FINANCIAL RESULTS FOR 2022 & Q4 2022 April 20, 2023



VIGO IN A NUTSHELL

35 years of experience and operations

VIGO IS A WORLD LEADER IN HIGH-TECH SOLUTIONS – THE MOST ADVANCED MID-INFRARED PHOTONIC DETECTORS, **DETECTION MODULES AND SEMICONDUCTOR MATERIALS**

Headquarter in Poland

and branch office in USA

Over 200 highly qualified and experienced experts (1 Professor, 14 PhDs and >60 engineers)



Activity in the global infrared market: infrared sensors (12.3% CAGR 2020-30), semiconductor materials (17.2% CAGR 2020-27), photonic integrated circuits (20.4% CAGR 2021-30).

ΪΪΪ

Numerous long-term technological megatrends, e.g. systems miniaturization, Internet of Things (IoT), wearables lab-onchip, security and defense, development of the semiconductor industry in Europe.



Presence at the global forefront of industrial innovation - using a unique advantage throughout the entire VIGO photonic value chain.

Listed on the WSE since **2014**

25 distributors in 18 countries

supporting sales of solutions

Approx. PLN 400 million capitalisation

Support for stable long-term shareholders





An established market position reinforced by the world-class R&D department and expert technological knowledge of over 60- person team of engineers and scientists.



Addressing market needs thanks to a modern, scalable production facility, providing the most technically advanced solutions.

Implementation of an ambitious development strategy - moving VIGO to a higher utility curve in order to provide long-term value for all stakeholders.















1. EXECUTIVE SUMMARY 2. SUMMARY OF 2022 & Q4 2022 3. FINANCIAL RESULTS FOR 2022 & Q4 2022 4. PERSPECTIVES



EXECUTIVE SUMMARY

2022 & Q4 2022 SUMMARY

- PLN 67.9 million of consolidated revenues (-5% y/y) and PLN 20.3 million in Q4 2022 (-9% y/y) despite the volatile market environment - increases in industrial, science and medicine applications, and a decrease in transport and military, a growing share of revenues in Asia
- Lower operating results in 2022 and Q4 2022 y/y related to an intensive development of the sales network in the USA, preparation of further development projects of the company, and an increase in operating costs, incl. salaries
- Numerous activities aimed at reducing the negative effects of the changing market environment related to disrupted supply chains on business
- New funding for the implementation of research and development projects in the amount of PLN 9 million
- Record inflow of new sales orders in the amount of PLN 75.4 million increase by 10% y/y at the end of December 2022
- Price increases for customers in the amount of 20-30% successive implementation from the beginning of 2023
- Appointment of a new member of the Management Board support for the company in improving its operations, increasing the efficiency of production processes and supply chain management
- Continuation of the development of new technologies and the commercialization process of the existing and new solutions in accordance with the initiatives adopted in the development strategy
- Installation and commissioning of a new epitaxial reactor
- A series of marketing activities aimed at supporting the commercialization of solutions and increasing the recognition of the VIGO brand, especially on the USA market
- Transformation of the VIGO WE Innovation investment incubator into VIGO Ventures ASI investments in innovative projects



Infrared detetctors



Infrared detection modules



Epiwafers











SUMMARY OF 2022 & Q4 2022

MCT+ DETECTOR INITIATIVE

TECHNOLOGY DEVELOPMENT

Objective of the initiative

- Exploitation of the market in its gradual fading phase by improving the customisation process and exploring uncovered market niches.
- Stabilisation of multi-element detector technology, implementation of digital solutions, development of products for military and space applications.

Achievements in Q4 2022 and Q1 2023

- First demonstrators of LN2 detectors was sent to potential clients - sales volume potential for >1000 detectors/year (>1 mn EUR). Win opportunity for best in class detectors for one of the biggest manufacturer of spectrophotometers – sales potential and big opportunity to cooperate with client in new projects.
- Successful verification of system with VIGO detectors for military application - sales volume potential for >2000 detectors/year.

Plans for 2023

- Improvement of technological processes for current product portfolio.
- Implementation to production LN2 detectors for spectrophotometry application.









III-V INASSB DETECTORS AND DETECTION MODULES INITIATIVE

TECHNOLOGY DEVELOPMENT

Objective of the initiative

• Gaining the No. 1 position in the market for manufacturers of III-V detectors in the MidIR range. Implement T2SL supergrid technology (matching MCT performance), achieving technical performance superior to competitors across the MidIR range.

Achievements in Q4 2022 and Q1 2023

- Fulfillment of an order for 500 pcs. and acquiring more at TMD Precisely defined standards and production costs.
- Very promising results achieved at the first tests of epitaxial layers optimal for spectroscopy.

Plans for 2023

- Development of LWIR superlattice detectors for spectroscopy.
- Development of a passivation that will improve the stability of detectors at high temperatures.
- Launching of the high-end MWIR III-V product line.











III-V InGaAs DETECTORS AND DETECTION MODULES INITIATIVE

TECHNOLOGY DEVELOPMENT

Objective of the initiative

• Entering the III-V InGaAs detectors' market.

Achievements in Q4 2022 and Q1 2023

- First order for 100 InGaAs 1.7um detectors for military applications.
- Positive customer validation of Extended InGaAs.
- "State of the art" parameters achieved for Extended InGaAs 2.4um.

Plans for 2023

- Entering the Extended InGaAs market sector ",gas sensing".
- Development of a multi-element detector for industrial applications.
- Cooperation with a large military contractor to develop a balanced Extended InGaAs module.





Client	TRL 5 Product conceptTRL 6 Demon- stratorTRL 7 Proto- typeTRL 7 Custo- mer valida- tionTRL 8 Custo- mer valida- tion
Application: military Potential: >EUR 1 mn/year	2021 2021 2021 2022/ 2023
Application: biomedical sensor in consumer electronics Potential: ~EUR 10 mn/year	2021 2022 2022
Application: military Potential: >EUR 2,5 mn/year	2022







III-V EPITAXY* INITIATIVE - SEMICONDUCTOR MATERIALS

TECHNOLOGY DEVELOPMENT

Objective of the initiative

- Gain visibility in the market for epitaxy services, exploring market niches for photonic instruments (new VCSELs, unusual solutions).
- Refining the technology for the production and characterisation of VCSELs.

Achievements in Q4 2022 and Q1 2023

- Structures of Quantum Cascade Lasers (QCLs) positive implementations at clients, strengthening the position of a manufacturer of high-quality laser structures.
- Photovoltaic Cell Structures resumption and commencement of the second stage of implementation in the project of high-efficiency photovoltaic cells after restructuring on the client's side.
- Structures of Semiconductor Optical Amplifiers (SOA) project maintenance, next development stage and preparation for implementation at the customer's site.

Plans for 2023

- Completion of implementation and preparation for serial production of QCL structures.
- Completion of implementation and preparation for serial production of photovoltaic cell structures.
- Completion of implementation and preparation for mass production of SOA structures.



QCL Pot

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COMMERCIALISATION - SAMPLE PROJECTS

Client	TRL 5 Product conceptTRL 6 Demon- stratorTRL 7 Proto- typeTRL 7 Custo- mer valida- tionTRL 8 Custo- mer valida- tion
Application: (cascade lasers) for gas analysis tential: EUR 1 mn/year	2022 2022 2023
Application: High-performance photovoltaic cells otential: EUR 900k/year	2021 2021 2021
Application: Optical amplifiers tential: EUR 2 mn/year	2021 2022 2022

*High-quality epitaxial structures of III-V semiconductor materials (InGaAs, InAsSb) offered directly to customers for in-house production of detectors/chips and VCSEL lasers, as well as production of SWIR (VCSEL)







OPTOELECTRONIC SYSTEMS AND PHOTONIC INTEGRATED CIRCUITS (PIC) INITIATIVE

TECHNOLOGY DEVELOPMENT

Objective of the initiative

- Introduction, as the world's first manufacturer, of mid-infrared integrated circuits.
- Complete production line (world's first) for PICs in the MIR range (MIRPIC), complete supply chain for MIRPICs.

Gas detectors







Achievements in Q4 2022 and Q1 2023

- Development of the component library (PDK): MMI, DBR, AWG.
- Characterization of Ge-on-Si/1 µm structures (IMIF QCL + PW waveguide + VIGO DET).
- Development of two heterogeneous integration concepts ("shelf" and "super-shelf" configuration) - first successful integration attempts.
- Tests of suspended SOI waveguide structures, optimization of the Ge and Si etching proces.
- IMIF's QCLs integration with VIGO's controller.
- Development of the concept of a butterfly PIC package.

Plans for 2023

- Further development of the PDK component library.
- Development of integration techniques, integration and packaging of 3× QCL/ICL and passive PIC + detector.
- Vertical integration attempts.
- Miniaturization of the QCL laser controller.
- Preparation to scaling-up the technology.













INFRARED ARRAY INITIATIVE

TECHNOLOGY DEVELOPMENT

Objective of the initiative

- Becoming a major supplier of detectors for the Polish army/armament industry, winning customers outside Poland (industry, space).
- Development of cooled array production technology.

Achievements in Q4 2022 and Q1 2023

- Development of low-volume production technology for InGaAs arrays.
- Comparison of the capabilities of the cooled FPA demonstrator with a commercially available sensor (demonstration for MON and PGZ experts).

Plans for Q2 2023

• Product introduction: - SWIR FPA based on InGaAs.













NEW CLEANROOM AND LAUNCH OF DETECTION CHIP PRODUCTION -SUPPORT FOR PROCESSING 2.0

SIGNIFICANT INCREASE OF VIGO'S PRODUCTION CAPACITY -**ENABLING THE MANUFACTURE OF UP TO 100,000 DETECTORS PER YEAR**

IMPLEMENTATION TIME AND SCOPE

- 2021-2022 duration of the project
- April 2022 completion of the construction and equipping of the cleanroom dedicated to detection chips and start of the process of putting the individual process lines into production
- Modernisation of the current VIGO process hall and construction of a cleanroom, plus additional production equipment

OBJECTIVE OF THE INVESTMENT

- 1. Increasing the repeatability of production
- 2. Cost-effective and scalable manufacturing of detection chips use in InGaAs detectors and entry into the short wave infrared (SWIR) market
- 3. Introducing mid-infrared (MWIR) III-V detectors (RoHS) into the market
- 4. Meeting the highest quality requirements (military, space, semiconductor industries), ISO 6/ISO 7

CAPEX: PLN 34 mn

FINANCING: own funds, a loan of EUR 2 mn and co-financing under POIR (PLN 6 mn)















THE NEW REACTOR WILL ENABLE DOUBLING OF PRODUCTION CAPACITY

TEST LAUNCH OF THE NEW EPITAXIAL REACTOR

- Another epitaxial reactor for the production of III-V semiconductor materials ordered and delivered
- Supply agreement with a reliable company AIXTRON:
 - November 2021,
 - order delivery: September 2022,
 - system start-up: early 2023.
- CAPEX: EUR 3.6 mn, EUR 5.4 mn in total with investments necessary to launch













VIGO HAS 4 INSTALLED REACTORS FOR THE PRODUCTION OF SEMICONDUCTOR MATERIALS

MBE (InAs, InAsSb)

MOCVD (HgCdTe/ MCT)

MOCVD (III-V)







STRENGTHENING SALES IN THE USA MARKET

ENHANCED ACTIVITY IN THE USA

The opening of the branch in 2022 and the commencement of direct sales to customers as well as several activities supporting the expansion to the American market, incl.:

- Joining two American photonic clusters Society of Applied Spectroscopy and Florida Photonics Cluster
- Establishing cooperation with the largest wholesaler of electronic equipment - Digi-Key Electronics
- Conducting a product webinar dedicated to the American market.
- Creation of the VIGO Photonics brand and increased cooperation with the Photonics Media and Laser Focus World trade media
- Active participation in the SPIE Optics and Photonics fair.
- Launch of a Google Ads and Linked In Ads campaign targeted at the US market



8 September 2022 **1:00 PM EDT**





Brian Sanders - Senior Business Development Manager (US South and Mexico)

Alfred Mottola - Senio Business Development Manager (US North and Canada)

Affordable, Low-Profile Solutions for Gas Sensing 8 September 2022 1:00 PM EDT













BUSINESS ASSUMPTIONS OF THE EXPANSION TO THE USA

Accelerating the development of VIGO in the US market and deeper exploration of the US public procurement market



In H2 2021 - establishment of the VIGO Photonics US company: employment of a CEO, team building, recruitment and implementation of the sales, distribution and marketing strategy

















SUPPORT FOR THE COMMERCIALISATION OF SOLUTIONS THROUGH MARKETING ACTIVITIES

ENHANCED ACTIVITY AT INTERNATIONAL SCIENTIFIC CONFERENCES AND INDUSTRY FAIRS IN 2022

- Mirsens Mid-infrared conference
- Quantum Structure IR Photodetectors (QSIP) Conference – scientific conference co-organized by NASA
- International QCL Laser School & Workshop (IQCLSW)
- FLAIR
- E-MRS
- Międzynarodowy Salon Przemysłu Obronnego

- SPIE Photonics West
- CEM Emission Monitoring
- SPIE Defense and Commercial Sensing
- EPIC OTM on MID-IR
- Laser World of Photonics
- Hannover Messe
- Sensor+Test
- International Photonics Job Fair
- EUROSATORY
- Siegman International School

NIGO Participation in industry conferences creates the VIGO brand as an authority in the industry VIGO and gives the opportunity to promote technologies developed as part of strategic initiatives **SUPPORT FOR PRODUCT COMMERCIALIZATION** lagroda partnera • Implementation of campaigns supporting the commercialization of multi-element NIGO PHOTONICS detectors (32E) as well as the multi-band module and the AMS module for gas analysis InAs/InAsSb T2SL Photoconducti and Photovoltaic Detectors applications. • Continuation of campaigns promoting InAs/InAsSb superlattice detectors and T2SL z zakresu tworzenia nowych technologii oraz możliwości ich komercjalizacji, zwiedzanie calego zakladu detectors Four band mid-IR **Detection Module** • Increased activity to promote products dedicated to security and defense applications. Features: produkcyjnego VIGO Svstem S.A. Integrated TEC controlle Easy assembly
Compatible with optical accessories • Launching a new corporate website Other filters available upon request



NIGO PHOTONICS France, Italy, Spain PHOTONICS onal Business Development Manage UK, Northern Europe & Benelux











INVESTMENTS IN INNOVATIVE PROJECTS - VIGO VENTURES ASI FUND





VIGO VENTURES ASI - formerly VIGO WE INNOVATION (VWI), VIGO VENTURES

Investment incubator created by VIGO Photonics and Warsaw Equity Group (50:50 joint venture) in 2017 and transformed into an alternative investment company in September 2022

MANAGEMENT BOARD

Wojciech Smoliński Managing Partner, President of the Management Board

Marek Kotelnicki Managing Partner, Member of the Management Board

SUPERVISORY BOARD

Adam Markiel, WEG Chief Investment Officer Adam Piotrowski, President of VIGO Management Board Łukasz Piekarski, Member of VIGO Management Board

INVESTMENT ASSUMPTIONS

- investments and development of technological projects (start-ups, spin-offs) with global potential in the production of high-tech devices and components
- areas: photonics, semiconductors, quantum technologies
- solutions already pre-verified and/or with a working prototype
- projects generating independent profits and/or potential support for VIGO Photonics
- single investment project up to EUR 1-1,5 mn

HORIZON OF ACTIVITY

the end of 2032

BUDGET



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Until all investment projects are completed or until

PORTFOLIO Fluence QustomDot **KSMVISI@N OPTICAL QUALITY INSPECTION** Deep Detection hipCraft PHOTON IP









FINANCIAL RESULTS FOR 2022 & Q4 2022



CONSTANTLY GROWING ORDER BOOK

VISIBLE CONTINUOUS DEVELOPMENT OF THE PHOTONICS AND MID INFRARED MARKETS AND THE GROWING DEMAND FOR VIGO PRODUCTS **RECOGNIZED IN A CONSTANT GROWTH OF THE ORDER BOOK**

ORDER BOOK

PLN 75,4 mn YTD order book value at the end of

+10% - increase in orders inflow y/y

Consistently high demand for VIGO Photonics products proving the further dynamic development of the photonics market and its good prospects.

The highest value recorded in industrial, transport and scientific applications.











SALES REVENUES

SALES REVENUES IN 2022

- PLN 67.9 mn of consolidated sales revenues (-5% y/y) in a volatile market environment.
- Sales of detectors and detection modules in the amount of PLN 63.7 mn (-5% y/y), and semiconductor materials PLN 4.2 mn (-3% y/y).
- Revenues in applications in 2022:
 - Industry: • Science and medicine:
 - Transport:
- PLN 7.0 mn (+76% y/y) PLN 7.7 mn (-12% y/y) PLN 8.0 mn (-66% y/y)

PLN 40.5 mn (+30% y/y)

- Military:
- Lower increases than originally assumed revenues due to lower availability of some components (approx. 5% of total production) and smaller orders from the main customer in the military.
- Geographically, in 2022, 85% sales growth in Asia and 50% y/y growth in the Polish market; decline in Europe and the USA.

SALES REVENUES IN Q4 2022

- PLN 20.3 mn of consolidated sales revenues (-11% y/y) in a volatile market environment
- Sales of detectors and detection modules in the amount of PLN 18.2 mn (-7% y/y), and semiconductor materials PLN 1.5 mn (-25% y/y).
- The highest increases in industrial applications +15% y/y (PLN 12.4 mn) and scientific and medical application +149% r/r (PLN 2.6 mn).
- Geographically, in Q4, 91% sales growth in Asia and 2x growth in the Polish market



SALES REVENUES PER YEAR (PLN THOUSAND)







Europe North America

65% Poland

Asia

19

OPERATING COSTS

OPERATING COSTS (OPEX) IN 2022

- Operating costs in 2022 amounted to PLN 64.3 mn (+29% y/y).
- The greatest impact on the cost increases had the following factors:
 - increases of remuneration
 - employee social security and benefits
 - external services
 - depreciation

OPERATING COSTS (OPEX) IN Q4 2022

• Operating costs in Q4 2022 amounted to PLN 15.4 mn (-2% y/y, -5% q/q).





OPERATING COSTS IN 2022 (PLN THOUSAND)

■ 2021 ■ 2022

OPERATING COSTS IN Q4 2022 (PLN THOUSAND)





68



FINANCIAL PERFORMANCE

FINANCIAL PERFORMANCE IN 2022

- Adjusted EBITDA: PLN 14.9 mn (-45% y/y).
- EBIT: PLN 8.7 mn (-62% y/y)
- Net profit adjusted (without deferred tax): PLN 7.6 mn (-66% y/y).
- The significant impact on the net results had:
 - increase in operating costs (partly due to the increase in employment and the development of the scale of the Company's operations, and partly to macroeconomic and geopolitical factors)
 - no recognition of the deferred tax asset related to the investment relief in the SEZ due to the relatively close deadline for using the available aid limit by 2026.

FINANCIAL PERFORMANCE IN Q4 2022

- Adjusted EBITDA: PLN 5.5 mn (+7% y/y)
- EBIT: PLN 3.8 mn PLN (-4% y/y)
- Net profit adjusted (without deferred tax): PLN 4.7 mn (+21% y/y).
- The significant impact on the net results had:
 - introduction of savings minimizing the effects of rising costs (employment reduction in some areas, reduction of some expenses).
 - no recognition of the deferred tax asset related to the investment relief in the SEZ due to the relatively close deadline for using the available aid limit by 2026.



ADJUSTED EBITDA (PLN THOUSAND) AND EBITDA MARGIN



EBIT (PLN THOUSAND) AND EBIT MARGIN







23%



CASH FI

CASH FLOWS IN 2022

- Cash flow from operations: increased inventory level and reduced accounts receivable
- Cash flows from investing activities: higher proceeds from subsidies received (PLN 25.5 mn) and lower investment expenditures (PLN 47.9 mn)
- Cash flows from financing activities: PLN 27.7 mn received and PLN 12.6 mn of capital installments and PLN 1.0 mn of interest repaid

In June 2023, conclusion of loan agreements in the amount of EUR 5.9 mn for the purpose of financing and refinancing capital expenditures for the purchase of the AIXTRON reactor for the epitaxy of semiconductor compounds. Credit granted until June 2028.



CASH FLOW STATEMENT [PLN THOUSAND]	01.01.2022 – 31.12.2022	01.01.20 31.12.2
Total adjustments:	-3 359	
Amortisation and/or depreciation	9 362	
Change in provisions	-625	
Change in inventories	-8 382	
Change in receivables	3 555	
Change in liabilities, excluding loans and borrowings Other	542 -7 810	
A. Net cash flows from operating activities	3 779	
Inflows	25 769	
Funding received	25 499	
Proceeds from the sale of fixed assets	270	
Proceeds from the sale of shares	0	
Outflows	-47 905	-
Purchase of intangible assets and tangible fixed assets	-23 664	-
Expenditure on acquisition of shares	-2 887	
Expenditure on investment funds	0	
Outlays on development work in progress	-21 354	-
Loans granted	0	
B. Net cash flows from investment activities	-22 136	-
Inflows	27 726	
Credits and loans	27 726	
Outflows	-13 598	
Repayment of credits and loans	-12 598	
Interest and commissions	-983	
C. Cash flows from financial activities	-17	
D. Total net cash flows	14 128	
G. Cash at the end of period	-4 229	
Total adjustments:	2 258	







CAPITAL EXPENDITURE

CAPEX IN 2022

- CAPEX in 2022 amounted to PLN 52.0 mn (accrual), of which the most significant expenditure related to:
 - R&D expenditure: PLN 24.7 mn,
 - implementation of a new MOCVD: PLN 12.2 mn,
 - cleanroom construction: PLN 4.2 mn,
 - VIGO Photonics USA development: PLN 2,8 mn,
 - Incubator VIGO Ventures: PLN 2.7 mn,
 - other expenditure (PLN 2.1m), incl. refurbishment of existing production facilities
- The plan for 2022 assumed PLN 63.4 mn of investments, incl.:
 - Completion of cleanroom redevelopment: PLN 5.5 mn,
 - Implementation of new MOCVD: PLN 14.1 mn,
 - R&D expenses: PLN 19.2 mn,
 - Expenditure on purchase of production equipment: PLN 16.2 mn,
 - Investments through VIGO Ventures: PLN 5.0 mn,





CAPITAL EXPENDITURES INCURRED IN 2022 (PLN THOUSAND)

CAPITAL EXPENDITURES PLANNED FOR 2022 (PLN THOUSAND)







NEW PROJECTS CO-FINANCED WITH THE EU

VIGO HAS BEEN ELIGIBLE FOR FINANCING UNDER THE EUROPEAN RESEARCH AND DEVELOPMENT PROJECT SUPPORT PROGRAMS

NEW CO-FINANCING FOR R&D PROJECTS

- PLN 9 mn the amount of new funding from Horizon Europe and the European Defense Fund
- Support for the implementation of projects under the strategic initiatives of VIGO
- Around PLN 53 mn the total amount of co-financing of currently implemented projects at various stages of development

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europd

European

Council BETA

#EUDefenceIndustry April 2021

THE EUROPEAN

DEFENCE FUND





Project title	Initiative	Application	Planned duration of the project	Program	Amount of funding
IBAIA - Innovative environmental multisensing for waterbody quality monitoring and remediation assessment	Epitaxy III-V	water quality control	12.2022- 12.2026	Horizon Europe	PLN 1,6 mr
BROMEDIR - Broadband MEMS- based InfraRed spectrometers: the core of a multipurpose spectral sensing photonic platform	PIC	sustainable agriculture, health diagnostics, fuel quality control	01.2023- 07.2026	Horizon Europe	PLN 2,1 mr
Mini-BOT Miniaturized Board- mountable Optical Transceiver for high data rate Military Satellite Communications	VCSEL	military and space	01.2023- 01.2026	European Defense Fund	PLN 2,9 mr
OPMMEG - Optically-pumped magnetometer arrays for magnetoencephalography	VCSEL	diagnostic examinations	12.2022- 01.2026	Horizon EIC	PLN 2,4 mr











OUTLOOK

FURTHER DEVELOPMENT ON A WAVE OF LONG-TERM MEGATRENDS CREATING A STRONG DRIVE FOR VIGO OPERATING DEVELOPMENT

TECHNOLOGY TRENDS

SYSTEM MINIATURISATION

Miniaturization and integration are the future of IR in mass applications



INTERNET OF THINGS (IOT)

Explosion of chip applications in the IoT

- USD 114 bn estimated value of the IoT sensor market in 2025
- **15.6%** CAGR 2022-2025

CONSUMER ELECTRONICS

IR as the catalyst of *wearable lab-on-chip* development

- USD 186 bn estimated value of the wearables market in 2030
- 14.6% CAGR 2023-2030

AUTOMOTIVE

The growing importance of IR solutions (LIDAR sensors/ self driving vehicles)

- USD 4.5 billion estimated value of the LIDAR market in 2030
- 28.5% CAGR in 2022-2030





GEOPOLITICAL TRENDS

SECURITY AND DEFENCE

Significant investments due to current political tensions - increase in budget spending by Western countries, incl. Poland

- **3% of GDP** planned Polish defense spending in 2024
- EUR 70 bn planned EU defense spending until 2025

VALUE CHAIN STABILITY IN CHIP PRODUCTION AND DEVELOPMENT OF THE SEMICONDUCTOR INDUSTRY IN EUROPE AND THE USA

Securing chip production in Europe and the US and freeing from the risk of their concentration in Asia, incl. fabless manufacturing. Streams of money from governments in the form of subsidies and tax breaks for the construction of foundations in Europe (EUR 45 bn)* and the USA (USD 280 bn)*.

- USD 1,033 bn estimated value of the global semiconductor market in 2031
- 20-30% target of EU share in the global semiconductor market by 2030 (from 9% currently)





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ECOLOGICAL TRENDS

ROHS AND ECOLOGY

RoHS** changes the mid-infrared (MIR) market introduced i.e. ban on the use of mercury, cadmium, lead in industrial applications. Still a possibility of use in the military, aerospace and large industrial infrastructure.



ENVIRONMENTAL PROTECTION

The growing importance of environmental protection in many industries, incl. air and water quality monitoring, gas analysis, CO_2 emissions.

- USD 33 bn estimated value of the gas and oil analytics market
- 23.8% CAGR 2022-2030







CONTINUE TO EXECUTE THE 2023 AND 2026 STRATEGY WITH A FOCUS ON STRATEGIC INITIATIVES AND PRODUCTION EFFICIENCY BASED ON VIGO'S UNIQUE TECHNOLOGIES AND ACCELERATE COMMERCIALISATION OF NEW SOLUTIONS IN A FAST-GROWING AND FORWARD-LOOKING PHOTONIC **MARKET, SUPPORTED BY NUMEROUS MEGATRENDS**

MARKET

- ✓ a number of business opportunities enabling further dynamic growth of operations on the global, intensively developing markets of photonics and mid-infrared sources
- ✓ numerous market megatrends supporting dynamic development: system miniaturization, Internet of Things (IoT), consumer electronics, automotive, environmental protection
- ✓ global trends in securing the value chain in chip production and the development of the semiconductor industry in Europe and the USA, as well as significant investments in security and defense

COMPANY

- ✓ presence at the global forefront of industrial innovation - the company has only 3 direct competitors
- ✓ a unique advantage using an integrated value chain and a full range of product applications for customers from numerous industries, including their customization
- ✓ established market position and brand recognition - over 30 years of experience in the production of semiconductor materials, with a world-class R&D department
- ✓ investments made in recent years allow for long-term scaling of production



STRATEGY

- ✓ implementation of an ambitious development strategy addressing market changes and challenges in the long term, using a unique advantage in the value chain that will move VIGO to a higher utility curve (infrared matrices, PIC)
- ✓ active sales development and acquisition of new customers, including a growing portfolio of orders
- ✓ an appropriate level of investment in R&D and infrastructure in order to maintain a strong market position
- ✓ investments in innovative projects through the VIGO Ventures ASI fund











Q&A

THANK YOU FOR YOUR ATTENTION



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