VIGO System

Detecting the right signal

We estimate VIGO to deliver PLN 53m in revenues in 2020E (up 24% y/y), which we perceive as a major feat in this year of the pandemic, despite being 9% below our previous forecast (primarily due to expected underperformance in the industry segment). The outlook for 2021E seems optimistic to us, with a substantial backlog in the military segment (board target of PLN 20m in revenues), potential return to pre-pandemic growth in industry, introduction of affordable detector modules and further scaling up of the semiconductors segment which we anticipate. In consequence, we forecast the company to deliver PLN 67m in revenues in 2021E (up 26% y/y). The headline growth should be followed by an improvement in margins, as the company will be able to benefit from a higher production scale. As a result we forecast PLN 24.6m in net income in 2021E (up 42% y/y), with a norm. net margin increase to 36.6% from 34.3%. The company trades on our forecasts at a P/E of 23.2x and 16.3x in 2020/21E and EV/EBITDA of 16.3x and 12.5x in 2020/21E, respectively. We maintain our BUY recommendation and increase our FV to PLN 660.0 (20% upside potential), from PLN 650.0 previously.

2020E expected to provide a decent base…

We forecast VIGO to reach in 2020E PLN 53.3m in revenues (+24% y/y) and PLN 17.3m in net income (+25% y/y). The main drivers for revenue growth this year should be the military segment (PLN 12.7m, up 58% y/y), medicine and science (PLN 7.6m, up 146% y/y) as well as the new semiconductor segment (PLN 2m). The industry segment is on the path to becoming the main underperformer with a 4% drop in revenues y/y to PLN 24.5m. We forecast norm. net margin (excluding a negative exchange rate impact) to arrive at 34.3%, a 2pp improvement y/y.

… which should be materially expanded in 2021E…

2021E should bring further 26% y/y revenue expansion to the level of PLN 67.3m. We forecast the main drivers to be 1) the military segment with PLN 18.1m in revenues (up 43% y/y), slightly below management's target of PLN 20m (mostly secured in the backlog with PLN 15m from the Safran); 2) industry segment with PLN 28.2m in revenues (up 15% y/y, vs. 2016-19 CAGR of 19%); 3) introduction of affordable detection modules (we forecast 5k units sold and PLN 2m in revenues). We also still expect rapid growth in the semiconductor segment; nevertheless, we delay by one year our revenue forecast of PLN 4m to 2021E (60% of VIGO's target). In our view the company will deliver a 2.3pp improvement in net margins to 36.6% in next year, assuming a moderate increase in salaries.

… and followed by robust long-term potential

The company is currently intensively exploring the market with an aim to expand client base in areas of new products and applications. We expect VIGO's cutting edge technology, boosted by a strong R&D budget, to be a firm driver for long-term growth, and forecast VIGO to reach in 2025E PLN 29m in revenues from affordable detection modules and PLN 20m from the semiconductor segment.

Figure 1. Summary of financial data (PLN m)

	2018	2019	2020E	2021E	2022E	2023E
Revenues	37.4	42.9	53.3	67.3	77.8	98.7
EBITDA	16.2	18.6	25.3	33.8	38.4	50.1
Net income	13.0	13.9	17.3	24.6	25.8	35.9
EV/EBITDA (x)	12.5	15.6	16.3	12.5	10.7	7.9
P/E (x)	15.4	19.6	23.2	16.3	15.6	11.2
DY	0.0%	0.0%	0.0%	2.2%	3.1%	3.2%

Source: Company, IPOPEMA Research

TMT

VIGO SYSTEM

BUY

FV PLN 660.0 from PLN 650.0

20% upside

Price as of 4 December 2020 PLN 550.0

maintained

Share data

Number of shares (m)	0.
Market cap (EUR m)	89.
12M avg daily volume (k)	0.
12M avg daily turnover (EUR m)	0.0
12M high/low (PLN)	630.0/326.
WIG weight (%)	0.
Reuters	VGOP.W
Bloomberg	VGO PV

Total performance

1M	+6.8%
3M	-6.8%
12M	+45.5%

Shareholders

Józef Piotrowski	11.9%
Xarus Holdings Limited	9.9%
TFI Investors SA	9.8%
Janusz Kubrak	6.6%
Mirosław Grudzień	5.1%
Pozostali	56.7%

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VIGO System

BUY FV PLN 660

Mkt Cap EUR 89.1m upside +20%

Valuation multiples	2019	2020E	2021E	2022E	2023E
P/E (x)	19.6	23.2	16.3	15.6	11.2
EV/EBITDA (x)	15.6	16.3	12.5	10.7	7.9
EV/Sales (x)	6.8	7.7	6.3	5.3	4.0
P/BV (x)	4.0	4.7	4.0	3.5	2.9
FCF yield (%)	-5.5%	2.0%	-0.5%	5.9%	6.9%
DY (%)	0.0%	0.0%	2.2%	3.1%	3.2%

Per share	2019	2020E	2021E	2022E	2023E
No. of shares (m units)	0.7	0.7	0.7	0.7	0.729
EPS (PLN)	19.0	23.7	33.8	35.3	49.2
BVPS (PLN)	93.4	117.0	139.0	157.4	189.0
FCFPS (PLN)	-22.0	11.0	-3.1	33.3	37.7
DPS (PLN)	0.0	0.0	11.9	16.9	17.7

Change y/y (%)	2019	2020E	2021E	2022E	2023E
Revenues	14.6%	24.3%	26.2%	15.6%	27.0%
EBITDA	14.6%	36.1%	33.3%	13.9%	30.3%
EBIT	9.8%	34.4%	33.9%	4.3%	38.8%
Net profit	6.6%	24.6%	42.5%	4.5%	39.3%

Leverage and return	2019	2020E	2021E	2022E	2023E
Gross margin (%)	63.0%	62.7%	61.7%	57.3%	56.8%
EBITDA margin (%)	43.4%	47.5%	50.2%	49.4%	50.7%
EBIT margin (%)	32.7%	35.3%	37.5%	33.9%	37.0%
Net margin (%)	32.4%	32.4%	36.6%	33.1%	36.4%
Net debt / EBITDA (x)	1.1	0.6	0.8	0.4	0.0
Net debt / Equity (x)	0.3	0.2	0.3	0.1	0.0
Net debt / Assets (x)	0.2	0.1	0.1	0.1	0.0
ROE (%)	22.7%	22.6%	26.4%	23.9%	28.4%
ROA (%)	12.7%	12.6%	15.2%	13.9%	17.4%
ROIC (%)	19.1%	19.8%	22.0%	20.5%	27.4%

IR detectors	2019	2020E	2021E	2022E	2023E
Revenues	**42.7**	**51.3**	**63.3**	**71.0**	**88.5**
Industry	25.4	24.5	28.2	32.2	36.4
Military	8.1	12.7	18.1	10.9	12.5
Transport	5.8	6.1	6.7	7.3	7.9
Medicine and Science	3.1	7.6	7.6	9.5	12.7
Others	0.4	0.4	0.4	0.4	0.4
Affordable d. module	0.0	0.0	2.2	10.6	18.6
EBIT	14.3	19.1	25.2	25.7	34.6
EBITDA	18.8	24.8	32.8	37.0	47.4
net profit	**14.1**	**18.5**	**24.6**	**25.1**	**34.0**
net profit margin	33.1%	36.0%	38.8%	35.4%	38.4%

Semiconduct. mat.	2019	2020E	2021E	2022E	2023E
Revenues	**0.2**	**2.0**	**4.0**	**6.8**	**10.2**
EBIT	-0.3	-0.3	0.1	0.6	1.9
EBITDA	-0.3	0.5	0.9	1.5	2.7
net profit	**-0.2**	**-1.2**	**0.1**	**0.6**	**1.9**
net profit margin	-153.5%	-60.0%	2.1%	9.2%	18.3%

Cost by type	2019	2020E	2021E	2022E	2023E
Salaries, other benefits	-15.8	-17.9	-21.4	-25.0	-30.4
Materials and energy	-8.5	-9.3	-12.6	-15.3	-20.8
D&A	-4.6	-6.5	-8.5	-12.1	-13.6
Services and other	-3.7	-4.6	-5.5	-6.4	-7.6

P&L (PLN m)	2018	2019	2020E	2021E	2022E	2023E
Revenues	37.4	42.9	53.3	67.3	77.8	98.7
COGS	-16.9	-15.9	-19.9	-25.8	-33.2	-42.7
Gross profit	**20.5**	**27.0**	**33.4**	**41.5**	**44.5**	**56.0**
Selling costs	-2.2	-2.4	-3.1	-3.9	-4.4	-5.5
G&A costs	-7.7	-12.2	-15.0	-16.6	-20.1	-21.7
Other operating income (cost) net	2.1	1.6	3.5	4.2	6.3	7.7
EBITDA	**16.2**	**18.6**	**25.3**	**33.8**	**38.4**	**50.1**
EBIT	**12.8**	**14.0**	**18.8**	**25.2**	**26.3**	**36.5**
Financial income (cost) net	0.3	-0.1	-1.5	-0.3	-0.3	-0.3
Pre-tax profit	**13.0**	**13.9**	**17.3**	**24.9**	**26.0**	**36.3**
Income tax	0.0	0.0	-0.1	-0.2	-0.3	-0.4
Net profit	**13.0**	**13.9**	**17.3**	**24.6**	**25.8**	**35.9**

BALANCE SHEET (PLN m)	2018	2019	2020E	2021E	2022E	2023E
Non-current assets	**67.4**	**98.8**	**112.9**	**145.8**	**152.8**	**161.0**
Goodwill and intangible assets	6.8	12.4	18.6	25.3	30.0	34.5
Expenditures on R&D	14.4	16.7	20.0	24.0	28.8	34.5
Investments in associates	1.3	2.3	4.6	4.6	4.6	4.6
tangible assets	45.0	67.5	69.7	91.9	89.5	87.4
Other non-current assets	0.0	0.0	0.0	0.0	0.0	0.0
Current assets	**22.8**	**28.9**	**34.2**	**30.7**	**40.9**	**57.5**
Inventories	4.1	6.9	7.3	9.0	10.2	12.7
Trade receivables	5.6	7.1	7.5	9.2	10.7	13.5
Cash and equivalents	9.3	12.8	14.1	8.0	15.4	26.7
Other current assets	3.7	2.1	5.2	4.5	4.5	4.6
Total assets	**90.2**	**127.7**	**147.1**	**176.5**	**193.7**	**218.6**
Equity	**54.2**	**68.1**	**85.3**	**101.3**	**114.7**	**137.8**
Non-current liabilities	**17.9**	**47.1**	**48.0**	**60.8**	**63.1**	**63.4**
Loans and borrowings	5.5	26.8	24.0	29.0	25.0	22.0
Other non-current liabilities	12.4	20.3	24.0	31.8	38.1	41.4
Current liabilities	**18.1**	**12.5**	**13.8**	**14.4**	**15.8**	**17.4**
Trade payables	7.0	1.6	2.7	4.0	5.6	7.1
Loans and borrowings	7.9	6.5	6.3	5.3	4.8	4.3
Other current liabilities	3.3	4.5	4.8	5.1	5.5	6.0
Equity & liabilities	**90.2**	**127.7**	**147.1**	**176.5**	**193.7**	**218.6**
Cash conversion cycle (days)	-8.8	2.6	50.0	43.0	37.0	36.0
Gross debt (PLN m)	13.3	33.3	30.3	34.3	29.8	26.3
Net debt (PLN m)	**4.0**	**20.5**	**16.2**	**26.3**	**14.4**	**-0.4**

CASH FLOW (PLN m)	2018	2019	2020E	2021E	2022E	2023E
Operating cash flow	**9.1**	**15.4**	**21.5**	**27.6**	**30.6**	**38.1**
Pre-tax profit	13.0	13.9	17.3	24.9	26.0	36.3
D&A	3.5	4.6	6.5	8.5	12.1	13.6
Change in WC	-5.9	-1.6	-0.7	-2.3	-1.1	-3.8
Other	-1.5	-1.5	-1.6	-3.5	-6.4	-7.9
Investment cash flow	**-24.6**	**-31.1**	**-17.4**	**-28.8**	**-6.1**	**-10.2**
Grants	1.9	8.9	6.5	12.6	13.1	11.6
CAPEX excl. R&D	-21.6	-32.0	-6.5	-26.6	-3.6	-4.0
CAPEX on R&D	-4.3	-7.4	-11.8	-14.8	-15.6	-17.8
Net investment in subsidiaries	-0.5	-0.6	-2.3	0.0	0.0	0.0
other	0.0	0.0	-3.3	0.0	0.0	0.0
Financial cash flow	**13.3**	**19.2**	**-2.8**	**-5.0**	**-17.1**	**-16.6**
Change in equity	0.0	0.0	0.0	0.0	0.0	0.0
Change in debt	13.3	19.7	-2.5	4.0	-4.5	-3.5
Interest paid	-0.1	-0.4	-0.3	-0.3	-0.3	-0.3
Dividend	0.0	0.0	0.0	-8.6	-12.3	-12.9
Other	0.0	0.0	0.0	0.0	0.0	0.0
Change in cash	**-2.2**	**3.5**	**1.3**	**-6.1**	**7.4**	**11.2**
Cash as of eop	**9.3**	**12.8**	**14.1**	**8.0**	**15.4**	**26.7**

Source: Company data, IPOPEMA Research

Valuation

Figure 2. Valuation Snapshot

Valuation method	Weight (%)	FV (PLN/share)
DCF	100%	660.0
Peers	0%	942.0
Fair value		**660.0**
Current price		550.0
Upside/downside		**20%**

DCF Valuation

	2020E	2021E	2022E	2023E	2024E	2025E	TV
Revenues	53.3	67.3	77.8	98.7	119.7	141.6	141.6
- change y/y	*24%*	*26%*	*16%*	*27%*	*21%*	*18%*	
EBITDA	25.3	33.8	38.4	50.1	58.7	67.9	67.9
- EBITDA margin	*47.5%*	*50.2%*	*49.4%*	*50.7%*	*49.1%*	*48.0%*	*48.0%*
- change y/y	*36%*	*33%*	*14%*	*30%*	*17%*	*16%*	
EBIT norm.*	16.5	20.5	19.5	28.2	34.0	38.1	38.1
Tax rate	*0%*	*1%*	*1%*	*1%*	*1%*	*1%*	*9%*
NOPAT	16.4	20.3	19.3	28.0	33.6	37.7	34.6
- change y/y	*36%*	*24%*	*-5%*	*45%*	*20%*	*12%*	
D&A	6.5	8.5	12.1	13.6	15.1	17.6	17.6
Change in WC	-0.7	-2.3	-1.1	-3.8	-3.4	-2.3	-2.3
CAPEX	-14.1	-28.8	-6.1	-10.2	-11.5	-11.7	-17.6
FCF	8.0	-2.2	24.2	27.5	33.8	41.3	32.4
RFR	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Beta	1.8	1.7	1.6	1.6	1.5	1.5	1.5
Risk premium	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cost of Equity	10.4%	10.3%	9.8%	9.4%	9.0%	9.3%	9.3%
After tax cost of debt	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%
% D	26%	25%	21%	16%	12%	10%	14%
% E	74%	75%	79%	84%	88%	90%	86%
WACC	7.9%	8.0%	8.0%	8.0%	8.0%	8.1%	8.1%
Discount factor (%)		92%	85%	79%	73%	68%	
FCF PV (PLN m)		-2.1	20.7	21.7	24.7	27.9	
FCF PV 2021-25E (PLN m)	93.0						
Residual growth rate (%)	2.5%						
Discounted residual value (PLN m)	402.1						
EV (PLN m)	495.1						
Investments in associates	4.6						
Others	-2.0						
Net debt (PLN m, 4Q20)	16.2						
Equity value (PLN m)	**481.5**						
Number of shares (diluted, m)	0.7						
FV (PLN)	**660.0**						
Current price	550.0						
Upside/downside potential	**20%**						

DCF Sensitivity analysis

Residual growth rate (%)	WACC (%)				
	7.1%	**7.6%**	**8.1%**	**8.6%**	**9.1%**
1.5%	660	612	572	537	507
2.0%	717	660	612	572	537
2.5%	787	717	660	612	572
3.0%	874	787	717	660	612
3.5%	984	874	787	717	660

*Source: Company data, IPOPEMA Research, * EBIT normalized by non-cash other operating revenues - settlement of grants for R&D.*

Figure 3. Valuation sensitivity analysis

Affordable detection module volume sold (2025E)	EUR Net price per affordable detection module (2025E)				
	29	44	66	99	149
25.0	408	424	448	483	536
50.0	440	471	518	589	695
100.0	503	566	660	801	1014
150.0	566	660	801	1014	1332
225.0	660	801	1014	1332	1809

Materials for photonics - cost of materials as % of revenues (2025E)	Materials for photonics segment 2025E revenues (PLNm)				
	5.0	10.0	20.0	40.0	79.9
20.0%	636	651	680	739	857
30.0%	631	644	667	712	804
35.0%	628	641	660	699	777
40.0%	625	637	653	685	750
50.0%	620	630	640	659	696

Source: IPOPEMA Research

Figure 4. VIGO System – Peers comparison

COMPANY	Market Cap	P/E (x)			EV/EBITDA (x)			DY	Revenues CAGR	NI CAGR	ROE
	USD m	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2019-22E	2019-22E	2020E
HAMAMATSU PHOTON	9,335	49.6	42.6	38.0	24.6	21.5	19.3	0.7%	*6.0%*	*13.0%*	*8.6%*
TELEDYNE TECH	14,487	39.8	35.1	31.3	24.7	21.4	19.9	n.a.	*3.0%*	*6.0%*	*n.a.*
NIPPON CERAMIC	779	39.0	31.4	25.7	n.a.	n.a.	n.a.	1.5%	*3.0%*	*3.0%*	*4.1%*
II-VI INC	7,379	32.6	20.9	18.4	19.6	10.7	9.1	n.a.	*12.0%*	*-289.0%*	*11.8%*
OPTEX GROUP CO L	733	48.7	30.5	24.4	n.a.	n.a.	n.a.	1.5%	*4.0%*	*11.0%*	*4.6%*
VISUAL PHOTONICS	632	33.1	26.7	20.9	18.6	15.7	12.6	2.5%	*13.0%*	*18.0%*	*18.7%*
IPG PHOTONICS	11,303	68.9	42.4	31.8	32.5	22.1	17.5	0.0%	*6.0%*	*26.0%*	*7.2%*
MEDIAN		**39.8**	**31.4**	**25.7**	**24.6**	**21.4**	**17.5**	**1.5%**	**6.0%**	**11.0%**	**7.9%**
VIGO System	107	23.2	16.3	15.6	16.3	12.5	10.7	0.0%	*21.9%*	*22.9%*	*22.6%*
premium/discount to all peers (median)		*-42%*	*-48%*	*-39%*	*-34%*	*-41%*	*-39%*				
Weight		25%	25%		25%	25%					
Implied Price (PLN)		**942.0**									

Source: IPOPEMA Research, Bloomberg, prices as of on 4.12.2020.

Figure 5. VIGO System – change in forecasts 2020-22E

	2020E	2020E	Change	2021E	2021E	Change	2022E	2022E	Change
	New	Previous	(%)	New	Previous	(%)	New	Previous	(%)
Revenues	**53.3**	**58.5**	**-9%**	**67.3**	**73.6**	**-9%**	**77.8**	**81.3**	**-4%**
EBITDA	25.3	27.9	-9%	33.8	36.3	-7%	38.4	37.3	3%
EBIT	18.8	21.7	-13%	25.2	27.2	-7%	26.3	27.3	-4%
Net income	**17.3**	**20.3**	**-15%**	**24.6**	**26.6**	**-7%**	**25.8**	**26.6**	**-3%**
Capex net	**(14.1)**	**(16.0)**	**-12%**	**(28.8)**	**(19.4)**	**48%**	**(6.1)**	**(9.2)**	**-34%**

Source: IPOPEMA Research

Financial Forecasts 2020-23E

Figure 6. VIGO System – financial forecasts 2020-23E

PLNm	2018	2019	2020E	2021E	2022E	2023E
Revenues	**37.4**	**42.9**	**53.3**	**67.3**	**77.8**	**98.7**
Industry	20.3	25.4	24.5	28.2	32.2	36.4
Military	8.1	8.1	12.7	18.1	10.9	12.5
Transport	5.8	5.8	6.1	6.7	7.3	7.9
Medicine and science	2.8	3.1	7.6	7.6	9.5	12.7
Other	0.4	0.4	0.4	0.4	0.4	0.4
Affordable detection module	0.0	0.0	0.0	2.2	10.6	18.6
Materials for photonics	0.0	0.2	2.0	4.0	6.8	10.2
EBIT	**12.8**	**14.0**	**18.8**	**25.2**	**26.3**	**36.5**
Detection modules	12.8	14.3	19.1	25.2	25.7	34.6
Materials for photonics	0.0	-0.3	-0.3	0.1	0.6	1.9
EBITDA	**16.2**	**18.6**	**25.3**	**33.8**	**38.4**	**50.1**
Net profit	**13.0**	**13.9**	**17.3**	**24.6**	**25.8**	**35.9**
Gross margin on sales (%)	55%	63%	63%	62%	57%	57%
EBITDA margin (%)	43%	43%	47%	50%	49%	51%
Net margin (%)	35%	32%	32%	37%	33%	36%
Operating Cash Flow	**9.1**	**15.4**	**21.5**	**27.6**	**30.6**	**38.1**
CAPEX (before grants)	**-26.5**	**-40.0**	**-20.6**	**-41.4**	**-19.2**	**-21.8**
Grants*	1.9	8.9	6.5	12.6	13.1	11.6
Net debt/ (Net cash)	**4.0**	**20.5**	**16.2**	**26.3**	**14.4**	**-0.4**

Source: Company, IPOPEMA Research

We forecast 2020-25E revenue CAGR for the IR detector segment at 19% (vs. 2015-20E CAGR of 15%). We estimate that in 2020E the segment will account for PLN 51.3m in revenues (up 20% y/y), which is a 6% weaker result than previously expected by us, partially due to the negative effect of the pandemic. In 2021-25E we expect that IR detectors excluding affordable modules will grow at a 12% CAGR, but with material changes in the growth structure. In 2021E the military segment should be a prime engine (expected PLN 18m in revenues, up 43% y/y), nonetheless we expect this year to be a record one, driven by the contract with Safran, which we conservatively assume will not reach such values in ensuing years (a 40% y/y drop in the segment's revenues assumed in 2022E). Nevertheless, we currently have higher expectations for the medicine and science segment (expected 2020-25E CAGR of 22%), which in our opinion could include the first applications of VIGO's products in the mass market (however, this is more likely possible beginning from 2023E). Another important driver for the segment is an affordable detection module line of products, for which we prepare an individual forecast. We expect that the company will deliver respectively 5k, 25k and 50k of affordable detectors in 2021-23E, which would translate into PLN 2m, PLN 11m and PLN 19m in revenues in corresponding years (21% of the segment's revenues in 2023E). In our estimates, we assume affordable detectors to reach 100k volume in 2025E (PLN 29m in revenues); however, we believe that the company's internal target is to reach such a level in a shorter time frame.

We estimate the semiconductor segment will achieve PLN 4m in revenues in 2021E (2x more than in 2020E, 60% of VIGO's management target) and PLN 20m in 2025E. As for now we still await a breakthrough in materials for the photonics segment, though the company has already attained material technology advances (a.o. the first Polish VCSEL laser) and is currently in talks with multiple potential clients around the world. Nonetheless, we remain more conservative in our forecasts than VIGO's management, providing a potential upside risk. We highlight that our expectations of PLN 20m in revenues in 2025E will utilize only 25% of the segment's current potential (est. capacity of one epitaxy machine).

We forecast PLN 48m/59m in operating costs in 2021/22E, a 25% and 23% y/y increase, respectively. We estimate that in 2020E operating costs will increase by 18% y/y, to PLN 38.3m, driven primarily by growth in salaries (PLN 14.7m, up 12% y/y, 38% of total operating costs), depreciation (PLN 6.5m, up 42% y/y, 17% of the total) and external services (PLN 4m, up 35% y/y, 10% of the total). In the coming years we forecast materials to be the prime driver of cost increases, with a 35/22% respective growth rate in 2021/22E to PLN 12.6/15.3m. We expect a lower increase in salaries (up by 19/17% y/y in 2021/22E to PLN 17.5/20.6m), respectively, as the company maintains a sufficient level of workforce in its production department (most new workers will probably reinforce the R&D department, impacting CAPEX level). We forecast D&A to reach PLN 8.5m and PLN 12.1m, respectively, in 2021/22E, driven by depreciation of the clean room (from 2022E) and amortization of R&D.

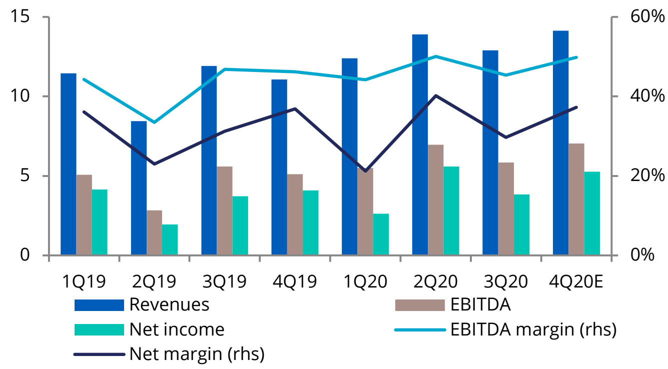
We forecast EBITDA at PLN 33.8m (up 33% y/y) in 2021E and PLN 38.4m (up 14% y/y) in 2022E and EBIT at PLN 25.2m (up 34% y/y) and PLN 26.3m (up 4% y/y), respectively.

We forecast net income at PLN 24.6m (up 42% y/y) in 2021E and PLN 25.8m (up 5% y/y) in 2022E. In 2020E VIGO's net margin was negatively affected by EUR loans' revaluation (excluding this factor the norm. margin arrived at 34.3%). In 2021/22E we expect the company to deliver net margins of 36.6% and 33.1%. We also expect the income tax to remain at an immaterial level in 2020-25E, taking advantage of operating in a special economic zone (in the future also potential implementation of the IP Box relief).

We forecast net CAPEX, post-grants, at PLN 14.1m, PLN 28.8m and PLN 6.1m in 2020-22E, respectively. The main driver for VIGO's CAPEX in coming years should be the clean room construction (PLN 2m in 2020E and PLN 22m in 2021E) which we expect to be finished on the verge of 2021/22E and material growth in R&D spending to PLN 14.8m in 2021E (up 25% y/y) and PLN 15.6m in 2022E (up 5% y/y), which is however partially funded by secured grants (we forecast VIGO to receive PLN 12.6m and PLN 13.1m in grants in 2021E and 2022E, respectively, which include a PLN 6m grant for the clean room construction). We also expect remaining CAPEX for additional equipment and conservation at PLN 4.6m in 2021E and PLN 3.6m in 2022E.

Dividends. In 2020 management did not recommend a dividend payment, primarily because of the pandemic outbreak. We believe that as the financial outlook remains good (net debt/EBITDA at 0.6x at the end of 2020E), a return to a dividend policy could be expected in the next year with 2021E DPS of PLN 11.9 (DY 2.2%).

Figure 7. VIGO System results in 1Q19-4Q20E (PLN m)



Source: Company, IPOPEMA Research

Figure 8. VIGO System – Structure of sales in 2018-2023E

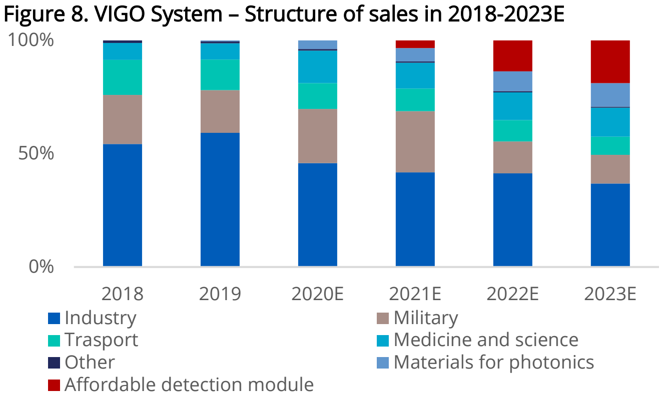
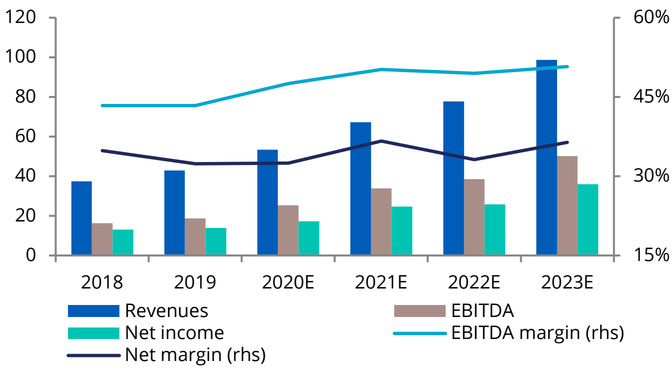
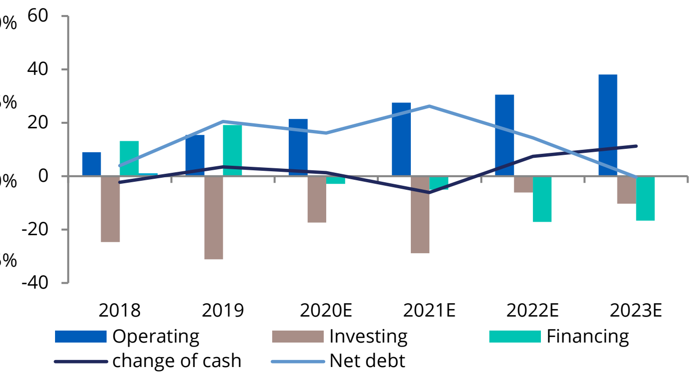


Figure 9. VIGO System – Revenues, EBITDA, Net income (PLN m) in 2018-2023E



Source: Company, IPOPEMA Research

Figure 10. VIGO System - Cash Flow in 2018-2023E (PLN m)



Appendix 1 - Investment risks

Between critical in our opinion risks for operations and results of VIGO System 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 growth with actual, high dynamic.

The risk of key client loss. In 2019 49% of revenues were generated from the contracts with 3 clients. 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 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).

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.

Appendix 2 - ESG

Below we present our ESG analysis of VIGO System operations:

Environmental. VIGO's detectors are used for analysis and detection of harmful gases, thus they are used in 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 active participation, (which are a part of Horizon 2020 European program) are aiming to develop new technologies and devices for water quality control. VIGO is participating in project Waterspy which targets to develop mobile device for water quality control (analyzing for bacterial contamination) in important points of water distribution network. The second project – AQUARIUS – aims to develop device for spectroscopy for monitoring of oil pollution in transmission networks of drinkable and industrial water, especially in petrochemical industry. In our opinion both projects could materially help to reduce level of pollution and decrease number of diseases especially in developing countries.

VIGO is also investing in development of detectors technology (investment in new production hall and new clean room), which results in optimization of production process and lower consumption of materials and energy (affordable detector) and higher yield (expected with 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 UE ROHS directive will be withdrawn from commercial applications till July 2024). VIGO has not decided yet when HgCdTe detectors will be removed from its offer, however it is intensively working on its substitutes without dangerous compounds (including affordable detection module). Below we present data about waste generation in the company in years 2018 and 2019:

Figure 11. VIGO System – Waste generated by VIGO in years 2018 and 2019 (in tons)

Waste categories	2018	2019
Paper, cardboard	1.4	2.0
Plastics	0.9	1.4
Electro-waste	-	0.4
Wood	-	0.3
mixed	17.7	16.8
Total waste other than hazardous	**20.0**	**20.9**
Hazardous waste.*	**2.4**	**2.0**

*Source: VIGO System, IPOPEMA Research *Hazardous waste is collected and utilizzed by specialized companies*

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

Governance. From 21 November 2014 when VIGO System shares were admitted to trading on WSE, the company is accepting and comply to WSE governance policy rules. We have positive opinion about VIGO's corporate governance due to: 1) lack of transactions with related parties; 2) market-based salaries of the board; 3) transparent dividend policy; 4) solid and clear accounting standards and policy, high quality of presented financial data; 5) reporting of sales data at the end of each quarter and respecting deadlines for financial reporting. The 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 long-term involvement of the board and its professional qualifications. The company is also holding regular meeting with the investors after quarterly earnings publication, when the board is ready to answer shareholders questions.

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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.
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IPOPEMA Research - Distribution by rating category (July 1 – September 30, 2020)

	Number	%
Buy	19	70%
Hold	6	22%
Sell	2	8%
Total	27	100%

Rating History – VIGO System

Date	Recommendation	Fair Value	Price at recommendation	Author
02.08.2019	BUY	380.0	330.0	Michał Wojciechowski
16.04.2020	BUY	480.0	384.0	Michał Wojciechowski
29.07.2020	BUY	650.0	550.0	Michał Wojciechowski
08.12.2020	BUY	660.0	550.0	Michał Wojciechowski