

# Photon Energy NV

Netherlands | Utilities | MCap EUR 162.8m

23 February 2023

**UPDATE** 



# The hidden jewel in Photon Energy's portfolio

## What's it all about?

Investors have understandably focused on the European energy markets when thinking about Photon Energy recently. However, the results of a months-long investigation by journalists into PFAS (chemicals linked to cancer, infertility and a dozen other illnesses), published today, may draw attention to Photon Energy's water remediation business. The investigation has identified 17,000 contaminated sites and a further 21,000 suspected contaminated sites across Europe, with remediation costs estimated at billions of euros. Photon Energy has a promising technology that could enable it to play a significant role in cleaning up the PFAS mess. This does not seem to be reflected in the current share price, providing potential further upside to our target price of EUR 4.40. We reiterate to BUY.

#### BUY (BUY)

Target price EUR 4.40 (4.40)
Current price EUR 2.81
Up/downside 56.6%





#### MAIN AUTHOR

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## Photon Energy NV

#### Netherlands | Utilities | MCap EUR 162.8m | EV EUR 290.1m

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Up/downside 56.6%

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#### The hidden jewel in Photon Energy's portfolio

Water remediation deserves more attention. Over the past few quarters, investors have focused on developments in the European energy markets when thinking about Photon Energy. Understandably so, as high volatility in electricity prices and a raft of new regulations have made it difficult to keep up with developments. However, the results of a months-long investigation by 18 European newsrooms (including Le Monde, The Guardian and Süddeutsche Zeitung) into the "forever chemicals" PFAS, published today, may draw attention to Photon Energy's water remediation business.

The poison of the century. PFAS have been described as the asbestos of the 21st century. PFAS are used in many different industries to make products non-stick, stain resistant or waterproof. They don't break down in the environment (hence the "forever chemicals") and, although originally thought to be harmless, have been linked to cancer, infertility and a dozen other diseases. PFAS are estimated to cost European health systems between EUR 52 billion and EUR 84 billion each year. PFAS emissions are not yet regulated in the EU, but in early February the European Chemicals Agency (ECHA) published a proposal to ban all PFAS by 2023.

**17.000 contaminated sites in Europe**. Using a peer-reviewed research methodology, the investigative journalists have identified 17,000 contaminated sites and a further 21,000 suspected contaminated sites across Europe (a map is provided by the Forever Pollution Project <a href="here">here</a>). Once PFAS are in the environment, they are extremely difficult and expensive to get rid of. Remediation costs are estimated to run into billions of euros.

Photon Energy can help cleaning up the mess. Photon Energy has a technology capable of degrading PFAS (in-situ nanoremediation) for which a patent has been filed and where a pilot project with the Australian Department of Defence is showing encouraging results. Although this technology will not contribute significantly to sales in the next few quarters, increasing public awareness of the harmful effects of PFAS could lead to the value of this technology in Photon Energy's portfolio being discovered. Current valuation does not seem to assign any value to Photon Energy's Water activities, so any breakthroughs with in-situ nanoremediation are pure upside. We reiterate our BUY recommendation with a target price of EUR 4.40.

Photon Energy NV	2020	2021	2022	2023E	2024E	2025E
Sales	28.3	36.4	94.2	150.8	164.6	192.1
Growth yoy	-6.3%	28.7%	159.1%	60.0%	9.2%	16.7%
EBITDA	8.4	9.6	24.1	29.9	35.4	51.4
EBIT	-0.1	-0.7	14.5	17.0	19.9	30.7
Net profit*	2.1	2.1	4.3	24.3	19.0	33.9
Net debt (net cash)	84.5	89.1	127.3	147.2	202.6	313.3
Net debt/EBITDA	10.0x	9.3x	5.3x	4.9x	5.7x	6.1x
EPS reported*	0.04	0.04	0.07	0.42	0.33	0.58
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%	47.9%	52.2%	57.1%
EBITDA margin	29.9%	26.4%	25.5%	19.8%	21.5%	26.7%
EBIT margin	-0.5%	-2.0%	15.4%	11.3%	12.1%	16.0%
ROCE	-0.1%	-0.4%	6.6%	5.6%	4.2%	4.5%
EV/EBITDA	29.3x	26.3x	12.1x	10.4x	10.3x	9.3x
EV/EBIT	-1,741.6x	-354.3x	19.9x	18.3x	18.4x	15.5x
PER	69.1x	72.9x	38.0x	6.7x	8.6x	4.8x
FCF yield	-0.8%	-1.5%	-2.1%	18.1%	-4.8%	-2.6%

Source: Company data, AlsterResearch; \* including OCI



Source: Company data, AlsterResearch

High/low 52 weeks 3.58 / 1.44 Price/Book Ratio 2.7x

**Ticker / Symbols** 

ISIN NL0010391108 WKN A1T9KW Bloomberg P7V:GR

Changes in estimates

		Sales	EBIT	EPS
2023E	old	150.8	17.0	0.42
	Δ	0.0%	0.0%	0.0%
2024E	old	164.6	19.9	0.33
	Δ	0.0%	0.0%	0.0%
2025E	old	192.1	30.7	0.58
	Δ	0.0%	0.0%	0.0%

#### Key share data

Number of shares: (in m pcs) 57.93 Book value per share: (in EUR) 1.05 Ø trading volume: (12 months) 1,000

#### Major shareholders

Solar Future	36.3%
Solar Power to the People	34.5%
Treasury Shares	2.2%
Lerta founders	5.8%
Free Float	21.2%

#### 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	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022
Sales	4.6	9.9	10.2	11.7	9.1	23.2	35.4	26.4
yoy growth in %	-14.0%	10.9%	13.8%	130.3%	99.9%	135.7%	247.2%	125.3%
Gross profit	4.1	7.1	8.1	4.4	6.2	14.3	20.3	9.3
Gross margin in %	88.9%	72.4%	79.0%	37.3%	67.5%	61.4%	57.4%	35.3%
EBITDA	0.2	4.0	4.4	0.9	2.0	8.1	12.7	1.2
EBITDA margin in %	3.7%	40.5%	43.5%	8.0%	22.2%	35.0%	35.9%	4.6%
EBIT	-1.5	1.0	0.4	-1.0	0.5	4.6	9.7	-0.4
EBIT margin in %	-32.3%	9.8%	4.1%	-8.9%	5.8%	20.0%	27.5%	-1.3%
EBT	-3.1	-0.6	-1.1	-1.2	-1.3	2.6	7.3	-2.4
taxes paid	0.1	0.3	0.3	-0.2	-0.1	0.6	1.3	-1.4
tax rate in %	-3.9%	-53.7%	-30.9%	20.0%	10.5%	22.5%	18.1%	58.4%
net profit	-3.1	-0.8	-1.4	-1.0	-1.4	2.0	6.0	-3.8
yoy growth in %	na%							
EPS	-0.06	-0.02	-0.03	-0.02	-0.03	0.04	0.11	-0.07





## Investment case in six charts

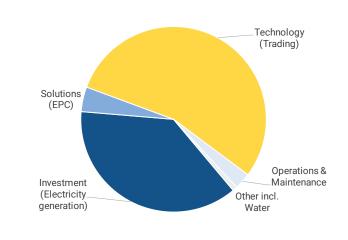
#### **Business Model**



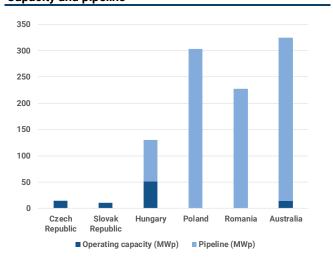
#### **Geographical Presence**



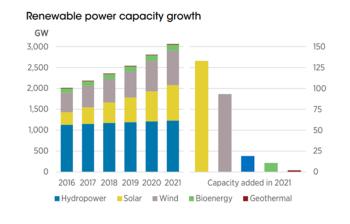
#### **External Revenue Shares (2022)**



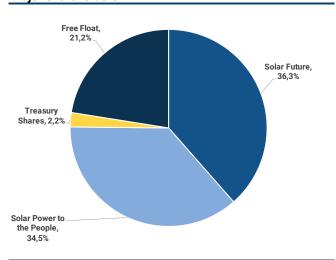
#### Capacity and pipeline



#### Fastest growing renewable energy



#### Major shareholders







## 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 4.35 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 11.9% 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 9.7%. 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 6.7%.

DCF (EUR m) (except per share data and beta)	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	Terminal value
NOPAT	11.9	13.9	21.5	31.4	39.8	45.8	51.2	54.6	
Depreciation & amortization	12.9	15.5	20.7	26.9	30.7	34.4	37.1	38.7	
Change in working capital	5.1	-3.9	-6.6	-6.1	-5.3	-4.8	-4.7	-5.0	
Chg. in long-term provisions	18.1	-5.5	0.3	4.4	3.8	3.5	3.4	3.0	
Capex	-58.7	-59.0	-122.2	-149.1	-91.4	-90.5	-61.6	-50.5	
Cash flow	-10.6	-39.0	-86.4	-92.5	-22.4	-11.7	25.4	40.8	876.7
Present value	-10.1	-34.4	-71.2	-71.2	-16.1	-7.8	15.9	23.8	525.2
WACC	6.7%	6.9%	7.0%	7.1%	7.1%	7.1%	7.1%	7.1%	6.7%

DCF per share derived from	
Total present value Mid-year adj. total present value Net debt / cash at start of year Financial assets Provisions and off b/s debt Equity value No. of shares outstanding	354.2 366.3 127.3 12.8 0.0 251.9 57.9
Discounted cash flow / share upside/(downside)	4.35 54.7%
Share price	2.84

DCF avg. growth and earnings assumptions	
Planning horizon avg. revenue growth (2022E - 2029E)	11.9%
Terminal value growth (2029E - infinity)	2.0%
Terminal year ROCE	7.4%
Terminal year WACC	6.7%

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	1.3
Relevered beta	1.28
Risk-free rate	2.0%
Equity risk premium	6.0%
Cost of equity	9.7%

Sensitivity anal	lysis DCF							
		Long term o	jrowth				Share of present value	
		1.0%	1.5%	2.0%	2.5%	3.0%		
ÇC	2.0%	0.0	0.4	0.8	1.3	1.9	2022E - 2025E	-52.8%
× ×	1.0%	1.1	1.6	2.3	3.0	3.9	2026E - 2029E	4.5%
e in nts)	0.0%	2.6	3.4	4.3	5.5	7.0	terminal value	148.3%
Change (%-point	-1.0%	4.9	6.1	7.7	9.7	12.5		
<u>~~</u>	-2.0%	8.4	10.6	13.5	17.8	24.5		

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 4.42 per share based on 2023E and EUR 12.77 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	29.9	35.4	51.4	71.7	87.5
- Maintenance capex	9.3 11.5		15.7	20.7	23.8
- Minorities	0.0	0.0	0.0	0.0	0.0
- tax expenses	1.1	-1.1	-1.2	0.3	2.7
= Adjusted FCF	19.5	25.0	36.9	50.7	61.0
Actual Market Cap	164.3	164.3	164.3	164.3	164.3
+ Net debt (cash)	147.2	202.6	313.3	436.6	492.5
+ 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 payment	ts 0.0	0.0	0.0	0.0	0.0
EV Reconciliations	134.4	189.8	300.5	423.8	479.6
= Actual EV'	298.7	354.0	464.8	588.1	643.9
Adjusted FCF yield	6.5%	7.1%	7.9%	8.6%	9.5%
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	390.4	499.6	738.3	1,013.7	1,219.6
- EV Reconciliations	134.4	189.8	300.5	423.8	479.6
Fair Market Cap	256.0	309.9	437.8	589.9	740.0
No. of shares (million)	57.9	57.9	57.9	57.9	57.9
Fair value per share in I		5.35	7.56	10.18	12.77
Premium (-) / discount		90.4%	168.9%	262.4%	354.6%
Sensitivity analysis FV					
	8.0% 8.9	11.1	16.1	21.8	26.8
	1.0% 6.1	7.5	10.7	14.6	18.0
rajuotea	i.0% 4.4	<b>5.3</b>	7.6	10.2	12.8
		<b>5.3</b> 3.9	<b>7.6</b> 5.4	7.3	
					9.3
,	2.0% 2.5	2.9	3.9	5.2	6.8

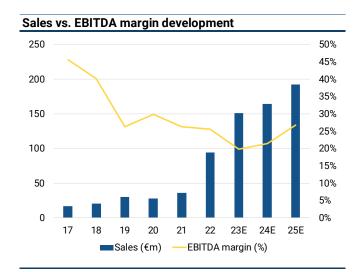
Source: Company data; AlsterResearch

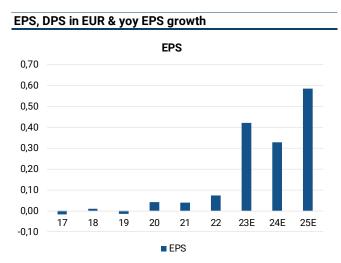
Simply put, the model assumes that investors require companies to generate a minimum return on the investor's purchase price. The required after-tax return equals the model's hurdle rate of 6.0%. Anything less suggests the stock is expensive; anything more suggests the stock is cheap. **ESG adjustments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

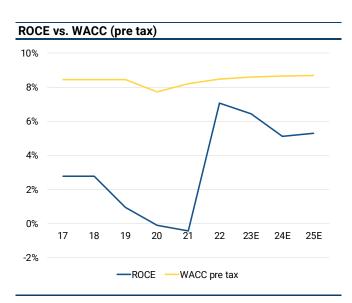


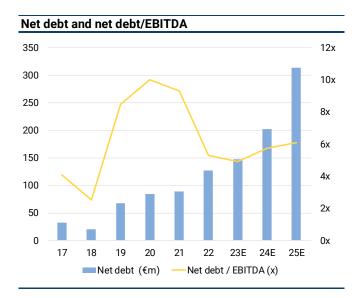


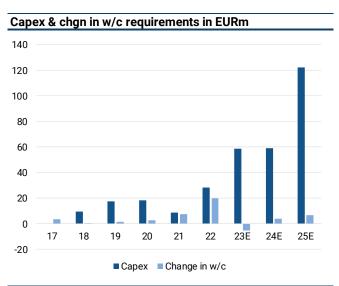
## Financials in six charts













## Financials

Profit and loss (EUR m)	2020	2021	2022	2023E	2024E	2025E
Net sales	28.3	36.4	94.2	150.8	164.6	192.1
Sales growth	-6.3%	28.7%	159.1%	60.0%	9.2%	16.7%
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	150.8	164.6	192.1
Material expenses	4.6	12.7	44.1	78.5	78.7	82.5
Gross profit	23.6	23.6	50.1	72.3	85.9	109.6
Other operating income	0.4	0.6	0.6	1.5	1.6	1.9
Personnel expenses	5.8	6.7	9.5	19.7	27.5	33.3
Other operating expenses	9.7	7.7	17.0	24.1	24.7	26.9
EBITDA	8.4	9.6	24.1	29.9	35.4	51.4
Depreciation	8.3	10.7	9.0	11.6	14.3	19.6
EBITA	0.1	-0.9	15.1	18.3	21.1	31.8
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	17.0	19.9	30.7
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	3.6	-3.5	-4.1
Extraordinary income/loss	0.0	0.0	0.0	0.0	0.0	0.0
Earnings before taxes	-6.5	-5.9	6.2	3.6	-3.5	-4.1
Taxes	2.2	0.5	3.5	1.1	-1.1	-1.2
Net income from continuing operations	-8.7	-6.4	2.8	2.5	-2.5	-2.9
Result from discontinued operations (net of tax)	10.8	8.5	1.5	21.8	21.5	36.8
Net income	2.1	2.1	4.3	24.3	19.0	33.9
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Net profit (reported)	2.1	2.1	4.3	24.3	19.0	33.9
Average number of shares	51.20	54.36	57.93	57.93	57.93	57.93
EPS reported	0.04	0.04	0.07	0.42	0.33	0.58

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%	52%	48%	43%
Gross profit	84%	65%	53%	48%	52%	57%
Other operating income	1%	2%	1%	1%	1%	1%
Personnel expenses	21%	19%	10%	13%	17%	17%
Other operating expenses	34%	21%	18%	16%	15%	14%
EBITDA	30%	26%	26%	20%	21%	27%
Depreciation	29%	29%	10%	8%	9%	10%
EBITA	0%	-3%	16%	12%	13%	17%
Amortisation of goodwill and intangible assets	1%	-1%	1%	1%	1%	1%
EBIT	-1%	-2%	15%	11%	12%	16%
Financial result	-23%	-14%	-9%	-9%	-14%	-18%
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%	1%	-1%	-1%
Net income from continuing operations	-31%	-18%	3%	2%	-2%	-1%
Result from discontinued operations (net of tax)	38%	23%	2%	14%	13%	19%
Net income	7%	6%	5%	16%	12%	18%
Minority interest	0%	0%	0%	0%	0%	0%
Net profit (reported)	7%	6%	5%	16%	12%	18%





Balance sheet (EURm)	2020	2021	2022	2023E	2024E	2025E
Intangible assets (exl. 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	214.2	280.3	419.6
Financial assets	7.5	14.1	12.8	12.8	12.8	12.8
FIXED ASSETS	135.1	142.5	171.2	238.7	303.7	442.0
Inventories	1.0	2.2	15.8	17.2	17.2	18.1
Accounts receivable	6.1	9.1	27.8	37.2	40.6	47.4
Other current assets	2.2	2.9	3.2	3.2	3.2	3.2
Liquid assets	14.3	39.4	21.4	42.8	142.4	206.7
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	1.2	1.3	1.5
CURRENT ASSETS	23.9	54.2	69.1	101.6	204.8	276.9
TOTAL ASSETS	158.9	196.6	240.2	340.3	508.5	718.8
SHAREHOLDERS EQUITY	40.2	51.7	60.7	85.1	104.1	137.9
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	30.2	24.7	25.0
Non-current liabilities	103.6	111.1	150.2	210.2	359.7	535.0
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	19.4	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	13.6	13.2	13.4
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	45.3	44.9	46.1
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	158.9	196.6	240.2	340.3	508.5	718.8
Balance sheet (common size)	2020	2021	2022	2023E	2024E	2025E
Intangible assets (excl. Goodwill)	1%	0%	5%	3%	2%	1%
Goodwill	0%	0%	0%	0%	0%	0%
Property, plant and equipment	80%	65%	60%	63%	55%	58%
Financial assets	5%	7%	5%	4%	3%	2%
FIXED ASSETS	85%	72%	71%	70%	60%	61%
Inventories	1%	1%	7%	5%	3%	3%
Accounts receivable	4%					
Other current coasts		5%	12%	11%	8%	7%
Other current assets	1%	5% 1%	12% 1%	11% 1%		7%
Uther current assets Liquid assets					8%	7% 0%
	1%	1%	1%	1%	8% 1%	7% 0% 29%
Liquid assets	1% 9%	1% 20%	1% 9%	1% 13%	8% 1% 28%	7% 0% 29% 0%
Liquid assets Deferred taxes	1% 9% 0%	1% 20% 0%	1% 9% 0%	1% 13% 0%	8% 1% 28% 0%	7% 0% 29% 0% 0%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses	1% 9% 0% 0%	1% 20% 0% 0%	1% 9% 0% 0%	1% 13% 0% 0%	8% 1% 28% 0% 0%	7% 0% 29% 0% 0%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS	1% 9% 0% 0% <b>15%</b>	1% 20% 0% 0% 28%	1% 9% 0% 0% <b>29%</b>	1% 13% 0% 0% 30%	8% 1% 28% 0% 0% 40%	7% 0% 29% 0% 0% 39% 100%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS	1% 9% 0% 0% 15%	1% 20% 0% 0% 28% 100%	1% 9% 0% 0% 29% 100%	1% 13% 0% 0% 30% 100%	8% 1% 28% 0% 0% 40%	7% 0% 29% 0% 0% 39% 100%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY	1% 9% 0% 0% 15% 100% 25% -0% 58%	1% 20% 0% 0% 28% 100% 26%	1% 9% 0% 0% 29% 100%	1% 13% 0% 0% 30% 100% 25%	8% 1% 28% 0% 0% 40% 100%	7% 0% 29% 0% 0% 39% 100% 1-9%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST	1% 9% 0% 0% 15% 100% 25% -0%	1% 20% 0% 0% 28% 100% 26% -0%	1% 9% 0% 0% 29% 100% 25% -0%	1% 13% 0% 0% 30% 100% 25% -0%	8% 1% 28% 0% 0% 40% 100% 20%	7% 0% 29% 0% 0% 39% 100% 19% -0%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt	1% 9% 0% 0% 15% 100% 25% -0% 58%	1% 20% 0% 0% 28% 100% 26% -0%	1% 9% 0% 0% 29% 100% 25% -0% 58%	1% 13% 0% 0% 30% 100% 25% -0% 53%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66%	7% 0% 29% 0% 0% 39% 100% 19% -0% 71%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7%	1% 20% 0% 0% 28% 100% 26% -0% 51% 0% 6%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63%	1% 13% 0% 0% 30% 100% 25% -0% 53% 0% 9%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5%	7% 0% 29% 0% 0% 39% 100% 19% -0% 71% 0% 3% 74%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations  Other provisions  Non-current liabilities  short-term liabilities to banks	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7% 65% 4%	1% 20% 0% 0% 28% 100% 26% -0% 51% 0% 6% 57%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63% 4%	1% 13% 0% 0% 30% 100% 25% -0% 53% 0% 9% 62% 3%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5% 71% 2%	7% 0% 29% 0% 0% 39% 100% 19% -0% 71% 0% 3% 74%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations  Other provisions  Non-current liabilities  short-term liabilities to banks  Accounts payable	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7% 65% 4%	1% 20% 0% 0% 28% 100% 26% -0% 51% 0% 6% 57% 14%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63% 4% 5%	1% 13% 0% 0% 30% 100% 25% -0% 53% 0% 9% 62% 3% 6%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5% 71% 2% 4%	7% 0% 29% 0% 0% 39% 100% 19% -0% 71% 0% 3% 74% 1% 3%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations  Other provisions  Non-current liabilities  short-term liabilities to banks  Accounts payable  Advance payments received on orders	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7% 65% 4% 2% 0%	1% 20% 0% 0% 28% 100% 26% -0% 51% 0% 6% 57% 14% 1% 0%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63% 4% 5% 0%	1% 13% 0% 0% 30% 100% 25% -0% 53% 0% 9% 62% 3% 6% 0%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5% 71% 2% 4%	7% 0% 29% 0% 0% 39% 100% 19% -0% 71% 0% 3% 74% 1% 3% 0%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations  Other provisions  Non-current liabilities  short-term liabilities to banks  Accounts payable	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7% 65% 4% 2% 0% 3%	1% 20% 0% 0% 28% 100% 26% -0% 51% 0% 6% 57% 14% 1% 0% 2%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63% 4% 5% 0% 2%	1% 13% 0% 0% 30% 100% 25% -0% 53% 0% 9% 62% 3% 6% 0% 4%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5% 71% 2% 4% 0% 3%	7% 0% 29% 0% 0% 39% 100% 19% -0% 71% 0% 3% 74% 1% 3% 0% 2%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations  Other provisions  Non-current liabilities  short-term liabilities to banks  Accounts payable  Advance payments received on orders	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7% 65% 4% 2% 0% 3%	1% 20% 0% 0% 28% 100% 26% -0% 51% 0% 6% 57% 14% 1% 0% 2% 0%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63% 4% 5% 0% 2% 1%	1% 13% 0% 0% 30% 100% 25% -0% 53% 0% 9% 62% 3% 6% 0% 4%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5% 71% 2% 4% 0% 3% 0%	7% 0% 29% 0% 0% 39% 100% 19% 71% 0% 3% 74% 3% 0% 2% 0%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations  Other provisions  Non-current liabilities  short-term liabilities to banks  Accounts payable  Advance payments received on orders  Other liabilities (incl. from lease and rental contracts)  Deferred taxes  Deferred income	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7% 65% 4% 2% 0% 3% 0%	1% 20% 0% 0% 0% 28% 100% 26% -0% 51% 0% 6% 57% 14% 1% 0% 2% 0% 0%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63% 4% 5% 0% 2% 1% 0%	1% 13% 0% 0% 0% 30% 100% 25% -0% 53% 0% 9% 62% 3% 6% 0% 4% 1% 0%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5% 71% 2% 4% 0% 3% 0%	7% 0% 29% 0% 0% 39% 100% 19% -0% 71% 0% 3% 74% 1% 0% 2% 0%
Liquid assets  Deferred taxes  Deferred charges and prepaid expenses  CURRENT ASSETS  TOTAL ASSETS  SHAREHOLDERS EQUITY  MINORITY INTEREST  Long-term debt  Provisions for pensions and similar obligations  Other provisions  Non-current liabilities  short-term liabilities to banks  Accounts payable  Advance payments received on orders  Other liabilities (incl. from lease and rental contracts)  Deferred taxes	1% 9% 0% 0% 15% 100% 25% -0% 58% 0% 7% 65% 4% 2% 0% 3%	1% 20% 0% 0% 28% 100% 26% -0% 51% 0% 6% 57% 14% 1% 0% 2% 0%	1% 9% 0% 0% 29% 100% 25% -0% 58% 0% 5% 63% 4% 5% 0% 2% 1%	1% 13% 0% 0% 30% 100% 25% -0% 53% 0% 9% 62% 3% 6% 0% 4%	8% 1% 28% 0% 0% 40% 100% 20% -0% 66% 0% 5% 71% 2% 4% 0% 3% 0%	7% 0% 29% 0% 0% 39%





Cash flow statement (EURm)	2020	2021	2022	2023E	2024E	2025E
Net profit/loss	-6.5	-5.9	6.2	2.5	-2.5	-2.9
Depreciation of fixed assets (incl. leases)	8.3	10.7	9.0	11.6	14.3	19.6
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	18.1	-5.5	0.3
Cash flow from operations before changes in w/c	8.2	13.7	23.7	33.6	7.5	18.1
Increase/decrease in inventory	0.1	-1.2	-13.4	-1.4	-0.0	-0.8
Increase/decrease in accounts receivable	-1.1	-1.5	-10.9	-9.4	-3.4	-6.8
Increase/decrease in accounts payable	-1.6	-2.4	5.0	7.0	0.1	0.9
Increase/decrease in other w/c positions	-0.1	-2.5	-0.5	8.9	-0.5	0.1
Increase/decrease in working capital	-2.6	-7.5	-19.9	5.1	-3.9	-6.6
Cash flow from operating activities	5.6	6.2	3.7	38.7	3.6	11.5
CAPEX	-18.3	-8.6	-28.4	-58.7	-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	-58.7	-59.0	-122.2
Cash flow before financing	-14.6	-8.0	-30.6	-20.0	-55.4	-110.7
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	21.4	99.6	64.3
Liquid assets at end of period	9.9	32.5	11.3	32.7	132.3	196.6

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	147.1	160.0	185.5
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	3.6	4.6	6.6
Total sales	28.3	36.4	94.2	150.8	164.6	192.1

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%	97.6%	97.2%	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%	2.4%	2.8%	3.4%
Total sales	100%	100%	100%	100%	100%	100%





Ratios	2020	2021	2022	2023E	2024E	2025E
Per share data						
Earnings per share reported	0.04	0.04	0.07	0.42	0.33	0.58
Cash flow per share	-0.02	-0.04	-0.06	0.51	-0.14	-0.07
Book value per share	0.79	0.95	1.05	1.47	1.80	2.38
Dividend per share	0.00	0.00	0.00	0.00	0.00	0.00
Valuation						
P/E	69.1x	72.9x	38.0x	6.7x	8.6x	4.8x
P/CF	-132.4x	-66.0x	-47.5x	5.5x	-20.8x	-38.6x
P/BV	3.6x	3.0x	2.7x	1.9x	1.6x	1.2x
Dividend yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FCF yield (%)	-0.8%	-1.5%	-2.1%	18.1%	-4.8%	-2.6%
EV/Sales	8.8x	6.9x	3.1x	2.1x	2.2x	2.5x
EV/EBITDA	29.3x	26.3x	12.1x	10.4x	10.3x	9.3x
EV/EBIT	-1,741.6x	-354.3x	19.9x	18.3x	18.4x	15.5x
Income statement (EURm)						
Sales	28.3	36.4	94.2	150.8	164.6	192.1
yoy chg in %	-6.3%	28.7%	159.1%	60.0%	9.2%	16.7%
Gross profit	23.6	23.6	50.1	72.3	85.9	109.6
Gross margin in %	83.6%	65.0%	53.1%	47.9%	52.2%	57.1%
EBITDA	8.4	9.6	24.1	29.9	35.4	51.4
EBITDA margin in %	29.9%	26.4%	25.5%	19.8%	21.5%	26.7%
EBIT	-0.1	-0.7	14.5	17.0	19.9	30.7
EBIT margin in %	-0.5%	-2.0%	15.4%	11.3%	12.1%	16.0%
Net profit	2.1	2.1	4.3	24.3	19.0	33.9
Cash flow statement (EURm)						
CF from operations	5.6	6.2	3.7	38.7	3.6	11.5
Capex	-18.3	-8.6	-28.4	-58.7	-59.0	-122.2
Maintenance Capex	6.6	8.5	7.2	9.3	11.5	15.7
Free cash flow	-12.7	-2.4	-24.7	-20.0	-55.4	-110.7
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	214.2	280.3	419.6
Shareholders' equity	40.2	51.7	60.7	85.1	104.1	137.9
Pension provisions	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities and provisions	109.6	139.6	160.6	220.2	369.7	545.0
Net financial debt	84.5	89.1	127.3	147.2	202.6	313.3
w/c requirements	3.5	9.0	31.2	35.0	38.4	45.1
Ratios						
ROE	5.2%	4.1%	7.0%	28.6%	18.3%	24.6%
ROCE	-0.1%	-0.4%	6.6%	5.6%	4.2%	4.5%
Net gearing	210.3%	172.4%	209.6%	173.1%	194.7%	227.1%
Net debt / EBITDA	10.0x	9.3x	5.3x	4.9x	5.7x	6.1x
Source: Company data: AlsterResearch						





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Company	Disclosure
Photon Energy NV	2, 8





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- 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.
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- 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.





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