

# VIGO Photonics

## IR arrays and affordable detectors to drive the growth

With PCO contract for IR arrays signed and first sizable affordable detectors deliveries this year VIGO reached breakthrough in terms of new product sales. Further expansion in volumes becomes our base case scenario as it will be a natural result of increasing orders (Chinese client, potential for PCO orders exceeding the min. value) and adoption of the products by early followers, once they reach validation (potential foreign contracts for IR arrays, next contracts for affordable detectors in mining industry). We also point to optimistic outlook for military segment driven by Polish and European military budgets expansion as well as solid perspective for industry segment (though affected by tariffs-driven uncertainty). Altogether, in 2025E/26E/27E we forecast PLN 95.2/120.4/155.9m in revenues (up 21%/29%/28% y/y) and PLN -3.0/8.2/24.7m in norm. net income (vs. PLN 5.2m loss in 2024). Both inflationary pressure and hike in components pricing have ended, yet the return to reasonable profitability will likely take few years, as the company does not plan substantial opex cutback. On our forecast, VIGO trades at 2025E/26E EV/EBITDA of 47.6x/19.2x, representing vs. photonic peers at 14.9/10.1x, (premium driven by weak earnings momentum). We maintain our BUY recommendation, increasing our Fair Value to PLN 640.0, due to expected expansion in IR arrays and affordable detectors in mid-term.

**IR arrays likely to expand beyond PCO contract in the mid-term.** On 7 April the company signed strategic contract with PCO for IR arrays deliveries in 2026-31 with cumulated minimal order value at PLN 192m (11% above our prev. forecasts). We highlight that the agreement stipulates the value of minimum deliveries, whereas we estimate the sales potential for VIGO might be even 20-30% higher, in case of VIGO becoming the sole supplier for PCO (standard in countries with local suppliers; however, in our base case we assume order value nearly at minimum level). Moreover, the company might start to sell IR Arrays abroad, which is in our view likely to materialize, considering ramping up military budgets in Europe resulting in high demand meeting only limited production capacity of VIGO's competitors. In our model we assume that on top of PCO contract in 2028E VIGO will start IR arrays deliveries to other clients with total value of EUR 1.8m and EUR 2.8m/3.3m in 2029E/30E (representing ca. one third of PCO contract value).

**2026E likely to see duplication of affordable detector contract.** Following to relatively long go-to-market process, VIGO is finally on the way to deliver over 10k affordable detectors to Chinese client this year (est. PLN 4m in sales, application in mining industry). Considering the current size of pilot delivery and potential scale for even 10x larger orders from Chinese client, as well as several other clients in sales funnel with potential for material deliveries next year (China, the US, Europe), we expect the cheap detectors sales volume to increase by 2.5x in 2026E, up to PLN 10m in sales. In our view one of the potential scenarios is Chinese client doubling the size of its order and new clients ordering up to 5k detectors.

Figure 1. Summary of financial data (PLN m)\*

	2022	2023	2024	2025E	2026E	2027E
Revenues	67.9	75.4	78.3	94.4	121.6	155.9
Norm. EBITDA	15.0	15.0	5.5	9.5	24.7	43.4
Norm. net profit	7.7	9.0	-3.6	-3.0	8.2	24.7
EV/EBITDA (x)	24.6	26.3	73.0	47.6	19.2	10.5
P/E (x)	42.9	39.7	na	na	53.9	18.0

Source: Company, IPOPEMA Research \*HyperPIC project is not included in our detailed forecasts and valuation for VIGO Photonics; depending on accounting practice, inclusion of part of expenses/cost related to the project in company's P&L might negatively affect the projected profitability. For more details please refer to HyperPIC project financial model section.

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### VIGO PHOTONICS

BUY

FV PLN 640.0 from PLN 500.0

26% upside

Price as of 12 May 2025 PLN 508.0

Maintained



#### Share data

Number of shares (m)	0.875
Market cap (EUR m)	104.8
12M avg daily volume (k)	0.4
12M avg daily turnover (EUR m)	0.0
12M high/low (PLN)	604 / 400
WIG weight (%)	0.1
Reuters	VGOP.WA
Bloomberg	VGO PW

#### Total performance

1M	8.3%
3M	18.7%
12M	8.5%

#### Shareholders

Warsaw Equity Management	14.3%
Józef Piotrowski	9.8%
Allianz OFE	6.7%
Investors TFI	6.5%
Janusz Kubrak	5.5%
Others	57.3%

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## VIGO Photonics\*

BUY

FV PLN 640

Mkt Cap EUR 104.8m

upside +26%

Valuation multiples	2023	2024	2025E	2026E	2027E
P/E (x)	39.7	na	na	53.9	18.0
EV/EBITDA (x)	26.3	73.0	47.6	19.2	10.5
EV/Sales (x)	5.2	5.1	4.8	3.9	2.9
P/BV (x)	2.0	2.4	2.6	2.5	2.2
FCF yield (%)	3.8%	-1.2%	-4.1%	-2.8%	5.4%
DY (%)	0.0%	0.0%	0.0%	0.0%	0.0%

Per share	2023	2024	2025E	2026E	2027E
No. of shares (m units)	0.7	0.9	0.9	0.9	0.9
norm. EPS (PLN)	12.3	-4.2	-3.4	9.4	28.2
BVPS (PLN)	241.7	194.9	192.6	200.3	228.5
FCFPS (PLN)	20.5	-5.4	-21.1	-15.0	28.5
DPS (PLN)	0.0	0.0	0.0	0.0	0.0

Change y/y (%)	2023	2024	2025E	2026E	2027E
Revenues	11.1%	3.9%	20.5%	28.8%	28.2%
Norm. EBITDA	-0.4%	-63.4%	73.0%	160.2%	76.0%
EBIT	-3.6%	na	na	-914.0%	151.1%
Norm. net profit	16.9%	na	na	-376.0%	199.6%

Leverage and return	2023	2024	2025E	2026E	2027E
Gross margin (%)	52.6%	50.5%	52.4%	57.9%	62.0%
Norm. EBITDA mar. (%)	19.9%	7.0%	10.0%	20.3%	27.8%
EBIT margin (%)	11.3%	-5.9%	-1.5%	9.3%	18.3%
Norm. net margin (%)	11.9%	-4.6%	-3.2%	6.8%	15.8%
Net debt / EBITDA (x)	3.2	0.4	2.6	1.9	0.7
Net debt / Equity (x)	0.3	0.0	0.1	0.3	0.2
Net debt / Assets (x)	0.2	0.0	0.1	0.2	0.1
ROE (%)	5.7%	-2.1%	-1.8%	4.8%	13.2%
ROA (%)	3.5%	-1.5%	-1.3%	3.4%	9.3%
ROIC (%)	2.2%	-4.0%	-2.6%	3.8%	11.0%

IR detectors	2023	2024	2025E	2026E	2027E
<b>Revenues</b>	<b>69.2</b>	<b>69.6</b>	<b>83.9</b>	<b>108.5</b>	<b>139.8</b>
Industry	45.0	34.0	44.2	56.8	66.9
Military	11.6	23.2	26.5	37.4	57.6
Transport	7.9	7.3	7.7	8.4	9.0
Medicine and Science	4.5	5.0	5.4	5.9	6.4
Others	0.3	0.0	0.0	0.0	0.0
EBIT	7.0	-3.2	-1.0	10.5	25.7
EBITDA	18.5	7.0	11.0	24.9	41.9
<b>norm. net profit</b>	<b>8.1</b>	<b>-1.5</b>	<b>-2.6</b>	<b>7.4</b>	<b>22.1</b>
n. net profit marg.	11.8%	-2.2%	-2.4%	5.3%	15.8%

Semiconduct. mat.	2023	2024	2025E	2026E	2027E
<b>Revenues</b>	<b>6.2</b>	<b>8.7</b>	<b>10.5</b>	<b>13.1</b>	<b>16.0</b>
EBIT	1.5	-1.5	-0.4	0.9	2.8
EBITDA	3.3	1.8	1.9	3.2	5.1
<b>norm. net profit</b>	<b>0.8</b>	<b>-2.1</b>	<b>-0.4</b>	<b>0.9</b>	<b>2.6</b>
n. net profit margin	8.1%	-18.1%	-3.2%	5.2%	13.1%

Cost by type	2023	2024	2025E	2026E	2027E
Salaries, other benefits	-39.4	-46.5	-49.1	-56.1	-64.2
Materials and energy	-21.2	-22.1	-24.6	-29.3	-35.3
D&A	-10.3	-13.3	-14.2	-16.8	-18.6
Services and other	-12.6	-14.4	-17.5	-19.9	-22.2

P&L (PLN m)	2022	2023	2024	2025E	2026E	2027E
Revenues	67.9	75.4	78.3	94.4	121.6	155.9
COGS	-32.8	-35.8	-38.7	-44.9	-51.1	-59.2
<b>Gross profit</b>	<b>35.1</b>	<b>39.6</b>	<b>39.6</b>	<b>49.5</b>	<b>70.5</b>	<b>96.7</b>
Selling costs	-10.4	-9.4	-13.5	-15.3	-17.9	-23.3
G&A costs	-20.6	-33.7	-35.9	-42.8	-48.8	-52.8
Other operating income net	4.8	11.9	5.2	7.3	7.7	7.9
<b>EBITDA</b>	<b>18.2</b>	<b>18.8</b>	<b>8.8</b>	<b>12.8</b>	<b>28.1</b>	<b>47.0</b>
<b>Norm. EBITDA **</b>	<b>15.0</b>	<b>15.0</b>	<b>5.5</b>	<b>9.5</b>	<b>24.7</b>	<b>43.4</b>
<b>EBIT</b>	<b>8.8</b>	<b>8.5</b>	<b>-4.6</b>	<b>-1.4</b>	<b>11.3</b>	<b>28.5</b>
Financial income (cost) net	-1.1	-0.1	-1.0	-1.6	-3.1	-2.5
<b>Pre-tax profit</b>	<b>7.7</b>	<b>9.0</b>	<b>-3.6</b>	<b>-3.0</b>	<b>8.2</b>	<b>26.0</b>
Income tax	-0.5	-14.3	-0.4	0.6	-1.6	-1.3
Net profit	7.2	-5.3	-4.1	-2.4	6.7	24.7
<b>Norm. net profit***</b>	<b>7.7</b>	<b>9.0</b>	<b>-3.6</b>	<b>-3.0</b>	<b>8.2</b>	<b>24.7</b>

BALANCE SHEET (PLN m)	2022	2023	2024	2025E	2026E	2027E
<b>Non-current assets</b>	<b>218.9</b>	<b>163.5</b>	<b>166.2</b>	<b>183.3</b>	<b>204.3</b>	<b>200.9</b>
Goodwill and intangible assets	19.4	12.3	15.0	21.2	26.4	25.3
Expenditures on R&D	53.4	15.0	16.9	22.9	29.5	33.5
Investments in associates	6.7	12.6	17.8	17.8	17.8	17.8
tangible assets	113.5	111.9	104.8	109.1	118.1	111.8
Deferred tax assets	22.0	7.8	7.5	8.0	8.2	8.2
Other non-current assets	3.9	3.9	4.2	4.2	4.2	4.2
<b>Current assets</b>	<b>35.1</b>	<b>96.6</b>	<b>53.7</b>	<b>42.2</b>	<b>54.1</b>	<b>71.2</b>
Inventories	15.3	11.8	15.8	18.1	22.4	27.4
Trade receivables	14.3	15.9	16.9	19.0	23.5	29.7
Cash and equivalents	2.3	2.8	17.3	2.7	5.7	11.5
Other current assets	3.3	66.1	3.8	2.4	2.5	2.6
<b>Total assets</b>	<b>254.0</b>	<b>260.1</b>	<b>219.9</b>	<b>225.5</b>	<b>258.4</b>	<b>272.1</b>

<b>Equity</b>	<b>138.5</b>	<b>176.2</b>	<b>170.5</b>	<b>168.5</b>	<b>175.2</b>	<b>199.9</b>
<b>Non-current liabilities</b>	<b>81.9</b>	<b>40.3</b>	<b>27.2</b>	<b>34.9</b>	<b>59.2</b>	<b>47.3</b>
Loans and borrowings	28.9	19.7	11.9	18.9	43.9	33.9
Other non-current liabilities	53.0	20.6	15.3	15.9	15.3	13.4
<b>Current liabilities</b>	<b>33.6</b>	<b>43.6</b>	<b>22.2</b>	<b>22.1</b>	<b>24.0</b>	<b>24.8</b>
Trade payables	4.4	2.8	4.6	4.9	5.8	6.8
Loans and borrowings	21.4	32.5	8.8	8.2	8.7	8.2
Other current liabilities	7.8	8.3	8.8	9.0	9.4	9.9
<b>Equity &amp; liabilities</b>	<b>254.0</b>	<b>260.1</b>	<b>219.9</b>	<b>225.5</b>	<b>258.4</b>	<b>272.1</b>
Cash conversion cycle (days)	67.0	101.8	105.9	103.9	95.9	91.9
Gross debt (PLN m)	49.4	51.3	19.5	27.1	52.6	42.1
<b>Net debt (PLN m)</b>	<b>47.1</b>	<b>48.5</b>	<b>2.2</b>	<b>24.4</b>	<b>46.9</b>	<b>30.6</b>

CASH FLOW (PLN m)	2022	2023	2024	2025E	2026E	2027E
<b>Operating cash flow</b>	<b>3.8</b>	<b>-1.6</b>	<b>-7.6</b>	<b>3.7</b>	<b>10.6</b>	<b>25.6</b>
Pre-tax profit	7.7	9.0	-3.6	-3.0	8.2	26.0
D&A	9.4	10.3	13.4	14.2	16.8	18.5
Change in WC	-4.3	0.3	-3.2	-4.4	-7.9	-10.4
Other	-9.0	-20.7	-14.2	-3.2	-6.6	-8.5
<b>Investment cash flow</b>	<b>-22.1</b>	<b>-0.4</b>	<b>-6.0</b>	<b>-23.6</b>	<b>-29.9</b>	<b>-6.8</b>
Grants	25.5	14.7	8.3	7.1	7.7	8.2
CAPEX excl. R&D	-23.4	-4.9	-2.3	-13.8	-19.3	-4.0
CAPEX on R&D	-21.4	-4.9	-8.8	-16.9	-18.4	-11.1
Net investment in subsidiaries	-2.9	-5.3	-3.3	0.0	0.0	0.0
other	0.0	-0.1	0.0	0.0	0.0	0.0
<b>Financial cash flow</b>	<b>14.1</b>	<b>2.6</b>	<b>28.2</b>	<b>5.3</b>	<b>22.4</b>	<b>-13.0</b>
Change in equity	0.0	0.0	61.5	0.0	0.0	0.0
Change in debt	15.1	4.9	-31.3	6.9	25.5	-10.5
Interest paid	-1.0	-2.3	-2.1	-1.6	-3.1	-2.5
Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
<b>Change in cash</b>	<b>-4.2</b>	<b>0.6</b>	<b>14.6</b>	<b>-14.6</b>	<b>3.0</b>	<b>5.8</b>
<b>Cash as of eop</b>	<b>2.3</b>	<b>2.8</b>	<b>17.3</b>	<b>2.7</b>	<b>5.7</b>	<b>11.5</b>

Source: Company (2021-23 data), IPOPEMA Research \* The presented data does not consolidate HyperPIC project

\*\*EBITDA normalized by the non-cash settlement of grants and subsidies to tangible assets; \*\*\*net profit normalized by non-cash change in deferred tax

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# Valuation

Figure 2. VIGO Photonics – Valuation summary (PLN)

Valuation method	Weight (%)	FV (PLN/share)
DCF	100%	640.0
Peers comparison	0%	313.0
<b>Fair value</b>		<b>640.0</b>
Current price		508.0
<b>Upside/downside</b>		<b>26%</b>

Source: IPOPEMA Research

Figure 3. VIGO Photonics - DCF Valuation (PLN m)

	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	TV
<b>Revenues</b>	<b>78.3</b>	<b>94.4</b>	<b>121.6</b>	<b>155.9</b>	<b>196.8</b>	<b>229.0</b>	<b>253.9</b>	<b>278.6</b>	<b>306.1</b>	<b>319.8</b>
- change y/y	4%	21%	29%	28%	26%	16%	11%	10%	10%	
<b>EBITDA reported</b>	<b>5.5</b>	<b>9.5</b>	<b>24.7</b>	<b>43.4</b>	<b>65.7</b>	<b>78.6</b>	<b>85.4</b>	<b>91.5</b>	<b>99.0</b>	<b>103.5</b>
- EBITDA margin	7.0%	10.0%	20.3%	27.8%	33.4%	34.3%	33.6%	32.9%	32.4%	32.4%
- change y/y	-63%	73%	160%	76%	51%	20%	9%	7%	8%	
<b>EBIT norm.*</b>	<b>-7.9</b>	<b>-4.8</b>	<b>7.9</b>	<b>24.9</b>	<b>47.5</b>	<b>60.4</b>	<b>66.9</b>	<b>72.8</b>	<b>79.8</b>	<b>83.4</b>
Tax rate	-12%	0%	0%	5%	5%	5%	5%	5%	5%	9%
<b>NOPAT</b>	<b>-8.9</b>	<b>-4.8</b>	<b>7.9</b>	<b>23.7</b>	<b>45.1</b>	<b>57.4</b>	<b>63.6</b>	<b>69.1</b>	<b>75.8</b>	<b>75.9</b>
- change y/y				201%	91%	27%	11%	9%	10%	
D&A	13.4	14.2	16.8	18.5	18.2	18.2	18.4	18.8	19.3	19.3
Change in WC	-3.2	-4.4	-7.9	-10.4	-12.0	-9.8	-7.1	-6.8	-7.5	-6.2
CAPEX (net, less grants)	-6.1	-23.6	-29.9	-6.8	-8.4	-8.9	-9.5	-10.1	-10.7	-19.3
<b>FCF</b>	<b>-4.7</b>	<b>-18.5</b>	<b>-13.1</b>	<b>24.9</b>	<b>43.0</b>	<b>56.8</b>	<b>65.4</b>	<b>71.0</b>	<b>76.9</b>	<b>69.7</b>
Equity risk premium		5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Risk free rate		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Levered beta		1.5	1.7	1.6	1.5	1.4	1.3	1.3	1.3	1.3
Cost of Equity		13.2%	14.3%	13.7%	13.1%	12.7%	12.4%	12.2%	12.2%	12.2%
After tax cost of debt		6.2%	5.5%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	5.0%
<b>WACC</b>		<b>12.2%</b>	<b>12.3%</b>	<b>12.3%</b>	<b>12.2%</b>	<b>12.2%</b>	<b>12.2%</b>	<b>12.2%</b>	<b>12.2%</b>	<b>12.2%</b>
Discount factor (%)		93%	83%	74%	66%	58%	52%	47%	41%	
FCF PV (PLN m)		-17.1	-10.9	18.3	28.2	33.2	34.1	33.0	31.9	
FCF PV 2025E-32E (PLN m)	150.8									
Residual growth rate (%)	4.5%									
Discounted residual value (PLN m)	394.4									
EV (PLN m)	545.2									
Investments in associates	17.8									
Others	0.0									
Net debt (PLN m, 4Q24)	2.2									
<b>Equity value (PLN m)</b>	<b>560.0</b>									
Number of shares (diluted, m)	0.875									
<b>FV (PLN)</b>	<b>640.0</b>									
Current price	508.0									
<b>Upside/downside potential</b>	<b>26%</b>									

Source: IPOPEMA Research, valuation excluding HyperPIC project, \*EBIT normalized by the non-cash settlement of grants and subsidies to tangible assets.

Figure 4. DCF valuation sensitivity analysis

Residual growth rate (%)	WACC (%)				
	11.2%	11.7%	12.2%	12.7%	13.2%
<b>3.5%</b>	631	604	580	558	539
<b>4.0%</b>	667	635	608	584	562
<b>4.5%</b>	708	672	640	612	588
<b>5.0%</b>	755	713	676	644	617
<b>5.5%</b>	811	761	719	681	649

Source: IPOPEMA Research

Figure 5. VIGO Photonics – Peers comparison

COMPANY	Market Cap USD m	P/E (x)			EV/EBITDA (x)			DY 2025E	Revenues CAGR 2024-27E	NI CAGR 2024-27E	ROE 2025E
		2025E	2026E	2027E	2025E	2026E	2027E				
HAMAMATSU PHOTONICS	3,128	21.8	19.0	16.1	9.2	8.5	7.0	2.6%	6.2%	1.9%	6.2%
TELEDYNE TECHNOLOGIES	23,145	23.1	21.1	19.7	17.0	15.4	13.5	1.0%	5.6%	8.5%	10.1%
NIPPON CERAMIC	532	14.2	13.1	11.8	n.a.	n.a.	n.a.	4.3%	4.3%	9.3%	8.8%
OPTEX GROUP	395	8.9	7.8	7.1	4.4	3.8	3.2	3.0%	6.5%	15.3%	11.6%
VISUAL PHOTONICS	640	23.9	18.6	15.1	14.9	10.1	9.0	3.5%	17.8%	27.8%	22.9%
IPG PHOTONICS	2,757	56.9	36.2	25.9	15.0	11.4	n.a.	0.0%	4.8%	-188.5%	3.8%
<b>MEDIAN</b>		<b>22.4</b>	<b>18.8</b>	<b>15.6</b>	<b>14.9</b>	<b>10.1</b>	<b>8.0</b>	<b>2.8%</b>	<b>5.9%</b>	<b>8.9%</b>	<b>9.4%</b>
VIGO PHOTONICS	116	na	53.9	18.0	47.6	19.2	10.5	0.0%	17.3%	-2.8%	-1.8%
premium/discount to all peers (median)				15%	220%	90%	31%				
Weight			25%	25%		25%	25%				

**Implied Price (PLN) 313.0**

Source: IPOPEMA Research, Bloomberg, prices as of on 12.05.2025

Figure 6. VIGO Photonics – change in forecasts 2025E-27E

	2025E		Change (%)	2026E		Change (%)	2027E		Change (%)
	New	Previous		New	Previous		New	Previous	
<b>Revenues</b>	<b>94.4</b>	<b>95.2</b>	<b>-1%</b>	<b>121.6</b>	<b>120.4</b>	<b>1%</b>	<b>155.9</b>	<b>155.6</b>	<b>0%</b>
EBITDA	12.8	23.2	-45%	28.1	39.1	-28%	47.0	57.2	-18%
EBIT	(1.4)	2.5	na	11.3	16.9	-33%	28.5	34.2	-17%
<b>Norm. net income</b>	<b>(3.0)</b>	<b>1.0</b>	<b>na</b>	<b>8.2</b>	<b>15.0</b>	<b>-45%</b>	<b>24.7</b>	<b>30.7</b>	<b>-20%</b>

Source: IPOPEMA Research

## HyperPIC project financial model

Below we present the simplified financial model for the HyperPIC project. **We highlight that the projections are showed only for presentation purposes** and are not included in our detailed forecasts for VIGO Photonics and are not included in our valuation of the company due to its initial stage and potential multiple factors affecting the final scope and profitability of the investment (however, we believe that considering substantial public aid of EUR 102.9m approved by the European Union, investors should consider the project as major upside potential to our valuation and forecasts).

**We note that depending on future implemented accounting practise, the company may start to recognize part of project-related expenses in its P&L statement, which likely might negatively affect its profitability. In case of such event our P&L forecasts might not be fully comparable with VIGO's reported data.**

Below we present our main assumptions in regard to the project:

- **R&D phase in 2023-28E** with total capex of EUR 31.9m; following that period, further R&D of EUR 8m annually.
- **PIC Factory construction in 2027E-2030E** with total capex of EUR 150m; after 2030E we expect maintenance capex of EUR 10m annually.
- **Public aid of EUR 102.9m** received by 2030E.
- **Factory production targeted capacity of ca. 40m PICs**, with PIC targeted unit price of EUR 10.
- **Total sales revenue capacity of up to EUR 400m**, with a capacity/capex to factory ratio of 3.0x, vs. the median for Hamamatsu analysed investments in new facilities at 3.6x.
- Initial price of PIC at EUR 15/unit, decreased to EUR 12/unit in the long term.
- **Start of PIC production in late 2028E at 5% of factory annual capacity** (due to mix of different products we estimate capacity utilization as % of max sales revenue capacity) and **reaching 54% capacity in the long term (2030E+)**.
- **40% of project total budget by 2030E financed by debt** (primarily raised for factory construction).
- Total required equity (not including grants) at nearly EUR 50m to be covered by VIGO or potential partners and clients (potential advance payments for securing dedicated capacity).
- We highlight that the strategic plan for VIGO is to **secure the initial contracts for PIC production already in the R&D phase**; therefore, utilization of production capacity should be already secured to some extent ahead of investment in the factory, which decreases the project risk.

Figure 7. HyperPIC project financial model (EUR m)

HyperPIC NPV (EUR m)	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	LT
<b>Sales revenues</b>	0.0	0.0	0.0	0.0	0.0	22.5	97.5	147.0	216.0
Price (EUR/unit)						15.0	15.0	14.0	12.0
Volume (m units)	0.0	0.0	0.0	0.0	0.0	1.5	6.5	10.5	18.0
Capacity utilization						6%	24%	37%	54%
<b>EBIT, norm.</b>	0.0	0.0	0.0	0.0	0.0	-13.0	-20.3	11.0	33.0
EBIT margin						-58%	-21%	8%	15%
NOPLAT	0.0	0.0	0.0	0.0	0.0	-10.5	-16.4	8.9	26.7
D&A	0.0	0.0	0.0	0.0	0.0	10.6	12.3	13.9	18.0
<b>CAPEX (net, incl. grants)</b>	0.0	-0.8	-2.4	-4.3	-29.3	-42.6	-3.9	-12.2	-18.0
Capex gross	0.0	-1.4	-4.9	-8.6	-58.6	-83.6	-20.6	-20.6	-18.0
Grants	0.0	0.6	2.4	4.3	29.3	41.1	16.8	8.5	0.0
Change in NWC	0.0	0.0	0.0	0.0	0.0	-3.4	-11.3	-7.4	-1.5
Financial costs, net	0.0	0.0	0.0	0.0	-1.6	-4.1	-4.1	-4.1	-4.1
<b>Total cash flow</b>	0.0	-0.8	-2.4	-4.3	-30.9	-50.0	-23.3	-0.8	21.1
Discount rate		100%	88%	77%	68%	60%	53%	47%	
PV of CF	0.0	-0.8	-2.2	-3.3	-21.0	-30.0	-12.4	-0.4	
Residual growth rate	4.5%								
<b>NPV (EUR m)</b>									<b>66.7</b>
<b>NPV (PLN m)</b>									<b>278.2</b>

Source: IPOPEMA Research

## 4Q24 conference call highlights

Below are our main takeaways from VIGO Photonics 4Q24 results conference call held on 6 May 2025:

**2025 outlook.** According to CFO this year looks promising in terms of sales. The company has introduced two new products to the market (cooled detectors and affordable detectors). The company aims for 20% y/y revenue growth. According to the CFO, the worst phase of rapid cost increases has passed (The company prioritized retaining personnel over layoffs). Costs will likely rise by a few percent due to new projects, but profitability should improve across all levels, ensuring VIGO does not end the year with a negative net result (on the comparable basis, with the qualification that new approach to R&D expenses recognition and start of new projects might still affect profitability).

**Backlog.** The company reported record-high order value at the end of April at nearly PLN 40m, up 9% y/y (in April alone the company booked PLN 16m additional orders).

**Liquid nitrogen-cooled detectors.** New line of cooled detectors is expected to bring additional revenue of several million PLN this year from sales to US based client. The company is now seeking new customers for the product in Europe and Asia.

**Affordable detectors.** Sales of affordable detectors to a Chinese client, are expected generating ca. PLN 4m in revenue this year. After this initial order, the management anticipates further orders from the same client and others within the sector. The Chinese client estimates his annual demand at over 10x more than initial ca. 10k order. VIGO is also in contact with two other Chinese clients. Additionally, they are exploring applications in medicine and the military, although this is still in early stages. The price for an affordable module is below EUR 100, with a minimum order quantity of around 1,000 units.

**Military segment.** Military growth dynamics are expected to be weaker than last year, but the military segment remains strong.

**Semiconductor materials.** Semiconductor materials segment's revenue is expected to grow by 20% y/y, though slightly slower than last year. Driven primarily by materials for QCL laser layers and energy storage.

**IR Arrays.** Arrays are highly complex devices requiring technological partners. Stringent client requirements apply, as these are military applications. CFO considers it a success to have reached production readiness within four years starting from scratch. Therefore speeding up the process might not be easy to be achieved vs. current plans. The management sees opportunities for arrays production contracts with foreign military and civilian entities, considering the long lead times from the competition (due to general increase in military demand).

**IR Arrays profitability.** The only one technological component of Arrays which was transferred from a partner, requiring a licensing fee, but this is minimal and will not significantly lower the company's margin. The rest of the process is handled in-house, which secures high profitability of the business.

**HyperPIC.** The company plans to start factory construction in 2027. Before HyperPIC is completed, the management sees opportunities for revenue generation upon achieving key milestones, such as QCL laser sales.

**QCL lasers.** As part of R&D preparations to hyperPIC the company aims to develop technology to produce QCL lasers. Cascade lasers are complementary to VIGO's detectors, as they use similar technology and structures. The management aims to be ready within 1–2 years for QCL laser production. Their clients often purchase detectors from them but source lasers elsewhere. VIGO wants laser-related offerings to be integrated into their portfolio possibly quickly.

**Strategic option review.** In September last year, the company began strategic options review process. According to CFO no major announcements should be expected in the near future,

but updates may come in 2H25. The company has partners highly interested in its business and upcoming projects.

**Financing.** The company is currently focusing on securing financial sources for HyperPIC and other strategic projects, with updates in this regard expected later this year.

**U.S. Market & Tariffs.** The company maintains that U.S. tariffs do not directly impact their sales, but their European clients' products are affected, leading to potential indirect negative consequences for demand for VGO detectors. Some concerns have been raised by the US about possible semiconductor product tariffs, but effects remain uncertain due to volatility of statements.

**Price increases.** According to CFO the company's ongoing analysis focuses on potential price hikes in the U.S., where tariffs and weak USD exchange rates may justify price adjustments.

# 1Q25E results preview

We forecast 1Q25E revenues at PLN 22.1m (down 8% q/q, in line with preliminary data), norm. EBITDA at PLN 2.0m (vs. PLN -1.3m in 4Q24) and norm. net loss at PLN 1.0m (vs. PLN 0.7m net profit quarter ago) to be driven by:

- **Revenues.** VIGO reported preliminary revenues of PLN 22.1m, representing an increase of 39% y/y and decline of 8% q/q, driven by the industry and military segments as well as a rebound in the medicine & science segment. The decline in materials for photonics segment was a result of temporary halt in deliveries of InP layers due to Chinese export controls and anticipation for granting of export licences.
- **Gross margin.** We expect a gross margin of 50% in the quarter. We note that in general the reported gross margin is likely to be higher due to changes in R&D expenditures recognition (currently in G&A).
- **SG&A costs.** We forecast SG&A costs to arrive at PLN 13.2m, including PLN 9.4m of G&A cost and PLN 3.8m selling cost.
- **EBITDA.** We estimate norm. EBITDA of PLN 2.0m (vs. PLN -1.3m in 4Q24) and EBIT of PLN -0.5m (vs. PLN -2.5m in 4Q24).
- **Net profit.** We forecast PLN -1.0m of norm. net loss (vs. PLN 0.7m income in 4Q24). We expect a slight negative net financial result and immaterial level of cash income tax.

Figure 8. VIGO Photonics 1Q25E results preview

P&L (PLN m)	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24	1Q25E	y/y	q/q
<b>Przychody ze sprzedaży</b>	<b>18.7</b>	<b>17.6</b>	<b>17.2</b>	<b>22.1</b>	<b>15.8</b>	<b>22.7</b>	<b>15.7</b>	<b>24.1</b>	<b>22.1</b>	<b>39%</b>	<b>-8%</b>
Przemysł	11.1	9.2	10.7	14.1	6.8	8.1	7.6	11.5	10.5	55%	-9%
Wojsko	2.8	3.5	2.2	3.2	4.4	7.9	4.0	6.9	6.6	49%	-4%
Transport	2.3	2.7	1.4	1.4	2.0	3.3	0.7	1.3	1.1	-47%	-17%
Medycyna i nauka	0.9	1.6	1.2	1.3	1.0	1.0	1.5	1.5	2.7	181%	76%
Pozostałe	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	na	na
Materiały dla fotoniki	1.6	1.2	1.7	1.8	1.6	2.4	1.9	2.9	1.2	-26%	-58%
Koszty sprzedanych produktów, towarów i materiałów	-9.4	-9.2	-8.6	-8.6	-8.2	-11.8	-9.5	-9.1	-11.0	34%	21%
<b>Zysk/(strata) brutto na sprzedaży</b>	<b>9.3</b>	<b>8.4</b>	<b>8.6</b>	<b>13.5</b>	<b>7.6</b>	<b>10.9</b>	<b>6.1</b>	<b>15.0</b>	<b>11.0</b>	<b>45%</b>	<b>-26%</b>
Pozostałe przychody operacyjne	2.2	1.7	1.7	12.3	2.4	2.4	2.7	7.2	3.7	54%	-49%
Koszty sprzedaży	-3.0	-1.7	-2.3	-2.4	-2.9	-3.3	-3.5	-3.8	-3.8	30%	0%
Koszty ogólnego zarządu	-4.2	-4.8	-4.7	-19.9	-5.3	-6.5	-6.3	-17.7	-9.4	76%	-47%
Pozostałe koszty operacyjne	-0.6	-1.1	-0.8	-3.4	-2.4	-1.9	-2.1	-3.1	-2.1	-13%	-34%
<b>EBITDA</b>	<b>6.5</b>	<b>5.5</b>	<b>5.8</b>	<b>1.3</b>	<b>3.9</b>	<b>6.0</b>	<b>2.0</b>	<b>-3.1</b>	<b>2.8</b>	<b>-27%</b>	<b>na</b>
<b>EBITDA znorm.</b>	<b>5.6</b>	<b>4.5</b>	<b>5.1</b>	<b>0.0</b>	<b>2.3</b>	<b>4.4</b>	<b>0.0</b>	<b>-1.3</b>	<b>2.0</b>	<b>-13%</b>	<b>na</b>
<b>EBIT</b>	<b>3.7</b>	<b>2.5</b>	<b>2.5</b>	<b>0.0</b>	<b>-0.6</b>	<b>1.5</b>	<b>-3.1</b>	<b>-2.5</b>	<b>-0.5</b>	<b>-18%</b>	<b>-79%</b>
Przychody finansowe netto	-0.7	1.7	-2.0	0.9	-0.2	-0.4	-0.9	0.5	-0.5	184%	na
<b>Zysk brutto</b>	<b>3.0</b>	<b>4.2</b>	<b>0.4</b>	<b>0.9</b>	<b>-0.8</b>	<b>0.6</b>	<b>-4.1</b>	<b>0.7</b>	<b>-1.0</b>	<b>25%</b>	<b>na</b>
Podatek dochodowy	-0.5	-0.3	0.2	-13.7	0.0	-0.1	-0.3	0.0	0.1	na	na
Zysk netto	2.5	3.9	0.7	-12.7	-0.9	0.5	-4.4	0.7	-1.0	12%	na
<b>Znorm. zysk netto</b>	<b>3.0</b>	<b>4.2</b>	<b>0.4</b>	<b>0.9</b>	<b>-0.8</b>	<b>0.6</b>	<b>-4.1</b>	<b>0.7</b>	<b>-1.0</b>	<b>25%</b>	<b>na</b>

Source: Company, IPOPEMA Research

## Appendix 1: Risks to our forecasts and valuation

**Between critical in our opinion risks for operations and results of VIGO Photonics we include:**

**The risk of decrease of demand for company's products.** The market of MID-Infrared detectors on which VIGO operates is currently dynamically developing part of photonics. Nevertheless, there is a risk, that due to different factors (including macroeconomic, political or technological) the demand for detectors will drop significantly and the market would not grow with actual, high dynamic.

**The risk of key client loss.** In 2024 42% of revenues were generated from the contracts with 4 clients (vs. in 2023 40%). The end of collaboration with each of these, or the decrease of contracts value could significantly affect the dynamic of VIGO revenues growth. However we note that the competition on the IR detectors market is low (high entry barriers) and there is high cost of technology replacement (which is also the barrier for VIGO and means that acquisition of new partners is harder).

**The risk of competition.** Due to high concentration on the market (only few producers) and high entry barriers (complicated technology) we assume that competition risk is quite low. Nonetheless with further dynamic growth of the market and popularization of applications of MID-infrared detectors there is a risk that leading technological companies will decide to enter the market. Another risk is the fast development of technology and short life cycle of the product (there is a risk of obtaining technological advantage by one of the competitors).

**Risk of key projects failure.** We highlight that performance of main new projects like investment in semiconductor materials segment, IR Arrays of PIC technology may result in failure and therefore not generated expected profits for the company or generated higher than anticipated capital expenditures, which may negatively affect financial results and valuation.

**The risk of losing key employees.** Production of infrared detectors is a process which require highly specialized workers, which supply on the market is very limited. At the same time high qualifications of the staff is perceived by the board as one of the advantages of VIGO.

**The risk of alternative technology.** There is a risk that other alternative technology could appear on the market and replace VIGO products with better parameters and/or lower price.

**The risk of equipment breakdown.** The equipment used by VIGO is highly advanced and is not vastly available on the market. In the case of breakdown, the company could have a problem with the production delays. The costs of replacement/repair of machines could be also significant.

**Risk of lower subventions/grants in the future.** To keep high level of subventions to expenditures on R&D the company needs to meet many criterions. The loss of subvention, or lower level of subvention in the future would result in the necessity of higher company's own spending on R&D or higher debt level.

**The Currency risk.** The most of the VIGO revenues is generated in EUR, while the cost (based on salaries and other employees' benefits) are mainly in PLN, which result in exposure for currency risk. VIGO is not using currency hedging instruments.

**Risk of restricting access to materials as a result of legislation.** According to EU ROHS directive some substances which are currently used for VIGO's detectors production will be no longer available for use in the future due to their hazardous nature.

## Appendix 2: ESG

**Below we present our ESG analysis of VIGO Photonics operations:**

**Environmental.** VIGO's detectors are used for analysis and detection of harmful gases, and thus they are used in the environment protection sector as well as in industrial applications, where they could materially contribute to the policy of reducing harmful gas emissions.

The R&D projects conducted by consortiums with VIGO's active participation (which are a part of the Horizon 2020 European program) are aimed at developing new technologies and devices for water quality control. VIGO is participating in project Waterspy, which targets the development of mobile devices for water quality control (analyzing for bacterial contamination) in important points of water distribution networks. The second project – AQUARIUS – aims to develop a device for spectroscopy for monitoring of oil pollution in transmission networks of drinkable and industrial water, especially in the petrochemical industry. In our opinion, both projects could help to reduce the level of pollution and decrease the number of diseases, especially in developing countries.

VIGO is also investing in the development of detector technology (investment in a new production hall and new clean room), which results in optimization of the production process and lower consumption of materials and energy (affordable detector) and higher yield (with the new clean room). VIGO is currently developing detectors from A(III)B(V) materials, which are expected to replace products based on HgCdTe compounds (include mercury, which according to the UE ROHS directive will be withdrawn from commercial applications in coming years). VIGO has not decided yet when HgCdTe detectors will be removed from its offer, but it is intensively working on substitutes without dangerous compounds (including an affordable detection module).

Water consumption for production is monitored on a daily basis. The company does not use any fossil fuels for heating. It does not have its own heating furnaces. Analyses are carried out once a quarter on the physical and chemical quality of wastewater. So far, no excesses have been recorded. The group generates municipal waste, hazardous waste and outside the installation, as well as other waste related to its activity. Records are kept for the waste specified in the Act.

**Social responsibility.** VIGO's detectors are used for military purposes, mainly in artillery applications (smart munitions, reduction in number of accidental victims due to better aiming) and for tracking warning systems. Currently applications in drug and explosive detection are being analyzed.

**Governance.** From 21 November 2014 when VIGO Photonics shares were admitted to trading on the WSE, the company has accepted and complied with WSE governance policy rules. We have positive feedback about VIGO's corporate governance due to: 1) lack of transactions with related parties; 2) market-based salaries of the board; 3) a transparent dividend policy; 4) solid and clear accounting standards and policy, along with high quality presented financial data; and 5) reporting of sales data at the end of each quarter and respecting deadlines for financial reporting. Another good practice of the company is also presenting the strategy with mid-term financial targets, though its realization was several times postponed in the past years. We like the long-term involvement of the board and its professional qualifications. The company also holds regular meetings with investors after the publication of quarterly earnings, when the board is ready to answer shareholders' questions.

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The definitions of terms used in the document include:

NII – Net interest income – interest income minus interest expense.

Net F&C – Net fee and commission income – fee and commission income minus fee and commission expense.

LLP – loan loss provisions – an expense set aside as an allowance for bad loans.

NPL – non-performing loan – loans that are in default or close to be in default.

Cost/Income – operating expenses divided by total banking revenue.

ROE – return on equity – net income (or adjusted net income) divided by the average shareholders' equity.

ROA – return on assets – net income (or adjusted net income) divided by the average assets.

EBIT – earnings before interests and tax.

EBITDA – earnings before interests, tax, depreciation and amortization.

EPS – earnings per share – the net income (or adjusted net income) divided by the number of shares outstanding.

P/E – price to earnings ratio – price divided by earnings per share.

PEG – P/E ratio divided by the annual EPS growth, usually over a certain period of time.

CAGR – compound annual growth rate.

BVPS – book value per share, the book value of the Company's equity divided by the number of shares outstanding.

P/BV – price to book value - price divided by the BVPS.

DPS – dividend per share – dividend of a given year divided by the number of shares outstanding.

DY – dividend yield – dividend of a given year divided by the current price.

DDM – dividend discount model – a fundamental method of valuation based on the assumption that the value of stock equals the sum of all discounted future dividends.

FV – Fair Value, calculated based on valuation methods outlined in the document.

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Rating	Difference between FV and price at recommendation
Buy	Above 10%
Hold	In between (and including) -10% and 10%
Sell	Below -10%

#### IPOPEMA Research - Distribution by rating category (January 1 – March 31, 2025)

	Number	%
Buy	13	81%
Hold	1	6%
Sell	2	13%
Total	16	100%

#### Rating History – VIGO Photonics

Date	Recommendation	Fair Value	Price at recommendation	Author
24.08.2022	BUY	660.0	556.0	Michał Wojciechowski
28.03.2023	HOLD	600.0	566.0	Michał Wojciechowski
19.06.2023	UNDER REVIEW	-	652.0	Michał Wojciechowski
19.02.2024	BUY	600.0	484.0	Michał Wojciechowski
21.06.2024	BUY	600.0	540.0	Michał Wojciechowski
12.02.2025	BUY	500.0	428.0	Michał Wojciechowski
13.05.2025	BUY	640.0	508.0	Michał Wojciechowski