



Gdańsk University of Technology

Research university

www.pg.edu.pl/en

Location of Gdańsk TECH

Gdańsk (Danzig)



Berlin		570 km	Stockholm	1343 km
Vilnius		620 km	Paris	1591 km
Prague		747 km	Madrid	2865 km
Bratislava		887 km	Ankara	2870 km
Kyiv		1117 km	Beijing	6951 km

Gdańsk – the city of freedom and "Solidarity"



SOLIDARNOŚĆ

"Solidarity" – a social movement that started the process of overthrowing communism in Poland and Europe in the late 1980s

Lech Wałęsa – resident of Gdańsk, former president of the Republic of Poland and leader of the shipyard strike

European values especially close to the residents of Gdańsk:

- Freedom
- Human dignity
- Equality
- Human rights
- Democracy
- Rule of law



Johannes Hevelius and Daniel Gabriel Fahrenheit

In **2010**, the Senate of Gdańsk University of Technology adopted a resolution giving its courtyards the names of eminent Gdańsk residents. Today reliefs with their portraits can be found there.



Johannes Hevelius

(born in 1611 in Gdańsk)
a great citizen of Gdańsk,
inventor of the periscope
and micrometer screw

Daniel Gabriel Fahrenheit

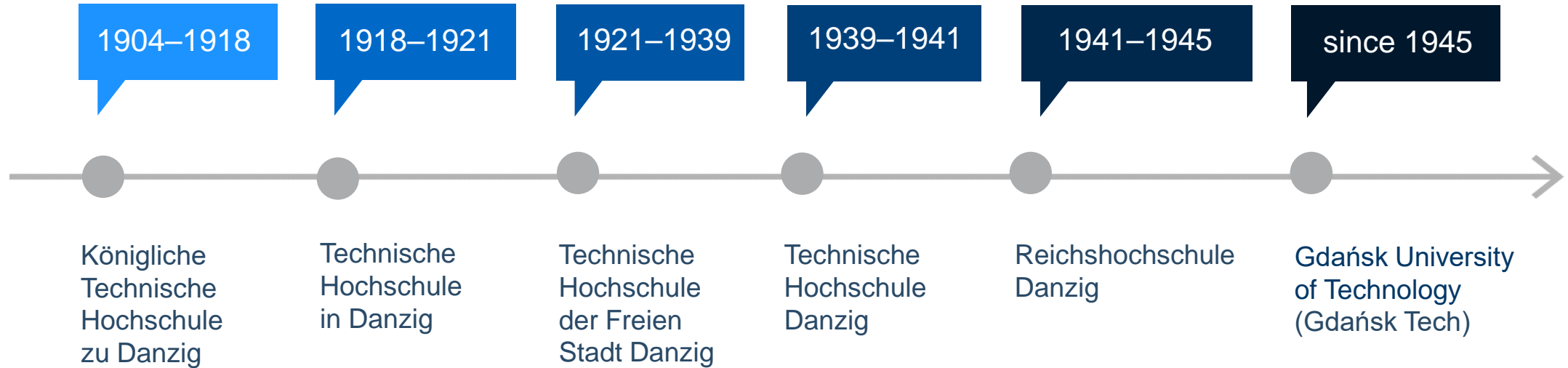
(born in 1688 in Gdańsk)
world-known physicist
and inventor of the
mercury thermometer



Gdańsk Societas Physicae Experimentalis (Nature Society)

One of the first scientific societies on the territory of the Polish Crown. In 1904 it contributed to the creation of the Technical University in Gdańsk, to which it donated its scientific collections.

The story begins in 1904



The story begins in 1904



1904

On 6 October,
the inauguration
of the first academic
year at the
Polytechnic, at that
time the Royal-
Prussian Higher
Technical School,
took place



1945

24 May
the Polytechnic was
transformed into
a State Polish
Academic University



2019

Gdańsk Tech
obtained the status of
a Research University
in the first competition
of the Ministry of
Science and Higher
Education under the
'Research University'
– Excellence
Initiative" programme



2021

Appointing the Daniel
Fahrenheit Union of
Universities in Gdańsk
at the joint request of the
rectors of the Medical
University of Gdańsk,
Gdańsk University of
Technology and the
University of Gdańsk



2024

**120 years of
Gdańsk Tech**

'Excellence Initiative – Research University'

programme of the Ministry of Science and Higher Education

Gdańsk Tech is a RESEARCH UNIVERSITY

Initiative under the Act on Science
and Higher Education – Act 2.0
of 2019



2nd place among the 10 best academic
centers in Poland and the highest
ranked among technical universities

Purpose of the competition: selecting
universities that will be able to
effectively compete with the best
academic centers in Europe and in the
world

Only 20 universities were admitted to the
competition and presented their action
plans for the coming years

The universities were assessed by an
international team of experts from
the science and higher education
sector

Only 10 universities have
obtained the **RESEARCH
UNIVERSITY** status

Fahrenheit Union of Universities in Gdańsk

The union was established at the joint motion of the rectors of: Gdańsk Tech, University of Gdańsk, Medical University of Gdańsk



Main goal:
**to establish a federation
of three universities**

Union goals

development of solutions supporting joint research and development work

recommendations for the consolidation or establishment of new inter-university doctoral schools

conducting a common promotion and ranking policy, especially on the international arena

representing common interests towards state and self-government administration and legislative initiatives

deepening cooperation and creating one of the strongest academic centers in Poland in the Pomerania region

placed in the **first 500** in international rankings





Fahrenheit parade opening
the academic year



Joint march with the local authorities
of Gdańsk and Pomerania

Attended by **13 additional Pomeranian**
higher education institutions

Results of the evaluation of scientific activity for the years 2017–2021 of the Ministry of Education and Science

Category A+

was received in the following disciplines:

in the field of engineering
and technical sciences:

- **architecture and urban planning**
- **automation, electronics and electrical engineering**
- **chemical engineering**
- **environmental engineering, mining and power engineering**
- **civil engineering and transportation**

in the field of exact and natural sciences:

- **chemical sciences**

Category A

was received in the following disciplines:

in the field of engineering and technical sciences:

- **biomedical engineering**
- **materials engineering**
- **mechanical engineering**

in the field of social sciences:

- **economics and finance**
- **management and quality science**

in the field of exact and natural sciences:

- **mathematics**

Category B+

was received in the following disciplines:

in the field of engineering and technical
sciences:

- **technical informatics
and telecommunications**

in the field of exact and natural sciences:

- **physical sciences**

Gdańsk Tech in international rankings

Gdańsk Tech in the **184th place**
and **1st in Poland** in THE
Interdisciplinary Science
Rankings



Gdańsk Tech in the **197th place**
in the pro-ecological GreenMetric
ranking 2023



Gdańsk Tech is one of the **850 best**
universities according to QS World
University Rankings 2025



Gdańsk Tech is in the range
of **1001–1200 of the best**
universities according to the
Times Higher Education Ranking
2025

5th place among 40 Polish
universities

Gdańsk Tech in national rankings

2nd place

in the competition of the Ministry of Science and Higher Education (today Ministry of Education and Science) '**Excellence Initiative – Research University**'

3rd place

in the ranking of the Ministry of Education and Science of the **most-chosen public** universities in the country 2024/2025

3rd place

among technical universities according to the Perspektywy University Ranking 2024

Facts and Figures

120 years of academic
tradition

8 faculties

14 leading disciplines



42 fields of study, including:

- 37 BSc studies

- 34 MSc studies

- 2 doctoral schools

nearly 15 000 students
over 140 000 graduates
postgraduate courses
and MBA studies

**About Gdańsk University
of Technology**



Over 4 thousand publications
309 research projects
297 patents



International level of education and research



The first university in Poland and first technical university in the world to receive a double ACEEU accreditation as an engaged and entrepreneurial university



Confirmation of quality and scientific excellence in the field of engineering and research, and close cooperation with industry



Quality mark awarded by the European Commission, confirming the implementation and application of the highest standards in research and employment of staff



Membership in the ENHANCE alliance, aiming at creating a European and interdisciplinary space for interaction of innovative technological and social progress, taking into account the principles of sustainable development.



International institutional assessment awarded by the European University Association (EUA)



International Quality Accreditation for the Gdańsk Tech Faculty of Management and Economics

In November 2022, Gdańsk University of Technology joined the alliance of technical universities, the ENHANCE Alliance, thereby becoming a member of the European Universities Initiative*.



brings together 10 technical universities from Germany, Netherlands, Italy, Spain, Norway, Sweden, Switzerland and Poland.

Prof. Krzysztof Wilde, the Rector of Gdańsk University of Technology, serves as the Co-Chair of the Board of Directors of the ENHANCE Alliance.

In 2023, the ENHANCE Alliance secured EUR 14.4 million in funding for the implementation of the project named ENHANCE+. Gdańsk University of Technology coordinates one of the ten planned activities under the name Human Dimension, dedicated to the professional development of employees. The project will be carried out from 2024 to 2027.

* The European Universities Initiative is an initiative of the European Union aimed at establishing alliances between higher education institutions across Europe for the benefit of students, staff and society. It is mainly funded through the Erasmus+ program.

1. Technische Universität Berlin
2. Gdańsk Tech
3. Warsaw University of Technology
4. Chalmers University of Technology
5. Norwegian University of Science and Technology
6. RWTH Aachen University
7. Delft University of Technology
8. ETH Zürich
9. Politecnico di Milano
10. Universitat Politècnica de València



International level of education and research



4 EUR-ACE accreditation for fields of study:

- architecture,
- automation, robotics and control systems,
- biotechnology,
- transport



International AMBA certificate for:

- MBA studies
- the field of International Management (MSc studies)



3 international certificates:

- ECTN Chemistry Eurobachelor,
- ECTN Chemistry Euromaster,
- ECTN Chemistry Doctorate Eurolabel

The Climate Plan of Gdańsk Tech

for the years 2022 – 2030 determines how we intend to face current and future challenges in order to become a sustainable institution

The strategy for implementing the Sustainable Development Goals and Declaration of University Social Responsibility at Gdańsk Tech for the years 2024 – 2030

is a step in building a University community committed to protecting the environment and improving the quality of life now and in the future

Gdańsk Tech Sustainability Report and Social Responsibility Report of Gdańsk Tech

constitute a cyclical summary of the University's activities in this area



The University supports the implementation of **the UN's 17 Sustainable Development Goals** and actively promotes Social Responsibility by engaging a wide range of stockholders.

An example of these activities is the organization of the PG Sustainability Week in 2024, in which representatives of 17 Polish universities took part.

One campus – 8 faculties



FACULTY OF
ARCHITECTURE



FACULTY OF ELECTRONICS,
TELECOMMUNICATIONS
AND INFORMATICS



FACULTY OF APPLIED
PHYSICS AND MATHEMATICS



FACULTY OF
MECHANICAL ENGINEERING
AND SHIP TECHNOLOGY



FACULTY OF
CHEMISTRY



FACULTY OF ELECTRICAL
AND CONTROL ENGINEERING



FACULTY OF CIVIL
AND ENVIRONMENTAL
ENGINEERING



FACULTY OF
MANAGEMENT
AND ECONOMICS

Scientific and didactic activity of the faculty focuses on architecture and urbanism



FACULTY OF
ARCHITECTURE



The Faculty conducts:

- | engineering, master's (architecture and spatial management) studies in Polish and English
- | PhDs in the scientific discipline of architecture and urban planning within the framework of the Doctoral School

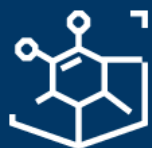
Interdisciplinary research is carried out through a number of programs, including:

- | HORIZON EUROPE
- | Driving Urban Transitions (DUT)
- | Interreg
- | NCN
- | NCBiR

The Faculty is a member of the following organizations and associations:

- | European Association for Architectural Education (EAAE)
- | European Network of Heads of Schools of Architecture (ENHSA)
- | Association of European Schools of Planning (AESOP)
- | World Institute for Engineering and Technology Education (WIETE)
- | ICOMOS
- | DOCOMOMO
- | European Association for Urban History (EAUH)
- | The Association promotes and spreads the study of urban history (AISU)
- | DaylightAcademy (DLA)
- | International Commission on Illumination (CIE)
- | International Dark-Sky Association (IDA)
- | International Energy Agency (IEA)
- | L'Arturbain dans les territoires
- | ISOCARP
- | PIANC
- | European Council of Town Planners (ECTP)
- | University Alliance of the Silk Road (UASR)

Internationally acknowledged scientific activity, high quality didactics and innovative cooperation with the industry



FACULTY OF
CHEMISTRY

Science

- | **162** research workers
- | category A+ in the parametric assessment
- | **299** articles (including 287 from the JCR list)
- | **20** national and international grants
- | **93 projects** (commissioned research)
- | **12** teaching projects
- | **141** cooperation agreements (70 - research, 72 - teaching)



Innovation and collaboration

- | **12** obtained patents PL
- | **2** international patents
- | **20** new patent applications
- | participation in consortia, including:
Gdańsk Academic, Chemistry, EMQAL,
Polish Polar Consortium



Didactics

- | **3** study levels
- | **10** fields of study
- | **1056** students (including PhD students)
- | studies in English (Green Technologies)
- | studies with a practical profile
(major in Engineering and Technologies
of Energy Carriers)

Research – Innovation – Education



The most important achievements

- | RES and smart grid at LINTE ^ 2 Laboratory (# 1 in Poland)
- | First Polish-French doctorates from the Grenoble Institute of Technology
- | Cooperation with the national Energy and maritime sectors

Studies conducted in the fields of

- | automation, robotics and control systems
- | electrical engineering
- | power engineering (including: Energy Technologies)
- | hydrogen technologies and electromobility

Advantages

- | IEUR-ACE Bachelor and EUR-ACE Master Certificates
- | # 3 in Poland in the Electrotechnics ranking
- | Employment of graduates > 97%

Research projects

- | Infrastructure for e-mobility and low-carbon transport
- | AI and deep neural networks in 2D images recognition
- | Test stand for the FAIR accelerator in Darmstadt
- | Electric drives with multi-phase induction and PMSM motors
- | Hybrid distribution transformers in smart grid systems
- | Testing of power generation modules in cooperation with the Power Engineering Institute in Warsaw under the supervision of the PCA



Faculty of Electronics, Telecommunications and Informatics

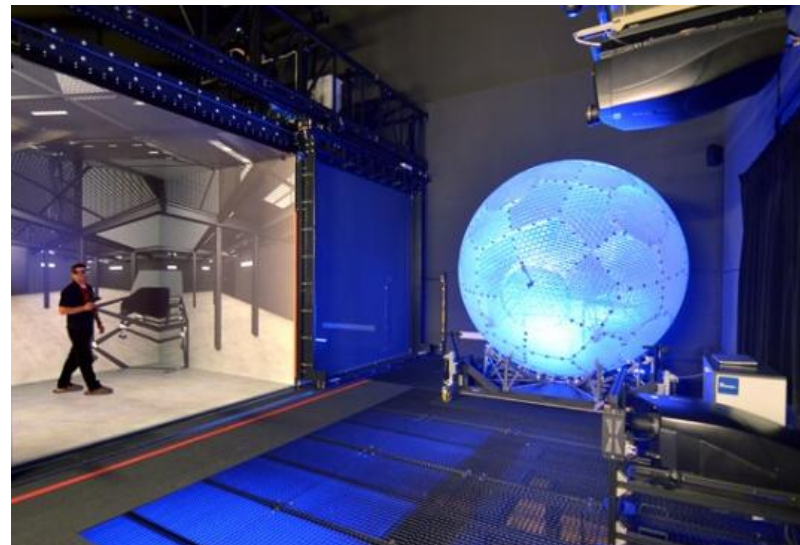
A+, A and B+ category



Education at full-time and
part-time BSc and MSc
studies, doctoral studies
and postgraduate studies



FACULTY OF ELECTRONICS,
TELECOMMUNICATIONS
AND INFORMATICS



The Faculty offers the following full-time studies:

| **automation, cybernetics and robotics**

BSc and MSc studies in Polish



MSc studies in English



| **electronics and telecommunications**

BSc and MSc studies in Polish



MSc studies in English



| **informatics**

BSc and MSc studies in Polish



MSc studies in English



| **biomedical engineering**

interfaculty field of study

BSc and MSc studies in Polish



| **data engineering** – interfaculty
field of study BSc and MSc studies
in English



| **space and satellite technologies**

inter-university field of study

MSc studies in Polish



Research areas

- | Applied Mathematics
- | Applied Physics
- | Medical Physics
- | Nanotechnology
- | Materials Science
- | Applied Informatics
- | Data Science

5 ongoing international projects and 15 national grants



Education

| undergraduate, Master's and doctoral studies

in all research areas, including Financial Mathematics, Computer Graphics, Renewable Energy Sources, Computer Modeling, Data Science, Nanostructures and Functional Materials, Applied Physics, and Biomedical Engineering

| 2 double-degree joint international Master's programs

| over 60 bilateral staff and student exchange agreements with universities from more than 20 countries

| popularization of science

Out of passion for science and education



FACULTY OF APPLIED
PHYSICS AND MATHEMATICS









Education Innovation Passion



FACULTY OF CIVIL
AND ENVIRONMENTAL
ENGINEERING

The best **Environmental Engineering** in the country
according to the **Perspektywy Ranking 2024**

Didactic offer

- | civil engineering  
- | geodesy and cartography 
- | environmental engineering  
- | transport 
- | power engineering 
- | raw materials and energy recovery
and engineering 

Science

- | 40 domestic and international projects:
 - HORIZON 2020, HORIZON Europe,
 - INTERREG, ERA NET initiatives,
 - ERASMUS +
- | projects NCN and NCDiR
- | 7 of our scientists among the **Top 2%** of the most influential in the world

Innovation and cooperation

- | **expert and consulting activity** in the industry environment
- | **close cooperation** with the socio-economic environment
- | **cooperation** with EU countries, as well as with the USA, Jordan, Lebanon, Egypt, Uzbekistan, the Philippines, Indonesia, Democratic Republic of Kongo etc.
- | **active member of the Polish Polar Consortium and of other scientific societies**





- | **3000** students from 30 countries
- | about **30%** students are female
- | **68** modern laboratories
- | **over 40** cooperating industrial companies
- | **15** fields of study
- | **10** research circles
- | **77** projects worth over **133 mln PLN**



FACULTY OF
MECHANICAL ENGINEERING
AND SHIP TECHNOLOGY

- | **KSTO Korab** – **23** times on the podium in international competitions, **12** gold medals, **11** constructed vehicles
- | **PGRacing Team** – approximately 20 participations in international competitions, 8 generations of race cars
- | **SimLE** – **6** innovative team projects, participation in international competitions and conferences
- | **Materials in Medicine** – **9** ongoing projects, **6** distinctions, **6** medals (2 gold)

- | Strengthening Poland's defense system: **OPM Głuptak, DROZD**
- | Work on renewable energy sources e.g. **nCO2PP**
- | Support for vehicle safety, e.g. **ELANORE**



Faculty of Management and Economics the A category for two disciplines

Educating leaders and creating solutions for business



FACULTY OF
MANAGEMENT
AND ECONOMICS

International MBA in Strategy Programme
and Project Management

Full-time and part-time courses

economic analytics



online75

economics



data science



management



engineering management



online75

over 30 postgraduate courses



EFMD

IPMA
POLSKA
student

IQA
International
Quality
Accreditation

AACSB
Business
Education
Alliance
Member



PRME
Principles for Responsible
Management Education



The third mission of the university



Baltic Science Festival

- | one of **the largest science festivals** in the country
- | **around 150 events** each year, including demonstrations, scientific picnics, presentations of experiments, workshops and lectures
- | over **15 000 visitors**
- | event for the local community of all ages



The Talented of Pomerania

- | **support for talented students** from grades VII and VIII of primary and secondary schools in the fields of physics, computer science, mathematics, biology and chemistry
- | The project carried out by Gdańsk University of Technology as part of the European Funds for Pomerania 2021-2027 programme



Talent University at Gdańsk Tech

- | Gdańsk Tech **summer school**
- | **over 200** students from the best Pomeranian high schools
- | **two days of research** and entertainment attractions on the campus
- | **great reception** and comments from the participants
- | **first edition** – September 2023



Gdańsk University of Technology Talent Scholarship

is a unique competition aimed at students and graduates of secondary schools from all over Poland who would like to study at Gdańsk University of Technology and can boast scientific and creative achievements.

Scholarship holders receive:

- | **Academic supervision** by an academic teacher
- | A scholarship of **PLN 2,000 per month** for the entire period of study
- | **A student index in a chosen field of full-time first-cycle studies** at Gdańsk University of Technology

- | Guaranteed place in a **single room in a student dormitory** for a scholarship holder from outside the Tri-City
- | Possibility of an **individual course of study**



80 hectares of campus area

**modern and
environmentally friendly
buildings**

**charming and majestic
buildings from
the 20th century**



modern lecture halls

**highly specialized
laboratories**

friendly places to rest

located in the heart of Gdańsk Wrzeszcz

Academic Sports Center



aerobics room
gym
rowing machine
judo hall
climbing wall



2 swimming pools and
a sauna

full-size soccer field

sports hall and tennis hall

beach volleyball court

3x3 basketball court

tennis courts



Gdańsk Tech has been the Academic Champion of Poland five times
in a row (since 2019)

The Library



- | 8 library branches
- | 440 workstations in reading rooms
- | almost 100 computers for users
- | printed collection consisting of 500,000 items
- | modern library system with the Primo search engine
- | access to full-text databases



The largest, the oldest, but also the most modern library in Pomerania:

The Library provides access to:

- | about 100 specialised databases
- | about 310,000 e-books
- | more than 15,000 e-journals
- | numerous open access resources
- | all up-to-date **Polish norms** in electronic form
- | **self-check** devices, **remote locker**
- | **online catalogue**
- | Pomeranian Digital Library
- | places for individual and group work: **acoustic cabins and student lounges**
- | spaces for relaxation

Activities:

| regional, intranational and international cooperation with libraries and other institutions:

Fahrenheit Universities, Pomeranian Digital Library, Gdynia City Museum, Malbork Castle Museum, National Library, BazTech, Association of University Museums, European Open Science Cloud, Research Data Alliance, LIBER Europe, SPARC Europe, GO FAIR

| participation in projects and initiatives:

Fidelis (HORYZONT Europa), FAIR-IMPACT, Social Responsibility of Science, Excellence Initiative – Research University, BRIDGE OF KNOWLEDGE

| activities of the Open Science Competence Center:

training and consultations for scientists, assistance in creating a Data Management Plan, promoting and raising awareness of Open Research Data (Excellence Initiative – Research University programme, actions I.4 B and I.4 D)

| constant expansion of the range of services offered to the academic community through i implementation of modern solutions:

state-of-the-art Alma library system with the Primo search engine, access to library collections of the Fahrenheit Universities and the Gdynia Maritime University, e-resources, self-check devices and remote locker, co-working spaces, student lounges with cabins and armchairs, spaces for relaxation

| promoting the Library through additional activities and events:

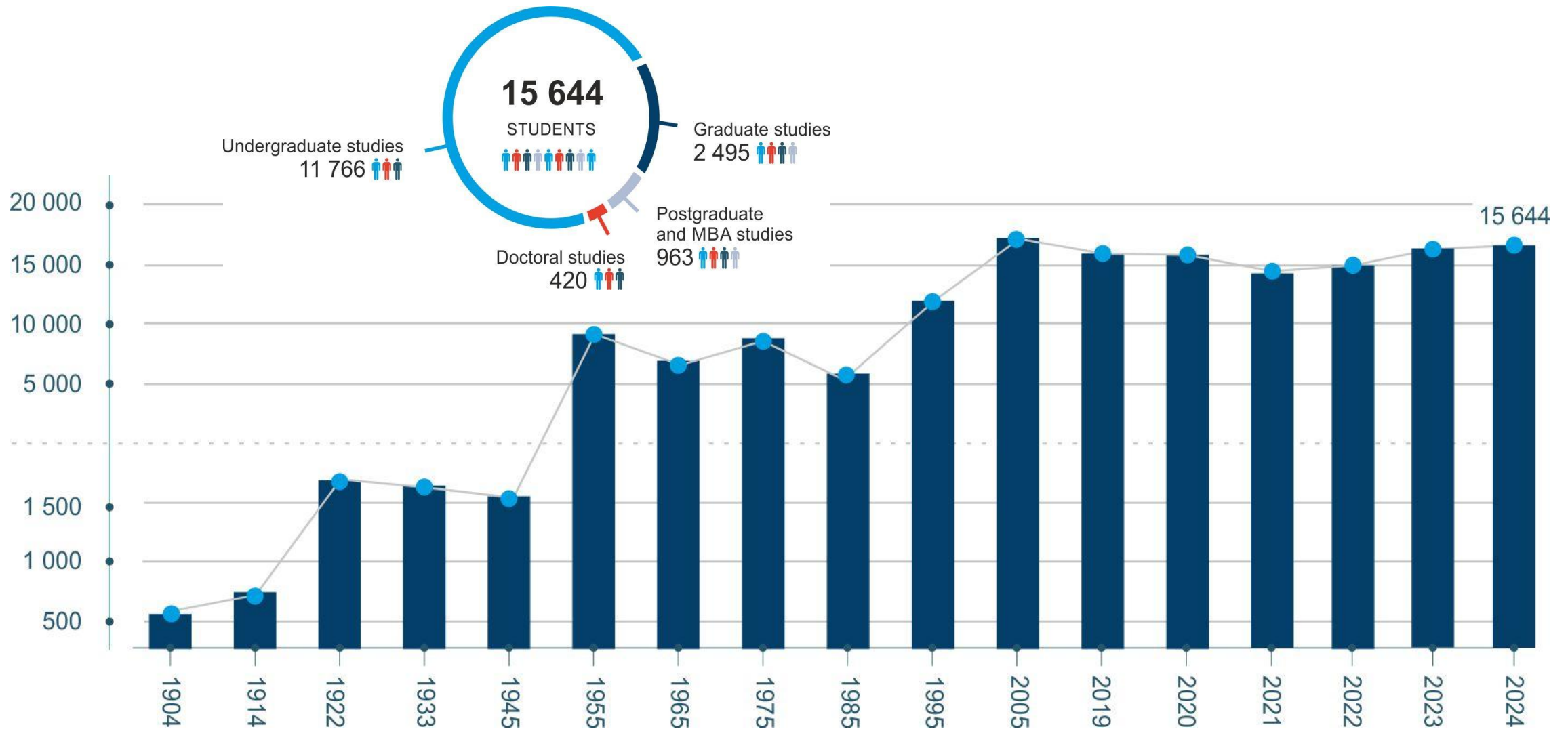
conferences and seminars, meetings with authors, thematic exhibitions, field games, the Library's social media and the Gdańsk University of Technology's social media, newsletter, etc.



Gdańsk University of Technology facilities in the region



Students



Projects run by the International Relations Office



Erasmus + Mobility
between Program
Countries

Erasmus + Mobility
with Partner Countries



ENHANCE+ project
as part of Gdańsk Tech
involvement in the
ENHANCE Alliance




NAWA Welcome
to Poland



NAWA Supporting
universities in Ukraine

IDUB AMERICIUM
International Career
Development



IDUB EINSTEINIUM
Short-Therm
Incoming Visits



IDUB EUROPIUM
Short-Therm
Outgoing

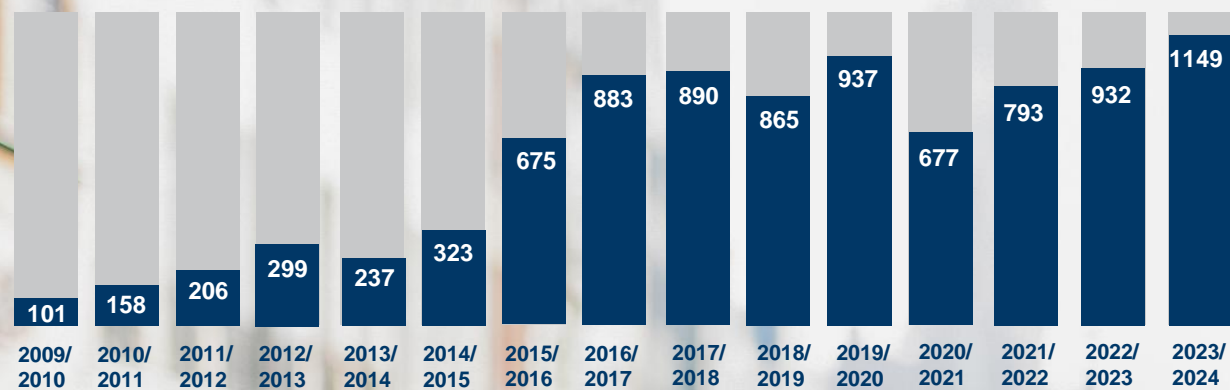
947 active international agreements

607 Erasmus + agreements

21 multiple qualification contracts

Foreign students

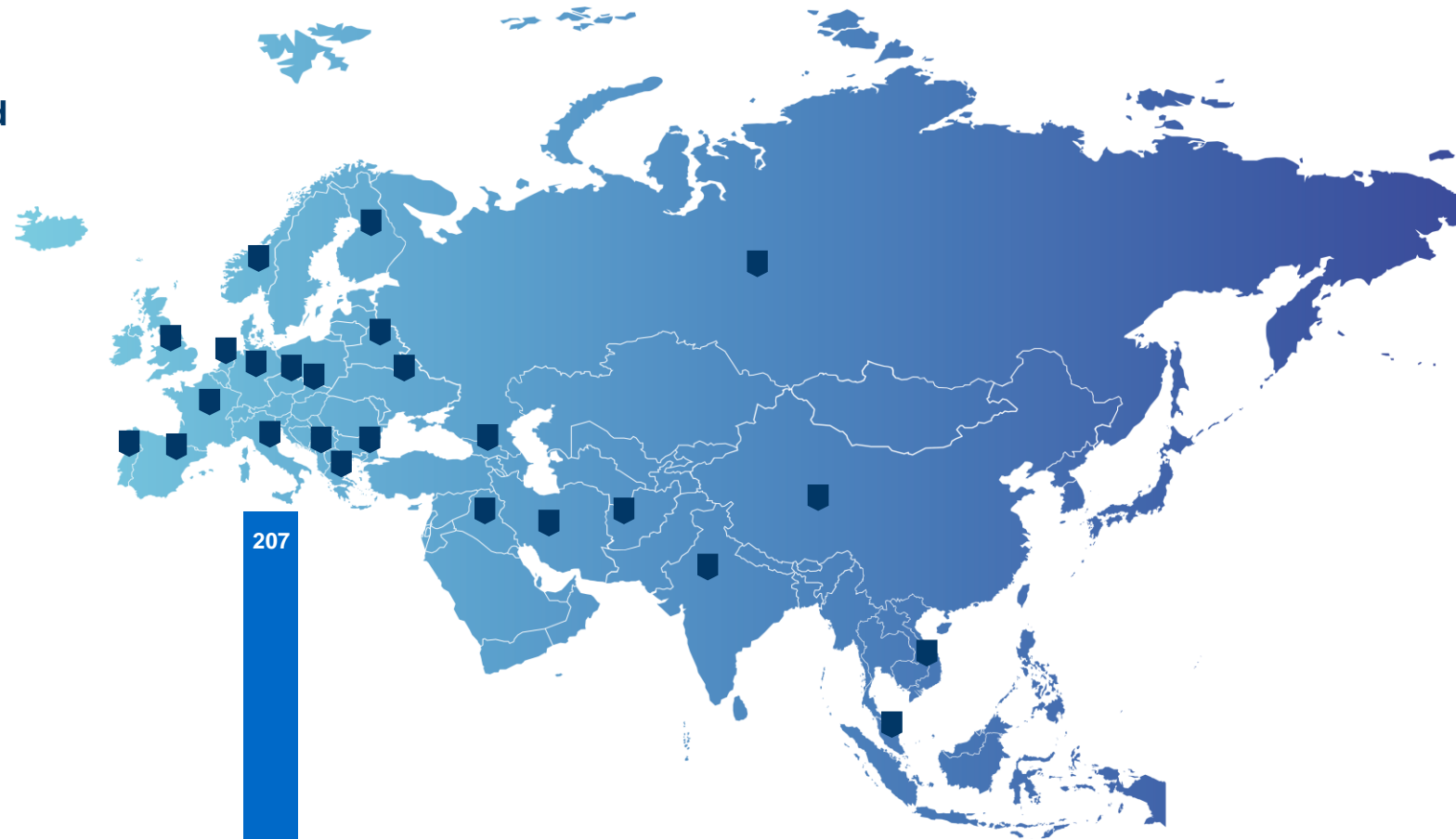
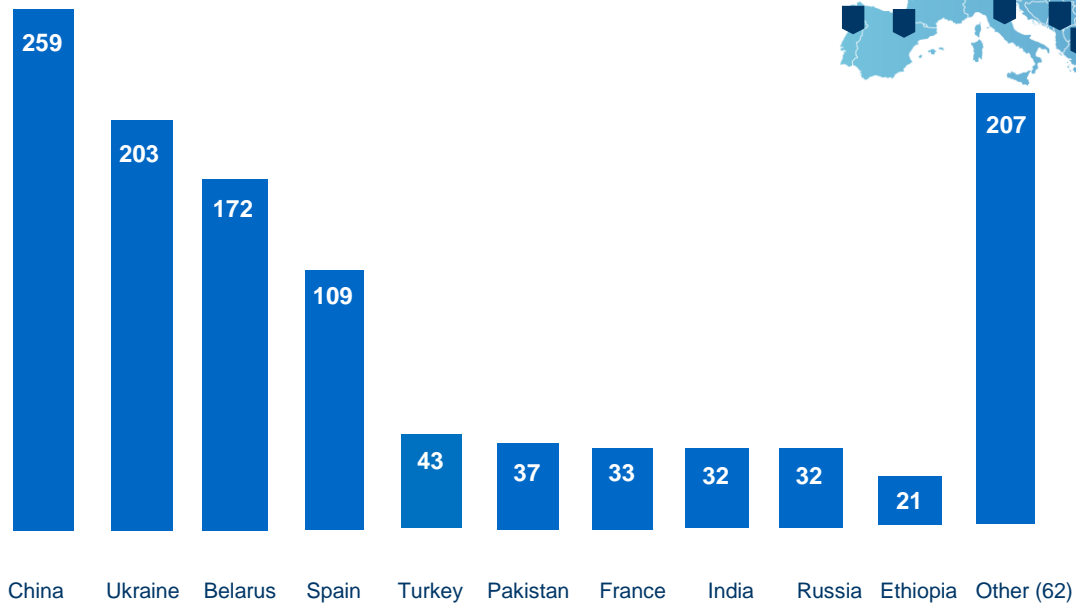
Number of foreign students in a given academic year



Where do the foreign students come from?

Over 1000 foreign students from
more than 70 countries around the world

Number of foreign students at Gdańsk Tech
in 2024, by citizenship



Doctoral school of an academic-scientific nature



- 4-year, interdisciplinary doctoral training conducted entirely in English
- possibilities of scientific cooperation in research teams, also on an international scale
- providing opportunities for doctoral students to prepare scientific publications and participate in projects (STER, PROM, IDUB, Welcome to Poland)

3 Research Areas – 14 Disciplines

doctoral scholarships for all PhD students

additional scholarship offer for the best PhD students

no tuition fees for doctoral students

Education under the Industrial Doctorate program of the Ministry of Science and Higher Education

**scientific and industrial supervision:**

educating doctoral students in cooperation with the company employing them

financial resources:

financial support in the form of a doctoral scholarship (up to 4 years),
co-financing the costs of using research infrastructure to carry out scientific
research

education:

conducted in 14 disciplines: economics and finance; management and quality studies; chemical sciences; physical sciences; mathematics; civil engineering, geodesy and transport; architecture and urban planning, environmental engineering, mining and energy; materials engineering; mechanical engineering; biomedical engineering; automation, electronics, electrical engineering and space technologies; information and communication technology, chemical engineering

no tuition fees for doctoral students
education of doctoral students in Polish

*) as of AY. 2023/2024

**The aim of the program
is to create conditions
for the development
of cooperation between
science and the
socio-economic
environment**

Innovation and commercialization

over 3 000 projects
worth over
PLN 196 million,
commissioned by
industry realized
together with SPV
Excento over the
last 10 years

over 1000
inventions
reported at
Gdańsk
University of
Technology

about 200
licenses
granted*

* Since 2006

8 spin-off
companies using
technologies
developed
at Gdańsk Tech

130 entities from the
ICT industry are
gathered by
the Pomeranian
INTERIZON Cluster
(established at
the Faculty of
Electronics,
Telecommunications
and Informatics)

**Gdańsk Tech cooperation with
business is coordinated by the
Technology Transfer Office**



ProtoLab as part of the project E-pionier



places of meetings, work and exchange of knowledge and experience of the startup environment of Gdańsk University of Technology

laboratories where everyone has a chance to work efficiently in a modern environment.

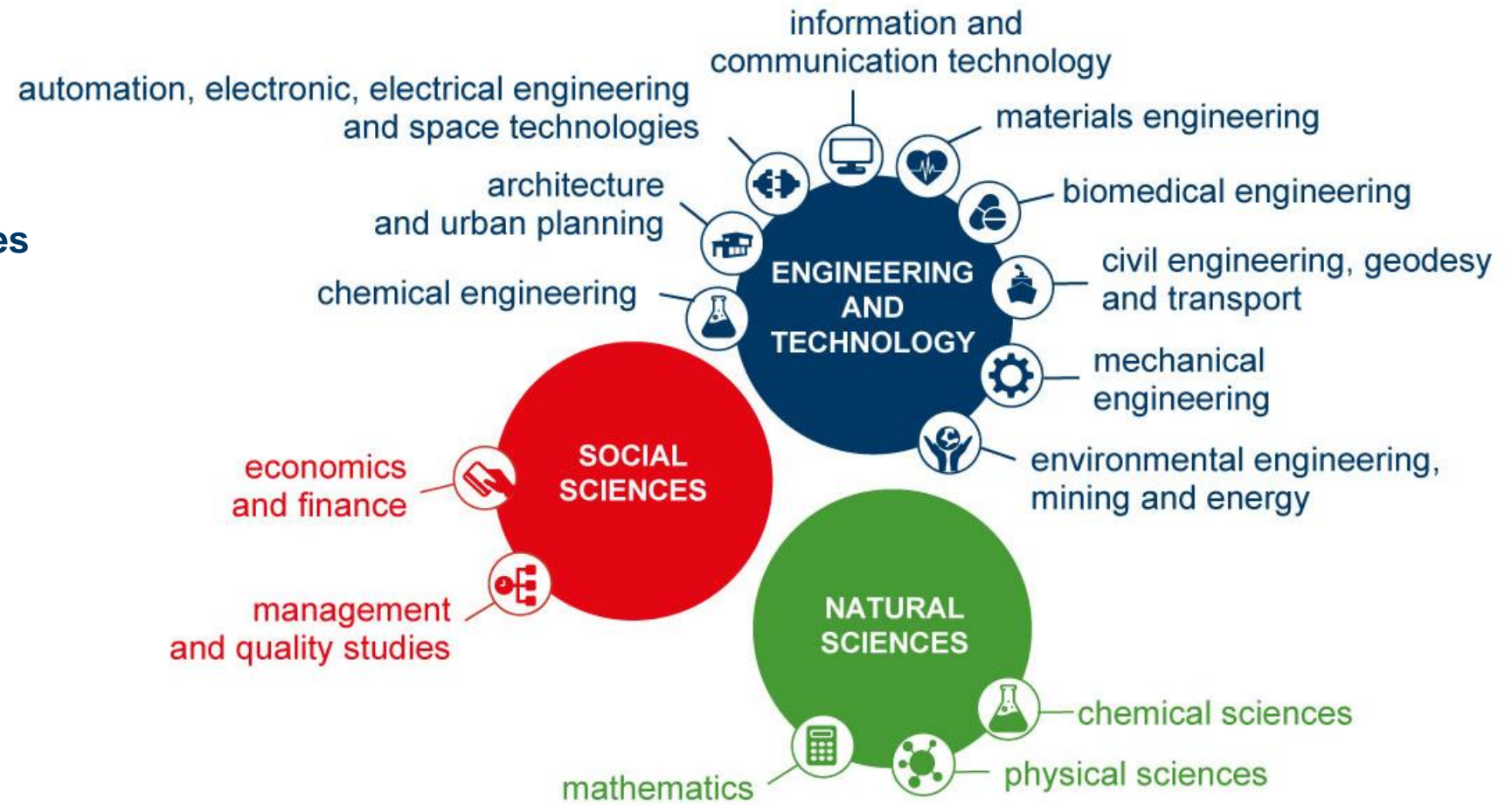
possibility **to rent** equipment for up to 7 days.

guaranteed free trainings on 3D printing, soldering, lathe and plotter operation.

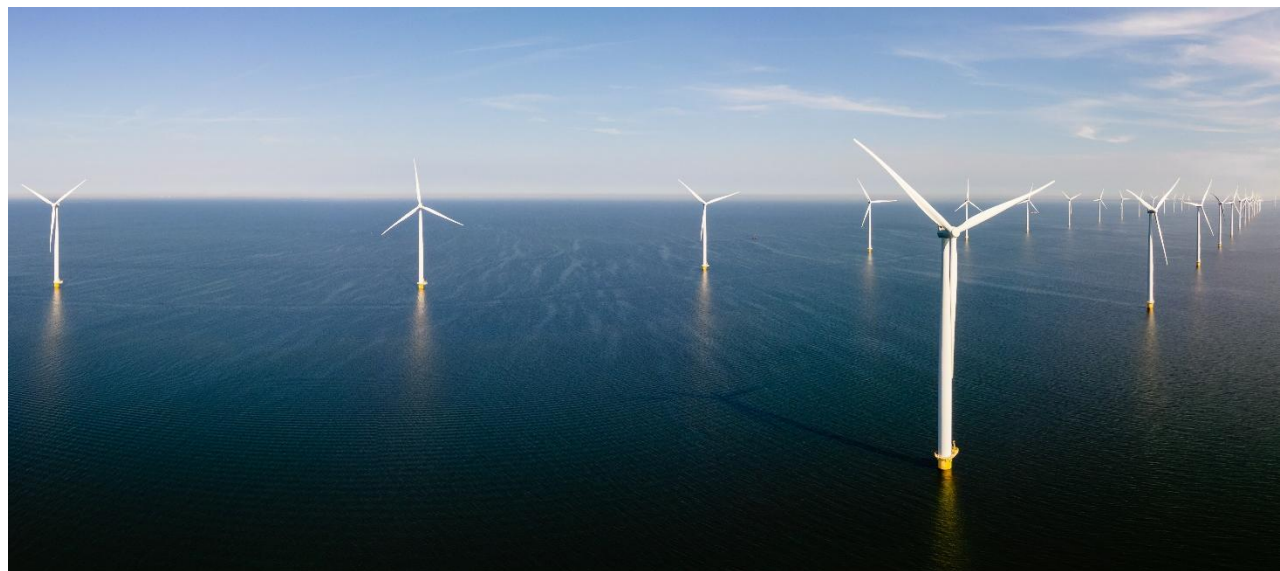
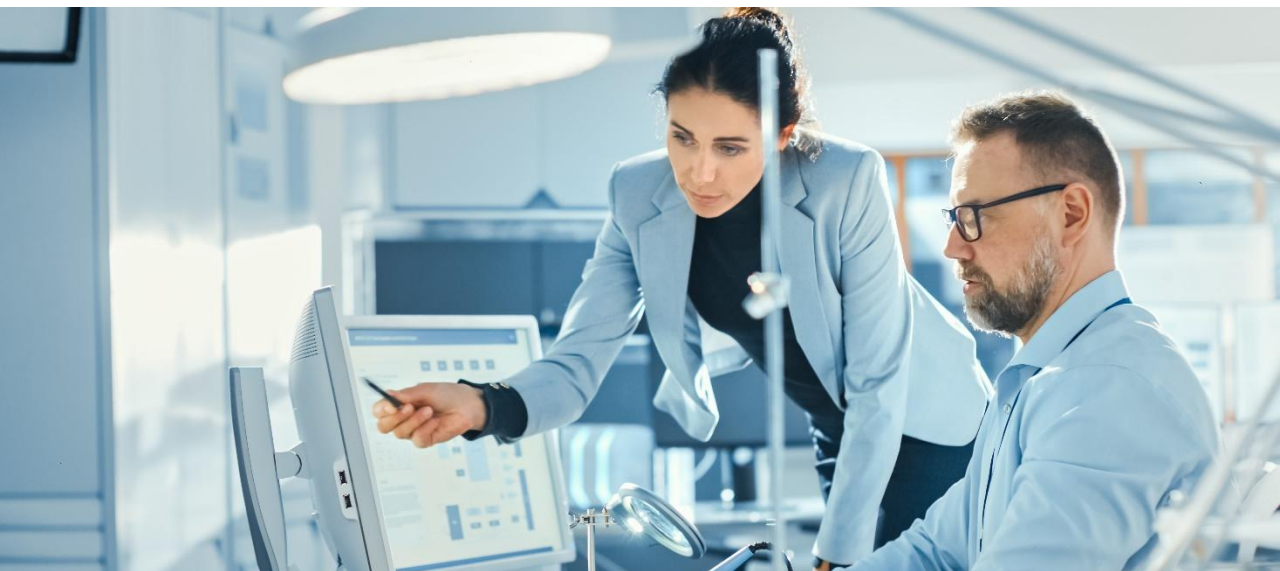
More can be found: excento.pl/e-pionier/protolab

Science and research

14 scientific disciplines



Scientific, Research and Implementation Centers of Gdańsk University of Technology



Science Centers

established under the "Excellence Initiative – Research University" program

BioTechMed Center

EkoTech Center

Materials of the Future Center

Digital Technologies Center

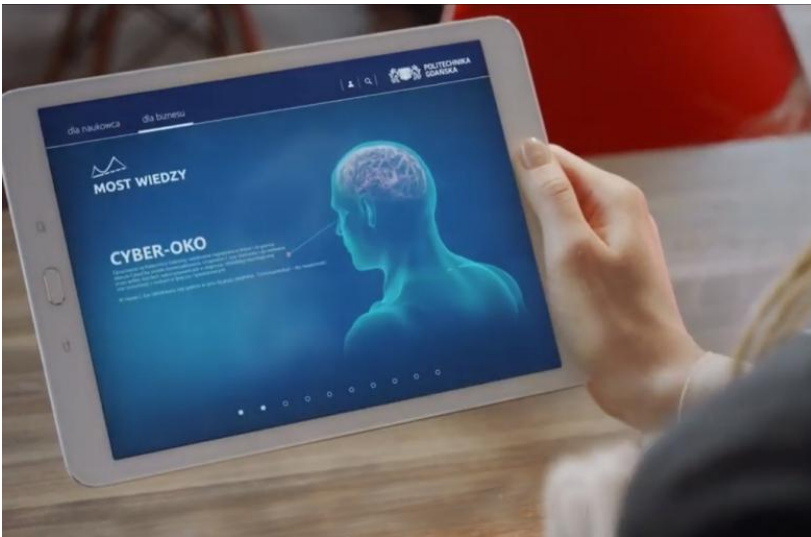
Research and Implementation Centers

established in cooperation with the socio-economic environment

Center for Offshore Wind Energy

Center for Hydrogen Technologies

Center for Nuclear Power



BioTechMed Center

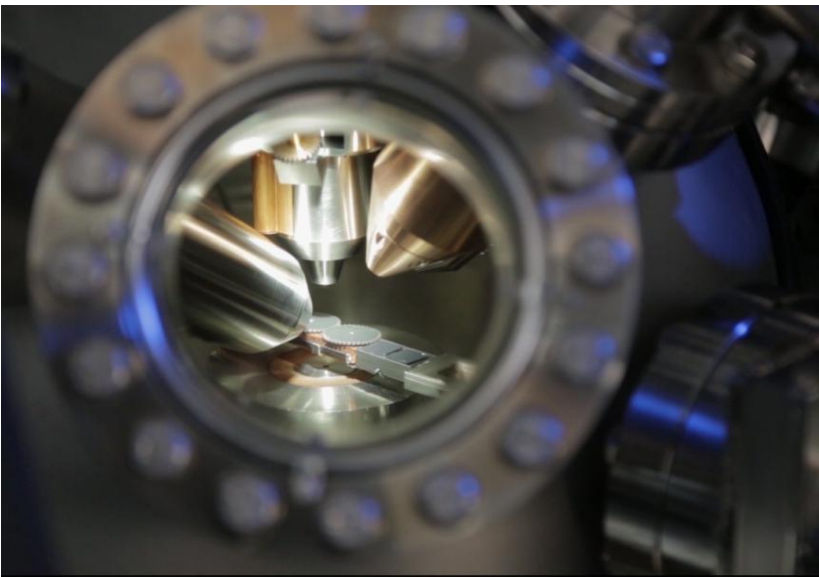
Activities

- | biomedical engineering
- | molecular and pharmaceutical biotechnology
- | searching for new drugs
- | biomaterials
- | artificial intelligence in medicine
- | biomedical measurements, patient diagnosis and therapy systems
- | control of medical devices (including exoskeletons)



Effects

- | development of new medical instruments and devices
- | human memory biomarkers – will enable a better understanding and optimization of methods of improving memory
- | CyberBed – will help to counteract digital exclusion of patients with paralysis
- | new strategies to fight bacterial drug resistance
- | new methods of diagnosis and therapy of patients
- | development of the healthy, ecological food market



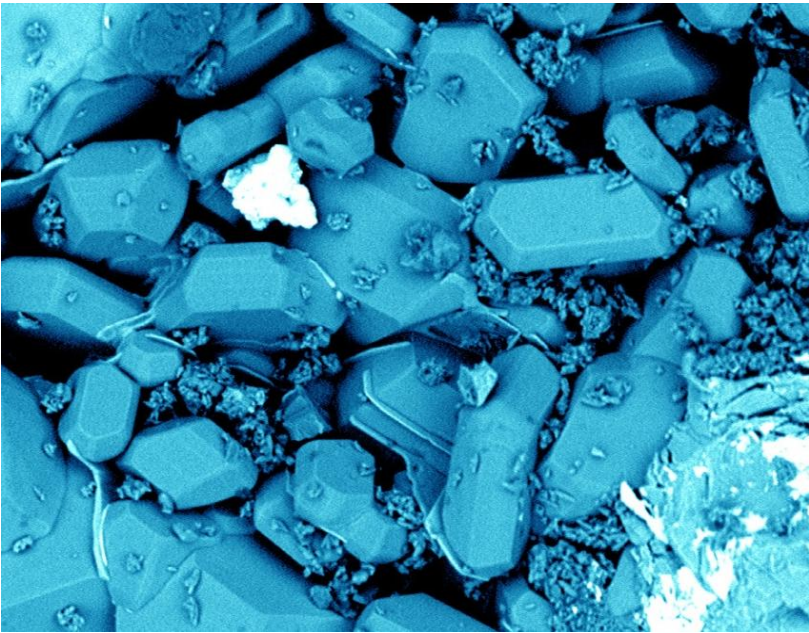
EcoTech Center

Activities

- | shaping a harmonious, balanced space for human life
- | smart green solutions for urban and extra-urban areas
- | searching for new methods of environmental and infrastructure monitoring
- | water and wastewater treatment technologies
- | electricity and heat production technologies

Effects

- | solutions for monitoring the environment and infrastructure
- | counteracting the so-called anthropopression, i.e. human influence on the natural environment
- | supporting spatial planning "Eco-town of the future 2050", i.e. cities resistant to climate change and ensuring high quality of life
- | reduction of carbon footprint, mitigation of the so-called "Light smog"



Materials of the Future Center

Activities

- | manufacturing and characterization of innovative materials in the field of materials engineering
- | application of materials in industry, medicine, aeronautics and ocean engineering
- | technologies of manufacturing and obtaining innovative structures and devices
- | recycling and metrology

Effects

- | development of materials for the storage of electricity from renewable energy sources
- | storage and conversion of surplus energy in innovative batteries and supercapacitors
- | discovery of new superconductors and development of photo-catalysts that enable the oxidation of pharmaceuticals not susceptible to biodegradation
- | development of the so-called polymer-asphalt binders having better resistance to environmental factors and changing temperature conditions
- | materials for the disposal of pollutants and materials for regenerative medicine



Digital Technologies Center

Activities

- | in the areas of: electronics, computer science, automation, robotics and mechatronics, as well as telecommunications
- | work on improving the safety and comfort of society
- | preparation of systems for more efficient management of enterprise structures
- | projects in the field of robotization and automation, design and production techniques



Effects

- | creating “smart” environments at home and on the street
- | miniature electronics that will enable automatic adaptation of space to human needs
- | increasing the efficiency of enterprises and institutions
- | new technologies that increase the productivity of port and logistic areas
- | systems for use in autonomous vehicles
- | new methods of wireless communication



Offshore Wind Energy Center

Research areas

- | Digitalisation and Industry 4.0
- | Digital Twins
- | Multi-scale testing of a material, component, structure or system
- | Destructive and non-destructive testing
- | Static, dynamic and fatigue testing
- | Damage detection, evaluation and monitoring
- | Numerical modelling and computer simulations
- | Floating wind turbine structures
- | Clean Energy Transition



Cooperation with industry

- | staff and management training in offshore wind energy
- | outstanding specialists in all areas of knowledge related to offshore wind energy
- | highly specialized laboratory base
- | numerical and experimental research
- | scientific support in the field of Operation & Maintenance of wind farms



Center for Hydrogen Technologies

Research areas

- | fuel cells diagnostics
- | hydrogen production and storage
- | energy production and processing
- | modeling of hydrogen processes



Cooperation with industry

- | the first unit of this type in Poland
- | interdisciplinary research services related to the subject of hydrogen
- | assistance in developing the concept and description of the R&D process in terms of the requirements of NCBR and EU committees
- | expertise with the use of modern diagnostic and measurement equipment
- | comprehensive implementation of tasks in the research and development area related to the production, storage and processing of hydrogen
- | organization of training courses for employees of enterprises in the field of hydrogen technologies



Center for Nuclear Power

Tasks of the center

- | supporting innovation and providing information in the area of nuclear power,
- | extending the research and industrial offer of Gdańsk University of Technology within the scope of nuclear power,
- | cooperation with the domestic industry, European Union and worldwide industries within the scope of nuclear power,
- | developing and extending the training equipment offer related to nuclear power,

Cooperation with the business

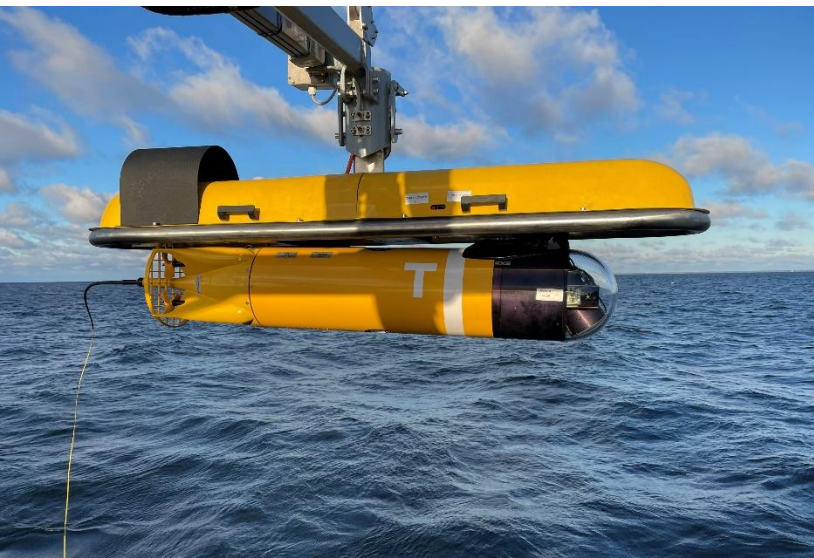
- | cooperation with the organizational units of Gdańsk University of Technology, other universities, as well as national and international research and development institutions, in favor of nuclear power,
- | creation of interdisciplinary national and international research teams for issues related to nuclear power,
- | participation in competitions and other procedures, in order to obtain grants for research from authorized institutions (international programs, Ministry of Education and Science, National Center for Research and Development, etc.),



Security and Defense Technologies Center

Research areas

- | passive ship defence systems
- | hydroacoustic systems
- | deep-sea technology systems
- | anti-corrosion protection systems



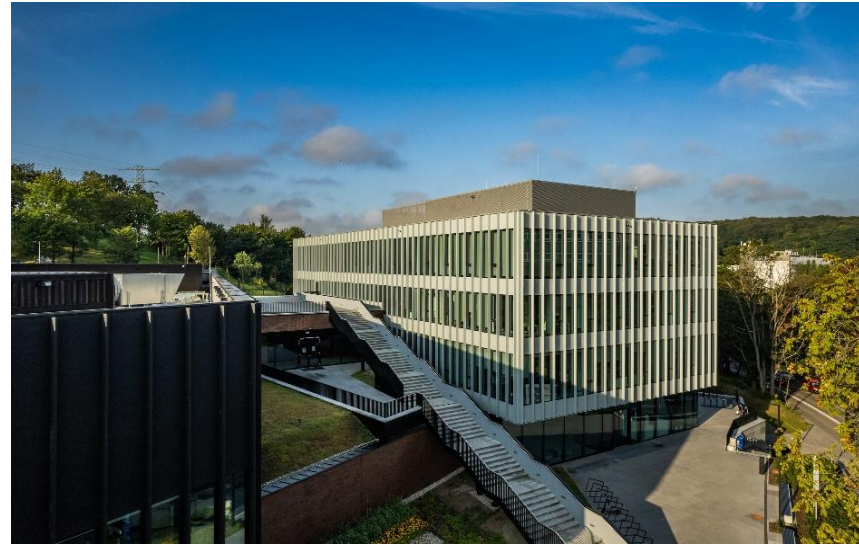
Cooperation with industry

- | designing and prototyping devices and systems for the special and civil market
- | production, assembly, integration and testing
- | service and maintenance
- | training, courses, expertise
- | development of research and implementation offer in the field of security and defense
- | acquiring research and development projects in the area of security and defense technologies

The biggest investments



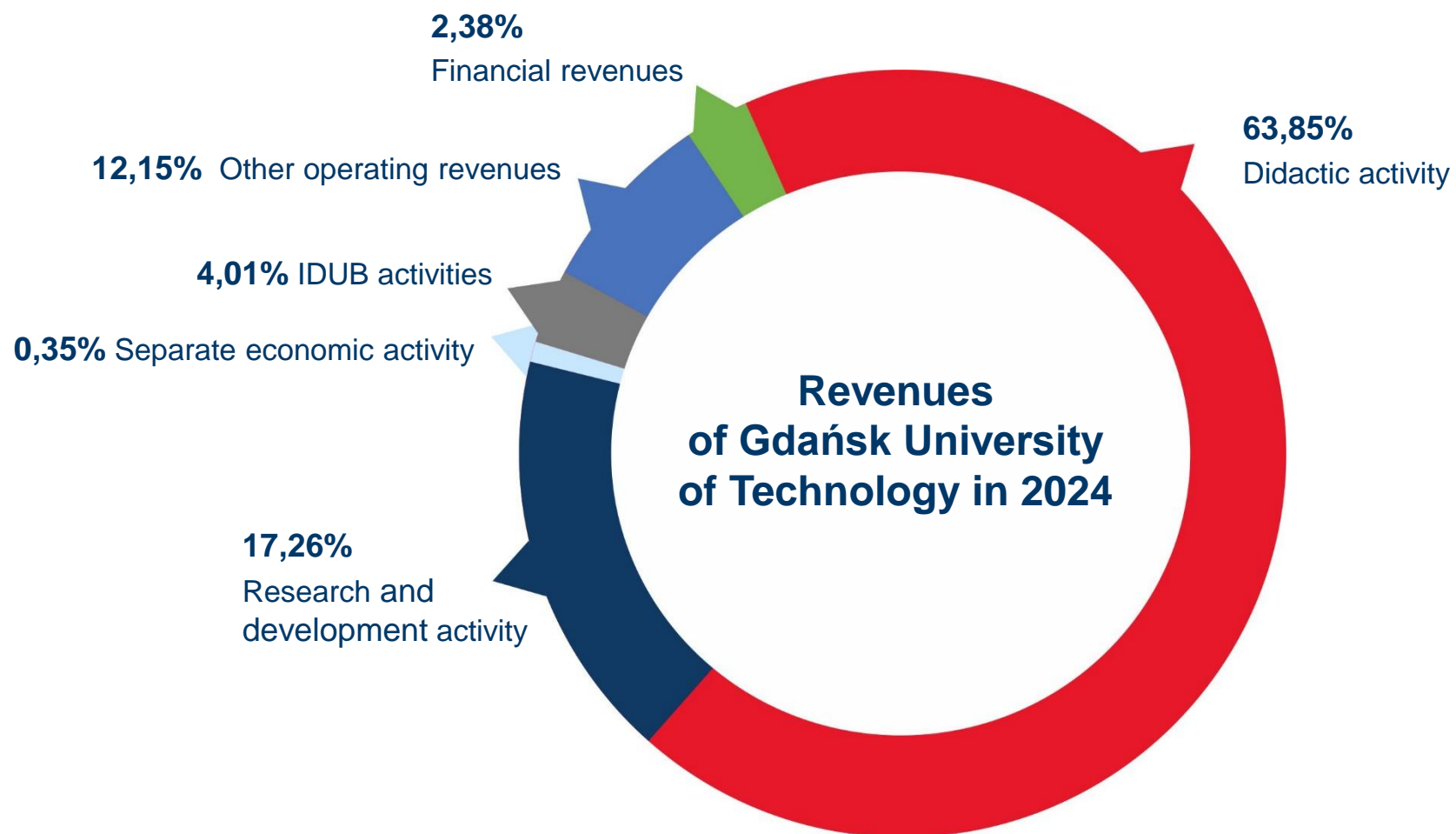
**Laboratory of Innovative Power
Technologies and Integration
of Renewable Energy Sources
LINTE ^ 2**



STOS Competence Center (Smart and
Transdisciplinary knOWledge Services)
and supercomputer „**Kraken**”



**Eco-innovation Center of Gdańsk
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