

Photon Energy NV

Netherlands | Utilities | MCap EUR 168.4m

17 July 2023

UPDATE



June monthly report: difficult weather persists; est./PT down

What's it all about?

Photon Energy's production in June was affected by weather conditions and was therefore lower than expected, a situation that plagued the entire first half of the year. Electricity prices are still unfavorable yoy, but have at least started to recover in Hungary, Photon Energy's main merchant market. The company's guidance for FY23 looks increasingly ambitious due to these challenging market conditions. After adjusting our estimates, we arrive at a new price target of EUR 4.25 (old: EUR 4.40), which still supports our BUY recommendation.

BUY (BUY)

Target price	EUR 4.25 (4.40)
Current price	EUR 2.75
Up/downside	54.5%

 **ResearchHub** 



MAIN AUTHOR

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

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

alsterresearch.com

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

Photon Energy NV

Netherlands | Utilities | MCap EUR 168.4m | EV EUR 295.7m

BUY (BUY)

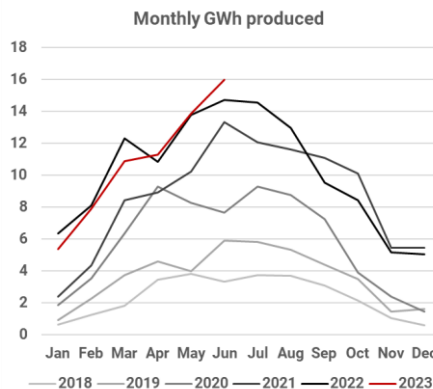
Target price EUR 4.25 (4.40)
Current price EUR 2.75
Up/downside 54.5%

MAIN AUTHOR

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

June monthly report: difficult weather persists; est./PT down

June production still impacted by weather. Photon Energy has released its monthly report for June. Production at Photon Energy's own photovoltaic power plants increased by 9% yoy, while capacity increased by 23% yoy. Production again fell short of the company's own estimates due to low specific power output caused by weather conditions, a phenomenon that characterized the entire first half of the year. Despite the capacity increase since March, H1 production was down 1% yoy.



Source: Company data, AlsterResearch

High/low 52 weeks 3.58 / 2.22
Price/Book Ratio 2.8x

Ticker / Symbols

ISIN NL0010391108
WKN A1T9KW
Bloomberg P7V:GR

Changes in estimates

		Sales	EBIT	EPS
2023E	old	144.7	13.6	0.36
	Δ	-2.0%	-17.9%	-10.4%
2024E	old	172.1	20.4	0.32
	Δ	-0.7%	-4.6%	-3.4%
2025E	old	200.4	31.5	0.56
	Δ	-0.7%	-3.8%	-2.4%

Prices in Hungary recovering.

After peaking in mid-2022, electricity prices continued to decline yoy in June. However, in Hungary, Photon Energy's most important merchant market, prices recovered after hitting a trough in May. Photon Energy has the option to revert to the feed-in tariff in Hungary of c. EUR 93 – 95 (depending on FX) starting next year, putting a floor under the price.

Price Trends	price	price	price	share
June 2023	(EUR)	yoy	mom	revenues
Czech	627	-19%	0%	51%
Slovak	263	0%	0%	10%
Hungary	84	-60%	18%	26%
Romania	91	na	-10%	9%
Australia	61	-74%	-30%	3%

Guidance starts looking ambitious, est./PT down. With the release of its Q1 results in May, Photon Energy confirmed its FY23 guidance of EUR 150m in revenues and EUR 29m in EBITDA. Given the continued difficult production and pricing conditions in the most profitable "Investment" division we believe it is still possible, but increasingly challenging, to achieve these numbers. And while the new "customer-facing" businesses (VPP) are promising, they will take time and resources to roll out. We adjust our estimates and arrive at a new target price of EUR 4.25, still firmly supporting our BUY recommendation.

Photon Energy NV	2020	2021	2022	2023E	2024E	2025E
Sales	28.3	36.4	94.2	141.9	170.9	198.9
Growth yoy	-6.3%	28.7%	159.1%	50.5%	20.5%	16.4%
EBITDA	8.4	9.6	24.1	24.0	34.9	50.9
EBIT	-0.1	-0.7	14.5	11.2	19.5	30.3
Net profit*	2.1	2.1	4.3	19.7	18.7	33.6
Net debt (net cash)	84.5	89.1	127.3	150.2	205.7	317.0
Net debt/EBITDA	10.0x	9.3x	5.3x	6.2x	5.9x	6.2x
EPS reported*	0.04	0.04	0.07	0.32	0.31	0.55
DPS	0.00	0.00	0.00	0.00	0.00	0.00
Dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Gross profit margin	83.6%	65.0%	53.1%	46.5%	53.9%	58.5%
EBITDA margin	29.9%	26.4%	25.5%	16.9%	20.4%	25.6%
EBIT margin	-0.5%	-2.0%	15.4%	7.9%	11.4%	15.2%
ROCE	-0.1%	-0.4%	6.6%	3.7%	4.1%	4.5%
EV/EBITDA	30.0x	26.9x	12.3x	13.3x	10.7x	9.5x
EV/EBIT	-1,781.3x	-362.2x	20.3x	28.5x	19.2x	16.0x
PER	67.6x	71.3x	39.3x	8.5x	9.0x	5.0x
FCF yield	-0.8%	-1.5%	-2.0%	14.8%	-4.7%	-2.8%

Source: Company data, AlsterResearch; * including OCI

Key share data

Number of shares: (in m pcs) 61.24
Book value per share: (in EUR) 0.99
Ø trading volume: (12 months) 1,000

Major shareholders

Solar Future 35.5%
Solar Power to the People 32.8%
Treasury Shares 2.3%

Free Float 29.4%

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.

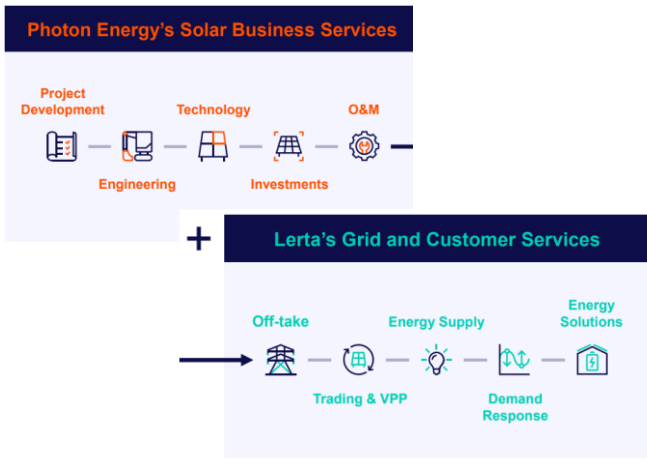
Quarterly performance table

P&L data	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
Sales	9.9	10.2	11.7	9.1	23.2	35.4	26.4	19.3
yoy growth in %	10.9%	13.8%	130.3%	99.9%	135.7%	247.2%	125.3%	111.0%
Gross profit	7.1	8.1	4.4	6.2	14.3	20.3	9.3	6.2
Gross margin in %	72.4%	79.0%	37.3%	67.5%	61.4%	57.4%	35.3%	32.4%
EBITDA	4.0	4.4	0.9	2.0	8.1	12.7	1.2	0.3
EBITDA margin in %	40.5%	43.5%	8.0%	22.2%	35.0%	35.9%	4.6%	1.7%
EBIT	1.0	0.4	-1.0	0.5	4.6	9.7	-0.4	-1.6
EBIT margin in %	9.8%	4.1%	-8.9%	5.8%	20.0%	27.5%	-1.3%	-8.1%
EBT	-0.6	-1.1	-1.2	-1.3	2.6	7.3	-2.4	-4.2
taxes paid	0.3	0.3	-0.2	-0.1	0.6	1.3	-1.4	0.0
tax rate in %	-53.7%	-30.9%	20.0%	10.5%	22.5%	18.1%	58.4%	0.0%
net profit	-0.8	-1.4	-1.0	-1.4	2.0	6.0	-3.8	-4.2
yoy growth in %	na%	na%	na%	na%	na%	na%	na%	na%
EPS	-0.02	-0.03	-0.02	-0.03	0.04	0.11	-0.07	-0.08

Source: Company data; AlsterResearch

Investment case in six charts

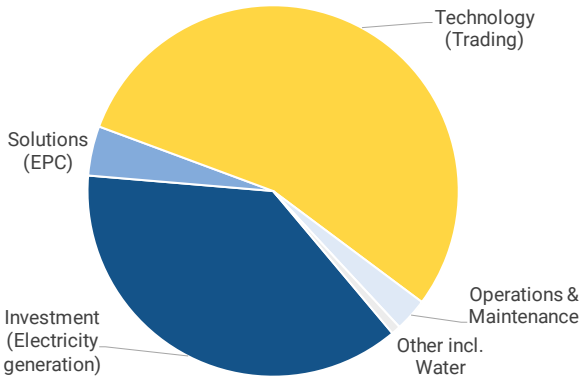
Business Model



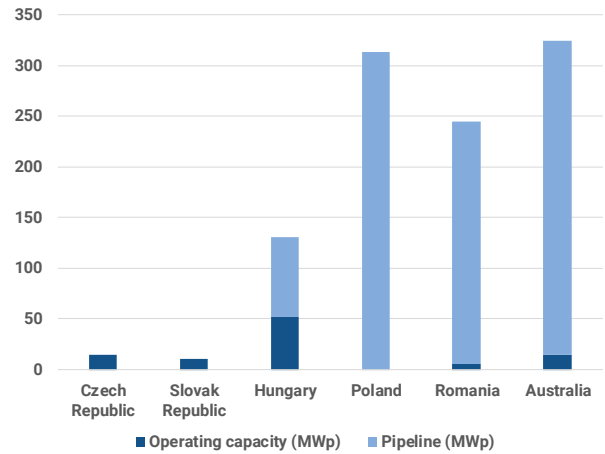
Geographical Presence



External Revenue Shares (2022)

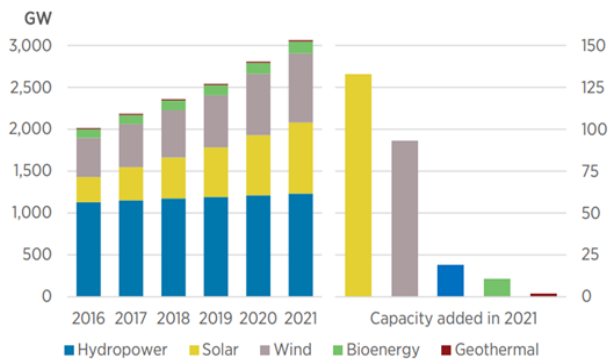


Capacity and pipeline

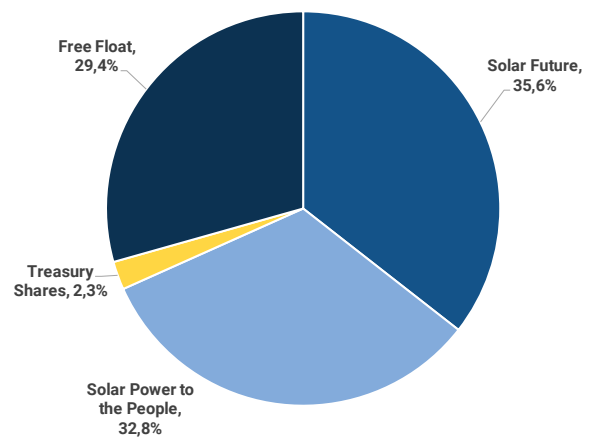


Fastest growing renewable energy

Renewable power capacity growth



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
- increasing share of renewables leads to greater demand for grid flexibility and VPP services
- 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 4.26 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 2023-30E is in the range of 12.8% 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 0.66, 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 8.4%. With pre-tax cost of borrowing at 6.5%, a tax rate of 30.0% and target debt/equity of 0.8 this results in a long-term WACC of 6.6%.

DCF (EUR m) (except per share data and beta)	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	Terminal value
NOPAT	7.8	13.6	21.2	30.9	39.3	45.1	50.3	53.3	
Depreciation & amortization	12.9	15.4	20.6	26.8	30.6	34.3	37.0	38.6	
Change in working capital	6.5	-6.4	-6.8	-6.1	-5.3	-4.5	-4.2	-4.3	
Chg. in long-term provisions	16.4	-2.7	0.2	4.4	3.8	3.3	3.0	2.5	
Capex	-57.2	-59.0	-122.2	-149.1	-91.4	-90.5	-61.6	-50.5	
Cash flow	-13.6	-39.1	-86.9	-93.1	-22.9	-12.3	24.5	39.6	877.6
Present value	-13.2	-35.5	-73.6	-73.5	-16.9	-8.5	15.8	23.8	544.7
WACC	6.7%	6.9%	7.0%	7.1%	7.1%	7.1%	7.1%	7.1%	6.6%

DCF per share derived from	
Total present value	363.0
Mid-year adj. total present value	375.4
Net debt / cash at start of year	127.3
Financial assets	12.8
Provisions and off b/s debt	0.0
Equity value	261.0
No. of shares outstanding	61.2
Discounted cash flow / share upside/(downside)	4.26 / 55.0%

DCF avg. growth and earnings assumptions	
Planning horizon avg. revenue growth (2023E - 2030E)	12.8%
Terminal value growth (2029E - infinity)	2.0%
Terminal year ROCE	7.3%
Terminal year WACC	6.6%

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)	0.66
Target debt / equity	0.8
Relevered beta	1.06
Risk-free rate	2.0%
Equity risk premium	6.0%
Cost of equity	8.4%

Share price	2.73
--------------------	-------------

Sensitivity analysis DCF									
		Long term growth					Share of present value		
		1.0%	1.5%	2.0%	2.5%	3.0%			
Change in WACC (%-points)	2.0%	-0.0	0.4	0.8	1.3	1.8	2023E - 2026E	-53.9%	
	1.0%	1.1	1.6	2.2	2.9	3.8	2027E - 2030E	3.9%	
	0.0%	2.5	3.3	4.3	5.4	6.9	terminal value	150.0%	
	-1.0%	4.8	6.0	7.6	9.7	12.6			
	-2.0%	8.3	10.5	13.5	18.1	25.4			

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 2.80 per share based on 2023E and EUR 11.84 per share on 2027E 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	2023E	2024E	2025E	2026E	2027E
EBITDA	24.0	34.9	50.9	71.0	86.8
- Maintenance capex	9.3	11.4	15.6	20.7	23.8
- Minorities	0.0	0.0	0.0	0.0	0.0
- tax expenses	-0.7	-1.2	-1.4	0.1	2.5
= Adjusted FCF	15.4	24.7	36.6	50.2	60.5
Actual Market Cap	167.2	167.2	167.2	167.2	167.2
+ Net debt (cash)	150.2	205.7	317.0	440.8	497.2
+ 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	12.8	12.8	12.8	12.8	12.8
- Acc. dividend payments	0.0	0.0	0.0	0.0	0.0
<i>EV Reconciliations</i>	137.4	192.9	304.2	428.0	484.4
= Actual EV'	304.6	360.1	471.4	595.2	651.6
Adjusted FCF yield	5.1%	6.9%	7.8%	8.4%	9.3%
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	308.8	493.3	732.2	1,004.3	1,209.3
- <i>EV Reconciliations</i>	137.4	192.9	304.2	428.0	484.4
Fair Market Cap	171.4	300.4	428.0	576.3	724.9
No. of shares (million)	61.2	61.2	61.2	61.2	61.2
Fair value per share in EUR	2.80	4.91	6.99	9.41	11.84
Premium (-) / discount (+)	1.8%	78.4%	154.1%	242.2%	330.5%

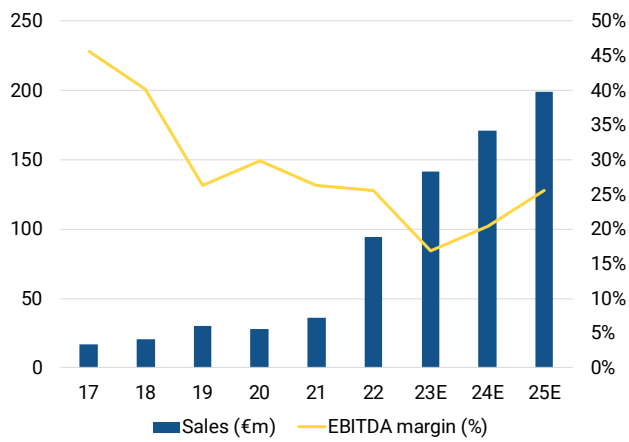
Sensitivity analysis FV						
Adjusted hurdle rate	3.0%	6.2	10.3	15.0	20.3	25.0
	4.0%	4.1	6.9	10.0	13.5	16.8
	5.0%	2.8	4.9	7.0	9.4	11.8
	6.0%	2.0	3.6	5.0	6.7	8.5
	7.0%	1.4	2.6	3.6	4.7	6.2

Source: Company data; AlsterResearch

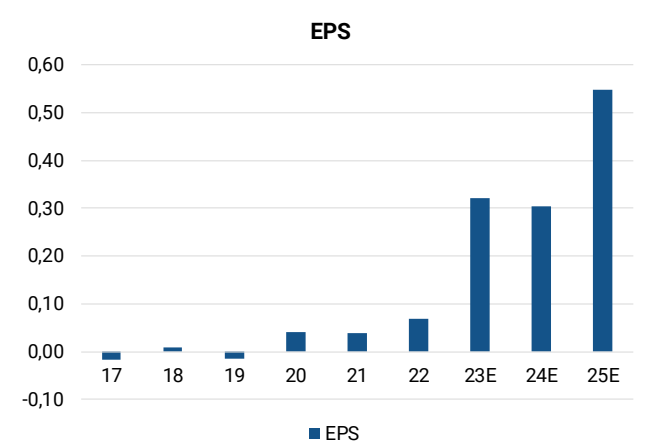
Simply put, the model assumes that investors require companies to generate a minimum return on the investor's purchase price. The required after-tax return equals the model's hurdle rate of 6.0%. Anything less suggests the stock is expensive; anything more suggests the stock is cheap. **ESG adjustments 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

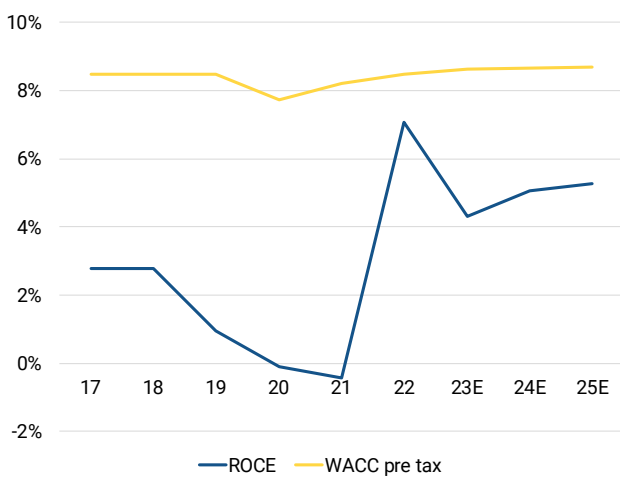
Sales vs. EBITDA margin development



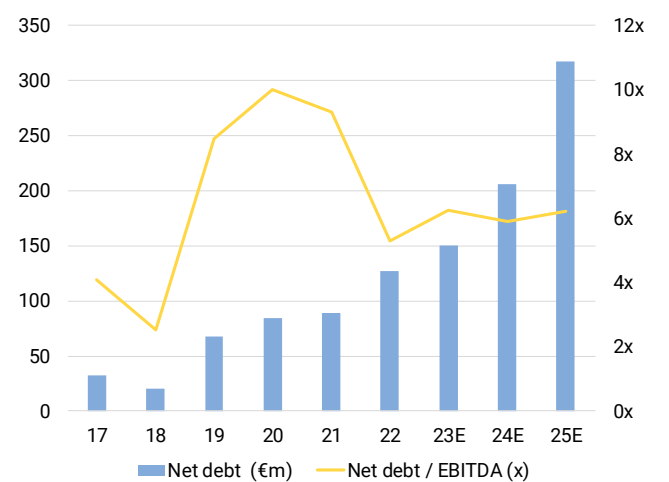
EPS



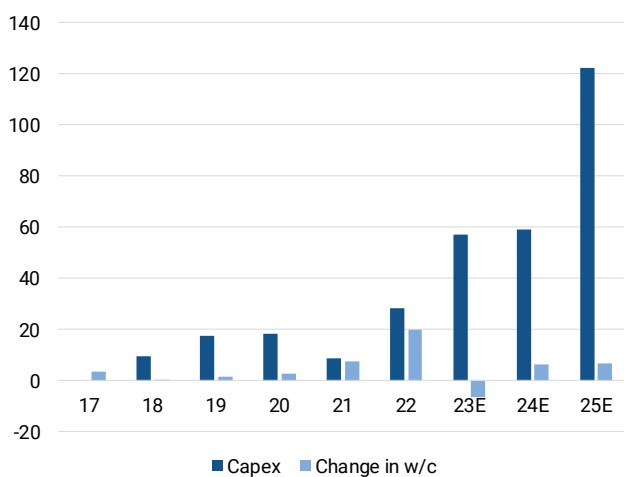
ROCE vs. WACC (pre tax)



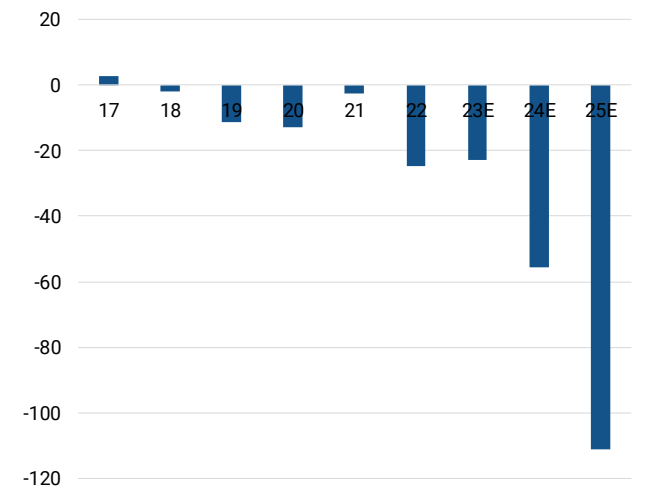
Net debt and net debt/EBITDA



Capex & chgn in w/c requirements in EURm



Free Cash Flow in EURm



Source: Company data; AlsterResearch

Financials

Profit and loss (EUR m)	2020	2021	2022	2023E	2024E	2025E
Net sales	28.3	36.4	94.2	141.9	170.9	198.9
Sales growth	-6.3%	28.7%	159.1%	50.5%	20.5%	16.4%
Change in finished goods and work-in-process	0.0	0.0	0.0	0.0	0.0	0.0
Total sales	28.3	36.4	94.2	141.9	170.9	198.9
Material expenses	4.6	12.7	44.1	75.9	78.7	82.5
Gross profit	23.6	23.6	50.1	65.9	92.2	116.4
Other operating income	0.4	0.6	0.6	1.4	1.7	2.0
Personnel expenses	5.8	6.7	9.5	20.6	33.4	39.6
Other operating expenses	9.7	7.7	17.0	22.7	25.6	27.8
EBITDA	8.4	9.6	24.1	24.0	34.9	50.9
Depreciation	8.3	10.7	9.0	11.6	14.2	19.5
EBITA	0.1	-0.9	15.1	12.5	20.6	31.3
Amortisation of goodwill and intangible assets	0.3	-0.2	0.6	1.3	1.2	1.1
EBIT	-0.1	-0.7	14.5	11.2	19.5	30.3
Financial result	-6.4	-5.2	-8.3	-13.3	-23.4	-34.8
Recurring pretax income from continuing operations	-6.5	-5.9	6.2	-2.2	-4.0	-4.5
Extraordinary income/loss	0.0	0.0	0.0	0.0	0.0	0.0
Earnings before taxes	-6.5	-5.9	6.2	-2.2	-4.0	-4.5
Taxes	2.2	0.5	3.5	-0.7	-1.2	-1.4
Net income from continuing operations	-8.7	-6.4	2.8	-1.5	-2.8	-3.2
Result from discontinued operations (net of tax)	10.8	8.5	1.5	21.2	21.5	36.8
Net income	2.1	2.1	4.3	19.7	18.7	33.6
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Net profit (reported)	2.1	2.1	4.3	19.7	18.7	33.6
Average number of shares	51.20	54.36	61.24	61.24	61.24	61.24
EPS reported	0.04	0.04	0.07	0.32	0.31	0.55

Profit and loss (common size)	2020	2021	2022	2023E	2024E	2025E
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	16%	35%	47%	54%	46%	41%
Gross profit	84%	65%	53%	46%	54%	59%
Other operating income	1%	2%	1%	1%	1%	1%
Personnel expenses	21%	19%	10%	15%	20%	20%
Other operating expenses	34%	21%	18%	16%	15%	14%
EBITDA	30%	26%	26%	17%	20%	26%
Depreciation	29%	29%	10%	8%	8%	10%
EBITA	0%	-3%	16%	9%	12%	16%
Amortisation of goodwill and intangible assets	1%	-1%	1%	1%	1%	1%
EBIT	-1%	-2%	15%	8%	11%	15%
Financial result	-23%	-14%	-9%	-9%	-14%	-17%
Recurring pretax income from continuing operations	-23%	-16%	7%	-2%	-2%	-2%
Extraordinary income/loss	0%	0%	0%	0%	0%	0%
Earnings before taxes	-23%	-16%	7%	-2%	-2%	-2%
Taxes	8%	1%	4%	-0%	-1%	-1%
Net income from continuing operations	-31%	-18%	3%	-1%	-2%	-2%
Result from discontinued operations (net of tax)	38%	23%	2%	15%	13%	18%
Net income	7%	6%	5%	14%	11%	17%
Minority interest	0%	0%	0%	0%	0%	0%
Net profit (reported)	7%	6%	5%	14%	11%	17%

Source: Company data; AlsterResearch

Balance sheet (EURm)	2020	2021	2022	2023E	2024E	2025E
Intangible assets (excl. Goodwill)	1.3	0.8	13.0	11.7	10.5	9.5
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Property, plant and equipment	126.3	127.5	145.3	212.1	278.3	417.7
Financial assets	7.5	14.1	12.8	12.8	12.8	12.8
FIXED ASSETS	135.1	142.5	171.2	236.7	301.7	440.1
Inventories	1.0	2.2	15.8	16.6	17.3	18.1
Accounts receivable	6.1	9.1	27.8	35.0	42.1	49.0
Other current assets	2.2	2.9	3.2	3.2	3.2	3.2
Liquid assets	14.3	39.4	21.4	39.8	139.3	203.0
Deferred taxes	0.0	0.3	0.0	0.0	0.0	0.0
Deferred charges and prepaid expenses	0.3	0.3	0.9	1.1	1.4	1.6
CURRENT ASSETS	23.9	54.2	69.1	95.7	203.3	274.9
TOTAL ASSETS	158.9	196.6	240.2	332.4	505.0	715.0
SHAREHOLDERS EQUITY	40.2	51.7	60.7	80.4	99.1	132.7
MINORITY INTEREST	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
Long-term debt	92.8	100.0	138.2	180.0	335.0	510.0
Provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	10.8	11.1	12.0	28.4	25.6	25.9
Non-current liabilities	103.6	111.1	150.2	208.4	360.6	535.9
short-term liabilities to banks	6.0	28.5	10.4	10.0	10.0	10.0
Accounts payable	3.7	2.3	12.4	18.7	19.4	20.3
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)	4.9	3.2	4.4	12.8	13.7	13.9
Deferred taxes	0.6	0.0	2.3	2.3	2.3	2.3
Deferred income	0.0	0.0	0.0	0.0	0.0	0.0
Current liabilities	15.2	34.0	29.5	43.8	45.4	46.6
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	158.9	196.6	240.2	332.4	505.0	715.0

Balance sheet (common size)	2020	2021	2022	2023E	2024E	2025E
Intangible assets (excl. Goodwill)	1%	0%	5%	4%	2%	1%
Goodwill	0%	0%	0%	0%	0%	0%
Property, plant and equipment	80%	65%	60%	64%	55%	58%
Financial assets	5%	7%	5%	4%	3%	2%
FIXED ASSETS	85%	72%	71%	71%	60%	62%
Inventories	1%	1%	7%	5%	3%	3%
Accounts receivable	4%	5%	12%	11%	8%	7%
Other current assets	1%	1%	1%	1%	1%	0%
Liquid assets	9%	20%	9%	12%	28%	28%
Deferred taxes	0%	0%	0%	0%	0%	0%
Deferred charges and prepaid expenses	0%	0%	0%	0%	0%	0%
CURRENT ASSETS	15%	28%	29%	29%	40%	38%
TOTAL ASSETS	100%	100%	100%	100%	100%	100%
SHAREHOLDERS EQUITY	25%	26%	25%	24%	20%	19%
MINORITY INTEREST	-0%	-0%	-0%	-0%	-0%	-0%
Long-term debt	58%	51%	58%	54%	66%	71%
Provisions for pensions and similar obligations	0%	0%	0%	0%	0%	0%
Other provisions	7%	6%	5%	9%	5%	4%
Non-current liabilities	65%	57%	63%	63%	71%	75%
short-term liabilities to banks	4%	14%	4%	3%	2%	1%
Accounts payable	2%	1%	5%	6%	4%	3%
Advance payments received on orders	0%	0%	0%	0%	0%	0%
Other liabilities (incl. from lease and rental contracts)	3%	2%	2%	4%	3%	2%
Deferred taxes	0%	0%	1%	1%	0%	0%
Deferred income	0%	0%	0%	0%	0%	0%
Current liabilities	10%	17%	12%	13%	9%	7%
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	100%	100%	100%	100%	100%	100%

Source: Company data; AlsterResearch

Cash flow statement (EURm)	2020	2021	2022	2023E	2024E	2025E
Net profit/loss	-6.5	-5.9	6.2	-1.5	-2.8	-3.2
Depreciation of fixed assets (incl. leases)	8.3	10.7	9.0	11.6	14.2	19.5
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.0	0.0	0.7	1.3	1.2	1.1
Others	6.4	9.0	7.8	16.4	-2.7	0.2
Cash flow from operations before changes in w/c	8.2	13.7	23.7	27.7	9.9	17.7
Increase/decrease in inventory	0.1	-1.2	-13.4	-0.8	-0.6	-0.8
Increase/decrease in accounts receivable	-1.1	-1.5	-10.9	-7.2	-7.2	-6.9
Increase/decrease in accounts payable	-1.6	-2.4	5.0	6.3	0.7	0.9
Increase/decrease in other w/c positions	-0.1	-2.5	-0.5	8.2	0.7	0.0
Increase/decrease in working capital	-2.6	-7.5	-19.9	6.5	-6.4	-6.8
Cash flow from operating activities	5.6	6.2	3.7	34.2	3.5	10.9
CAPEX	-18.3	-8.6	-28.4	-57.2	-59.0	-122.2
Payments for acquisitions	-0.0	-4.3	-6.2	0.0	0.0	0.0
Financial investments	-1.9	-2.8	0.4	0.0	0.0	0.0
Income from asset disposals	0.0	1.6	0.0	0.0	0.0	0.0
Cash flow from investing activities	-20.2	-14.2	-34.3	-57.2	-59.0	-122.2
Cash flow before financing	-14.6	-8.0	-30.6	-22.9	-55.5	-111.3
Increase/decrease in debt position	18.6	28.9	18.0	41.4	155.0	175.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.2	7.8	0.0	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Others	-6.7	-6.1	-8.7	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	12.1	30.6	9.3	41.4	155.0	175.0
Increase/decrease in liquid assets	-2.5	22.6	-21.2	18.4	99.5	63.7
Liquid assets at end of period	9.9	32.5	11.3	29.7	129.2	192.9

Source: Company data; AlsterResearch

Regional sales split (EURm)	2020	2021	2022	2023E	2024E	2025E
Domestic	0.0	0.0	0.0	0.0	0.0	0.0
Europe (ex domestic)	22.8	29.3	89.1	138.6	166.3	192.3
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	5.5	7.1	5.1	3.2	4.6	6.7
Total sales	28.3	36.4	94.2	141.9	170.9	198.9

Regional sales split (common size)	2020	2021	2022	2023E	2024E	2025E
Domestic	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Europe (ex domestic)	80.6%	80.6%	94.6%	97.7%	97.3%	96.6%
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	19.4%	19.4%	5.4%	2.3%	2.7%	3.4%
Total sales	100%	100%	100%	100%	100%	100%

Source: Company data; AlsterResearch

Ratios	2020	2021	2022	2023E	2024E	2025E
Per share data						
Earnings per share reported	0.04	0.04	0.07	0.32	0.31	0.55
Cash flow per share	-0.02	-0.04	-0.06	0.41	-0.13	-0.08
Book value per share	0.79	0.95	0.99	1.31	1.62	2.17
Dividend per share	0.00	0.00	0.00	0.00	0.00	0.00
Valuation						
P/E	67.6x	71.3x	39.3x	8.5x	9.0x	5.0x
P/CF	-129.6x	-64.6x	-49.1x	6.7x	-21.3x	-35.5x
P/BV	3.5x	2.9x	2.8x	2.1x	1.7x	1.3x
Dividend yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FCF yield (%)	-0.8%	-1.5%	-2.0%	14.8%	-4.7%	-2.8%
EV/Sales	9.0x	7.1x	3.1x	2.2x	2.2x	2.4x
EV/EBITDA	30.0x	26.9x	12.3x	13.3x	10.7x	9.5x
EV/EBIT	-1,781.3x	-362.2x	20.3x	28.5x	19.2x	16.0x
Income statement (EURm)						
Sales	28.3	36.4	94.2	141.9	170.9	198.9
yoy chg in %	-6.3%	28.7%	159.1%	50.5%	20.5%	16.4%
Gross profit	23.6	23.6	50.1	65.9	92.2	116.4
Gross margin in %	83.6%	65.0%	53.1%	46.5%	53.9%	58.5%
EBITDA	8.4	9.6	24.1	24.0	34.9	50.9
EBITDA margin in %	29.9%	26.4%	25.5%	16.9%	20.4%	25.6%
EBIT	-0.1	-0.7	14.5	11.2	19.5	30.3
EBIT margin in %	-0.5%	-2.0%	15.4%	7.9%	11.4%	15.2%
Net profit	2.1	2.1	4.3	19.7	18.7	33.6
Cash flow statement (EURm)						
CF from operations	5.6	6.2	3.7	34.2	3.5	10.9
Capex	-18.3	-8.6	-28.4	-57.2	-59.0	-122.2
Maintenance Capex	6.6	8.5	7.2	9.3	11.4	15.6
Free cash flow	-12.7	-2.4	-24.7	-22.9	-55.5	-111.3
Balance sheet (EURm)						
Intangible assets	1.3	0.8	13.0	11.7	10.5	9.5
Tangible assets	126.3	127.5	145.3	212.1	278.3	417.7
Shareholders' equity	40.2	51.7	60.7	80.4	99.1	132.7
Pension provisions	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities and provisions	109.6	139.6	160.6	218.4	370.6	545.9
Net financial debt	84.5	89.1	127.3	150.2	205.7	317.0
w/c requirements	3.5	9.0	31.2	32.9	40.0	46.8
Ratios						
ROE	5.2%	4.1%	7.0%	24.5%	18.9%	25.3%
ROCE	-0.1%	-0.4%	6.6%	3.7%	4.1%	4.5%
Net gearing	210.3%	172.4%	209.6%	186.8%	207.6%	238.9%
Net debt / EBITDA	10.0x	9.3x	5.3x	6.2x	5.9x	6.2x

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:

- **Speculative (Spec.) Buy:** Sustainable upside potential of more than 25% within 12 months; above average risk
- **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
17-Jul-23 12:57:01

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
Mittelweg 142
20148 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 40 309 293-52
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 40 309 293-53
E-Mail: h.hof@alsterresearch.com

LEON MÜHLENBRUCH
Analyst
Tel: +49 40 309 293-57
E-Mail: l.muehlenbruch@alsterresearch.com

LEVENT YILMAZ
Senior Analyst
Tel: +49 40 309 293-114
E-Mail: l.yilmaz@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