



FINANCIAL RESULTS FOR 2021

March 2022

SUMMARY OF ACHIEVEMENTS IN 2021

- The highest financial results in VIGO's history: sales revenues of PLN 71.5 million **(+34% y/y)**, adjusted EBITDA of PLN 29.1 million **(+19% y/y)**, net profit* of PLN 24.3 million **(+35% y/y)**
- High margins maintained: adjusted EBITDA margin **41%** and adjusted net margin **34%**
- Increase of operating cash flow y/y to PLN 24.1 million and increase of capital expenditures to PLN 29.8 million
- **Publication of VIGO strategy** for 2023 and 2026
- Significant **increase in production capacity** - detector production volume increased by **+46% y/y** to 12.2 thousand units
- **Continued construction of a new cleanroom** for detector chip manufacturing technology - expected to be finalised by Q1 2022
- Development and stabilisation of new technologies and commercialisation of existing and new products in line with the Initiatives adopted in 2026 Strategy
- **Launched a branch in the USA** to increase VIGO's market share in that country
- Further development of sales channels by **acquiring five new distributors**
- Active participation in **10** international conferences and trade fairs
- Developed of social media
- Created a new **VIGO PHOTONICS** brand
- Prestigious market awards and distinctions
- Prospective market allowing to maintain growth dynamics in subsequent periods



Epitaxial materials



Photon detectors



Detection modules

35 years of experience
and operations

Headquarters in Poland
and branch offices in USA and Taiwan

26 distributors in **19** countries
supporting sales of solutions

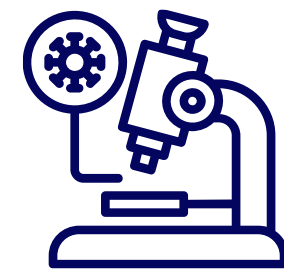
220 highly qualified and experienced
experts
(1 Professor, 14 PhDs and >60 engineers)

Listed on the WSE since **2014**

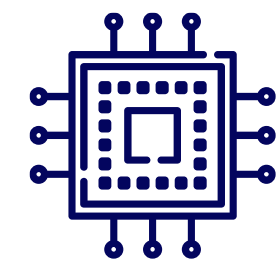
PLN 525 mln m capitalisation*

Support of stable, long-term
shareholders

VIGO is a world leader in high-tech solutions - the most advanced mid-infrared photonic detectors, modules dedicated to these detectors and semiconductor materials



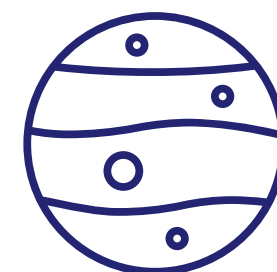
Operating in the fast-growing
infrared market



Unique technology and innovative,
high-end solutions, tailored to
customer needs



6,500 m² of production space -
complete production line for
semiconductors



6 detectors successfully used
in Mars missions



Ambitious development strategy to
maintain a 20-30% annual growth
rate



Business relationships with global
corporations (Safran, Emerson,
Caterpillar, TRUMPF, to name a
few)



Over 2.5 times growth in revenue
and EBITDA over the last 5 years
(2017-2021)

GLOBAL REACH



COOPERATION WITH GLOBAL CORPORATIONS AND THE SECURITY INDUSTRY



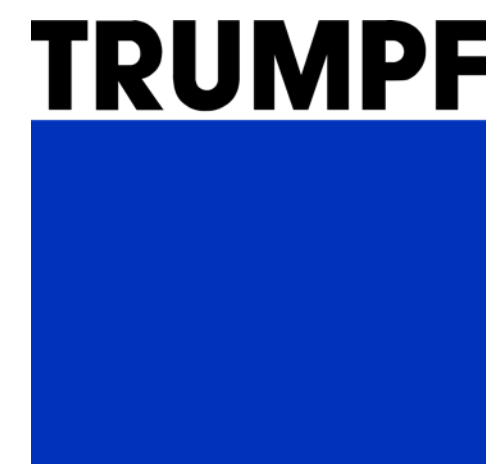
Safran Aerotechnics
(Smart munitions)



Emerson Electric Co.
(Industrial Gas Analysers)

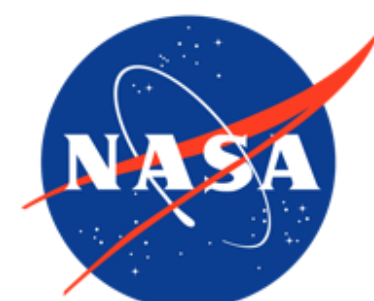


Caterpillar
(Railway Safety Systems)

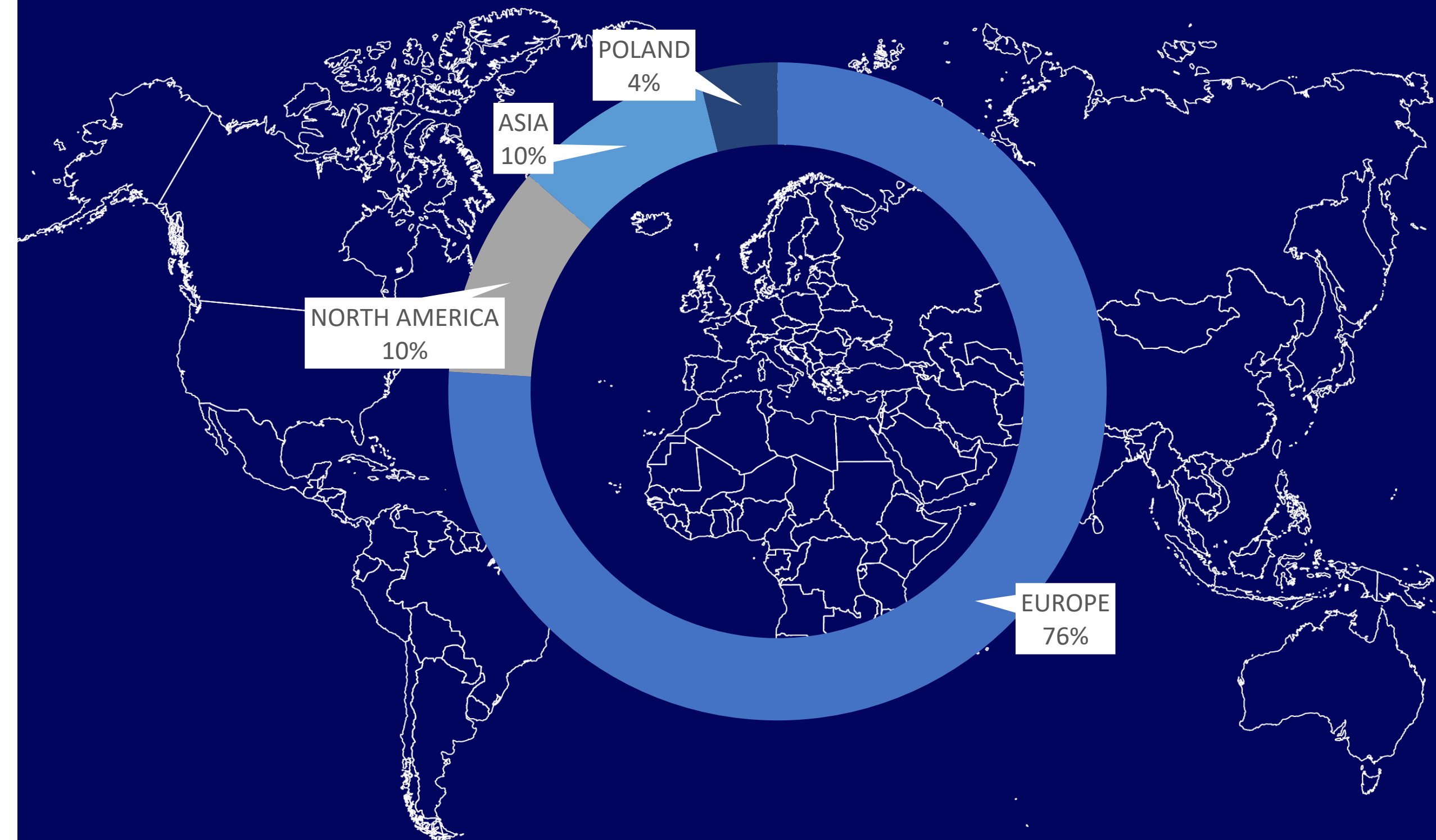


TRUMPF
(Lasery Przemysłowe)

Supplier of high-tech components for the most demanding customers



MARKET SHARING 2021



Cooperation with **26** distributors in **19** countries supporting the commercialisation of VIGO solutions and products

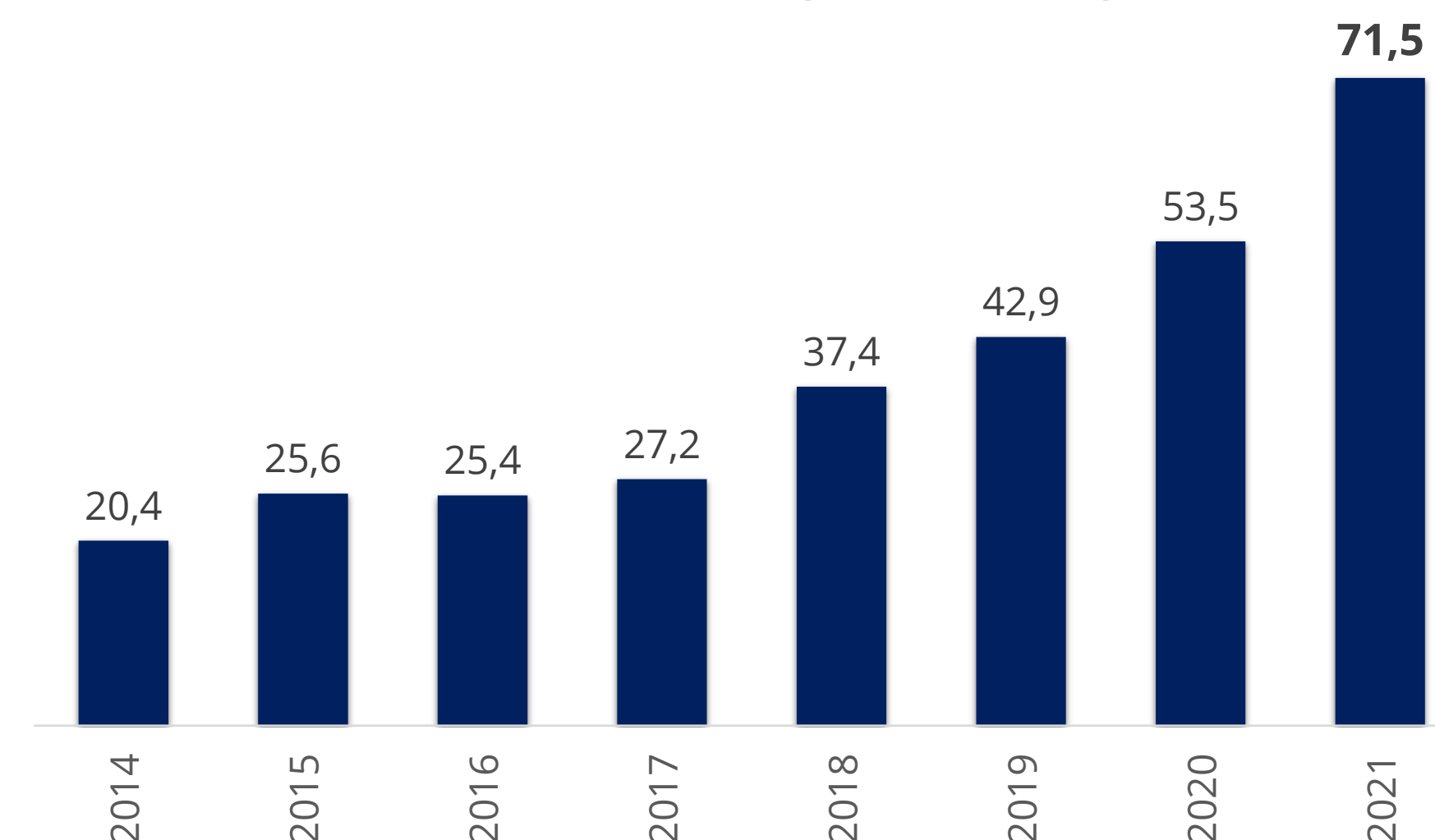
FINANCIAL RESULTS AND TARGETS

- Triple sales revenue in 4 years. In 2021, a 34% increase to PLN 71.5m, well above the industry
- Maintaining high levels of profitability :
 - EBITDA above 40%
 - Net profitability (without deferred tax) over 34%
- Ambitious financial targets for the next 3-year period:
 - Maintaining gross margin >60%
 - Maintaining EBITDA margin >40%
 - Cumulative normalised EBITDA for the period 2021-2023 > PLN 103 million

FINANCIAL OBJECTIVES FOR THE PERIOD 2021-2023

[PLN thousand]	2020	2021	2022	2023
Sales revenues	53 451	67 000	80 000	100 000
Gross profit	35 615	44 890	51 200	62 000
<i>Gross margin</i>	67%	67%	64%	62%
Normalised EBITDA	24 918	29 500	33 500	40 000
<i>Normalised EBITDA profitability</i>	47%	44%	42%	40%

SALES REVENUES (PLN MILLION)

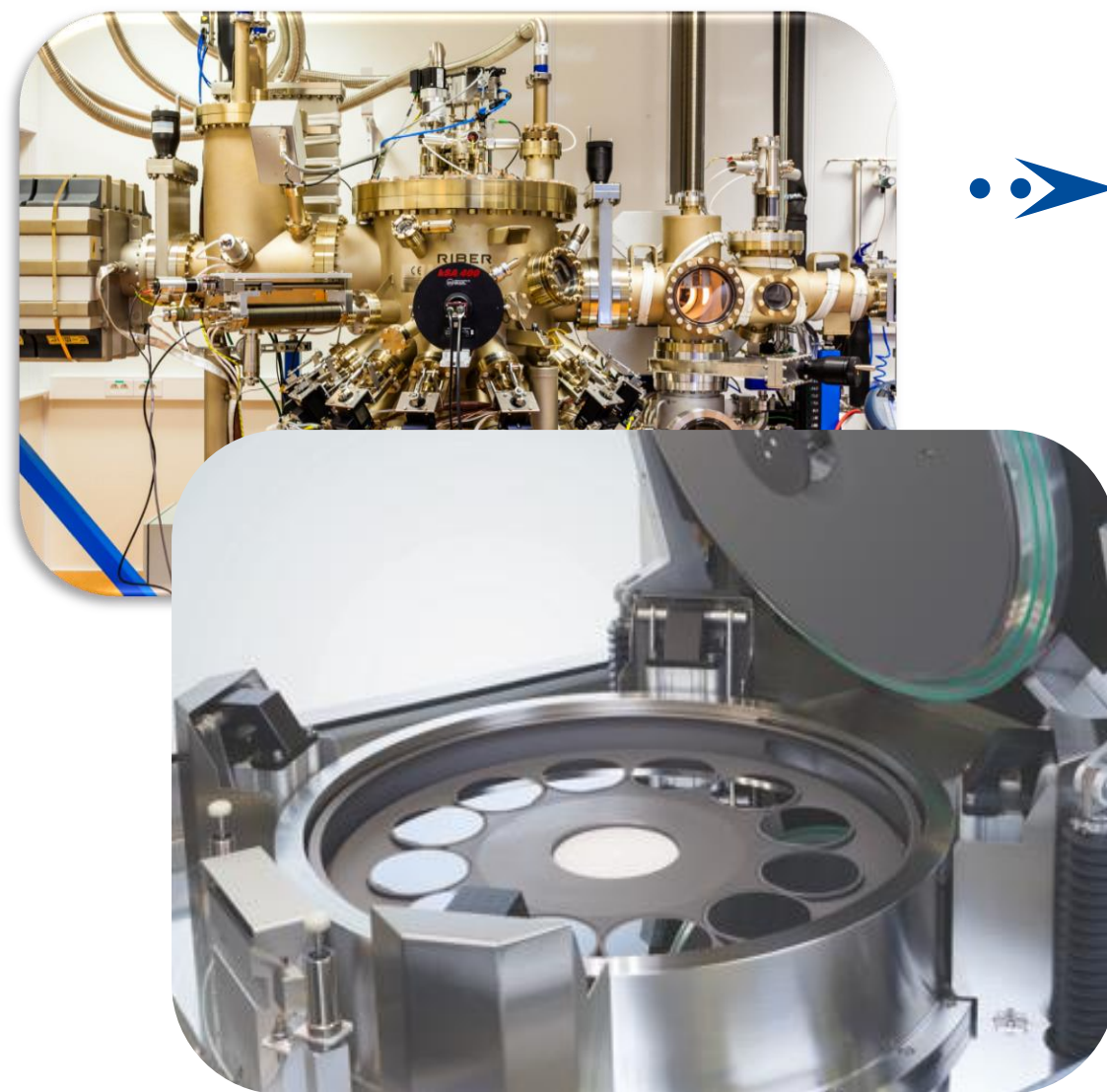


VIGO SYSTEM S.A. SHARE PRICE (PLN)



COMPLETE LINE FOR THE MANUFACTURE OF SEMICONDUCTORS AND PHOTONIC DEVICES (FROM NEAR TO FAR INFRARED)

1. EPITAXY



Production of semiconductor layers from II-VI and III-V compounds using MOCVD and MBE

2. PROCESSING



Processing of MCT and III-V detector chips and laser chips (VCSEL)

3. PACKAGING



Automated assembly, packaging and specification of complete infrared detectors

4. INTEGRATION INTO ELECTRONICS



Electronics integrated with infrared detector - complete detection modules

WAR IN UKRAINE

Impact on future results:

- Marginal sales to the Russian market (approx. PLN 250k in 2021; 0.3% share of total revenues)
- Sales of infrared detectors are not subject to sanctions, though end-user verification would be required (ban on sales to aerospace applications)
- No sales to the Ukrainian market

New risks in the Company's operations:

- Significant deliveries of components from the Russian market (approx. PLN 7m in 2021)
- Risk of extended delivery times and/or reduced component availability
- Discussions undertaken with suppliers on the possibility of relocating the production; qualification of alternative suppliers in progress



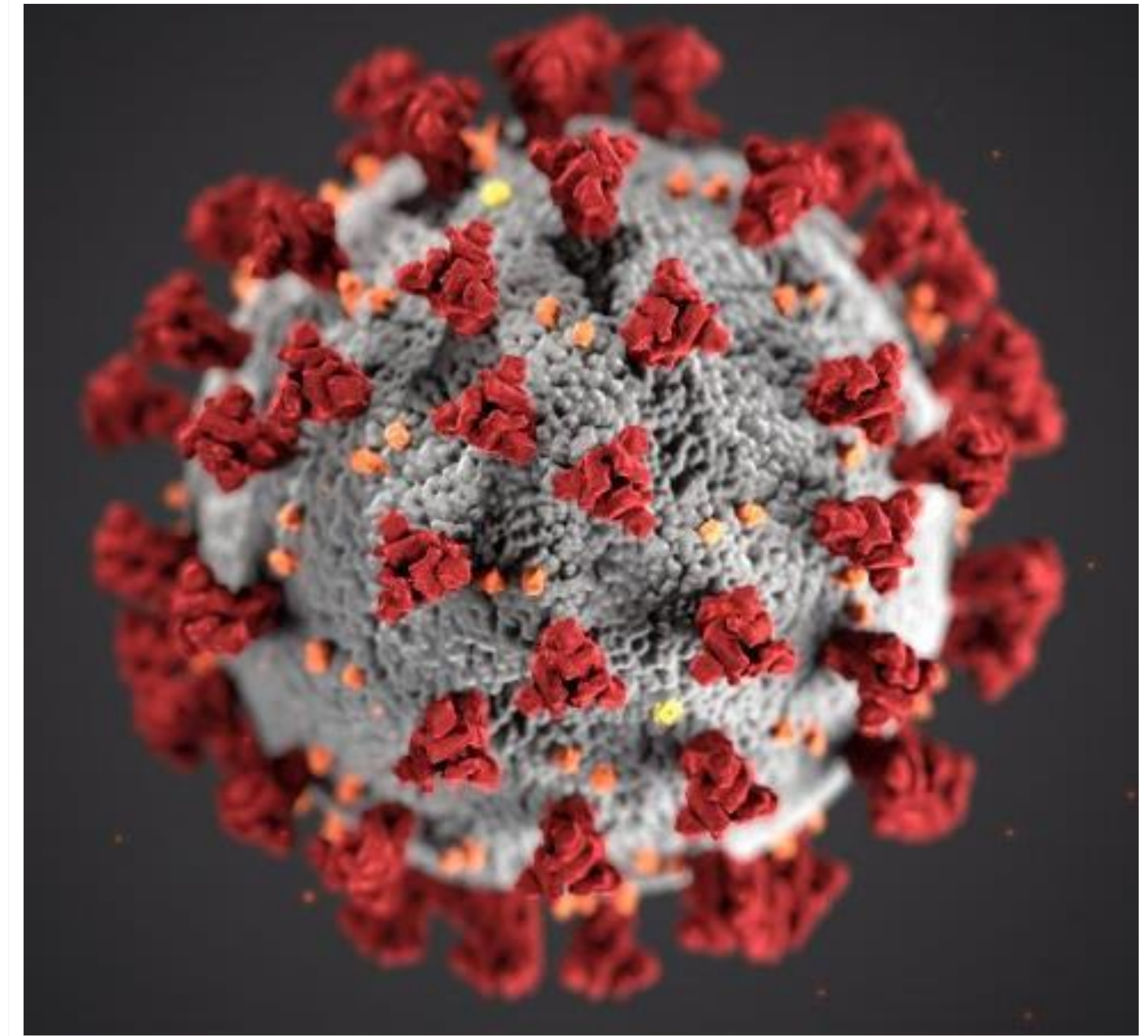
COVID-19 PANDEMIC

Internal situation:

- Difficult start to 2021 and again Q4 2021
- Relatively high levels of inoculation among staff, which effectively reduced employee absenteeism in H2 2021
- Currently a marginal risk to the Company's operations
- In H1 2021, shift work was implemented to maintain continuity and timeliness of production; from Q4 onwards, normal operating mode, with no major downtime

Operating environment:

- No problems on the customer side
- Extended delivery times and rising component prices
- The company manages supplies effectively



2026 VIGO STRATEGY - we have identified a number of business opportunities to realise growth ambitions by 2026

- New VIGO Strategy for 2021-2026 announced on 16 June 2021
- New directions of activities based on new technologies (infrared sources, optoelectronic systems and integrated circuits): stage I and stage II

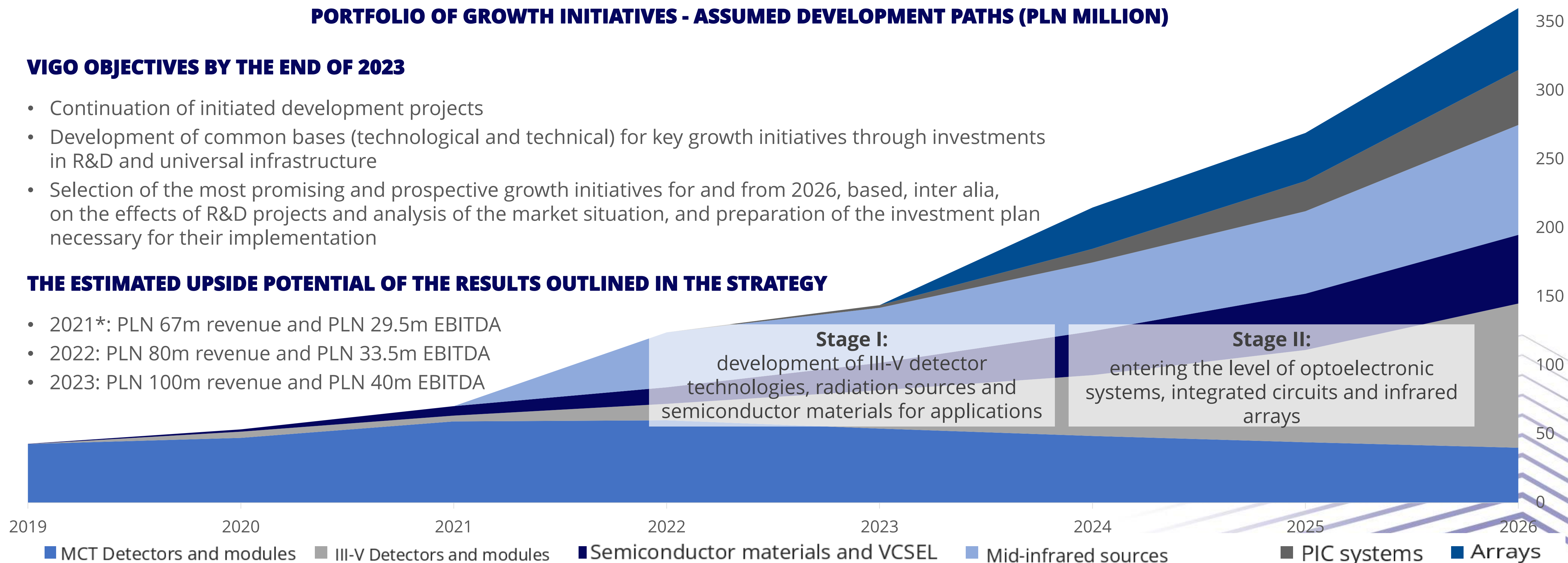
PORTFOLIO OF GROWTH INITIATIVES - ASSUMED DEVELOPMENT PATHS (PLN MILLION)

VIGO OBJECTIVES BY THE END OF 2023

- Continuation of initiated development projects
- Development of common bases (technological and technical) for key growth initiatives through investments in R&D and universal infrastructure
- Selection of the most promising and prospective growth initiatives for and from 2026, based, inter alia, on the effects of R&D projects and analysis of the market situation, and preparation of the investment plan necessary for their implementation

THE ESTIMATED UPSIDE POTENTIAL OF THE RESULTS OUTLINED IN THE STRATEGY

- 2021*: PLN 67m revenue and PLN 29.5m EBITDA
- 2022: PLN 80m revenue and PLN 33.5m EBITDA
- 2023: PLN 100m revenue and PLN 40m EBITDA



* In 2021, the Company achieved sales revenue of PLN 71.5 million which is PLN 4.5m more than the assumptions made in the strategy for that year

LAUNCH OF THE U.S. BRANCH

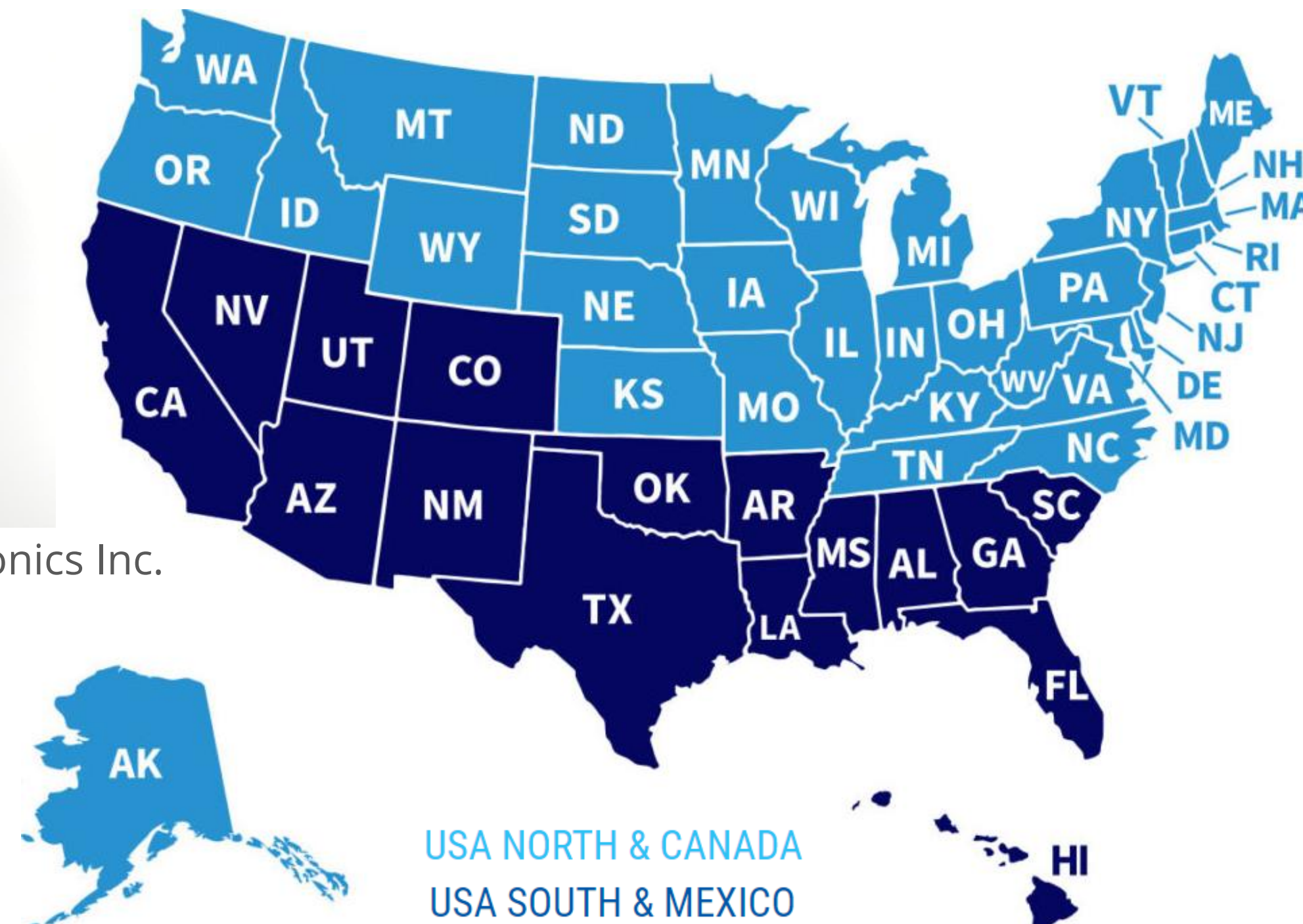


EXPANSION IN THE USA MARKET - INCREASE OF VIGO'S SHARE

- Q3 2021 – **establishment of VIGO Photonics US:** hiring a CEO, team building, recruitment
- Q4 2021 – **implementation** of sales, distribution and marketing **strategy**
- Q1 2022 – **opening an office and starting direct sales** to customers



Scott Riggi, CEO VIGO Photonics Inc.



BUSINESS ASSUMPTIONS FOR THE EXPANSION INTO THE US AND ASIAN MARKETS

- VIGO Photonics USA: accelerated growth of VIGO in the US market, deeper exploration of the US procurement market
- VIGO Photonics Taiwan: accelerated growth in Asian markets, acquisition of key customers for epitaxy products and services

INITIATIVES TO EXPLORE NEW APPLICATION MARKETS

- Better identification of new mass markets for infrared sensors
- Acquiring partners and key customers for new technology development
- Building a portfolio for new applications

AGREEMENTS WITH NEW DISTRIBUTORS



NEW DISTRIBUTORS IN 2021- DEVELOPMENT OF SALES CHANNELS



INDIA

DYNOTECH INSTRUMENTS PVT LTD



DENMARK/SCANDINAVIA

NANOR AB



DACH REGION

ACAL BFI



AUSTRALIA AND OCEANIA

LASTEK PTY LTD.



GLOBAL REACH

TME

VIGO DISTRIBUTORS WORLDWIDE

26 companies in **19** countries

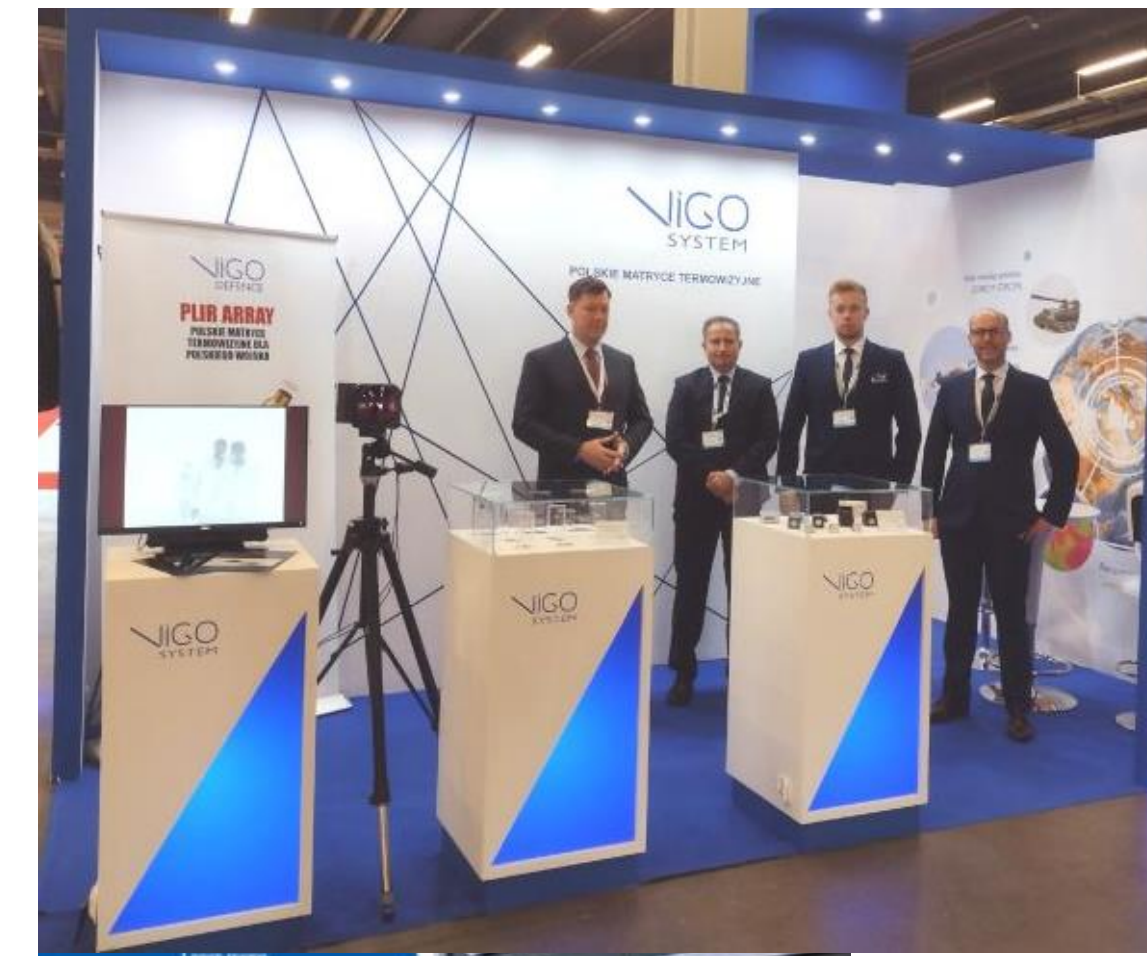


PARTICIPATION AT TRADE FAIRS AND DEVELOPMENT OF SOCIAL MEDIA



ACTIVE PARTICIPATION IN CONFERENCES AND TRADE FAIRS

- EPIC PHOTONICS+ (Online) - lecture on III-V supergrids, virtual stand and 5 thematic chat-rooms
- OPIE'2021 (Japan) - distributor support
- MSPO (Poland) - promotion of arrays and detectors for military applications
- CIOE (China) - distributor support
- Photonics Days Berlin (Germany) - lecture and company's stand
- SPIE Photonics West 2021
- EPIC Photonics Plus
- VIGO Webinar: Product roadmap 2021
- VIGO Webinar: RoHS compliant Superlattice Detectors
- Innovation Night in VIGO System - as part of Digital Festival



Industry trade shows and conferences are an excellent opportunity to present VIGO's range of products and services to a global audience of scientists from all over the world.

INCREASED ACTIVITY AND PROMOTION OF THE BRAND IN THE TRADE MEDIA

- Compound Semiconductor, Electro Optics, AZO Sensor, Semiconductor Today, Photonics Media, Laser Focus World
- InAs/InAsSb super grid detectors - a major campaign to promote a new type of detector

DEVELOPING SOCIAL MEDIA

- LinkedIn - 2084 (+271 in Q4) followers
- Twitter - launch of VIGO profile in Q1 and 143 followers



InAs/InAsSb Superlattice Detectors

This year, VIGO System launched RoHS compliant MWIR and LWIR photodetectors, operating at ambient temperature or at temperatures achievable with thermoelectric coolers (TEC). The devices perform similarly to their HgCdTe-based counterparts and show significantly better resistance to environmental exposure.

[Learn more](#)

First VIGO System webinar in 2021!

Development of InAs/InAsSb superlattice detectors
VIGO System products 2021-2022 roadmap
Watch the recording from the first VIGO webinar in 2021 about the development of InAs/InAsSb superlattice detectors and our product roadmap for 2021 - 22.

[Watch the recording](#)



CREATED A NEW BRAND: VIGO PHOTONICS



THE DYNAMIC DEVELOPMENT OF THE COMPANY, OPENING UP TO NEW TECHNOLOGIES AND THE ESTABLISHMENT OF THE FIRST VIGO SYSTEM BRANCHES IN ASIA AND NORTH AMERICA HAVE LED TO THE CREATION OF ONE GLOBAL BRAND - VIGO PHOTONICS

Steps taken:

- Creation of a new brand combining VIGO System, VIGO Photonics Taiwan, VIGO Photonics Corp.
- Creation of a new logotype and visual identity system
- Patenting the word mark and logo of VIGO Photonics
- Implementation of new visual identity in internal and external communication
- Planned change of company name from VIGO System S.A. to VIGO Photonics S.A. in June 2022

NEW
BRAND



PREVIOUS
BRAND



PROCESSING 2.0 - CONSTRUCTION OF A NEW CLEANROOM

INVESTMENT OBJECTIVE

1. Increase in production repeatability
2. Detector chip manufacturing technology
3. Reduction of production costs
4. Meeting the highest quality requirements (military, space, semiconductor industries)

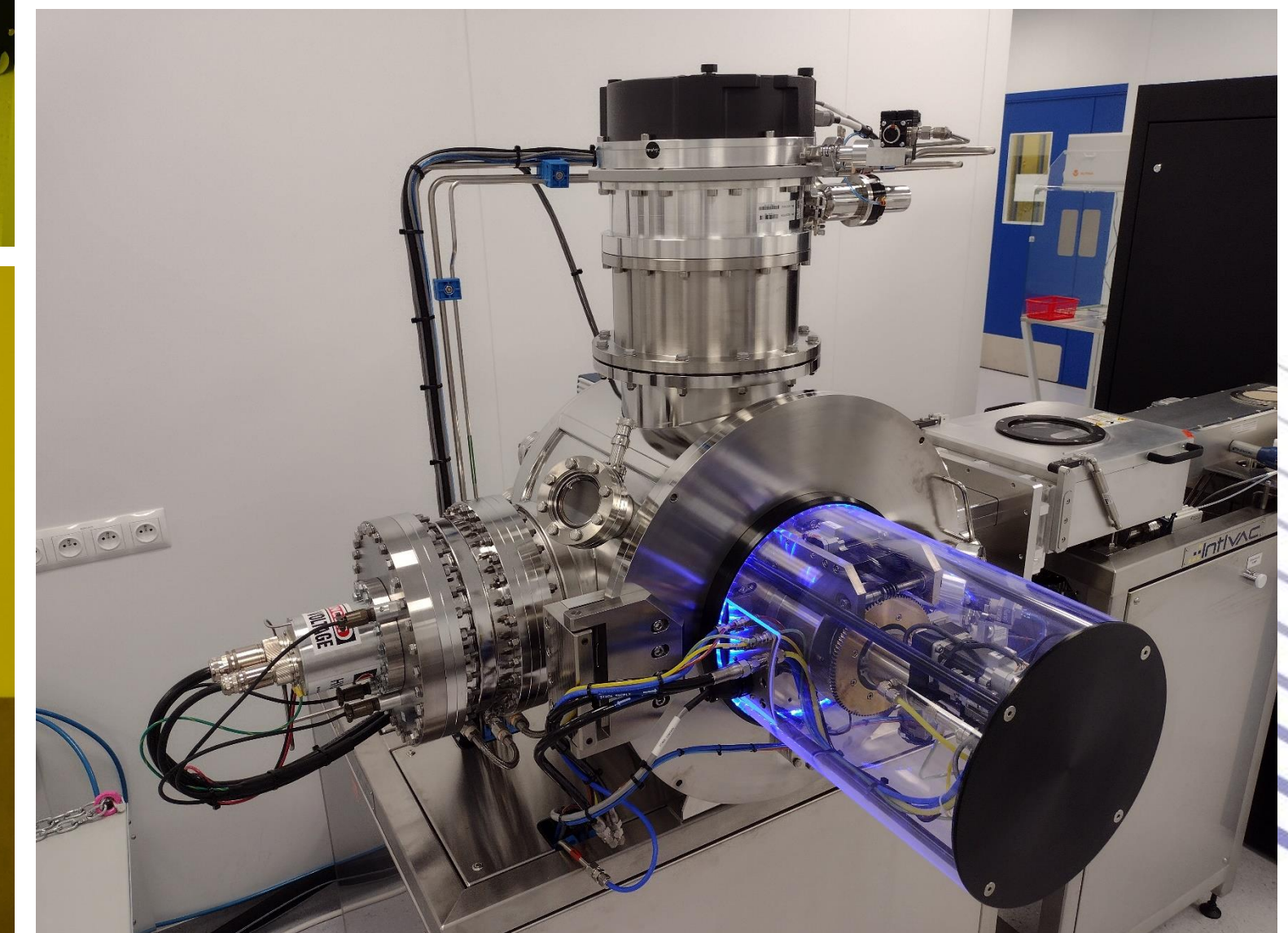
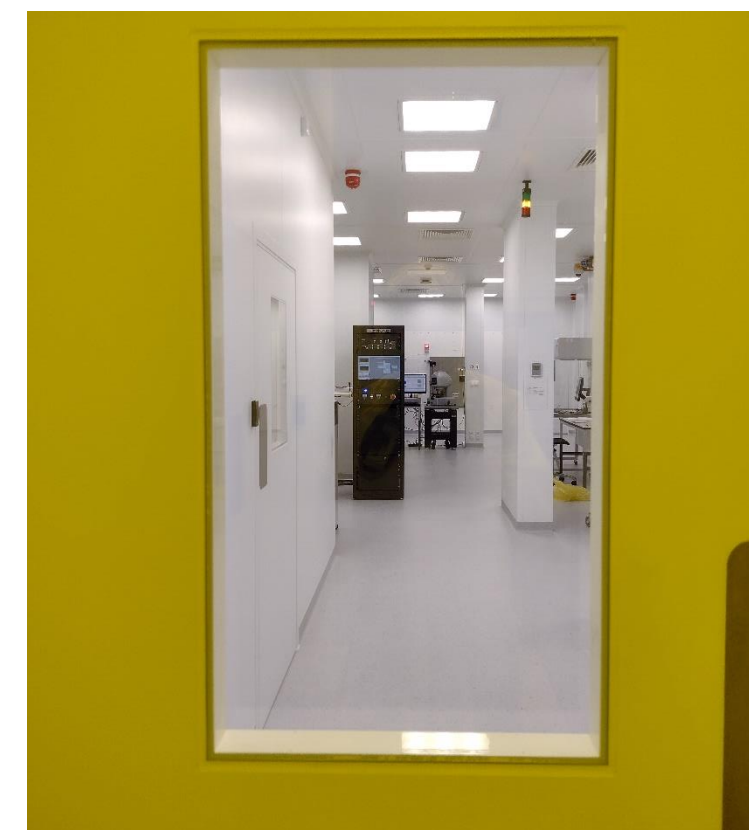
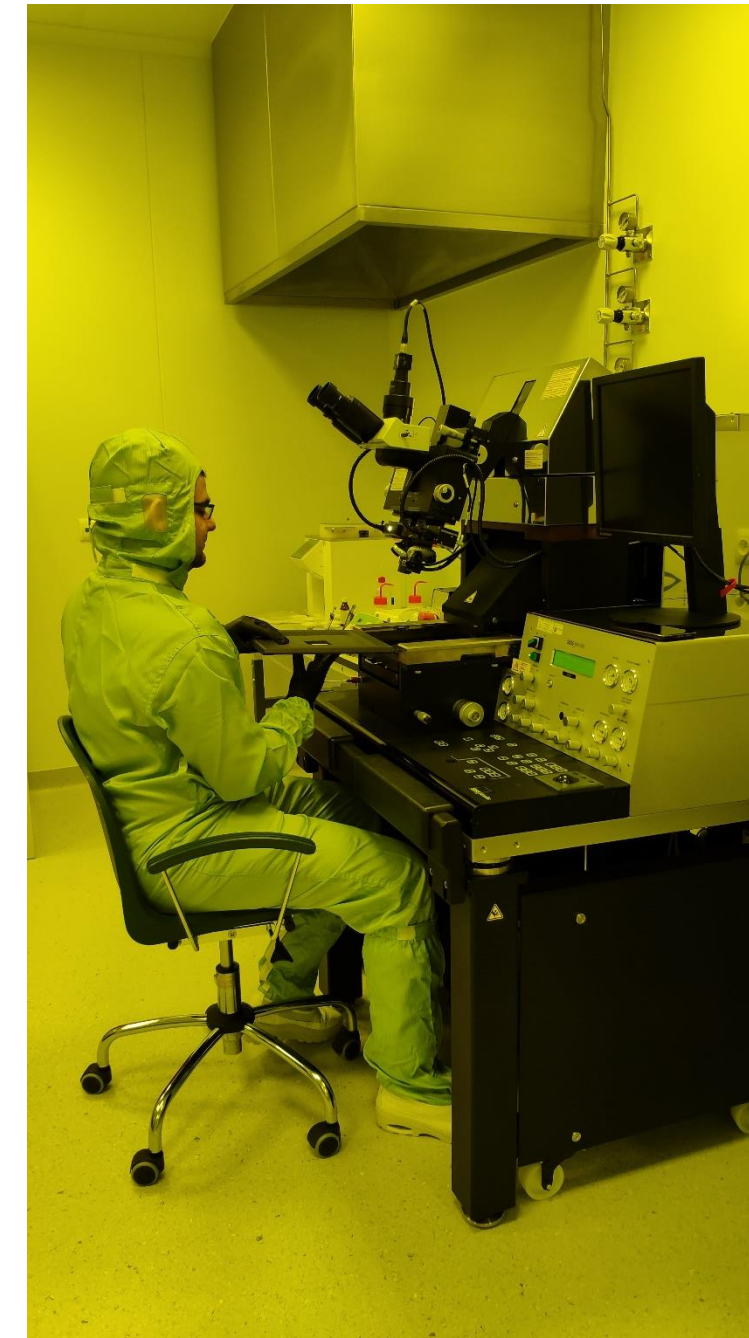
SCOPE: modernisation of the current VIGO technology hall and construction of a cleanroom with additional production equipment

CAPEX: ~PLN 34m

FINANSING: own funds, EUR 2 million credit and co-financing under POIR (PLN 6m)

PROGRESS

- April 2021 - completion of technology hall expansion
- June 2021 - signing of the contract with the contractor for cleanroom facilities
- November 2021 - completion of the construction first phase and commissioning of the cleanroom
- December 2021 - production start-up in the cleanroom
- February 2022 - completion of the second phase of the redevelopment and full start-up of production
- March 2022 - settlement of the project



TECHNOLOGY DEVELOPMENTS

Objective of the initiative

- Exploitation of the market in its gradual decline 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.

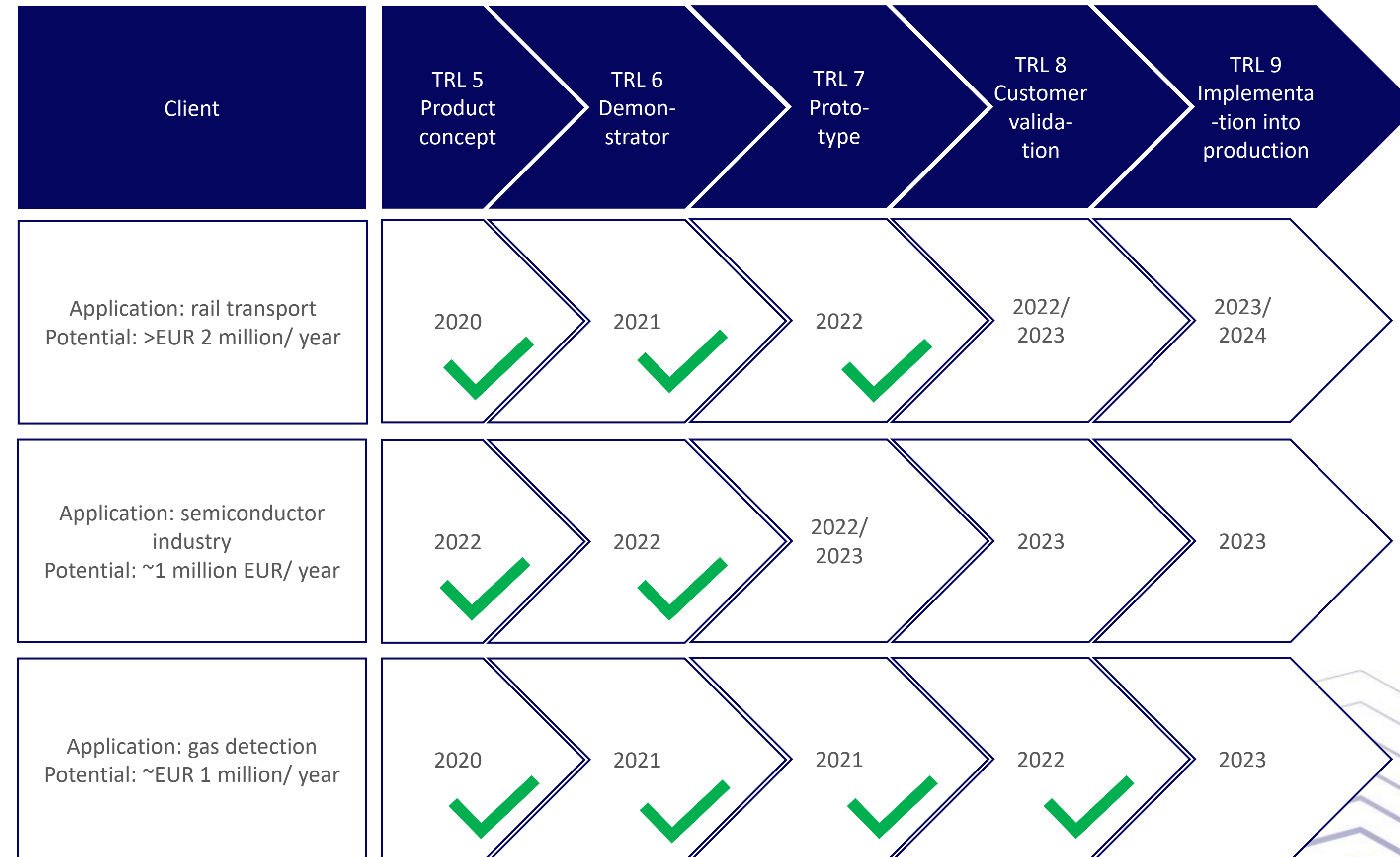
Achievements in 2021

- The first products based on new technologies applied in a single production line were obtained. The following were used: an automatic measuring station, an automatic flip-chip, a new robotic station for gluing windows and casings.
- Vacuum encapsulation technology was developed, which enables the use of detectors at elevated ambient temperatures while increasing performance.

Plans for 2022

- Optimisation of the existing product range on new processing and assembly technologies.
- Implementation of a new product range based on vacuum encapsulated detectors.

COMMERCIALISATION - SAMPLE PROJECTS



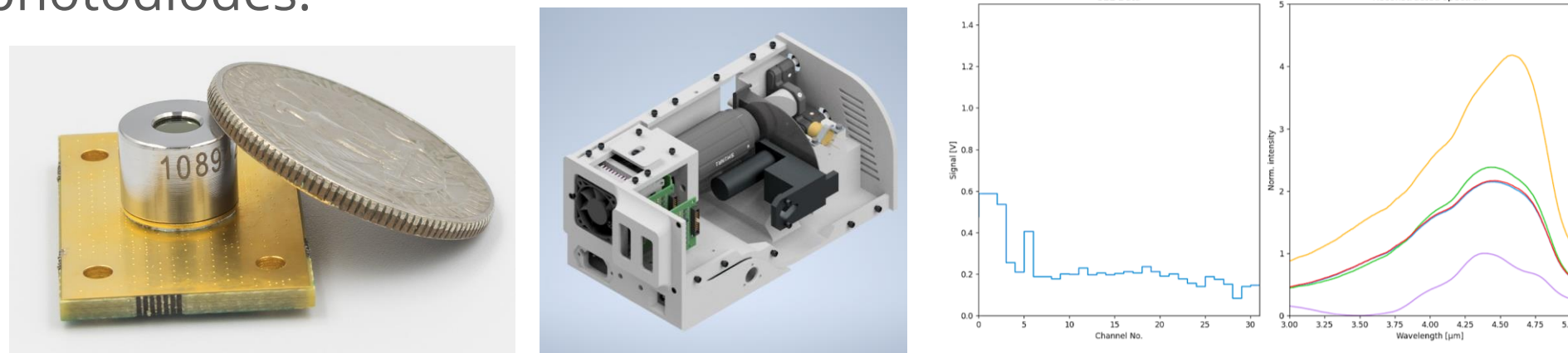
TECHNOLOGY DEVELOPMENTS

Objective of the initiative

- Becoming No. 1 in the market of III-V detector manufacturers in the MidIR range. Implementing T2SL supergrid technology (matching MCT parameters), achieving technical parameters superior to competitors across the MidIR range.

Achievements in 2021

- Demonstrators based on photoresistors and super grid photodiodes.

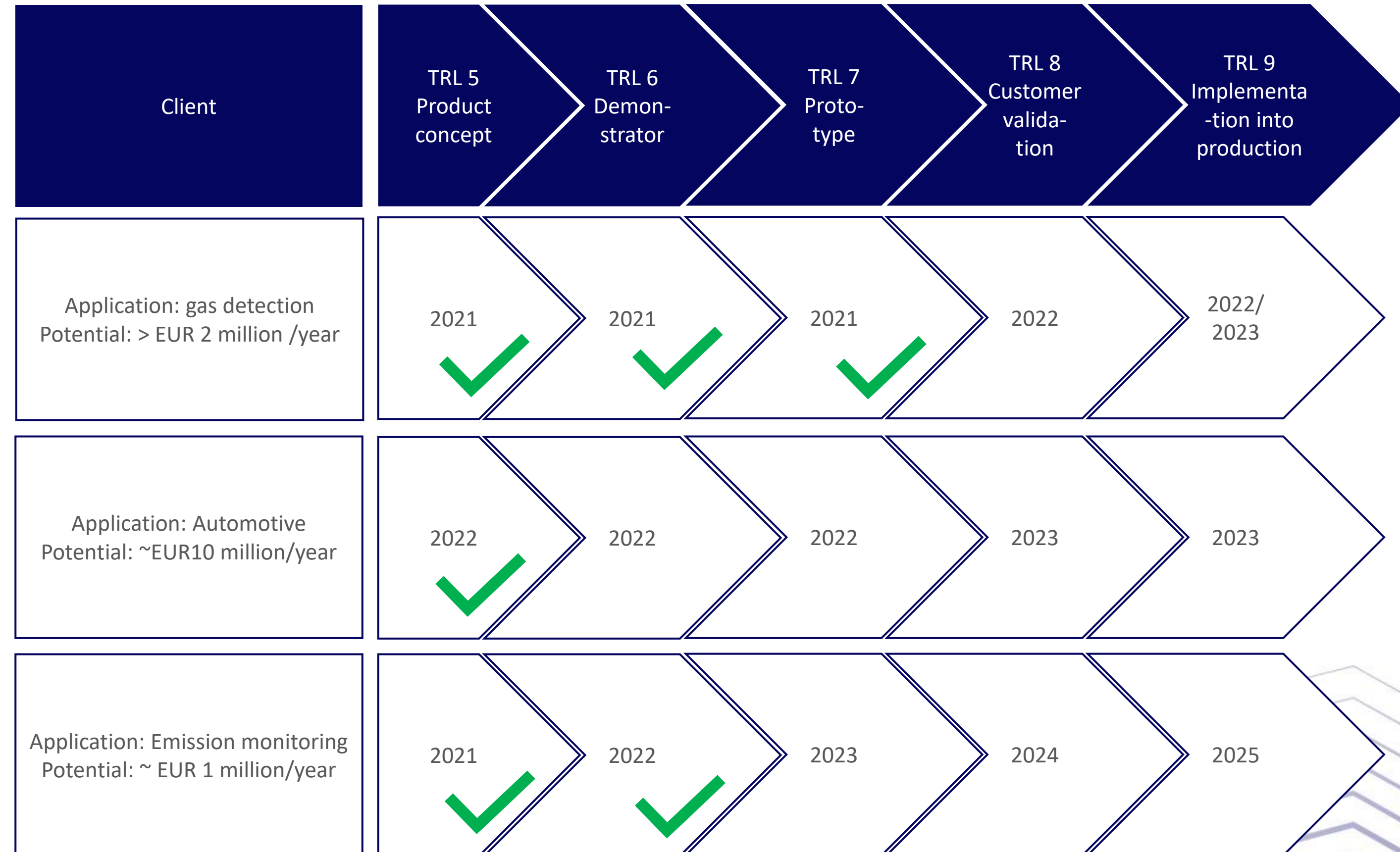


- Integrated modules (detector with preamplifier) with 32-element detectors dedicated for spectroscopy and scanning systems.
- Four-channel module with filters for NDIR gas detection.

Plans for 2022

- Expansion of the TMD range to include more wavelengths and the addition of digital solutions.
- Development of long-wavelength super grid detectors and anti-fringing solutions.
- Cost optimisation of NDIR gas detection solutions.

COMMERCIALISATION - SAMPLE PROJECTS



III-V InGaAs DETECTORS INITIATIVE



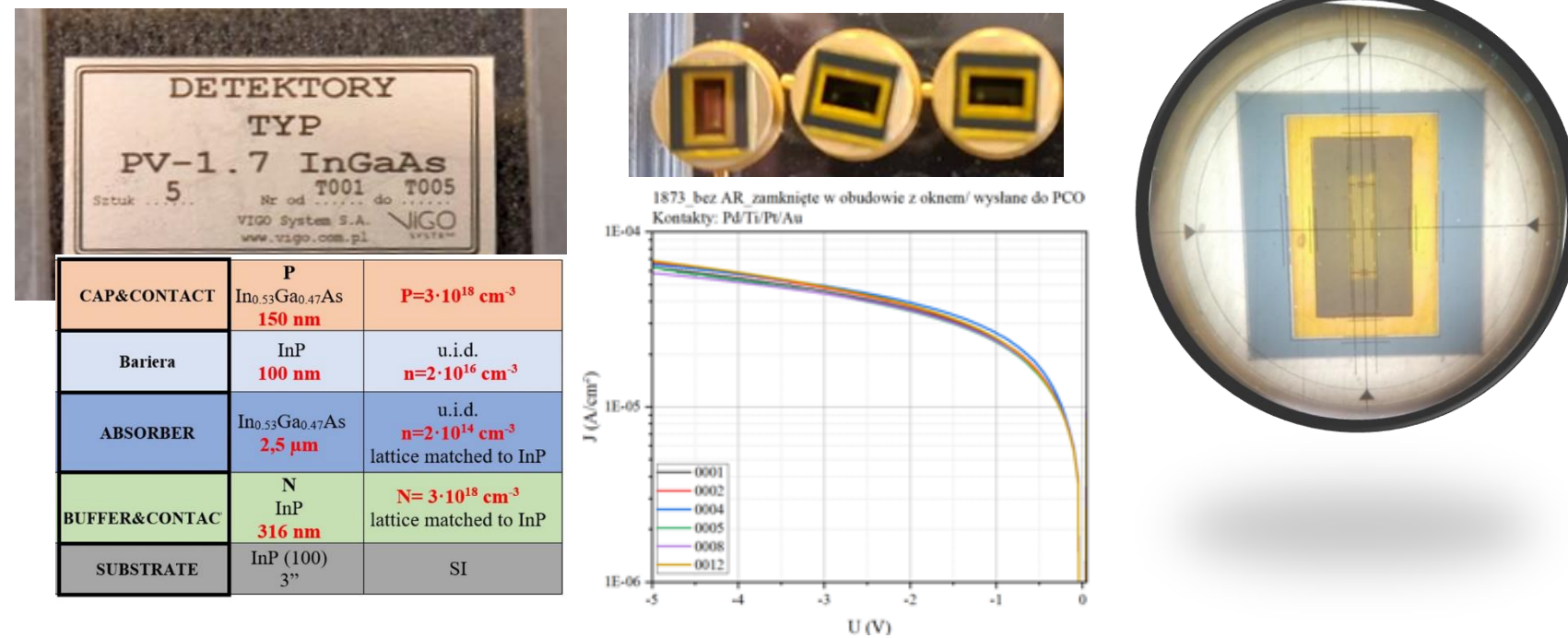
TECHNOLOGY DEVELOPMENTS

Objective of the initiative

- Market entry of III-V InGaAs detectors

Achievements in 2021

- First prototype of VIGO 1.7um InGaAs detector shipped to customer

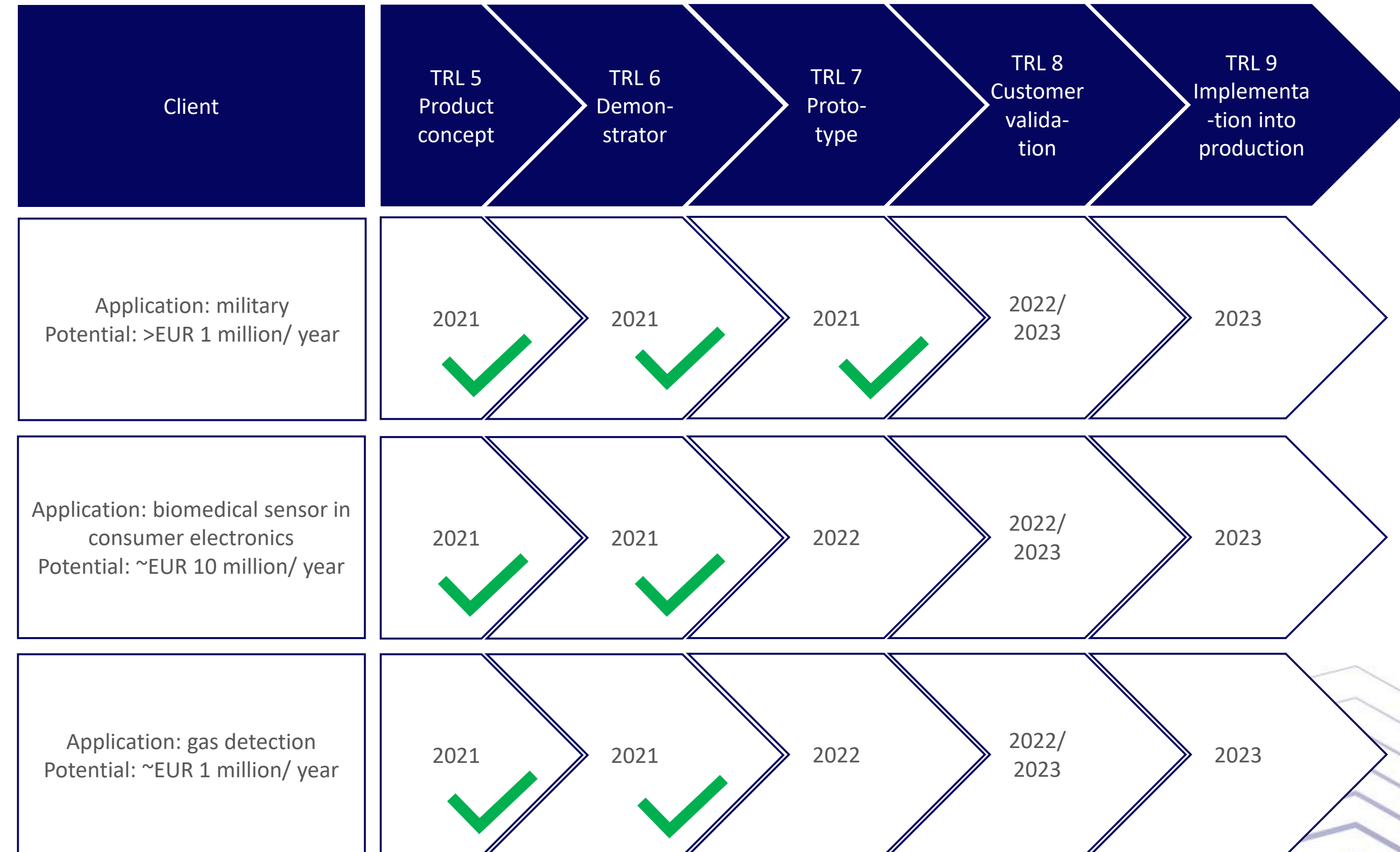


- Funding has been received and work has begun on a POIR project to fabricate InGaAs sensors with integrated ASIC electronics for the 1.7-2.6um range.

Plans for 2022

- Purchase of technology necessary to expand VIGO's offer to include planar detectors
- Validation of exInGaAs and 1.7um prototypes at customers

COMMERCIALISATION - SAMPLE PROJECTS



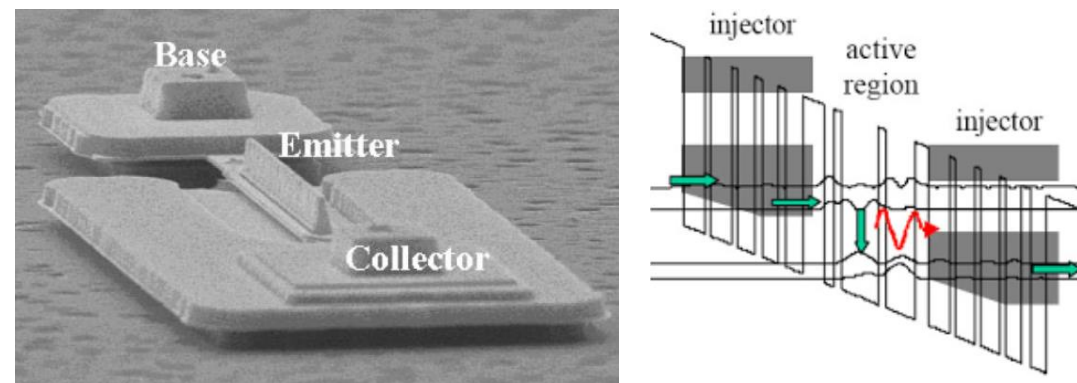
TECHNOLOGY DEVELOPMENTS

Objective of the initiative

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

Achievements in 2021

- Long-Wave (LW) structure technology -VCSEL for telecommunication applications (intranet).
- Technology of epitaxial structures of high frequency communication detector.



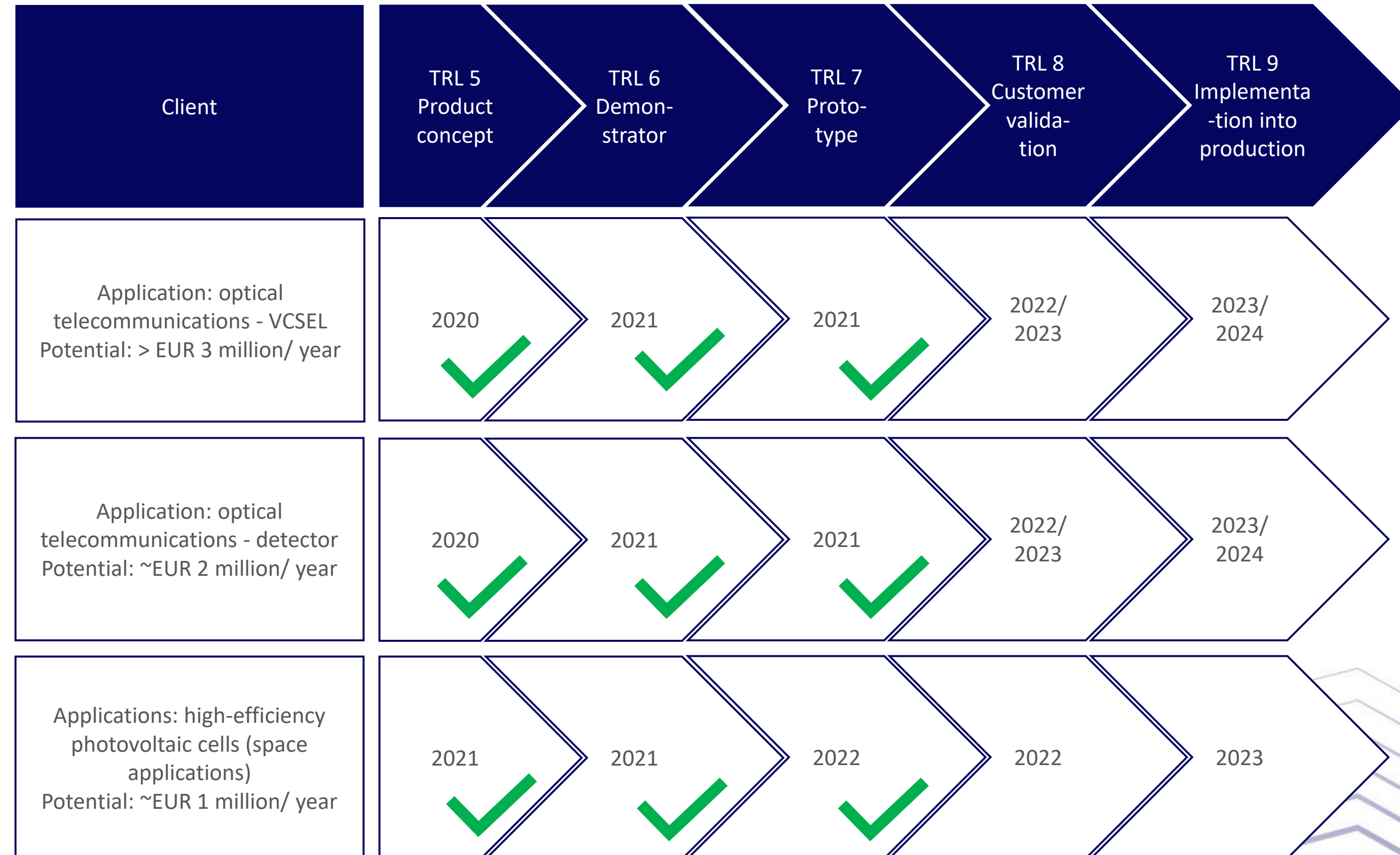
- Technology of high performance solar cell (TJSC) structures.



Plans for 2022

- Putting the developed solutions into serial production.

COMMERCIALISATION - SAMPLE PROJECTS



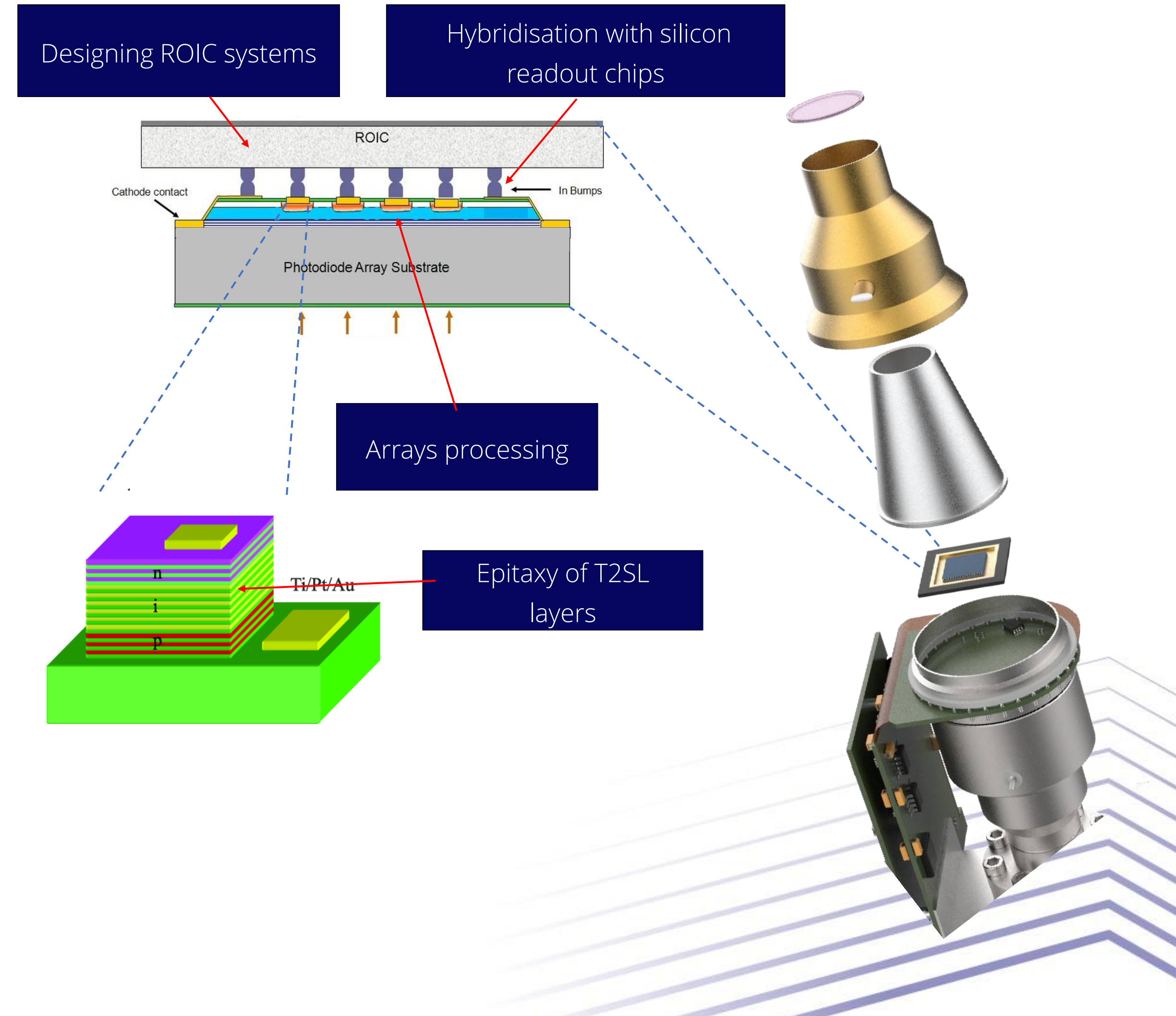
TECHNOLOGY DEVELOPMENTS

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 arrays production technology.

Achievements in 2021

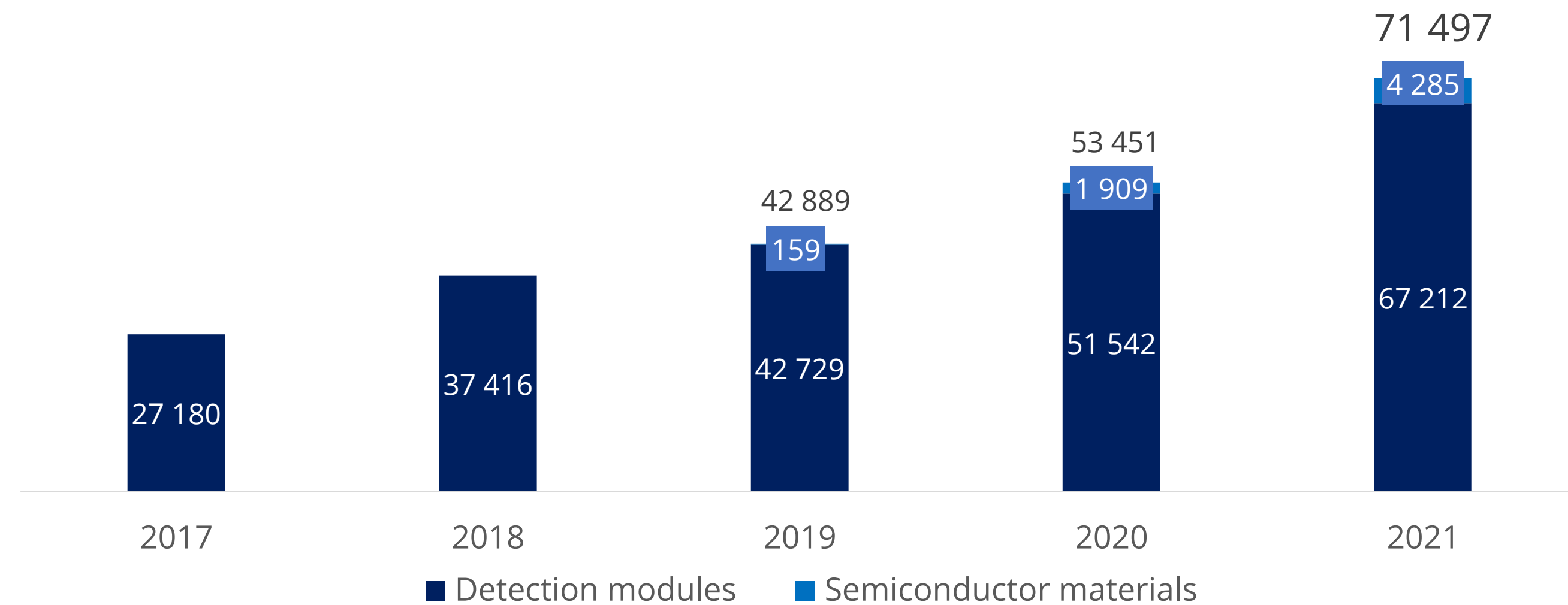
- Start of R&D project related to the development of matrices for space applications
- First SWIR matrices developed on the basis of materials produced by VIGO



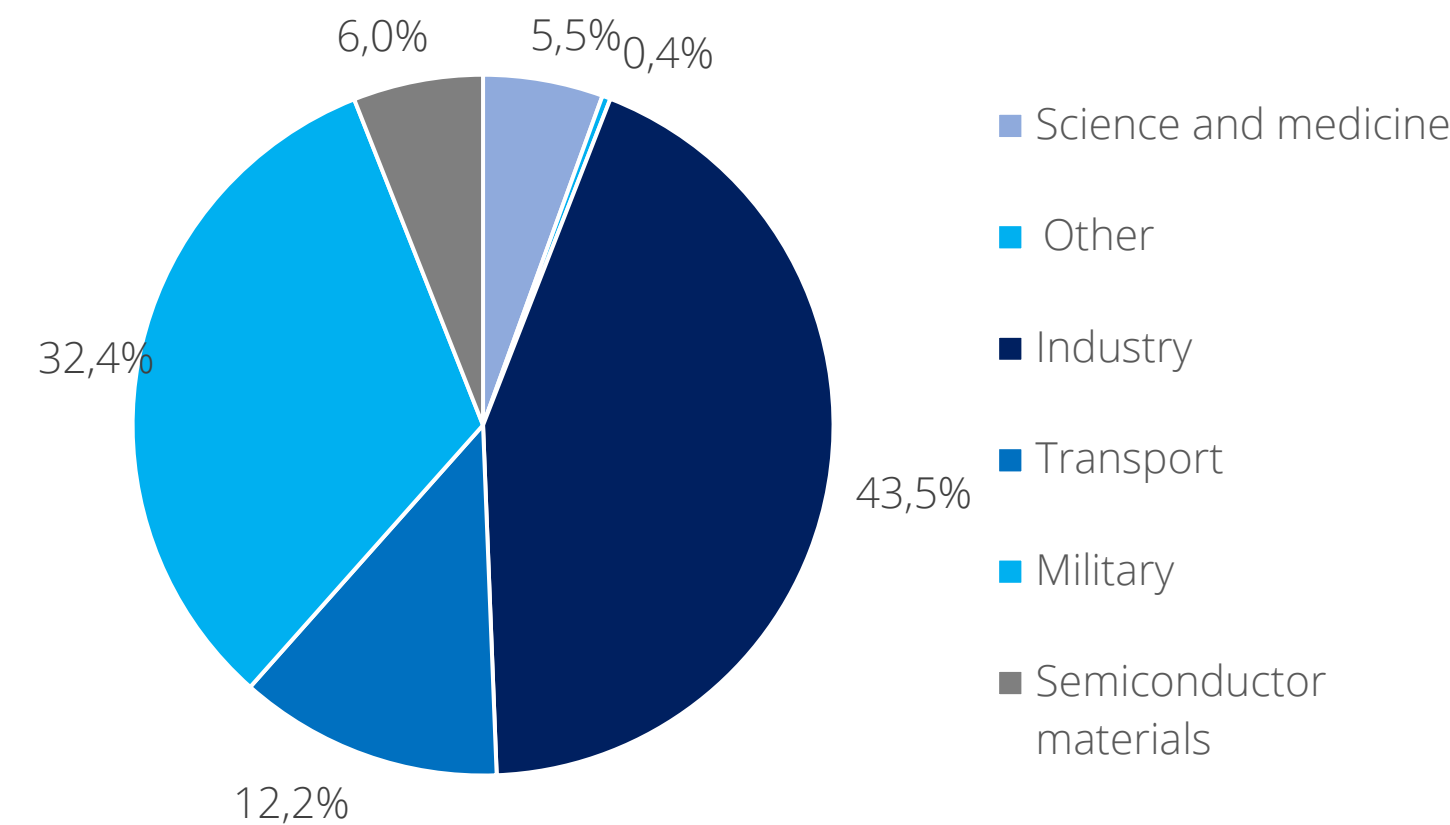
SALES REVENUES

- A 46% year-on-year increase in sales volumes to over 12,000 detectors and detection modules
- An increase in sales revenue by 34% to PLN 71.5 million, including the sales of detectors to PLN 67.2 million (+30% y/y) and of semiconductor materials to PLN 4.2 million (+125% y/y)
- The greatest increases:
 - Military technologies + 72% y/y
 - Industrial applications +31% y/y
 - Transportation +41% y/y
 - Semiconductor materials +124% y/y
- By geography, increases of 54.5% in the European market and 17.8% in Asia year-on-year; a decrease in the US market (-22%) related to lower revenues from the R&D service (development of a detector for medical applications).

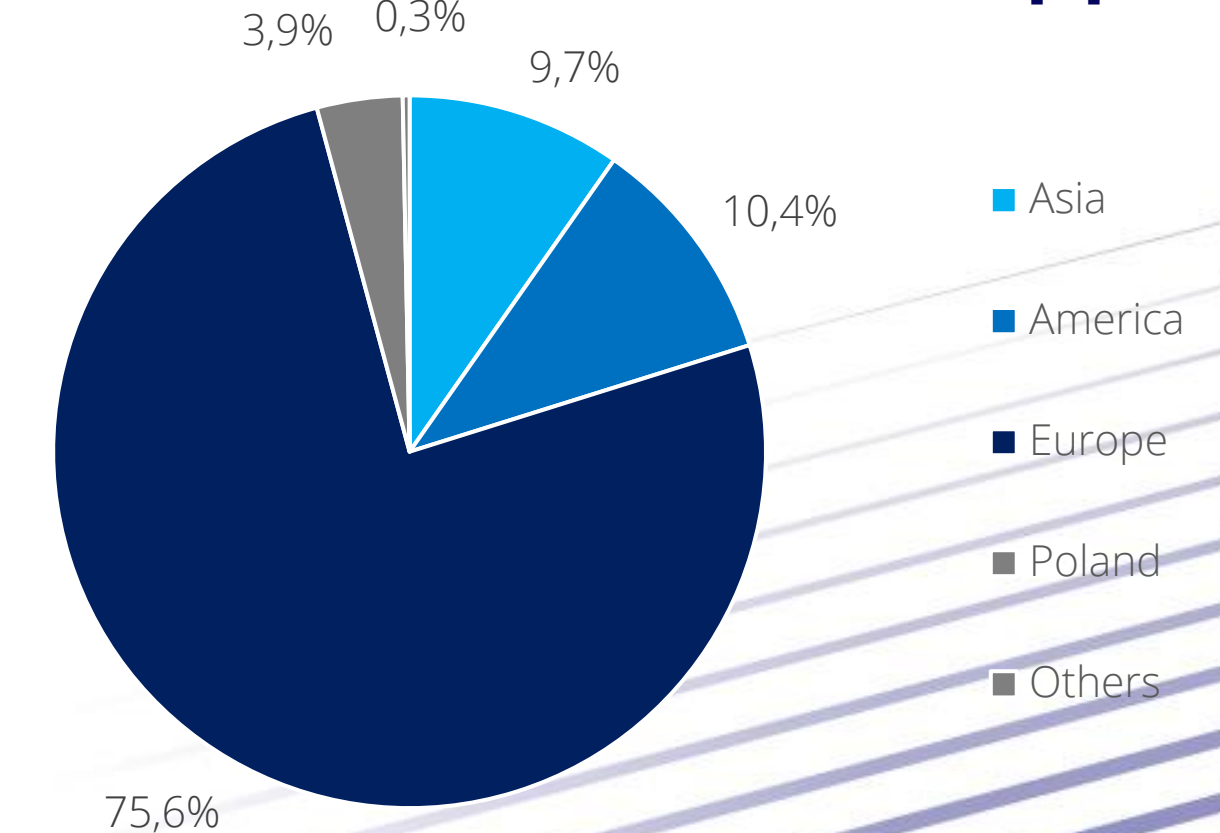
SALES REVENUE PER YEAR [kPLN]



SALES REVENUES BY APPLICATION IN 2021 [%]



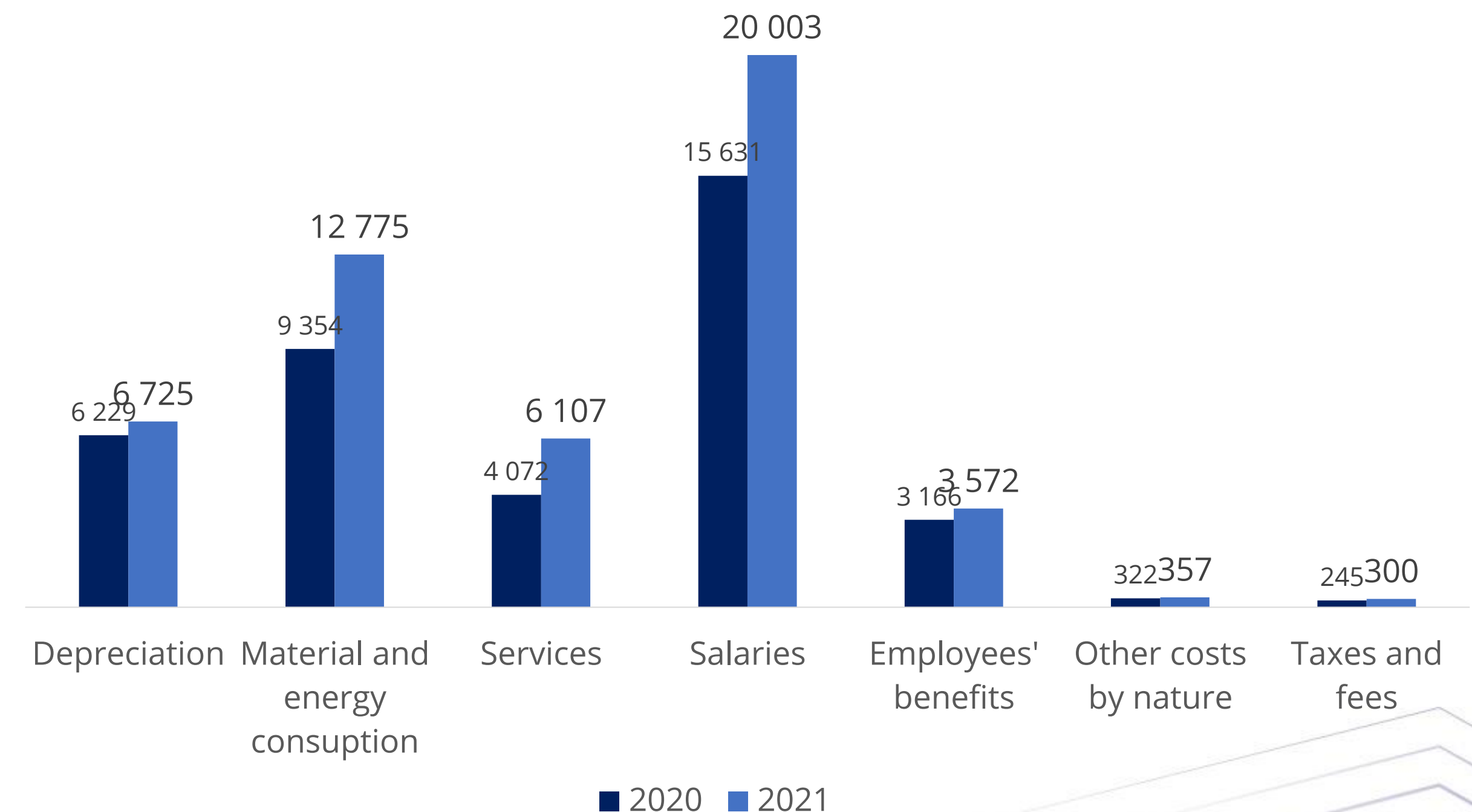
SALES REVENUES BY REGION IN 2021 [%]



OPERATING COSTS

- Core operating expenses in 2021 increased by 28% compared to 2020
- The following had the greatest impact on the increase in costs:
 - an increase in the volume of production, which resulted in higher costs of material and energy consumption (an increase of 37%, i.e. PLN 3.42 million)
 - increased employment (increase by 23%) and salary costs (increase by 28%, i.e. PLN 4.37 million)
 - increased depreciation by PLN 0.5 million (7.96%), which is related to the purchase of equipment under investments made in previous years as well as to the completion of some research and development projects
 - an increase in the costs of external services by PLN 2.04 million (50%), which is related to the opening of offices in the USA and Taiwan and an increase in the costs of renovations, maintenance, recruitment costs as well as advertising and marketing

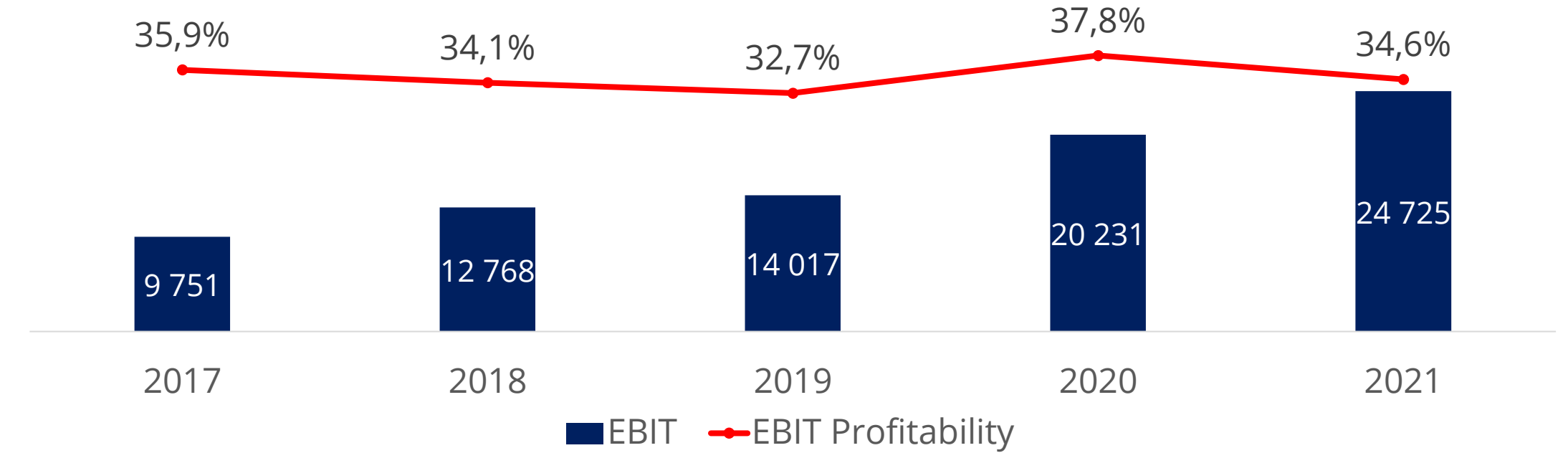
OPERATING COSTS IN 2020 AND 2021 [kPLN]



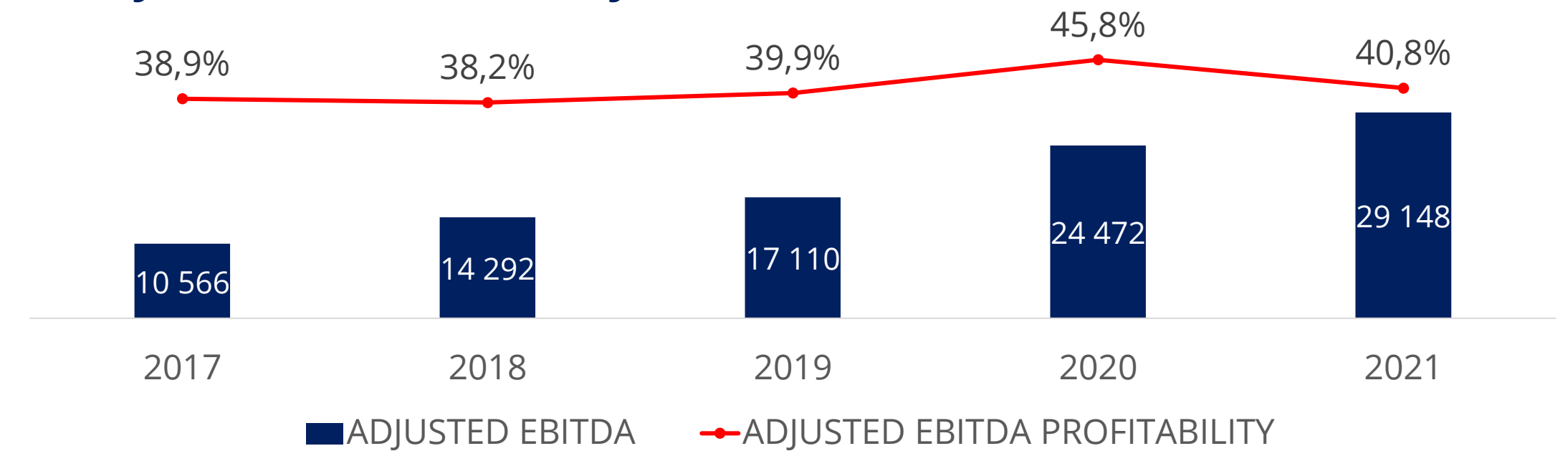
FINANCIAL PERFORMANCE

- Operating profit (EBIT): PLN 24.72 million (+22% y/y).
- Adjusted EBITDA: PLN 29.1 million (+19% y/y).
- Net profit adjusted for deferred tax: PLN 24.3 million (+35% y/y).
- Net profit - the following items had a significant impact on the net result:
 - Recognition of deferred tax assets (+PLN 7.9 million)
 - Write-down on loans granted to subsidiaries (PLN -1.0 million)
 - Subsidies for development work and fixed assets (+PLN 4.7 million)
- The Company's profitability remains at a very high level :
 - net profitability (on adjusted earnings) in 2021 amounted to 34%
 - EBITDA profitability stood at 41%
 - EBIT profitability reached 35%

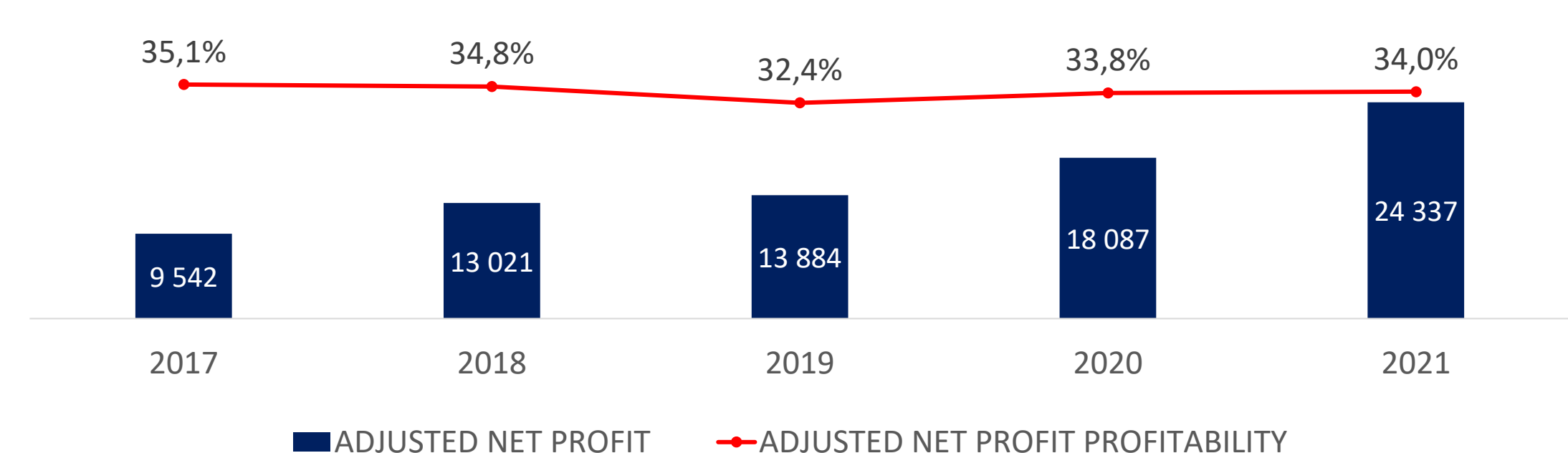
EBIT AND EBIT PROFITABILITY IN 2017-2021



ADJUSTED EBITDA AND ADJUSTED EBITDA PROFITABILITY IN 2017-2021



ADJUSTED NET PROFIT AND ADJUSTED NET PROFIT PROFITABILITY IN 2017-2021



CASH FLOW

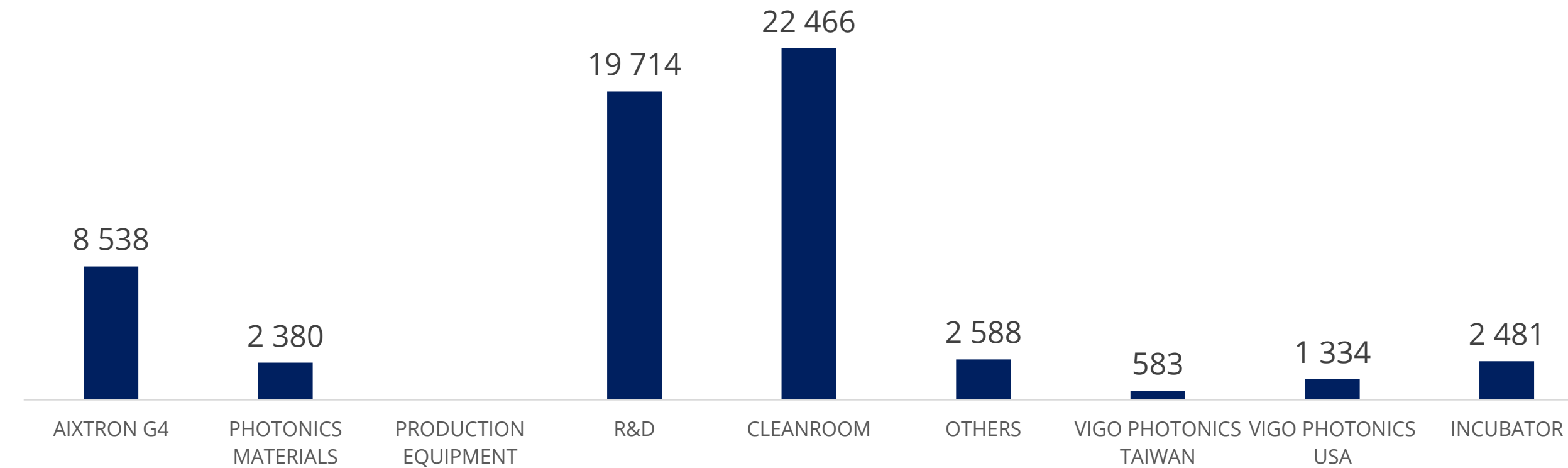
- The company generates stable cash flows
- Operating activities generated PLN 24.1 million, which was impacted by an increased level of receivables related to high sales volumes in December 2021
- As part of investing activities, PLN 15.0 million of public subsidies were received, while capital expenditure amounted to PLN 49.6 million (total cash flow from investing activities reaching PLN 34.5 million)
- As part of financing activities, the Company received PLN 11.5 million in investment loans and repaid PLN 8.1 million in capital instalments and PLN 0.3 million in interest

Cash Flow Statement [PLN thousand]	2021	2020
Total adjustments:	-282	3 105
Amortisation and/or depreciation	6 753	6 244
Change in provisions	354	2 244
Change in inventories	2 325	-2 306
Change in receivables	-7 981	-3 114
Change in liabilities, excluding loans and borrowings	2 469	300
Other	-4 202	-263
A. Net cash flows from operating activities	24 131	21 192
Inflows	15 055	10 100
Funding received	15 053	10 099
Proceeds from the sale of fixed assets	2	1
Outflows	-49 616	-26 023
Purchase of intangible assets and tangible fixed assets	-29 394	-8 503
Expenditure on acquisition of shares	-3 523	-2 512
Expenditure on investment funds	3 033	-3 033
Outlays on development work in progress	-18 298	-11 975
Loans granted	-1 433	0
B. Cash flows from investment activities	-34 561	-15 923
Inflows	11 469	1 512
Credits and loans	11 469	1 512
Outflows	-8 404	-6 631
Repayment of credits and loans	-8 092	-6 238
Interest and commissions	-312	-393
C. Cash flows from financial activities	3 065	-5 119
D. Total net cash flows	-7 365	150
G. Closing balance of cash	5 658	13 022

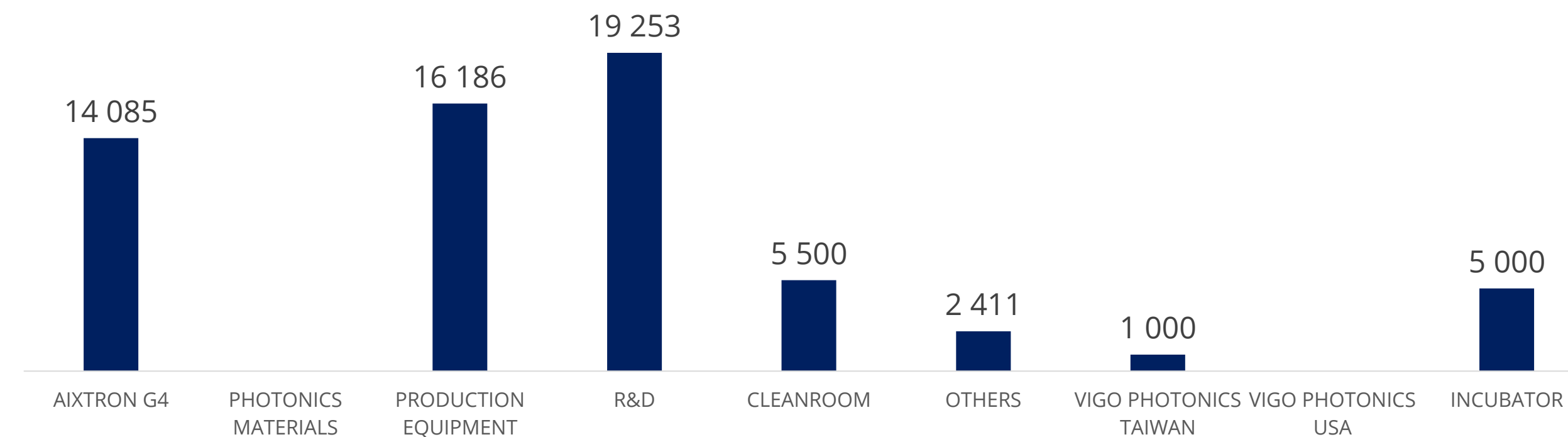
CAPITAL EXPENDITURE / CAPEX

- Expenditure in 2021 amounted to PLN 60 million (accrual), of which the most significant expenditure related to :
 - Cleanroom reconstruction (PLN 22.5 million)
 - R&D expenses (PLN 19.7 million)
 - Prepayments for the new MOCVD reactor (PLN 8.5 million)
- The plan for 2022 assumes PLN 63.4 million of investment, including:
 - Completion of cleanroom reconstruction - PLN 5.5 million
 - Implementation of the new MOCVD - PLN 14.1 million
 - R&D expenses - PLN 19.2 million
 - Expenditure on the purchase of production equipment - PLN 16.2 million
 - Investments through VIGO Ventures - PLN 5 million

CAPITAL EXPEDINTURES INCURRED IN 2021 [kPLN]



CAPITAL EXPEDINTURES PLANNED IN 2020 [kPLN]



SHORT-TERM OUTLOOK

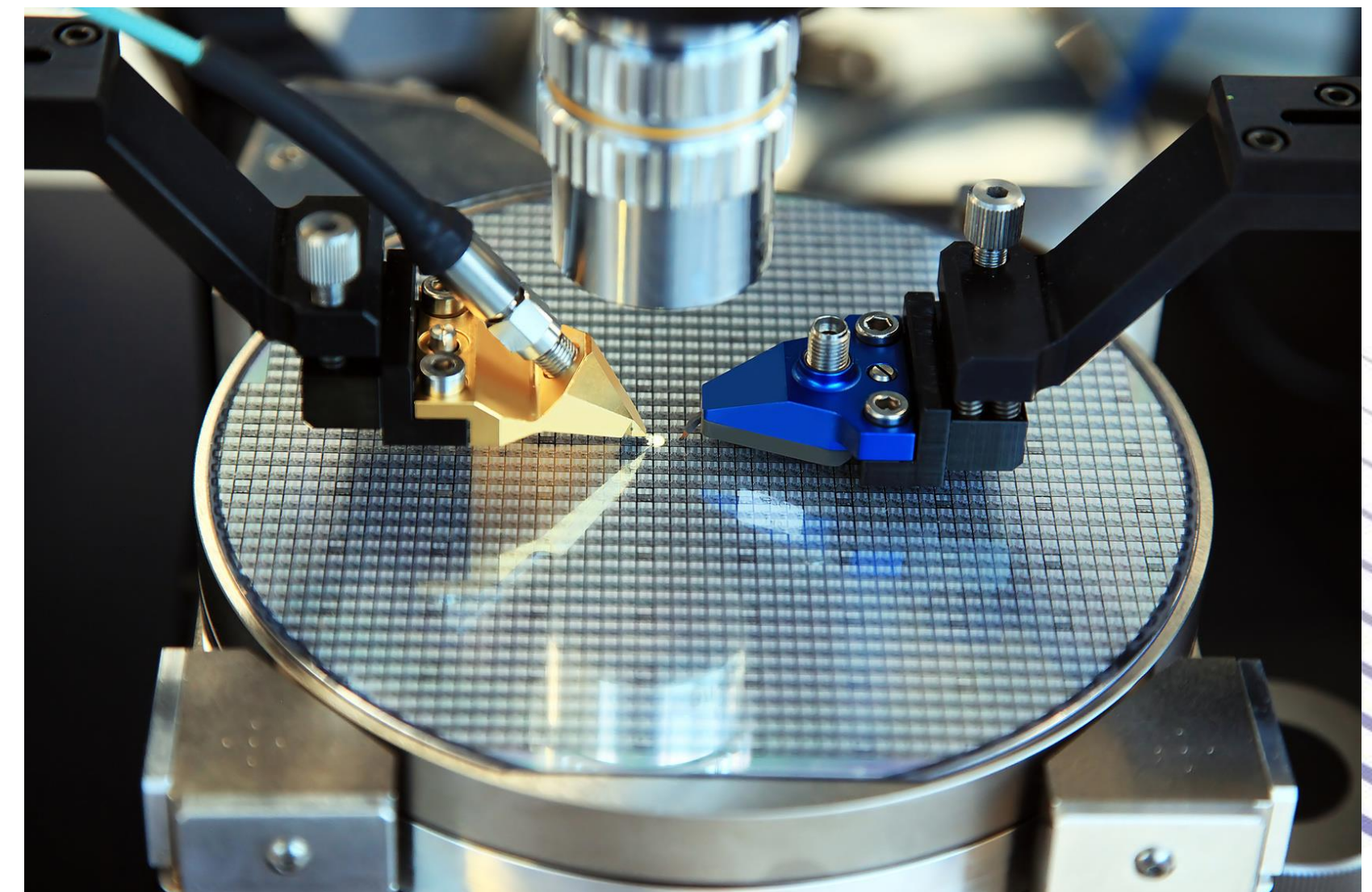
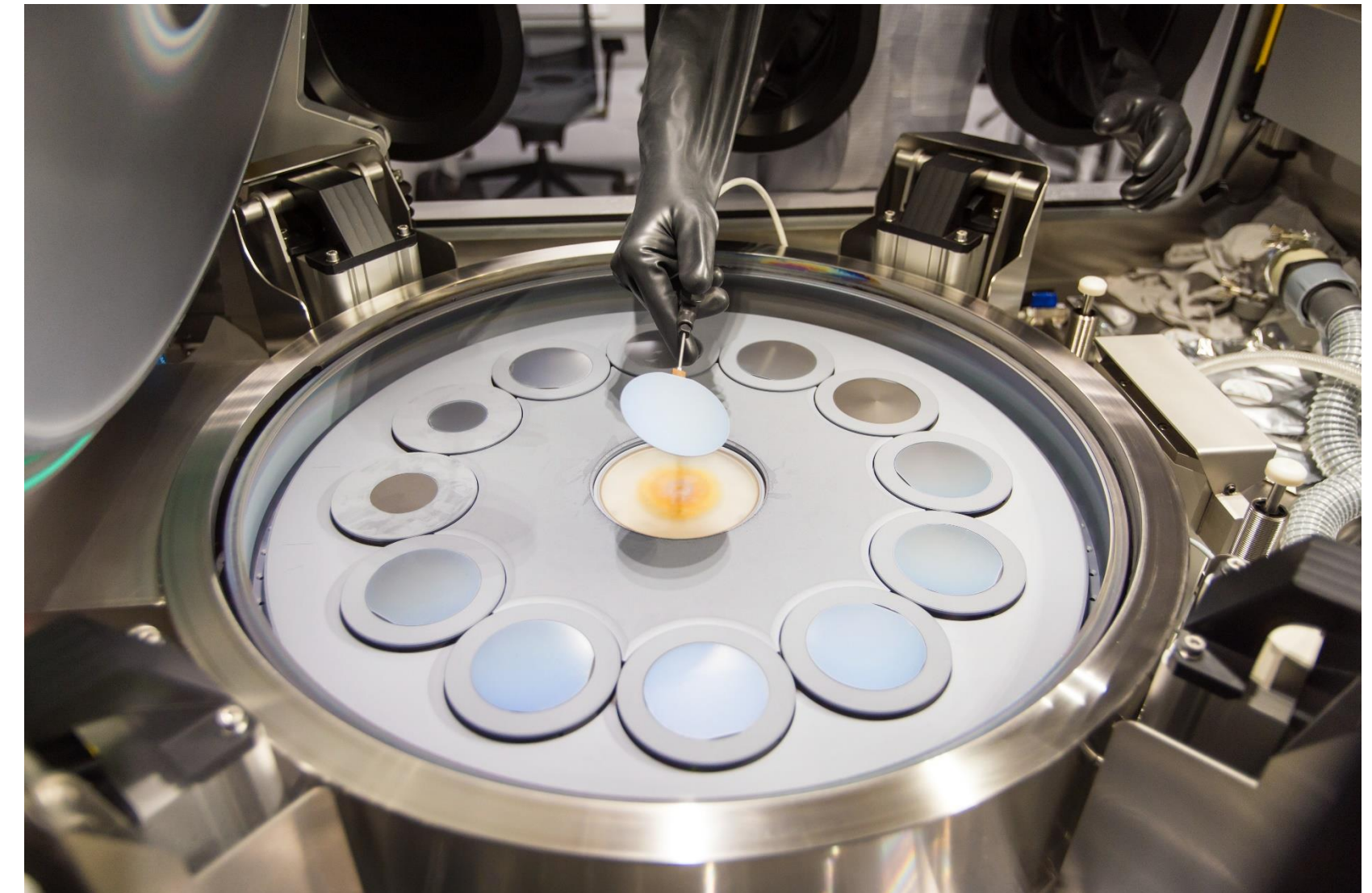
Plan for 2022

PLN 80 million revenue, including:

- **Industry** - Growth of min. 30%, especially on the US market, in environmental applications, semiconductor industry, possible higher growth in case of positive validation of new products by customers
- **Transportation** - growth of approx. 10% (Caterpillar + Chinese market)
- **Military technologies** - in 2022 smaller orders expected from Safran; total revenue approx. PLN 10 million
- **Science and medicine** - revenues at a similar level as in 2021
- **Materials for photonics** - EUR 1.5-2 milion

Production downtime in early 2022

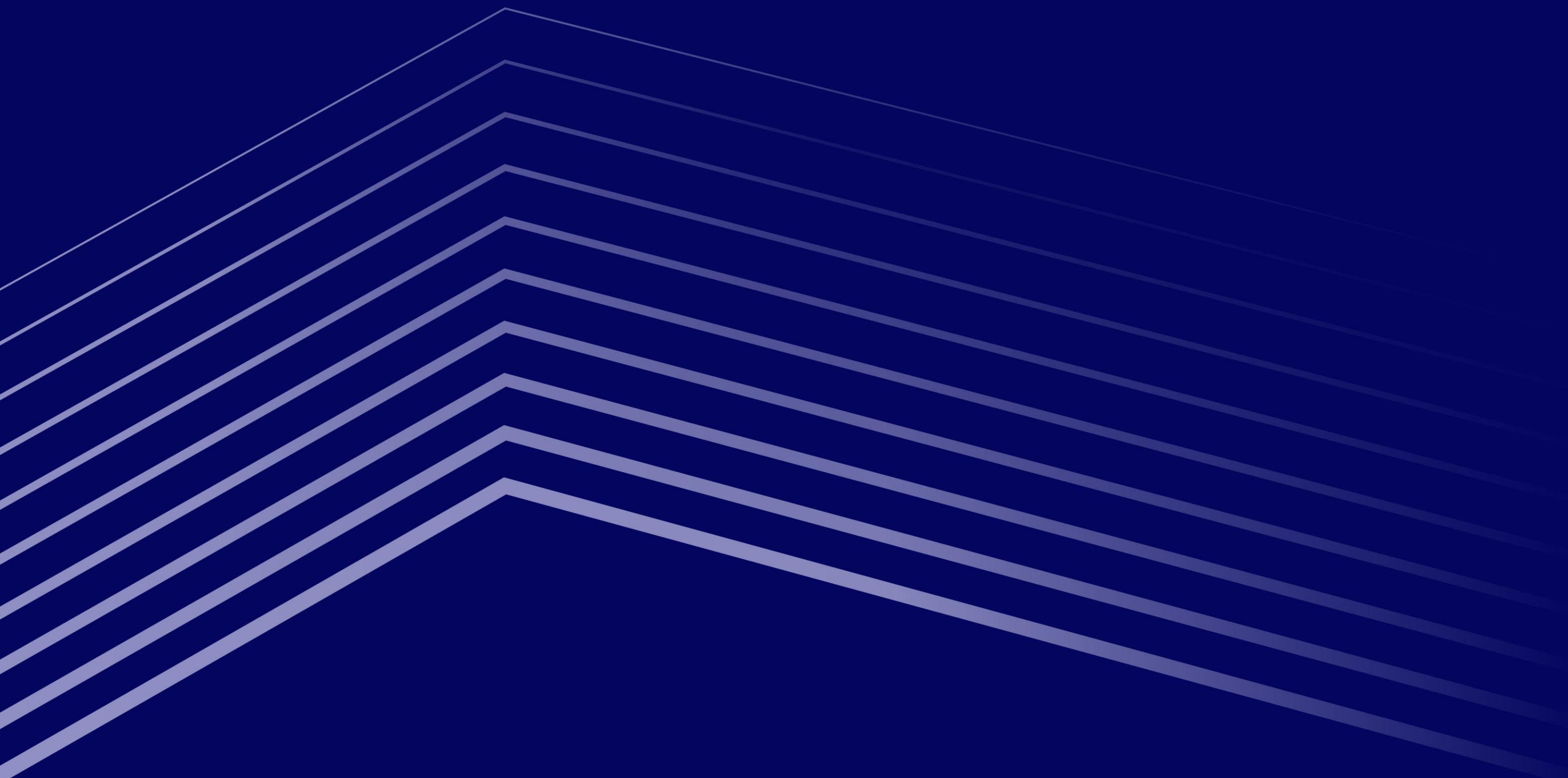
- Q1 2022 with worse y/y results due to production downtime related to cleanroom reconstruction; orders (other than those previously planned) taken for Q2 2022



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

<p>MARKET ENVIRONMENT</p>	<ul style="list-style-type: none"> • New emerging industries: wearable-lab-on-chip consumer electronics, environmental protection, automotive • Need to develop the EU semiconductor market due to the shortage of chips (COVID-19 effect)
<p>INVESTMENTS</p>	<ul style="list-style-type: none"> • Development of common bases (technological and technical) for key pro-growth initiatives through investment in R&D and universal infrastructure • Preparation of the investment plan necessary for the implementation of the 2026 strategy plans
<p>TECHNOLOGY</p>	<ul style="list-style-type: none"> • Continuation of development work on initiatives within the Company's strategy • Implementation of new initiatives from the 2026 strategy - entering the level of optoelectronic systems, integrated circuits and infrared arrays • Continued work with and for global partners on new VIGO solutions
<p>COMMERCIALISATION</p>	<ul style="list-style-type: none"> • Focus on commercialisation of current and new VIGO products, with emphasis on semiconductor materials • Continuation of sales to customers from current applications with potential for highest growth in industrial, security and military applications as well as transportation - approx. 20-30% growth in 2022 • Active development of sales (priority Asian market, active operations in the European and American markets, pilot programs in the Polish market)
<p>FINANCIAL RESULTS</p>	<ul style="list-style-type: none"> • Maintaining annual growth rate in the range of 20-30% • Sales revenues - 2022: ~PLN 80m, 2023: ~PLN 100m • Normalised EBITDA - 2022: ~PLN 33.5m , 2023: ~PLN 40m • Maintaining high, over 40% normalised EBITDA margin

Q&A SESSION



THANK YOU FOR YOUR ATTENTION

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