and off b/s debt	0.0
Equity value	254.6
No. of shares outstanding	57.9
Discounted cash flow / share upside/(downside)	4.40 / 61.3%

DCF avg. growth and earnings assumptions	
Planning horizon avg. revenue growth (2022E - 2029E)	15.8%
Terminal value growth (2029E - infinity)	2.0%
Terminal year ROCE	6.3%
Terminal year WACC	6.9%

Terminal WACC derived from	
Cost of borrowing (before taxes)	6.5%
Long-term tax rate	30.0%
Equity beta	0.89
Unlevered beta (industry or company)	0.70
Target debt / equity	1.3
Relevered beta	1.35
Risk-free rate	2.0%
Equity risk premium	6.0%
Cost of equity	10.1%

Share price	2.72
--------------------	-------------

Sensitivity analysis DCF								
Change in WACC (%-points)		Long term growth					Share of present value	
		1.0%	1.5%	2.0%	2.5%	3.0%		
2.0%		-0.6	-0.2	0.3	1.0	1.7	2022E - 2025E	-77.6%
1.0%		0.6	1.2	2.0	2.9	3.9	2026E - 2029E	-26.0%
0.0%		2.3	3.3	4.4	5.8	7.5	terminal value	203.6%
-1.0%		4.9	6.3	8.1	10.5	13.6		
-2.0%		8.8	11.3	14.6	19.3	26.3		

Source: AlsterResearch

FCF Yield Model

Due to the fact that companies rarely bear sufficient resemblance to peers in terms of geographical exposure, size or competitive strength and in order to adjust for the pitfalls of weak long-term visibility, an Adjusted Free Cash Flow analysis (Adjusted FCF) has been conducted.

The adjusted Free Cash Flow Yield results in a fair value between EUR 3.61 per share based on 2022E and EUR 8.72 per share on 2026E estimates. Again, the equity stakes in Raygen and Lerta are included only at book value, which could provide further upside.

The main driver of this model is the level of return available to a controlling investor, influenced by the cost of that investors' capital (opportunity costs) and the purchase price – in this case the enterprise value of the company. Here, the adjusted FCF yield is used as a proxy for the required return and is defined as EBITDA less minority interest, taxes and investments required to maintain existing assets (maintenance capex).

FCF yield in EURm	2022E	2023E	2024E	2025E	2026E
EBITDA	24.6	38.3	47.8	63.0	88.5
- Maintenance capex	9.2	11.8	17.7	26.3	33.8
- Minorities	0.0	0.0	0.0	0.0	0.0
- tax expenses	0.7	3.0	0.6	-1.4	0.7
= Adjusted FCF	14.7	23.5	29.5	38.1	54.0
Actual Market Cap	157.8	157.8	157.8	157.8	157.8
+ Net debt (cash)	99.1	136.4	265.5	447.1	589.1
+ Pension provisions	0.0	0.0	0.0	0.0	0.0
+ Off B/S financing	0.0	0.0	0.0	0.0	0.0
- Financial assets	14.1	14.1	14.1	14.1	14.1
- Acc. dividend payments	0.0	0.0	0.0	0.0	0.0
<i>EV Reconciliations</i>	85.0	122.2	251.3	433.0	575.0
= Actual EV'	242.7	280.0	409.1	590.7	732.7
Adjusted FCF yield	6.1%	8.4%	7.2%	6.5%	7.4%
base hurdle rate	6.0%	6.0%	6.0%	6.0%	6.0%
ESG adjustment	1.0%	1.0%	1.0%	1.0%	1.0%
adjusted hurdle rate	5.0%	5.0%	5.0%	5.0%	5.0%
Fair EV	293.9	469.8	589.2	763.0	1,080.1
- <i>EV Reconciliations</i>	85.0	122.2	251.3	433.0	575.0
Fair Market Cap	208.9	347.6	337.9	330.0	505.1
No. of shares (million)	57.9	57.9	57.9	57.9	57.9
Fair value per share in EUR	3.61	6.00	5.83	5.70	8.72
Premium (-) / discount (+)	32.4%	120.2%	114.1%	109.1%	220.1%

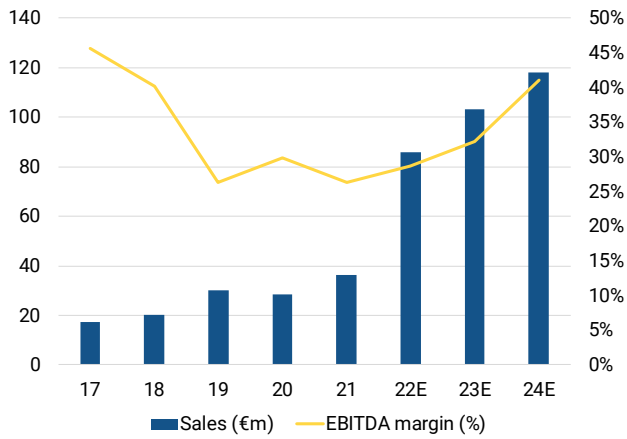
Sensitivity analysis FV						
	3.0%	7.0	11.4	12.6	14.5	21.2
Adjusted hurdle rate	4.0%	4.9	8.0	8.4	9.0	13.4
	5.0%	3.6	6.0	5.8	5.7	8.7
	6.0%	2.8	4.6	4.1	3.5	5.6
	7.0%	2.2	3.7	2.9	1.9	3.4

Source: Company data; AlsterResearch

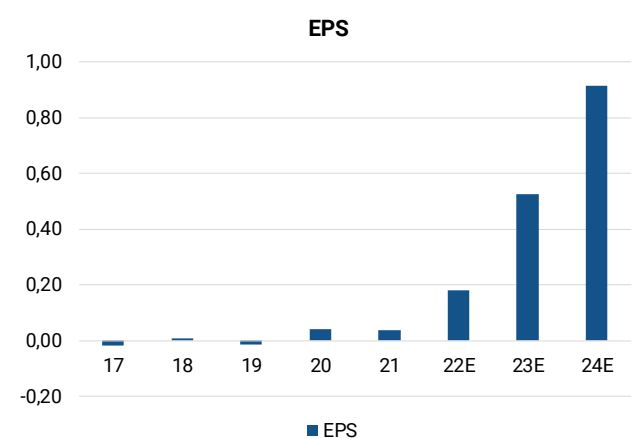
Simply put, the model assumes that investors require companies to generate a minimum return on the investor's purchase price. The required after-tax return equals the model's hurdle rate of 6.0%. Anything less suggests the stock is expensive; anything more suggests the stock is cheap. **ESG adjustments might be applicable, based on the overall Leeway ESG Score. A high score indicates high awareness for environmental, social or governance issues and thus might lower the overall risk an investment in the company might carry. A low score on the contrary might increase the risk of an investment and might therefore trigger a higher required hurdle rate.**

Financials in six charts

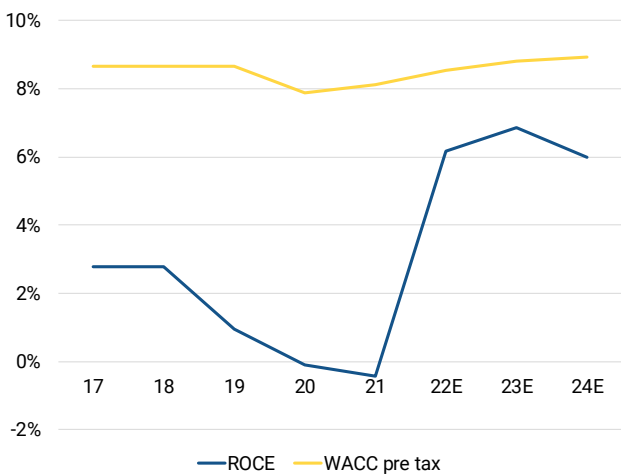
Sales vs. EBITDA margin development



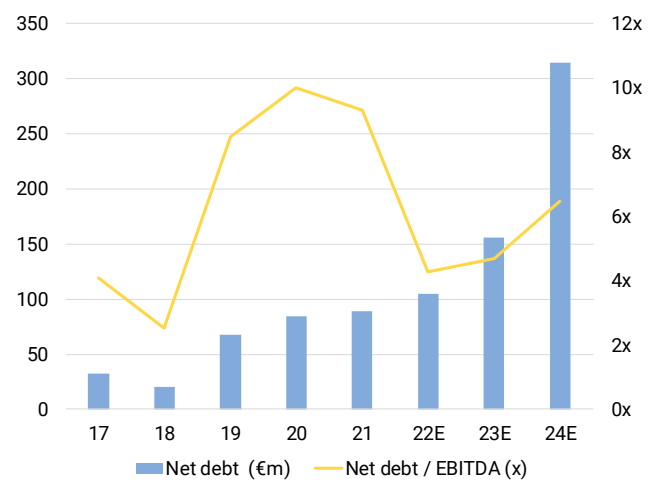
EPS, DPS in EUR & yoy EPS growth



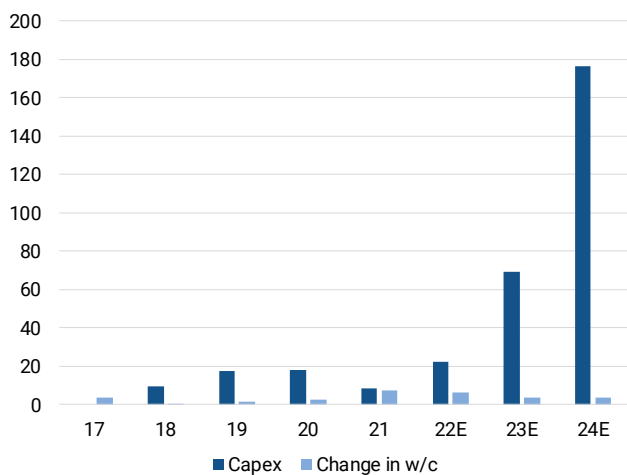
ROCE vs. WACC (pre tax)



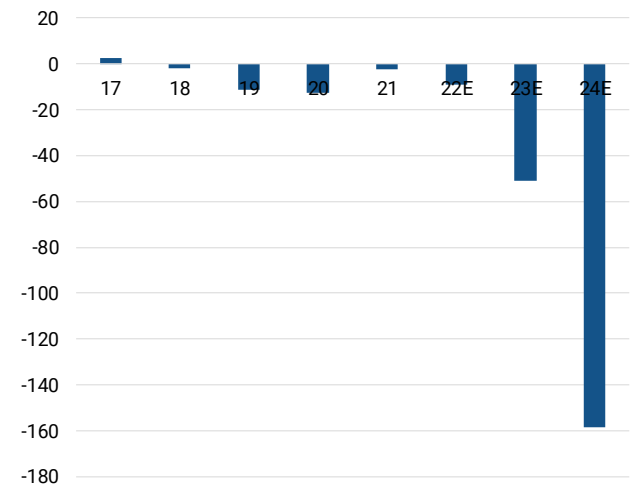
Net debt and net debt/EBITDA



Capex & chgn in w/c requirements in EURm



Free Cash Flow in EURm



Source: Company data; AlsterResearch

Financials

Profit and loss (EUR m)	2019	2020	2021	2022E	2023E	2024E
Net sales	30.2	28.3	36.4	85.8	111.4	117.4
Sales growth	48.9%	-6.3%	28.7%	136.0%	29.8%	5.4%
Change in finished goods and work-in-process	0.0	0.0	0.0	0.0	0.0	0.0
Total sales	30.2	28.3	36.4	85.8	111.4	117.4
Material expenses	9.8	4.6	12.7	37.3	37.0	29.2
Gross profit	20.4	23.6	23.6	48.5	74.3	88.1
Other operating income	0.2	0.4	0.6	0.9	1.1	1.2
Personnel expenses	4.6	5.8	6.7	9.3	19.3	23.9
Other operating expenses	8.0	9.7	7.7	15.4	17.8	17.6
EBITDA	7.9	8.4	9.6	24.6	38.3	47.8
Depreciation	6.8	8.3	10.7	11.5	14.8	22.2
EBITA	1.1	0.1	-0.9	13.1	23.5	25.7
Amortisation of goodwill and intangible assets	0.1	0.3	-0.2	0.3	0.2	0.1
EBIT	1.1	-0.1	-0.7	12.8	23.3	25.5
Financial result	-4.4	-6.4	-5.2	-10.5	-13.3	-23.4
Recurring pretax income from continuing operations	-3.3	-6.5	-5.9	2.3	10.0	2.1
Extraordinary income/loss	0.0	0.0	0.0	0.0	0.0	0.0
Earnings before taxes	-3.3	-6.5	-5.9	2.3	10.0	2.1
Taxes	1.7	2.2	0.5	0.7	3.0	0.6
Net income from continuing operations	-5.1	-8.7	-6.4	1.6	7.0	1.5
Result from discontinued operations (net of tax)	4.3	10.8	8.5	6.0	22.0	38.3
Net income	-0.7	2.1	2.1	7.6	29.0	39.7
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Net profit (reported)	-0.7	2.1	2.1	7.6	29.0	39.7
Average number of shares	51.17	51.20	54.36	57.93	57.93	57.93
EPS reported	-0.01	0.04	0.04	0.13	0.50	0.69

Profit and loss (common size)	2019	2020	2021	2022E	2023E	2024E
Net sales	100%	100%	100%	100%	100%	100%
Change in finished goods and work-in-process	0%	0%	0%	0%	0%	0%
Total sales	100%	100%	100%	100%	100%	100%
Material expenses	32%	16%	35%	43%	33%	25%
Gross profit	68%	84%	65%	57%	67%	75%
Other operating income	1%	1%	2%	1%	1%	1%
Personnel expenses	15%	21%	19%	11%	17%	20%
Other operating expenses	27%	34%	21%	18%	16%	15%
EBITDA	26%	30%	26%	29%	34%	41%
Depreciation	23%	29%	29%	13%	13%	19%
EBITA	4%	0%	-3%	15%	21%	22%
Amortisation of goodwill and intangible assets	0%	1%	-1%	0%	0%	0%
EBIT	3%	-1%	-2%	15%	21%	22%
Financial result	-15%	-23%	-14%	-12%	-12%	-20%
Recurring pretax income from continuing operations	-11%	-23%	-16%	3%	9%	2%
Extraordinary income/loss	0%	0%	0%	0%	0%	0%
Earnings before taxes	-11%	-23%	-16%	3%	9%	2%
Taxes	6%	8%	1%	1%	3%	1%
Net income from continuing operations	-17%	-31%	-18%	2%	6%	1%
Result from discontinued operations (net of tax)	14%	38%	23%	7%	20%	33%
Net income	-2%	7%	6%	9%	26%	34%
Minority interest	0%	0%	0%	0%	0%	0%
Net profit (reported)	-2%	7%	6%	9%	26%	34%

Source: Company data; AlsterResearch

Balance sheet (EUR m)	2019	2020	2021	2022E	2023E	2024E
Intangible assets (excl. Goodwill)	0.9	1.3	0.8	0.5	0.4	0.2
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Property, plant and equipment	102.0	126.3	127.5	137.9	204.4	366.3
Financial assets	5.7	7.5	14.1	14.1	14.1	14.1
FIXED ASSETS	108.7	135.1	142.5	152.6	218.9	380.7
Inventories	1.2	1.0	2.2	8.2	8.1	6.4
Accounts receivable	5.6	6.1	9.1	21.2	27.5	28.9
Other current assets	6.5	2.2	2.9	2.9	2.9	2.9
Liquid assets	15.1	14.3	39.4	40.9	53.6	79.5
Deferred taxes	0.0	0.0	0.3	0.3	0.3	0.3
Deferred charges and prepaid expenses	0.0	0.3	0.3	0.7	0.9	0.9
CURRENT ASSETS	28.4	23.9	54.2	74.2	93.3	119.1
TOTAL ASSETS	137.0	158.9	196.6	226.7	312.2	499.8
SHAREHOLDERS EQUITY	37.9	40.2	51.7	51.9	81.0	120.7
MINORITY INTEREST	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Long-term debt	78.7	92.8	100.0	130.0	180.0	335.0
Provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	1.1	10.8	11.1	17.2	22.3	17.6
Non-current liabilities	79.8	103.6	111.1	147.2	202.3	352.6
short-term liabilities to banks	3.7	6.0	28.5	10.0	10.0	10.0
Accounts payable	3.5	3.7	2.3	9.2	9.1	7.2
Advance payments received on orders	0.0	0.0	0.0	0.0	0.0	0.0
Other liabilities (incl. from lease and rental contracts)	4.7	4.9	3.2	8.6	10.0	9.4
Deferred taxes	7.4	0.6	0.0	0.0	0.0	0.0
Deferred income	0.1	0.0	0.0	0.0	0.0	0.0
Current liabilities	19.4	15.2	34.0	27.8	29.2	26.6
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	137.0	158.9	196.6	226.7	312.2	499.8

Balance sheet (common size)	2019	2020	2021	2022E	2023E	2024E
Intangible assets (excl. Goodwill)	1%	1%	0%	0%	0%	0%
Goodwill	0%	0%	0%	0%	0%	0%
Property, plant and equipment	74%	80%	65%	61%	65%	73%
Financial assets	4%	5%	7%	6%	5%	3%
FIXED ASSETS	79%	85%	72%	67%	70%	76%
Inventories	1%	1%	1%	4%	3%	1%
Accounts receivable	4%	4%	5%	9%	9%	6%
Other current assets	5%	1%	1%	1%	1%	1%
Liquid assets	11%	9%	20%	18%	17%	16%
Deferred taxes	0%	0%	0%	0%	0%	0%
Deferred charges and prepaid expenses	0%	0%	0%	0%	0%	0%
CURRENT ASSETS	21%	15%	28%	33%	30%	24%
TOTAL ASSETS	100%	100%	100%	100%	100%	100%
SHAREHOLDERS EQUITY	28%	25%	26%	23%	26%	24%
MINORITY INTEREST	-0%	-0%	-0%	-0%	-0%	-0%
Long-term debt	57%	58%	51%	57%	58%	67%
Provisions for pensions and similar obligations	0%	0%	0%	0%	0%	0%
Other provisions	1%	7%	6%	8%	7%	4%
Non-current liabilities	58%	65%	57%	65%	65%	71%
short-term liabilities to banks	3%	4%	14%	4%	3%	2%
Accounts payable	3%	2%	1%	4%	3%	1%
Advance payments received on orders	0%	0%	0%	0%	0%	0%
Other liabilities (incl. from lease and rental contracts)	3%	3%	2%	4%	3%	2%
Deferred taxes	5%	0%	0%	0%	0%	0%
Deferred income	0%	0%	0%	0%	0%	0%
Current liabilities	14%	10%	17%	12%	9%	5%
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	100%	100%	100%	100%	100%	100%

Source: Company data; AlsterResearch

Cash flow statement (EUR m)	2019	2020	2021	2022E	2023E	2024E
Net profit/loss	1.0	-6.5	-5.9	1.6	7.0	1.5
Depreciation of fixed assets (incl. leases)	6.8	8.3	10.7	11.5	14.8	22.2
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.0	0.0	0.0	0.3	0.2	0.1
Others	-0.1	6.4	9.0	6.0	5.1	-4.7
Cash flow from operations before changes in w/c	7.7	8.2	13.7	19.5	27.1	19.1
Increase/decrease in inventory	-0.1	0.1	-1.2	-6.0	0.1	1.7
Increase/decrease in accounts receivable	-3.5	-1.1	-1.5	-12.1	-6.3	-1.5
Increase/decrease in accounts payable	4.2	-1.6	-2.4	6.9	-0.1	-1.9
Increase/decrease in other w/c positions	-2.2	-0.1	-2.5	4.9	1.2	-0.7
Increase/decrease in working capital	-1.5	-2.6	-7.5	-6.2	-5.1	-2.4
Cash flow from operating activities	6.2	5.6	6.2	13.3	22.0	16.7
CAPEX	-17.5	-18.3	-8.6	-15.9	-59.3	-145.8
Payments for acquisitions	-2.1	-0.0	-4.3	-7.4	0.0	0.0
Financial investments	5.3	-1.9	-2.8	0.0	0.0	0.0
Income from asset disposals	0.0	0.0	1.6	0.0	0.0	0.0
Cash flow from investing activities	-14.4	-20.2	-14.2	-23.3	-59.3	-145.8
Cash flow before financing	-8.2	-14.6	-8.0	-10.0	-37.3	-129.1
Increase/decrease in debt position	15.4	18.6	28.9	11.5	50.0	155.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.2	7.8	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Others	-3.7	-6.7	-6.1	0.0	0.0	0.0
Effects of exchange rate changes on cash	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow from financing activities	11.7	12.1	30.6	11.5	50.0	155.0
Increase/decrease in liquid assets	3.5	-2.5	22.6	1.6	12.7	25.9
Liquid assets at end of period	12.4	9.9	32.5	34.1	46.8	72.7

Source: Company data; AlsterResearch

Regional sales split (EURm)	2019	2020	2021	2022E	2023E	2024E
Domestic	0.0	0.0	0.0	0.0	0.0	0.0
Europe (ex domestic)	24.9	22.8	29.3	79.2	107.7	108.9
The Americas	0.0	0.0	0.0	0.0	0.0	0.0
Asia	0.0	0.0	0.0	0.0	0.0	0.0
Rest of World	5.2	5.5	7.1	6.6	3.7	8.5
Total sales	30.2	28.3	36.4	85.8	111.4	117.4

Regional sales split (common size)	2019	2020	2021	2022E	2023E	2024E
Domestic	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Europe (ex domestic)	82.6%	80.6%	80.6%	92.3%	96.7%	92.8%
The Americas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Asia	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rest of World	17.4%	19.4%	19.4%	7.7%	3.3%	7.2%
Total sales	100%	100%	100%	100%	100%	100%

Source: Company data; AlsterResearch

Ratios	2019	2020	2021	2022E	2023E	2024E
Per share data						
Earnings per share reported	-0.01	0.04	0.04	0.13	0.50	0.69
Cash flow per share	0.01	-0.02	-0.04	0.07	0.18	-0.02
Book value per share	0.74	0.79	0.95	0.90	1.40	2.08
Dividend per share	0.00	0.00	0.00	0.00	0.00	0.00
Valuation						
P/E	-192.0x	67.0x	70.7x	20.7x	5.4x	4.0x
P/CF	191.5x	-128.4x	-64.0x	39.0x	15.5x	-156.6x
P/BV	3.7x	3.5x	2.9x	3.0x	1.9x	1.3x
Dividend yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FCF yield (%)	0.5%	-0.8%	-1.6%	2.6%	6.5%	-0.6%
EV/Sales	7.5x	8.6x	6.8x	3.0x	2.6x	3.6x
EV/EBITDA	28.3x	28.7x	25.8x	10.4x	7.7x	8.9x
EV/EBIT	213.4x	-1,706.8x	-347.3x	20.1x	12.6x	16.6x
Income statement (EURm)						
Sales	30.2	28.3	36.4	85.8	111.4	117.4
yoy chg in %	48.9%	-6.3%	28.7%	136.0%	29.8%	5.4%
Gross profit	20.4	23.6	23.6	48.5	74.3	88.1
Gross margin in %	67.6%	83.6%	65.0%	56.6%	66.8%	75.1%
EBITDA	7.9	8.4	9.6	24.6	38.3	47.8
EBITDA margin in %	26.3%	29.9%	26.4%	28.7%	34.4%	40.7%
EBIT	1.1	-0.1	-0.7	12.8	23.3	25.5
EBIT margin in %	3.5%	-0.5%	-2.0%	14.9%	21.0%	21.8%
Net profit	-0.7	2.1	2.1	7.6	29.0	39.7
Cash flow statement (EURm)						
CF from operations	6.2	5.6	6.2	13.3	22.0	16.7
Capex	-17.5	-18.3	-8.6	-15.9	-59.3	-145.8
Maintenance Capex	5.4	6.6	8.5	9.2	11.8	17.7
Free cash flow	-11.4	-12.7	-2.4	-2.6	-37.3	-129.1
Balance sheet (EURm)						
Intangible assets	0.9	1.3	0.8	0.5	0.4	0.2
Tangible assets	102.0	126.3	127.5	137.9	204.4	366.3
Shareholders' equity	37.9	40.2	51.7	51.9	81.0	120.7
Pension provisions	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities and provisions	83.5	109.6	139.6	157.2	212.3	362.6
Net financial debt	67.3	84.5	89.1	99.1	136.4	265.5
w/c requirements	3.3	3.5	9.0	20.1	26.4	28.1
Ratios						
ROE	-1.9%	5.2%	4.1%	14.7%	35.8%	32.9%
ROCE	0.9%	-0.1%	-0.4%	6.1%	8.0%	5.3%
Net gearing	177.4%	210.3%	172.4%	190.8%	168.5%	219.9%
Net debt / EBITDA	8.5x	10.0x	9.3x	4.0x	3.6x	5.6x

Source: Company data; AlsterResearch

Conflicts of interest

Disclosures regarding research publications of SRH AlsterResearch AG pursuant to section 85 of the German Securities Trading Act (WpHG) and distributed in the UK under an EEA branch passport, subject to the FCA requirements on research recommendation disclosures. It is essential that any research recommendation is fairly presented and discloses interests of indicates relevant conflicts of interest. Pursuant to section 85 of the German Securities Trading Act (WpHG) a research report has to point out possible conflicts of interest in connection with the analyzed company. Further to this, under the FCA's rules on research recommendations, any conflicts of interest in connection with the recommendation must be disclosed. A conflict of interest is presumed to exist in particular if SRH AlsterResearch AG

- (1) or its affiliate(s) (either in its own right or as part of a consortium) within the past twelve months, acquired the financial instruments of the analyzed company,
- (2) has entered into an agreement on the production of the research report with the analyzed company,
- (3) or its affiliate(s) has, within the past twelve months, been party to an agreement on the provision of investment banking services with the analyzed company or have received services or a promise of services under the term of such an agreement,
- (4) or its affiliate(s) holds a) 5% or more of the share capital of the analyzed company, or b) the analyzed company holds 5% or more of the share capital of SRH AlsterResearch AG or its affiliate(s),
- (5) or its affiliate(s) holds a net long (a) or a net short (b) position of 0.5% of the outstanding share capital of the analyzed company or derivatives thereof,
- (6) or its affiliate(s) is a market maker or liquidity provider in the financial instruments of the issuer,
- (7) or the analyst has any other significant financial interests relating to the analyzed company such as, for example, exercising mandates in the interest of the analyzed company or a significant conflict of interest with respect to the issuer,
- (8) The research report has been made available to the company prior to its publication. Thereafter, only factual changes have been made to the report.

Conflicts of interest that existed at the time when this research report was published:

Company	Disclosure
Photon Energy NV	2, 8

Important disclosures

1. General Information/Liabilities This research report has been produced for the information purposes of institutional investors only, and is not in any way a personal recommendation, offer or solicitation to buy or sell the financial instruments mentioned herein. The document is confidential and is made available by SRH AlsterResearch AG, exclusively to selected recipients [in DE, GB, FR, CH, US, UK, Scandinavia, and Benelux or, in individual cases, also in other countries]. A distribution to private investors in the sense of the German Securities Trading Act (WpHG) is excluded. It is not allowed to pass the research report on to persons other than the intended recipient without the permission of SRH AlsterResearch AG. Reproduction of this document, in whole or in part, is not permitted without prior permission SRH AlsterResearch AG. All rights reserved. Under no circumstances shall SRH AlsterResearch AG, any of its employees involved in the preparation, have any liability for possible errors or incompleteness of the information included in this research report – neither in relation to indirect or direct nor consequential damages. Liability for damages arising either directly or as a consequence of the use of information, opinions and estimates is also excluded. Past performance of a financial instrument is not necessarily indicative of future performance.

2. Responsibilities This research report was prepared by the research analyst named on the front page (the "Producer"). The Producer is solely responsible for the views and estimates expressed in this report. The report has been prepared independently. The content of the research report was not influenced by the issuer of the analyzed financial instrument at any time. It may be possible that parts of the research report were handed out to the issuer for information purposes prior to the publication without any major amendments being made thereafter.

3. Organizational Requirements SRH AlsterResearch AG took internal organizational and regulative precautions to avoid or accordingly disclose possible conflicts of interest in connection with the preparation and distribution of the research report. All members of AlsterResearch AG involved in the preparation of the research report are subject to internal compliance regulations. No part of the Producer's compensation is directly or indirectly related to the preparation of this financial analysis. In case a research analyst or a closely related person is confronted with a conflict of interest, the research analyst is restricted from covering this company.

4. Information Concerning the Methods of Valuation/Update The determination of the fair value per share, i.e. the price target, and the resultant rating is done on the basis of the adjusted free cash flow (adj. FCF) method and on the basis of the discounted cash flow – DCF model. Furthermore, a peer group comparison is made. The adj. FCF method is based on the assumption that investors purchase assets only at a price (enterprise value) at which the operating cash flow return after taxes on this investment exceeds their opportunity costs in the form of a hurdle rate. The operating cash flow is calculated as EBITDA less maintenance capex and taxes. Within the framework of the DCF approach, the future free cash flows are calculated initially on the basis of a fictitious capital structure of 100% equity, i.e. interest and repayments on debt capital are not factored in initially. The adjustment towards the actual capital structure is done by discounting the calculated free cash flows with the weighted average cost of capital (WACC), which takes into account both the cost of equity capital and the cost of debt. After discounting, the calculated total enterprise value is reduced by the interest-bearing debt capital in order to arrive at the equity value. Detailed information on the valuation principles and methods used and the underlying assumptions can be found at <https://www.alsterresearch.com>.

SRH AlsterResearch AG uses the following three-step rating system for the analyzed companies:

- **Buy:** Sustainable upside potential of more than 10% within 12 months
- **Sell:** Sustainable downside potential of more than 10% within 12 months.
- **Hold:** Upside/downside potential is limited. No immediate catalyst visible.

NB: The ratings of SRH AlsterResearch AG are not based on a performance that is expected to be "relative" to the market.

The decision on the choice of the financial instruments analyzed in this document was solely made by SRH AlsterResearch AG. The opinions and estimates in this research report are subject to change without notice. It is within the discretion of SRH AlsterResearch AG whether and when it publishes an update to this research report, but in general updates are created on a regular basis, after 6 months at the latest. A sensitivity analysis is included and published in company's initial studies.

5. Date and time of first publication of this financial analysis
23-Dec-22 11:02:44

6. Risk information

- Stock exchange investments and investments in companies (shares) are always speculative and involve the risk of total loss.
- This is particularly true in respect of investments in companies which are not established and/or small and have no established business or corporate assets.
- Share prices may fluctuate significantly. This is particularly true for shares with low liquidity (market breadth). Even small orders can have a significant impact on the share price.
- In the case of shares in narrow markets, it may also happen that there is no or very little actual trading there and that published prices are not based on actual trading but have only been provided by a stockbroker.
- In such markets a shareholder cannot expect to find a buyer for his shares at all and/or at reasonable prices. In such narrow markets there is a very high possibility of manipulating prices and in such markets there are often considerable price fluctuations.
- An investment in shares with low liquidity and low market capitalization is therefore highly speculative and represents a very high risk.
- There is no regulated market for unlisted shares and securities and a sale is not possible or only possible on an individual basis.

7. Major Sources of Information Part of the information required for this research report was made available by the issuer of the financial instrument. Furthermore, this report is based on publicly available sources (such as, for example, Bloomberg, Reuters, VWD-Trader and the relevant daily press) believed to be reliable. SRH AlsterResearch AG has checked the information for plausibility but not for accuracy or completeness.

8. Competent Supervisory Authority SRH AlsterResearch AG are under supervision of the BaFin – German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), Graurheindorfer Straße 108, 53117 Bonn and Marie-Curie-Straße 24 – 28, 60439 Frankfurt a.M. This document is distributed in the UK under a MiFID EEA branch passport and in compliance with the applicable FCA requirements.

9. Specific Comments for Recipients Outside of Germany This research report is subject to the law of the Federal Republic of Germany. The distribution of this information to other states in particular to the USA, Canada, Australia and Japan may be restricted or prohibited by the laws applicable within this state.

10. Miscellaneous According to Article 4(1) No. i of the delegated regulation 2016/958 supplementing regulation 596/2014 of the European Parliament, further information regarding investment recommendations of the last 12 months are published free of charge under <https://www.alsterresearch.com>.

Contacts

SRH AlsterResearch AG
Himmelstr. 9
22299 Hamburg

Tel: +49 40 309 293-52
E-Mail: info@alsterresearch.com

Sales

MARKUS KÖNIG-WEISS
Head of Sales
Tel: +49 40 309 293-52
E-Mail: mkw@alsterresearch.com

Team Assistant

HANNAH GABERT
Team Assistant
Tel: +49 40 309 293-53
E-Mail: h.gabert@alsterresearch.com

mwb fairtrade Wertpapierhandelsbank AG
Rottenbacher Straße 28
82166 Gräfelfing

Tel: +49 89 85852-0
Fax: +49 89 85852-505
E-Mail: info@mwbfairtrade.com

Our research can be found under

Research

HARALD HOF
Senior Analyst
Tel: +49 40 309 293-52
E-Mail: h.hof@alsterresearch.com

LEVENT YILMAZ
Senior Analyst
Tel: +49 40 309 293-52
E-Mail: l.yilmaz@alsterresearch.com

KATHARINA SCHLÖTER
Analyst
Tel: +49 40 309 293-52
E-Mail: k.schloeter@alsterresearch.com

THOMAS WISSLER
Senior Analyst
Tel: +49 40 309 293-58
E-Mail: t.wissler@alsterresearch.com

DR. OLIVER WOJAHN, CFA
Senior Analyst
Tel: +49 40 309 293-55
E-Mail: o.wojahn@alsterresearch.com

ALEXANDER ZIENKOWICZ
Senior Analyst
Tel: +49 40 309 293-56
E-Mail: a.zienkowicz@alsterresearch.com

Equity Capital Markets / Trading

KAI JORDAN
Member of the Board
Tel: +49 40 36 0995-22
E-Mail: kjordan@mwbfairtrade.com

ALEXANDER DEUSS
Head of Institutional Sales
Tel: +49 40 36 0995- 22
E-Mail: adeuss@mwbfairtrade.com

SASCHA GUENON
Head of Designated Sponsoring
Tel: +49 40 360 995 - 23
E-Mail: sguenon@mwbfairtrade.com



RESEARCH HUB	www.research-hub.de
BLOOMBERG	www.bloomberg.com
FACTSET	www.factset.com
THOMSON REUTERS / REFINITIV	www.refinitiv.com
CAPITALIQ	www.capitaliq.com