CBRTP
Driving industrial innovations

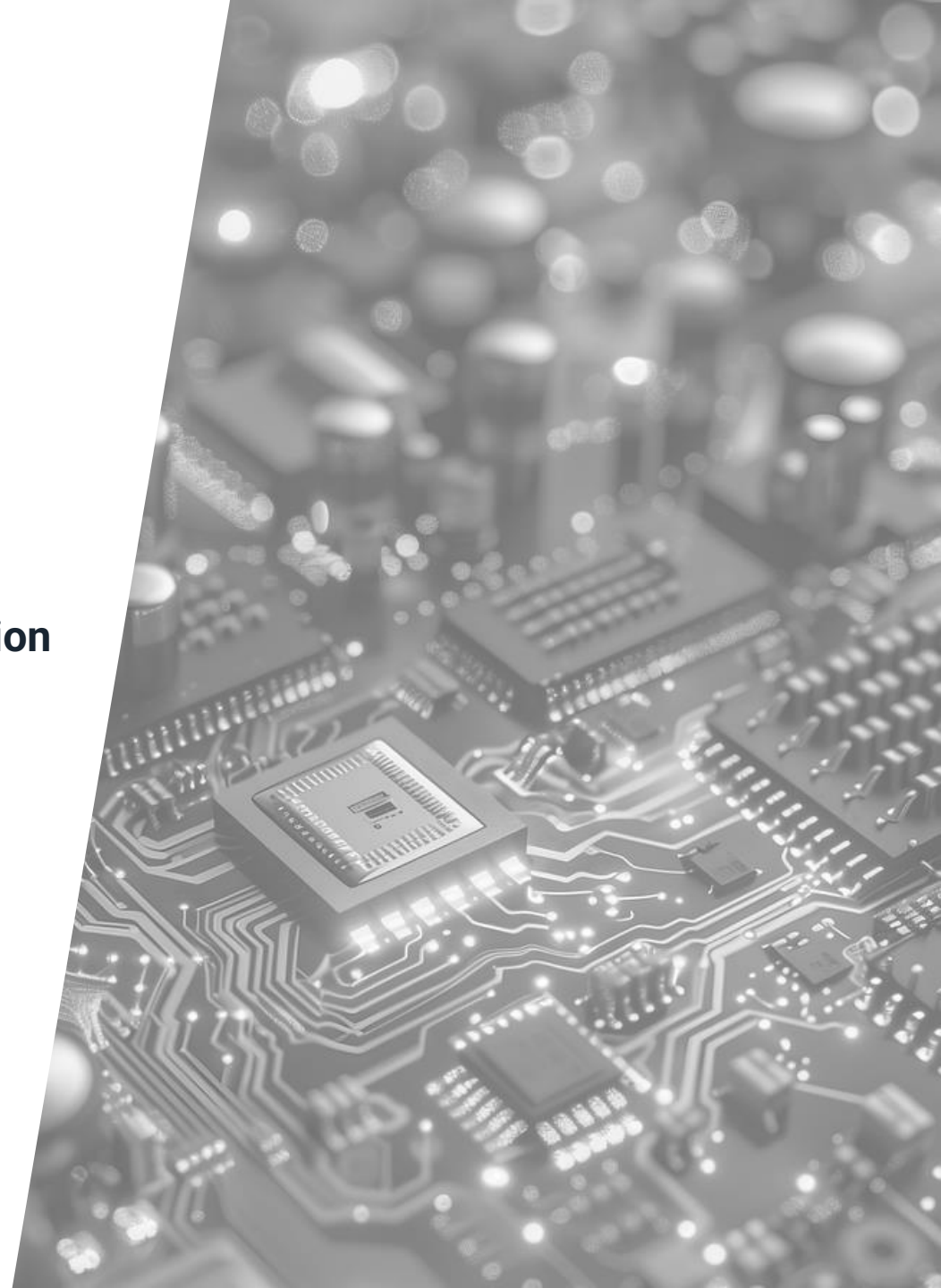
GaN wafers – Business Case

– investment and partnership proposal –

R&D HUB FOR INDUSTRY

Agenda

1. Company Profile | Core business
2. GaN wafers' market challenges | CBRTP strategy
3. Game changing technology | Unique Selling Proposition
4. Value proposition | Capital needs
5. Our background | Experience and know-how



CBRTP
Driving industrial innovations

Company profile
Core business

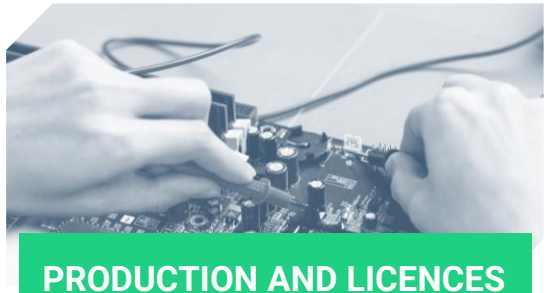
Who we are and what are our core business activities

CBRTP is a commercial R&D centre providing innovative technology solutions to industry partners.

ADVISORY

We focus on:

- technical consulting
- measuring the efficiency of industrial processes
- optimization of existing processes by developing and implementing innovations
- designing and delivering ready-made solutions
- implementation of R&D projects in the form of a consortium with co-financing



PRODUCTION AND LICENCES

Over the course of 10 years, we have developed the potential and process maturity to successfully:

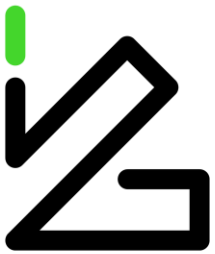
- commercialize our own technologies
- introduce our own products and brands to the market, available to individual and industrial customers
- grant licenses to customers to use our technologies
- flexibly manage our own machinery and production park
- scale our own and our partners' technological potential

EU GRANTS

We have developed a standard for building research and industrial consortia in 7 simple steps:

- identification of the clients' technological needs
- audit, on-site visit to production plants
- creating problem solution by CBRTP teams
- preparation of application documents
- signing a funding agreement
- joint implementation of the project
- implementation of results with an industrial partner

Our clients and partners



CBRTP’s unique selling proposition

- **interdisciplinary teams of engineers and specialists** from many fields of science and business, capable of developing solutions to most process and industrial problems
- over **80% effectiveness in obtaining funding (grants)** for R&D consortium projects
- own machinery, **research and laboratory equipment**, production plants
- **portfolio of completed projects** worth nearly USD 70 million
- rich **patent database**
- **obtained B+ science category,** as the only private research unit in Poland in the field of engineering and technical sciences (automatics, electronics, electrical engineering)
- **numerous awards and distinctions, including:**
  - Lider Zmian – 1st prize in the Leader of Change 2019
  - AUTOMATICON 2022 and 2023 – 1st prize two years in a row
  - INTERNATIONAL WARSAW INVENTION SHOW - gold medal

How do we plan to grow with an additional expansion capital?

RATIO	CBRTP NOW	WHERE WE WILL BE WITHIN 3-5Y	HOW? BY WHAT MEANS?
Project portfolio	21 projects 70 million	**30 projects** **USD 125 million**	▪ Our already processed project pipeline stands at **USD 55 million** for such clients as IKEA, Gala Group, Intemo ▪ **4 already granted, 8** out of them is **already submitted**, waiting for appraisal results, **5 are in progress**
Sales revenues	USD 1.58 million	**USD 4.0 - 6.5 million**	▪ Production kick off for **Leroy Merlin and Mann+Hummel** ▪ Execution of long-term **license contracts with Gala Group and Hanplast** ▪ **Successful acquisition and implementation of a new R&D project portfolio** generating leveraged incomes to cover organizational, and projects' needs ▪ Increased commercial incomes from consulting services and private R&D hub for **IKEA** (European roll-out), **Orlen** (multiple locations across Poland), **STRABAG** (European roll-out) ▪ **Intensive cost optimization** thanks to leased lab integration and more effective production and material/Energy consumption
EBITDA	USD 1.3 million	**USD 2.7 - 9.0 million**	
Net profit	USD 0.10 million	**USD 1.3 - 10.0 million**	
Assets	USD 9.8 million	**USD 30+ million**	
Personnel	30+	**100+**	▪ Constant expansion of the team's competences with high-class specialists
Science proficiency	B+	**A/A+**	▪ By implementing more international R&D projects with global industry partners we identify a huge potential to be active in publishing, registering IP rights, rolling out our technology to the next clients – we have an aspiration to create a regional league of R&D, and become a leader of it

3.4x INCREASED SCALE OF THE BUSINESS BY REVENUES ($CAGR_{2023-2028}$) +33%

1.8x INCREASED PROJECT PORTFOLIO ($CAGR_{2023-2028}$) +15%

3.1x INCREASED ASSETS POTENTIAL ($CAGR_{2023-2028}$) +28.5%

Management team

GRZEGORZ PUTYNKOWSKI

CEO

- Co-founder of CBRTP S.A.
- Responsible for building relationships with scientific partners and coordinating research and implementation processes
- He has several years of experience in managing R&D projects in Poland and abroad and commercializing the results of scientific work
- He has proven experience in scientific and industrial research (Orcid 0000-0003-0261-6194)
- An expert in the field of energy, materials engineering, solid state physics, power engineering and electronics

MAGDALENA RACIĘSKI

Vice CEO

- Magda is an expert with many years of international experience in the field of Public Relations and marketing
- She was responsible for the communication strategy and corporate social responsibility at **Coca-Cola** in Austria, the **Mondi Group** in Vienna, and from 2010 she was the Director of Corporate Communication at **ING Austria**
- In 2019, Magda joined **Bayer AG** Austria and as a PR-Manager was responsible for brand communication
- She was also included in the list of the 100 best PR managers in Austria

MAREK RACIĘSKI

Chairman of the Supervisory Board

- Co-founder of CBRTP S.A.
- Responsible for cooperation with business partners
- He combines extensive expert knowledge in the field of IT, finance, energy and business optimization solutions
- Former member of the management board, he developed organizations such as **Compaq, Danfoss, Digital, Capgemini, Comarch**

PAWEŁ USS

Head of Corporate Finance

- Experienced manager in the area of executive supervision and human resources management.
- He has practical knowledge and experience in preparing business strategies, financial modelling, enterprise value valuation and assessing project profitability, gained during many years of work and cooperation with entities such as **Investors TFI, Baker Tilly, Crowe Horwath, EY, Capital Partners, Grant Thornton, DFCM**

R&D team

ROBERT SOCHA, PhD

R&D Principal

- R&D Director at CBRTP (in CBRTP since 2016)
- Responsible for coordination of all activities related to innovations, industrial and scientific projects implementation and coordination
- He has proven experience in scientific and industrial research in chemistry, materials science and physics (Orcid 0000-0003-4072-2393)
- An expert in the field of surface science and engineering, surface and interface analysis and modification

PATRYK KASZA, PhD

Head of the Chemistry and Nanotechnology Laboratory

- Brings over a decade of experience in materials research with a focus on semiconductors and nanostructures
- Specializes in the chemical design, synthesis, and functionalization of inorganic and hybrid materials
- Coordinates cross-sector projects integrating nanotech solutions into industrial applications
- Develops experimental methods for material surface tailoring and interface control at the nanoscale
- Works closely with technology partners to accelerate innovation in electronic materials and processing

MAREK WOJNICKI, PROF.

Materials Engineering Expert Project Manager

- Expert in adsorption processes, particularly in the development of theoretical isotherm models and mechanistic studies for metal ion recovery from aqueous solutions
- Author of over 170 scientific publications, including more than 100 articles in IF journals, with a h-index of 21 and over 1400 citations, recognized among the World's Top 2% Scientists (2020–2023)
- Holder of 22 patent documents (including 4 European patents) related to innovative solutions in hydrometallurgy, nanomaterials, and chemical measurement systems

ŁUKASZ WALCZAK, PhD

R&D Strategy and Technology Implementation Expert

- Responsible for coordinating R&D and infrastructure projects linking science&industry
- Over 15 years of experience in research management, innovation strategy, and commercialization of scientific results
- Expert in thin film technologies, nanomaterials, UHV systems, and analytical instrumentation for material research
- Leads international projects in the fields of space technologies, energy materials, and semiconductor-related applications
- Proven track record in delivering TRL-driven development, from concept to implementation in scientific and industrial environments

Key facts and figures

24 PROJECTS

portfolio of successfully completed projects

70 USD MILLION

The value of our project portfolio

55 USD MILLION

value of current pipeline for 2025

26 INTELLECTUAL ACHIEVEMENTS

intellectual achievements in the form of patents, patent applications, trademarks and utility models

80% SUCCESS RATE

effectiveness in obtaining funding (grants) for R&D consortium projects

30+ ADVISORS AND SPECIALISTS

our team of engineers, scientists and advisors, specialists in law, administration and project finance

15x INCREASED BUSINESS VOLUME

Between 2014 and 2023, we scaled up our business more than 15 times. The compound average growth rate of our assets ($CAGR_{2014\text{-}2023}$) was more than 45% and revenue was more than 35%.

B+ SCIENTIFIC CATEGORY

Granted for:

- contribution to the development of cooperation between industry and the world of research and science
- numerous scientific achievements supported by publications and patents
- implementation of innovative projects
- conducting scientific research and development works with results of international importance.

Production and licences

Many organizations and manufacturing facilities are aware of the need for R&D investments and activities but suffer from a lack of enough competence or strategy to implement them into business reality. **CBRTP as your outsourced R&D hub** provides a comprehensive solution.

These include the development of an R&D strategy and its execution in the matter of human resources, machinery, planning and conduct of R&D, as well as prototyping or creative exploration of process and product innovations.

CBRTP has many years of experience in providing external R&D hub solutions to domestic companies with **numerous business profiles**. Our services are used by representatives of the plastics processing, components, construction, and white goods industries.

Production and licences – Business Case Leroy Merlin

Sales contract with **Leroy Merlin** retail chain (in Poland and abroad) for CBRTP products i.e., grass in rolls produced on biodegradable non-woven fabric.

The technology is used in the horticultural industry. Production will take place at CBRTP production plants, and the costs of logistics, promotion and marketing are fully covered by the Leroy Merlin.

PRODUCTION ASSUMPTIONS

PILOT STAGE

- Spring 2025
- Volume planned – 450 thousand m2 grass sold
- 2025: USD 0.450 million during pilot project

REGULAR PROJECT

- Spring 2026
- Volume planned – 900 thousand m2 grass sold
- 2026: USD 0.890 million during regular project

FINAL STAGE

- Spin-off of technology to the SPV **florogarden**
- Acquisition of a co-investor (VC/PE fund)
- Generation of revenues from the granted license to use the technology 2027: USD 2.5 million

Production and licences – Business Case Leroy Merlin


1.5 weeks of growth


1 month of growth


2 months of growth after 2 mowing cycles


Without preparing the ground

MARKET CONDITIONS AND TRENDS:

- ⬆ value of the global horticultural market* from USD 144.5 billion in 2023 to USD 197.50 billion in 2030 (6,0% - $CAGR_{24-30}$)
- ⬆ value of the global natural grass and turf grass market from USD 88 billion in 2023 to USD 139.38 billion by 2031 (6,8% - $CAGR_{24-31}$)
- ⬆ value of the European grass seed market from USD 6.14 billion in 2023 to USD 14.9 billion by 2031 (15,92% $CAGR_{24-31}$)
- Commercial and municipal sectors are turning to grass seeding technology and turf management practices that improve the performance and sustainability of grass varieties used in high-traffic areas
- Growing demand for grass varieties that can grow in different climate conditions and soil types
- Thanks to simple application that does not require time or knowledge from the user, the product fits into the trends of convenience and work-life balance

*cultivation of plants, flowers, lawns, pots, flower beds, small tools and gardening equipment

Production and licences – Business Case IOd candle

- **CBRTP** using its own chemical technology, developed a mixture of elemental iodine and natural oil (iodine derivative) that was previously unavailable on the market. Its physicochemical properties allowed the production of new inhalation product – **iodine candles**
- **IOd** is the only decorative candle on the market that releases pure iodine into the air during combustion. The patented technology and formula* was created based on fully ecological and biodegradable rapeseed oil
- **Fifteen-year licence** contract between CBRTP and Gala Group the guarantees us a 34% share in the profit from the sale of products based on the above-mentioned technologies

GALA GROUP
world of candles & scents

- The product will be distributed stationary through, among others, Super-Pharm, the German drugstore chain Drogerie Markt (DM), Douglas, Leroy Merlin, as well as on the American market through Johnson&Johnson, as well as in the **e-commerce** model with a global reach
- The expected sales volume of iodine candles is estimated at 170 – 230 thousand candles per year in the period 2025-2027

PRODUCT VALUES AND FEATURES:

- **HEALTH →** the purest iodine, which strengthens the body, increases immunity, supports the thyroid function and has antibacterial effects
- **WELLNESS →** the effect of iodine treatments on the Baltic Sea
- **CONSCIENT PRODUCTION→** only natural waxes and oils, wick made of ecological, unbleached cotton. Thick, pharmacy glass emphasizing the nature of the product and suitable for recycling and upcycling (trend)
- **SAFETY OF USE→** no emission of harmful substances during burning. Continuous burning of the candle for up to 50 hours will not exceed the recommended doses of iodine

*Patent application no. P.440385

Production and licences – Business Case IOd candle

MARKET CONDITIONS AND TRENDS :

- ⬆ value of the European candle market from USD 2.6 billion in 2022 to USD 3.3 billion in 2027
- ⬆ value of the Polish candle market from USD 1.1 billion in 2022 to USD 1.35 billion in 2027
- ⬆ value of the Polish dietary supplements market from USD 2.05 billion in 2022 to USD 2.4 billion in 2027
- New WHO guidelines* introduce a recommendation to limit salt consumption (over 60% of the world's population exceeds 2x daily dose)
- Salt, which has been a transmitter of iodine to the human body, is now on the list of harmful products, and labelling is necessary
- 35% of the world's population is iodine deficient, which can cause depression, fatigue and anxiety
- Although the market is saturated with scented candle brands (such as Yankee Candle, Woodwick), only IOd offers candles with the additional benefits of iodine
- 70% of Polish consumers prefer products made from organic, natural ingredients

*WHO global sodium benchmarks for different food categories

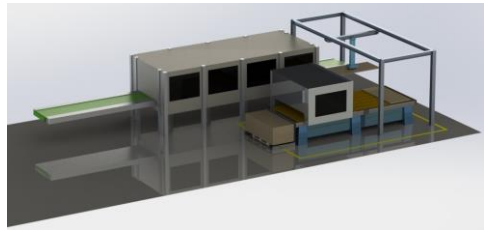
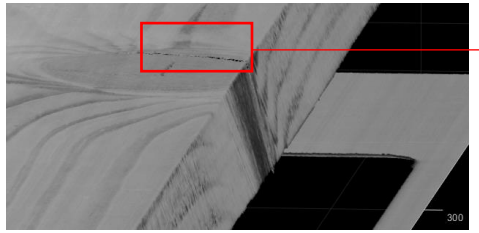
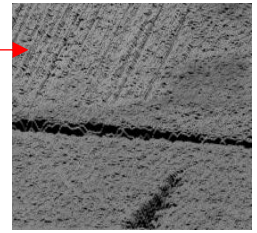
Key R&D projects executed for our Clients – Case Study

IKEA Industry struggled with the problems of inefficiency in the quality control processes of furniture boards, including the identification of manufacturing and raw material defects, as well as their subsequent processing and repair.

After conducting an on-site audit, the CBRTP engineering team identified the source of the problem and developed a concept for a new line equipped with, among others: in laser control sockets, vision and camera control systems and pipeline transport systems.

The execution of the signed contract with IKEA for the implementation of the contract is expected for the end of 2025 **value: EUR 450 thousand – 2025 and EUR 505 thousand in 2026.**

CBRTP is currently implementing a budgeted project (**USD 2.3 million**) that provides grant funding for the development of quality control technologies for the woodworking industry, the results of which will be implemented at IKEA, Barlinek and other participants in the woodworking and furniture production markets.

MARKET CONDITIONS AND TRENDS:

- The value of the furniture market in Poland amounted to **USD 9.6 billion** at the end of 2023, growing at a CAGR of 8.7% in 2019-2023
- In 2024, the furniture market value is estimated to increase to approximately **USD 15 billion**, and till 2027 it will grow at a $CAGR_{(23\text{-}27)}$ of 9.3%
- The value of the European market will amount to approximately **USD 145 billion in 2028** (Poland's share in the European market will be approx. 11%)
- The timber industry in Poland generates approximately 2.5% of Poland's GDP (~**USD 8 billion**) and employs over 350,000 people
- The value of the timber market in 2023 amounted to **USD 12.5 billion**. In 2024-2025, the market value is expected to grow by approximately 1.5% y/y
- Both sectors are struggling with growing competition from Chinese production, price pressure and high debt servicing costs – the remedy should be seen in the implementation of technologies to optimize the use of raw materials and reduce the scale of waste

Production and licences – Business Case Mann+Hummel

Sales contract with **Mann+Hummel** for the nonwoven fabrics with biocidal additives for cabin filters.

Mann+Hummel is a company producing high-quality filters for the automotive industry, machinery, heavy and specialized equipment. The main area of activity is the production of filters sold under renowned and recognized brands: FILTRON and WIX Filters. The company employs over 2,000 employees and records the production of over 90 million filters per year. The company's revenues exceed USD 280 million.

Our material contains submicron active particles, which, using active copper, zinc and titanium ions, will enable obtaining a biocidal effectiveness rate (viruses, bacteria, fungi) of **99.99%** in standard cabin filters. This result was confirmed as part of the certification process.

Together with our shareholder we bought special production line located in our laboratory, dedicated to:

- produce polymer composite nonwovens with a capacity of 2.500.000 - 3.500.000 m2/year

PRODUCTION ASSUMPTIONS

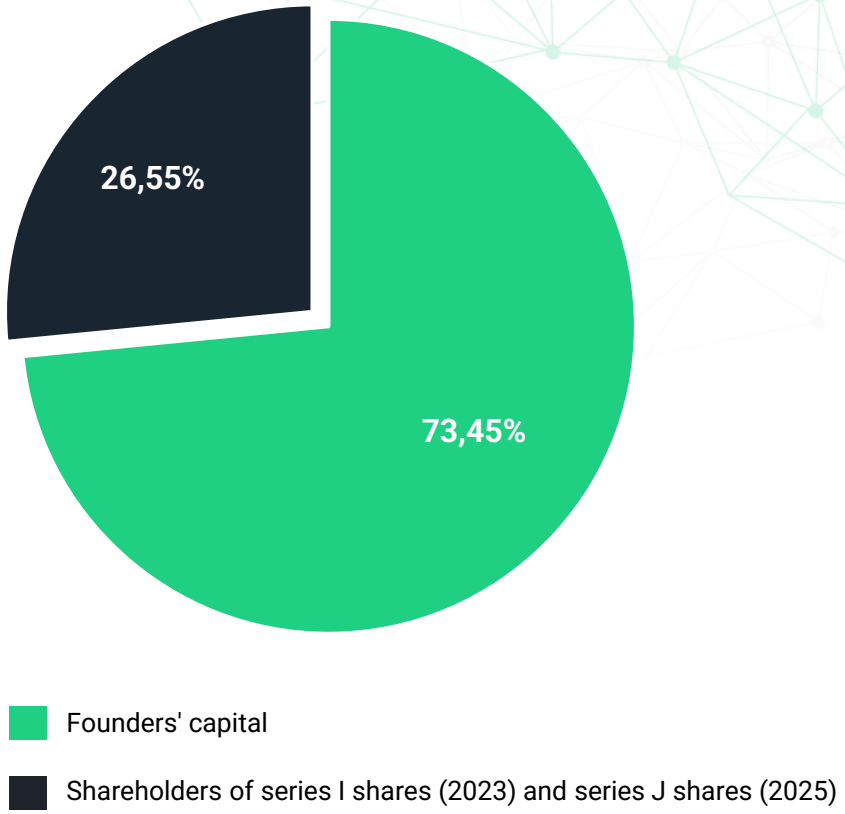
- Starting 2027
- Direct sales to Mann+Hummel production plants
- Planned volume – 2.5 million m2 in 2027, in subsequent years 3.5 million m2 per year

FINANCIAL FORECAST

- With a margin set at least 60% CBRTP's revenues may reach
- **2027: USD 0.95 million**
- **2028+: USD 1.3 million**

Shareholders – post issue of series J shares

Shareholder	Status	Number of shares*	%
private investor	Founding capital	1 153 578	16,14%
limited company (Ltd.)	Founding capital	1 189 088	16,63%
limited company (Ltd.)	Founding capital	1 061 429	14,85%
limited company (Ltd.).	Founding capital	650 775	9,10%
private investor	Founding capital	488 081	6,83%
private investor	Founding capital	488 081	6,83%
private investor	Founding capital	202 000	2,83%
private investor	Founding capital	18 750	0,26%
private investor	Series I shares (2023)	250 000	3,50%
private investor	Series I shares (2023)	90 090	1,26%
private investor	Series I shares (2023)	20 180	0,28%
private investor	Series I shares (2023)	36 037	0,50%
private investor	Series I shares (2023)	6 980	0,10%
private investor	Series I shares (2023)	36 038	0,50%
private investor	Series I shares (2023)	36 038	0,50%
private investor	Series I shares (2023)	120 000	1,68%
private investor	Series I shares (2023)	250 000	3,50%
private investor	Series I shares (2023)	9 910	0,14%
private investor	Series I shares (2023)	36 038	0,50%
private investor	Series I shares (2023)	19 000	0,27%
private investor	Series I shares (2023)	20 000	0,28%
investment fund	Series I shares (2023)	110 000	1,54%
limited company (Ltd.)	Series I shares (2023)	55 000	0,77%
investment fund	Series I shares (2023)	36 036	0,50%
private investor	Series J shares (2025)	720 720	10,07%
private investor	Series J shares (2025)	24 000	0,34%
private investor	Series J shares (2025)	22 525	0,32%
TOTAL		**7 150 374**	**100,00%**



*each share is worth 1 PLN as face value (nominal value); with reference to the share serie I and serie J the excess of the issue price over the nominal price constitutes the reserve capital

Financial facts and figures: current business model (net values in USD, without VAT)

Position/year	2021	2022	2023	2024f	2025f	2026f	2027f	2028f
SALES REVENUES:	**1 382 543**	**1 748 336**	**1 573 911**		**2 606 008**	**3 514 807**	**5 350 047**	**6 503 130**
R&D consulting	1 382 543	1 748 336	1 573 911	893 927	1 353 600	913 600	20 800	323 680
florogarden business line	-	-	-	7 861	446 667	893 333	-	0
Iod business line	-	-	-	5 716	638 067	790 901	951 676	1 065 877
Mann+Hummel business line	-	-	-	-	0	-	923 773	1 312 681
Other licenses (including florogarden)	-	-	-	-	0	721 693	3 247 396*	3 436 330*
Other revenues	-	-	-	-	167 674	195 279	206 403	364 563
Other operating income *(R&D projects)*	**3 269 532**	**2 906 507**	**2 892 563**	**1 816 510**	**2 437 772**	**3 027 682**	**6 919 126****	**2 179 255****
Financial incomes	**2 856**	**6 396**	**2 549**	**-**	**0**	**-**	**6 162 534*****	**-**
EBIT	127 745	497 785	225 026	-716 053	1 124 345	2 085 892	7 259 897	3 507 643
EBITDA	1 083 802	1 517 281	1 260 671	630 716	2 513 561	3 743 726	9 052 251	5 031 589
NET PROFIT	**89 697**	**352 938**	**116 085**	**-756 300**	**820 568**	**1 560 740**	**10 463 522**	**2 256 381**
ASSETS *(balance sheet)*	5 662 892	7 631 097	9 708 370	9 621 991	15 225 352	17 346 724	31 907 285	34 106 533

* Revenues from the license granted to **florogarden** amount to USD 2.5 million in 2027

** It assumes obtaining a subsidy for the construction of its own industrial and laboratory facility (2026 – USD 5.1 million, 2027 – USD 2.2 million); the remaining part consists of subsidies from already signed co-financing agreements

*** Financial income from the sale of shares in the special purpose vehicle **florogarden** to a VC/PE fund

CBRTP
Driving industrial innovations

GaN wafers' market challenges
CBRTP strategy

Global GaN wafer market challenges and our vision on how to respond to it

PAIN DEFINITION ON THE MARKET

The global semiconductor market is currently dominated by companies from the US, Japan, and China, creating challenges for European producers and impacting the overall market. This dominance can lead to supply chain disruptions. Moreover, additional factors such as price pressure, increasing production costs or high tariffs stimulate increased competition for European businesses.

CBRTP AIM IN THE SHORT-TERM HORIZON

- becoming European leading manufacturer of freestanding GaN wafers
- driving market transformation by integrating a cost-effective, high-quality CBRTP solution into the production processes Europe-wide
- disrupting the American-Japanese stronghold to create a leading European competitor (80-90% of market share held by JPN/US)
- increasing the availability of high-quality GaN semiconductors in the end-user market
- reinforcing European chips' manufacturing sector
- better quality of semiconductors, lower energy use – driving the global efficiency trend
- establishing a globally exclusive technology to produce 8" GaN wafers

HOW TO BOOST AND LEVERAGE YOUR INVESTMENT

- EU subsidies and supporting programmes such as **FENG, STEP and KPO***
- direct EU Commission funding, including European Chips Act Calls
- European Investment Bank (loans and non-repayable grants)

**FENG – The European Funds for a Modern Economy Programme , STEP – The Strategic Technologies for Europe Platform, KPO – The National Recovery Plan)*

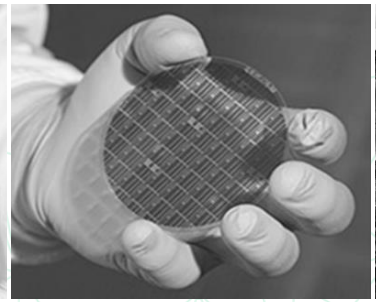
CBRTP
Driving industrial innovations

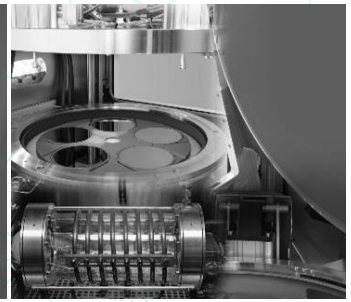
Game changing technology
Unique Selling Proposition

What makes our technology unique and outstanding?

Properties and characteristics of our technology

- **8” – GaN wafers** – the world's only system for producing 8-inch freestanding GaN wafers
- **dislocation level <10^5 cm^{-2}** – GaN wafer quality unparalleled in the rapid growth methods available on the market
- CBRTP owns **GaN or SiC wafers full recycling technology**
- the cost of producing 8” wafer with the above parameters in the proprietary CBRTP process will reach costs of up to **15 USD/cm^2 for thicknesses 300 µm** – compared to current production costs on the market at the level of USD 30-50/cm^2
- over-a-decade experience in nanotechnology, nanomaterials of PV and semiconductor



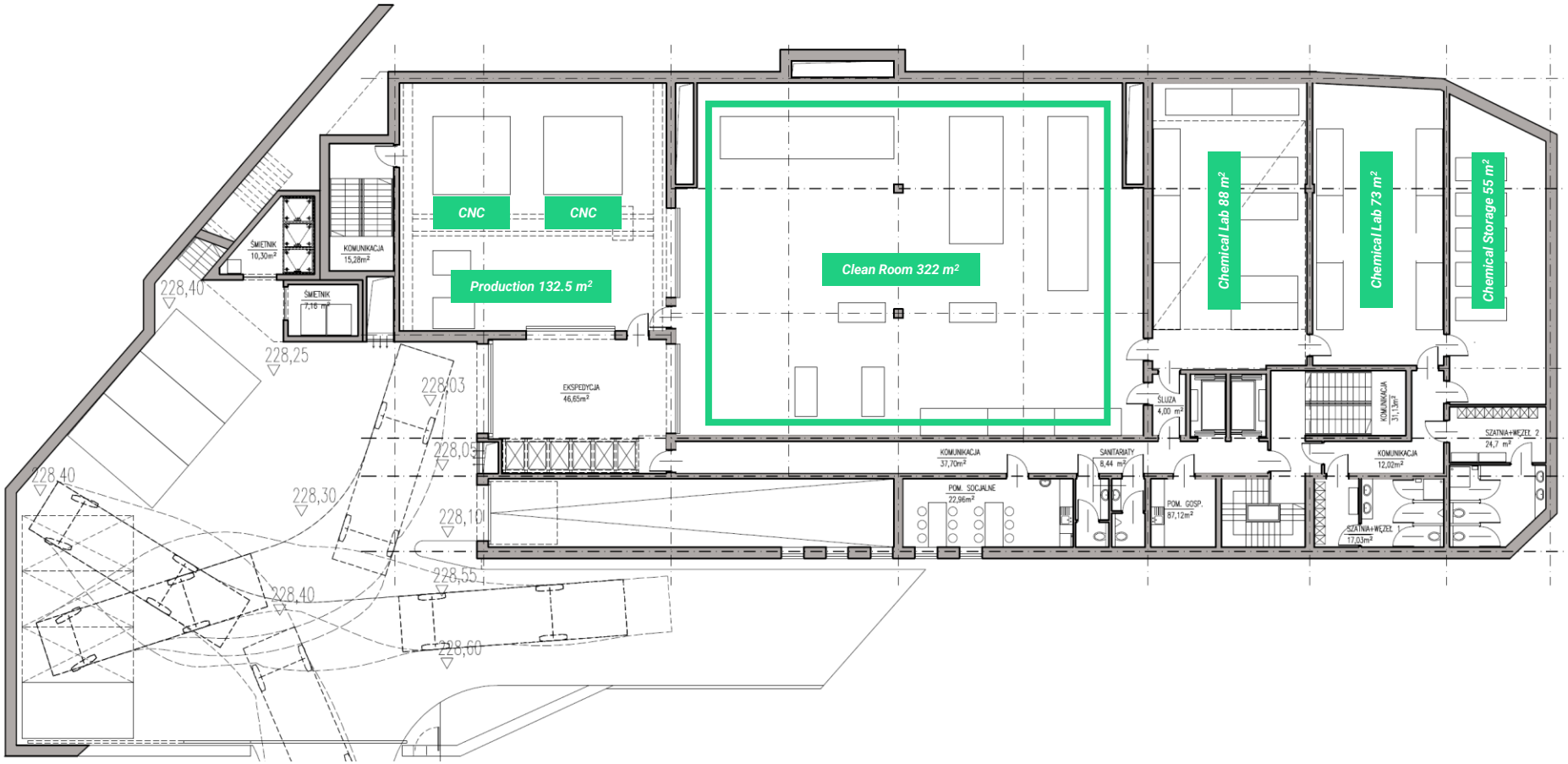


MARKET CONDITIONS AND TRENDS:

- The global GaN wafer market was valued at around USD 2.2 billion to USD 2.5 billion in 2023
- The global GaN wafer market is growing rapidly, driven by its expanding applications in industries such as power electronics, telecommunications (5G), LED lighting, and electric vehicles
- The market is expected to grow at a CAGR of 20-25% from 2023 to 2030 to reach approximately USD 8-9 billion by 2030
- The epitaxial wafer market in Europe was valued at approximately USD 546.83 million in 2022, with a projected increase to USD 850.90 million by 2028 representing a CAGR of 7.6%
- Market Drivers:
  - Power Electronics: GaN-based devices offer greater efficiency and power density than silicon-based devices, making them key components in power supplies, electric vehicles, and industrial machinery
  - 5G Infrastructure: The demand for GaN wafers is being driven by the need for efficient power solutions in 5G base stations and other telecom infrastructure
  - LED Lighting: GaN remains essential for high-efficiency LEDs, which are used in everything from streetlights to consumer electronics displays
  - Automotive Applications: With the rise of electric vehicles (EVs), GaN is increasingly being used for power electronics in charging systems and drive control systems

Production plant construction (R+D+I)

The key aim of the project is to built a target scale production building with a capacity of 14.000+ wafers per year



GaN Wafers Business Case: Financial facts and figures

The global GaN wafer market was valued in 2023 at around :

- epitaxial wafers (GaN-on-Si, GaN-on-SiC,GaN-on-Al2O3) **USD 1.800.000.000** | **$CAGR_{2024-2030}$ → 15.11%**
- freestanding wafers (*freestanding* GaN) **USD 1.200.000.000** | **$CAGR_{2024-2030}$ → 12.63%**

Business Case

- development of GaN wafer production technology in current production plants, incl. construction of the **1st Hybrid VPE/semiALE-ALD/CVD reactor** | production start → **06.2026**
- target production plant, including park expansion by additional **10 Hybrid VPE/semiALE-ALD/CVD reactors → 2027/2029**

Position/year	2025	2026	2027	2028	2029
GaN wafers market value (USD)	resources & capital mobilization phase	4 459 710 696	5 090 956 416	5 812 198 503	6 636 354 941
CBRTP market share (%)		0,21%	0,93%	1,14%	1,43%
Sales income (USD)		**9 493 662**	**47 468 310**	**66 455 634**	**94 936 620**
number of reactors (aggregated)		**1**	**5**	**7**	**10**
number of 8" wafer produced		1 447	7 235	10 129	14 470
unit production cost wafer 8" (USD)		4 860	4 860	4 860	4 860
unit production cost per 1 µm (USD)		0.05	0.05	0.05	0.05

PARTNERS AND CLIENTS:

- **Soitec (France)** – Europe leading supplier of functionalized production wafers to manufacturers of LED chips and transistors
- **Infineon (Germany)** – wafer manufacturer, owner of wafer functionalization plants and producer of LEDs, transistors, chips and memory chips
- **Furukawa (Japan)** – a potential recipient of wafers and a partner for scaling the business in the USA and Japan (current business partner of CBRTP shareholder – Intemo SA)
- **TSMC (Taiwan)** – potential recipient of wafers for chip production

CBRTP financial data including GaN wafers Business Line (data in USD)

Position/Year	2021	2022	2023	2024f	2025f	2026f	2027f	2028f
Sales income:	**1 382 543**	**1 748 336**	**1 573 911**	**907 504**	**2 606 008**	**13 008 469**	**52 818 357**	**72 958 764**
Core Business Model	1 382 543	1 748 336	1 573 911	907 504	2 606 008	3 514 807	5 350 047	6 503 130
GaN wafers Business Line	-	-	-	-	-	**9 493 662**	**47 468 310**	**66 455 634**
Other operating income *(R&D projects)*	3 269 532	2 906 507	2 892 563	1 816 510	2 437 772	3 027 682	6 919 126	2 179 255
Financial incomes	-	-	-	-	-	-	**6 162 534***	-
EBIT	127 745	497 785	225 026	-716 053	1 124 345	4 547 212	19 316 495	19 486 881
EBITDA	1 083 802	1 517 281	1 260 671	630 716	2 513 561	6 205 046	21 358 850	22 260 828
NET PROFIT	**89 697**	**352 938**	**116 085**	**-756 300**	**820 568**	**1 146 273**	**17 821 231**	**12 791 428**
ASSETS *(balance sheet)*	5 662 892	7 631 097	9 708 370	**9 621 991**	**15 225 352**	**37 306 105**	**61 439 563**	**75 281 452**

* Financial incomes as CBRTP plans to sell florogarden SPV to VC/PE fund

CBRTP
Driving industrial innovations

Value Proposition
Capital Needs

Offer parameters: What do we need capital for?

We are seeking a capital investment of up to USD 32.5 milion in the form of a convertible loan into CBRTP shares, based on the parameters outlined below:

- Pre-money valuation at USD 14.5 million
- Conversion option exercised no sooner than 3–5-year horizon at a future valuation price
- The capital obtained will be invested as listed below:

LOAN CONVERTIBLE INTO SHARES		NET	GROS (incl. 23% VAT)
Goal 1	Construction of 1st VPE/semiALE-ALD/CVD reactor reactor with assistive devices (at USD 1.750.000 net) with a mobile Clean Room (at USD 100.000 net) to be implemented in current production plats	1 850 000	2 275 500
Goal 2	Operating costs	1 650 000	2 029 500
Goal 3	Working capital for materials to produce 1447 wafers in the 1st operating year 2026 (including gallium, HCl, NH3, N2 high purity)	7 032 342	8 649 781
Goal 4	Construction of the production plant. Total cost at USD 15.907.370 net (USD 19.566.065 gross)	15 907 370	19 566 065
TOTAL		26 439 712	32 520 846

CBRTP
Driving industrial innovations

Our background
Experience and know-how

Our specialization: semicondactors/nanomaterials

INCLUDING PV AND SEMICONDUCTOR TECHNOLOGIES

Laboratory of Nanotechnology

The Nanotechnology Laboratory provides services in the fabrication of complex nanomaterials, including composites and multilayer materials for applications in mechanical, electronic, optical laboratory and industrial systems. The laboratory provides materials and nanomaterials characterization services.

Among other things, it is equipped with **two industrial ALD reactors**, unique in the country. Combined with the infrastructure of the facility, this allows to obtain parameters of unparalleled quality and repeatability.

CBRTP operates several R&D and manufacturing facilities, including:

- **A nanomaterials laboratory** consisting of, among other things, a process laboratory and materials for photovoltaic and piezoelectric materials applications
- **A production line** that includes industrial equipment
- **PV module test stations** under operating conditions to test modules for varying climate zones

Nanomaterials laboratory

The nanomaterials lab utilizes a process and materials characterization equipment for research, validation and semi-industrial fabrication of semiconductors (oxides, sulphides, nitrides, metals) for photovoltaic, piezoelectric and sensor applications.

LAYER ENGINEERING / DEPOSITION SYSTEMS

- Multi substrate atomic layer deposition (ALD) system
- Plasma enhanced chemical vapour deposition (PECVD) multi-substrate system
- Physical Vapour Deposition (PVD) System

ANALYTICAL CHEMISTRY

- Malvern Particle Size Analyzer - Mastersizer 3000
- ThermoScientific Fourier-Transform Infrared Spectrometer (FTIR)
- Bruker ED-XRF Energy Dispersive X-ray Fluorescence Spectrometer | Modular Rheometer MCR 72/92

MEASUREMENT OF SOLAR CELL PARAMETERS

- Open circuit voltage (VOC) measurement
- Measurement of the lifetime of minority carriers
- Solar simulator with the ability to measure bright and dark current-voltage (I-V) characteristics

Keyence D-510 Scanning Electron Microscope (SEM)

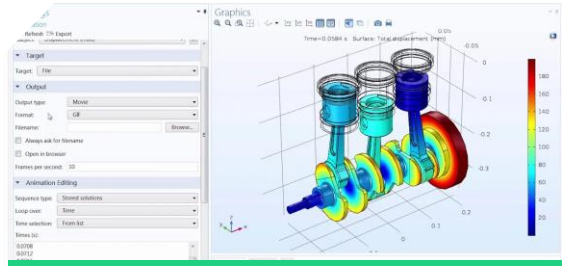
- The SEM allows examination of standard 15.6 cm × 15.6 cm PV wafers
- Especially the large chamber for analysing big components | The only one in Europe
- Without the need for dedicated sample preparation

ELECTRICAL PARAMETERS

- Four-edged probe
- Contact resistance mapping (Corescan instrument)
- Hall effect measurement

GOM ATOS ScanBox 4 with ATOS Q Scanner

- CAD import | Automated 3D scanning for fast, repeatable optical measurements
- GD&T-compliant tolerance verification and advanced dimensional analysis
- Spacious measurement chamber supports large component inspection

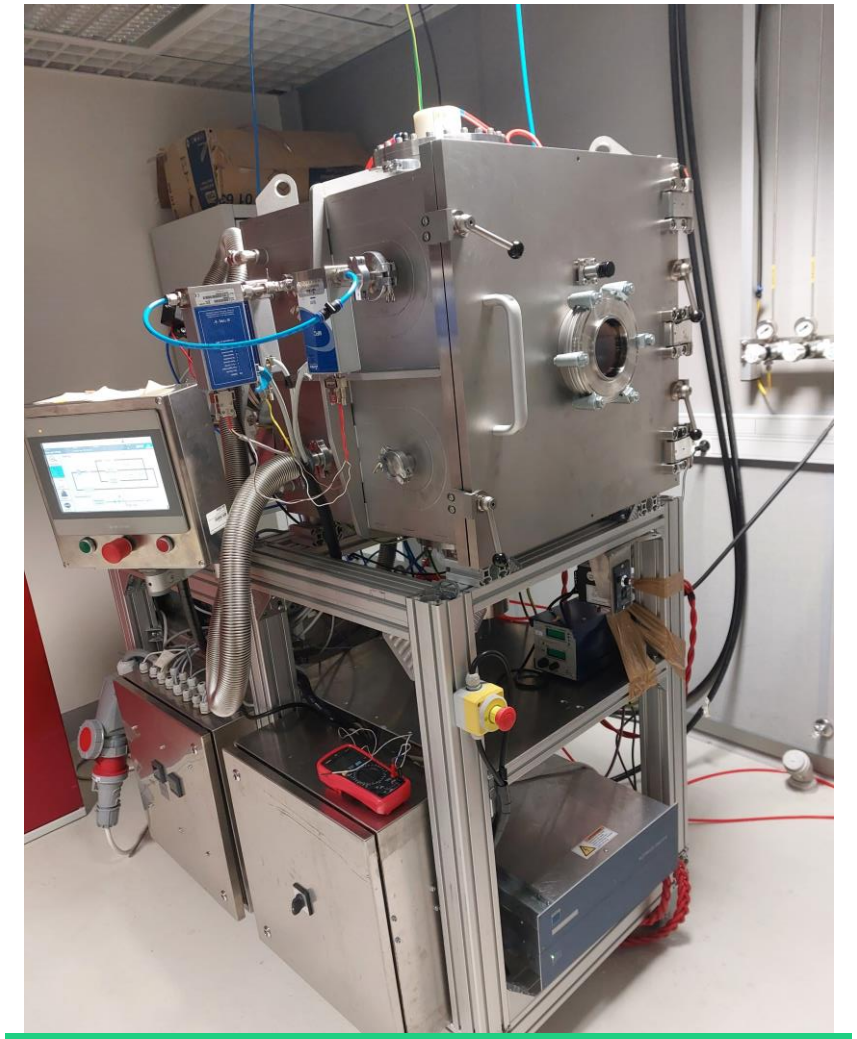


SEMICONDUCTOR DEVICES

- Semiconductor device modelling in the APSYS environment
- COMSOL-plasma simulation, thermodynamics simulation, kinetics reaction

Nanomaterials laboratory

Diener Tetra 30 – Plasma Cleaning & PE-CVD System



Sputtering Deposition System Physical Vapor Deposition- PVD (in-house prototype)

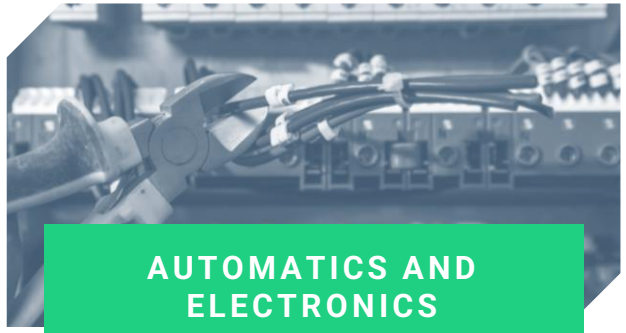
Beneq P400A – Atomic Layer Deposition (ALD) System

GS MEGA Glovebox with GS X-line Atmosphere Filtration

Offer of services

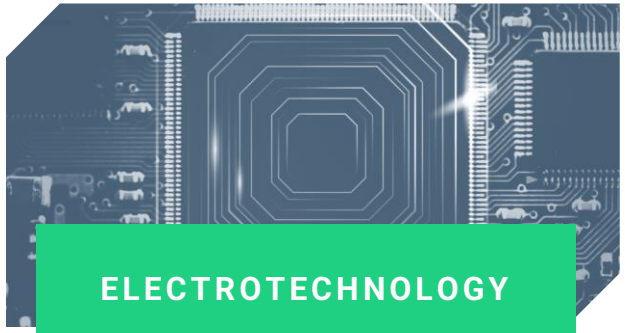
AUTOMATION AND ELECTRONICS LABORATORY IN CRACOW

Design and execution services



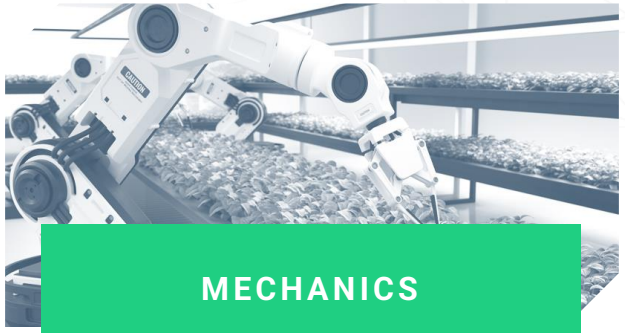
AUTOMATICS AND ELECTRONICS

- Services associated with the preparation of the project and prototype according to customer requirements in the field of automation, control and measurement AKPiA
- Design and prototyping of electronics, implementation of electronic circuits, sensor matrices, controller programming
- Creation of computer, database, mobile devices and automation software, including telemetric, measurement and visualization systems



ELECTROTECHNOLOGY

- Development of tools for analysis, processing, modelling, and design of energy generation and consumption systems
- Development and implementation of technical and technological solutions enabling highly efficient production of electric and thermal energy from solar and mixed sources, working in the hybrid and cogeneration model
- Development of process parameters, design and assembly of technological installations



MECHANICS

- Services related to the design, prototyping and assembly of mechanical, pneumatic and hydraulic systems
- Design and manufacturing of mechanical elements in incremental technologies
- Development of concepts, visualization and design of devices, machines and production lines
- Design of robotic workstations
- 3D measurements of details geometry in optical technology
- 3D measurements of spatial objects (building structures, industrial lines, rooms)

Production line and testing station for demonstration technology

Production Line

A production line containing industrial equipment:

- IR inspection station
- Sorting and distribution robots
- In-line chemical processing
- Low pressure CVD (LPCVD) system in-line
- Multi-substrate PECVD system
- Metallization and contact burning modules
- Laser isolation/ablation module
- Aging and climatic chamber
- Diffusion module
- Phosphate glass removal (PSG) module

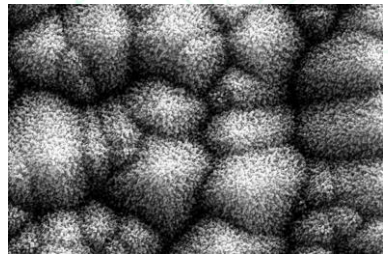
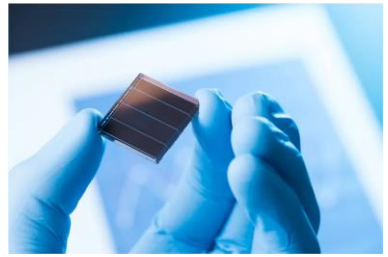
Testing Station

PV module test stations under operational conditions allowing module testing for variable climate zones.

The apparatus allows to perform normative tests for modules under normal operating conditions:

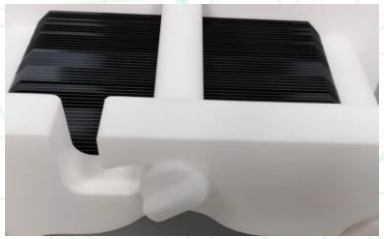
- IEC 61215 - durability tests for silicon PV modules
- IEC 61646 - PV thin-film durability tests
- IEC 61730 - PV modules safety tests

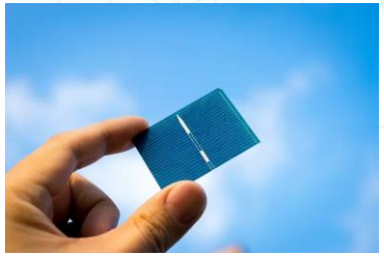
EU Grants – selected projects in the field of nanotechnology

Project Title	*Project Aim*	*Funding source*	
Large-area All-Solid-State Batteries (ASSBs) fabricated by magnetron sputtering with ALD buffer layers	▪ The aim of the project is to develop large-area All-Solid-State Batteries (ASSBs) using two innovative approaches designed to improve ASSB performance parameters ▪ To enhance the electrode/electrolyte interface, a new approach is implemented involving the development of ALD-deposited buffer nanolayers composed of mixed metal oxides in various ratios	Project co-funded by the National Centre for Research and Development under the program selected in M-ERA.NET 3 Call 2021, according to the funding agreement number M-ERA.NET3/2021/99/ARISER/2022	
Photo-piezoelectric microswitch based on a photosensitive composite	▪ PULSE-COM aims to discover technological solutions in the field of photoactivated devices and their application within a new research area—photoactivated piezoelectricity ▪ The project investigate and enhance the properties of novel, low-cost photo mobile polymer (PMP) films combined with modern lead-free piezoelectric (PZL) to create new composite materials for a wide range of applications	Project implemented under the EU research and innovation program Horizon 2020, based on grant agreement No. 863227	
Semi-transparent coloured solar cells based on highly stable inorganic halide materials	▪ The aim of the project is to develop a technology for producing coloured, semi-transparent photovoltaic modules based on stable perovskite materials ▪ The outcome of the project will be a photovoltaic device technology, contributing to the energy utilization of urban architecture/infrastructure and other constructions	Project co-funded by the National Centre for Research and Development under the Joint Initiative of the National Centre for Research and Development and the National Science Centre, 5th TANGO competition, according to the funding agreement No. TANGO-V-C/0014/2021	

EU Grants – selected projects in the field of nanotechnology

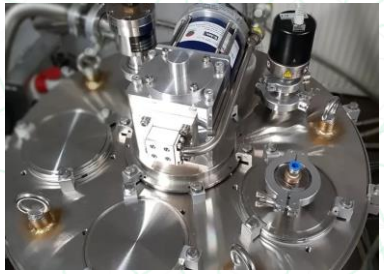
Project Title	*Project Aim*	*Funding source*
Development of a technology for manufacturing functional materials for use in silicon-free photovoltaic cells	▪ The project aims to develop materials necessary for the production of a silicon-free, bifacial photovoltaic cell and to prepare the associated manufacturing technology for implementation ▪ The designed cells are fabricated on perforated metal substrates (Cu/Al), with semiconductor layers formed on both sides	NCBR National Centre for Research and Development Project implemented under the funding agreement No. TECHMATSTRATEG2/409122/3/NCBR/2019
Development of a hybrid photovoltaic cell	▪ The aim of the project is to develop a hybrid photovoltaic cell with a unique architecture utilizing ZnO structures ▪ Its innovation lies in the use of ALD (Atomic Layer Deposition) and hydrothermal (microwave-assisted) techniques to create a completely unique cell architecture	Fundusze Europejskie Inteligentny Rozwój Unia Europejska Europejski Fundusz Rozwoju Regionalnego Agreement No. POIR.01.01.01-00-1022/16-00 under Action 1.1 'R&D Projects of Enterprises', Sub-action 1.1.1 'Industrial Research and Development Work Carried Out by Enterprises' of the Operational Programme Intelligent Development 2014–2020
Development of technology for manufacturing copper components and paste used in the production process of electrical contacts for silicon cells	▪ The innovation and uniqueness of the project lie in the development of a new type of copper-based component, enabling the production of a paste containing copper ▪ As a result of implementing the project outcomes, it will be possible to reduce the cost of silicon cell metallization by up to 50% by replacing the currently used expensive silver	Fundusze Europejskie Inteligentny Rozwój Unia Europejska Europejski Fundusz Rozwoju Regionalnego Agreement No. POIR.01.01.01-00-1598/15-00 titled 'Development of manufacturing technology for a copper component and paste used in the production process of silicon solar cell electrical contacts,' implemented under Action 1.1 'R&D Projects of Enterprises,' Sub-action 1.1.1 'Industrial Research and Development Work Carried Out by Enterprises' of the Operational Programme Intelligent Development 2014–2020, co-financed by the European Regional Development Fund

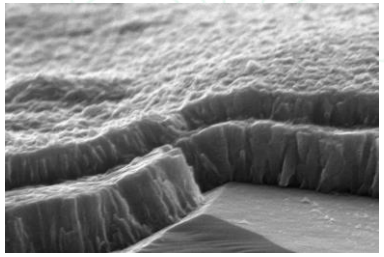




EU Grants – selected projects in the field of nanotechnology

Project Title	*Project Aim*	*Funding source*
Development of technology for studying transport phenomena in semiconductors using the Hall effect measurement method	▪ The goal of the project is to develop a technology for studying charge carrier transport phenomena in semiconductors using the Hall effect measurement method ▪ The outcome of the project is the development and testing of measurement technology under demonstration conditions	BON NA INNOWACJE The project is implemented under the funding agreement No. POIR.02.03.02-12-0079/19-00 within sub-measure 2.3.2 Innovation Vouchers for SMEs, Operational Programme Intelligent Development 2014–2020, co-financed by the European Regional Development Fund
Development of manufacturing technology for hybrid H-PERC photovoltaic cells optimized for use in SmartWire module assembly technology	▪ The key innovation of the project is a process innovation focused on developing a low-cost, low-energy, and non-toxic technology for PV cell production ▪ The development of the H-PERC cell manufacturing technology will maintain compatibility with existing equipment, specifically photovoltaic module assembly lines using SmartWire Connection Technology	Fundusze Europejskie Inteligentny Rozwój Unia Europejska Europejski Fundusz Rozwoju Regionalnego Project funded under the Operational Programme Intelligent Development 2014–2020, action 4.1 / sub-action 4.1.4 – agreement No. POIR.04.01.04-00-0144/17
Mobile ALD system for in-vacuo surface science measurements	▪ The MOBIALD project aims to build and put into production and market a new version of the hybrid reactor allowing operation in VPE/ALE/CVD/ALD modes	SZWAJCARSKO-POLSKI Program Współpracy NCBR National Centre for Research and Development Funding agreement during signing procedure





CBRTP
Driving industrial innovations

Thank you for your attention!

In case of any questions, please contact us

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