



Modern Research and Development Centre



Location of GUT

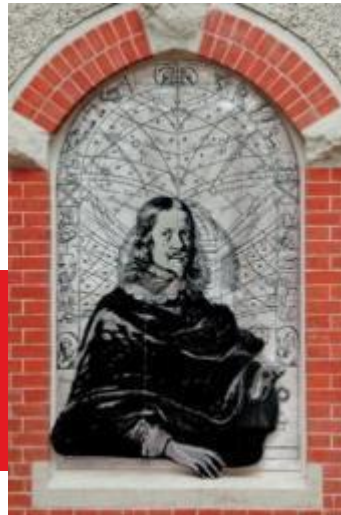
Gdańsk (Danzig)



Berlin	503 km	Bratislava	930 km
Vilnius	571 km	Kiev	1104 km
Stockholm	626 km	Moscow	1444 km
Minsk	743 km	Madrid	2833 km
Prague	755 km	Beijing	6965 km



Jan Heweliusz
(born in 1611 in Gdańsk),
inventor of periscope
and micrometer screw



Daniel Gabriel Fahrenheit
(born in 1688 in Gdańsk)
worldwide known physicist
and inventor of mercury
thermometer



In 2010 the Senate of Gdańsk University of Technology passed a resolution naming two courtyards after the prominent Danzigers. Nowadays, there is a portrait in each one.



Gdańsk Societas Physicae Experimentalis
One of the first natural societies on the territory of the Polish Crown. It contributed to establishing technical university in Gdańsk In 1904, where its scientific collection was passed.



1904 – 1918

Königliche Technische Hochschule zu Danzig

1918 – 1921

Technische Hochschule in Danzig

1921 – 1939

Technische Hochschule der Freien Stadt Danzig

1939 – 1941

Technische Hochschule Danzig

1941 – 1945

Reichshochschule Danzig

1945 – present

**Politechnika Gdańska
(Gdańsk University of Technology)**

1904



1945



2017





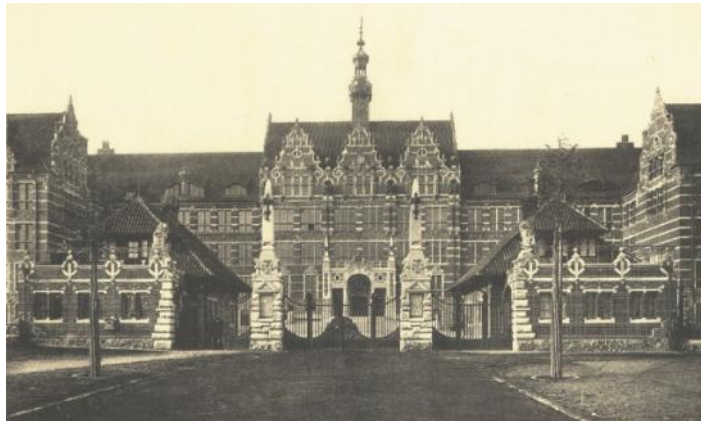
1904

October 6 – the first academic year at the Polytechnic was inaugurated, the Royal-Prussian Technical College in those days

1945

May 24 the Polytechnic transformed into the Polish state university

2017





1st place in the Polish Ministry of Science and Higher Education ranking of the most popular universities

2nd place in the National Compensation Survey for technical university graduates

10th place among best Polish universities in a ranking prepared by the "Perspektywy" education portal

1 among 12 Polish universities in the international ranking of the best universities in the world - the Times Higher Education World University Rankings





According to the assessment of scientific activity of units by The Ministry of Science and Higher Education



| Seven GUT faculties in the A + and A categories!

The highest category **A +**, which is the leading level in the whole country, was awarded to the **Faculty of Chemistry** and the **Faculty of Electronics, Telecommunications and Informatics**.

| Category **A**, which represents a very good level of activity, was awarded to the following GUT faculties:

Architecture,
Electrical and Control Engineering,
Civil and Environmental Engineering,
Mechanical Engineering,
Management and Economics

| The Faculties of Applied Physics and Mathematics and Ocean Engineering and Ship Technology received Category **B**, indicating a satisfactory level of scientific research, research and development or stimulating economic innovation.



First and second cycle studies / full-time and part-time

| 9 faculties

- nearly 19 000 students of all cycles
- over 1 200 lecturers
- more than 128 000 graduates

| 37 fields of study (undergraduate & graduate), including:

- 6 interfaculty fields of study
- 3 inter-university fields of study
- 22 fields of study and specializations in English (undergraduate & graduate)

| 59 postgraduate fields of study

| 9 faculties offering doctoral studies (Ph.D.s) in 19 fields of study

| 2 main components of the MBA studies





- | Faculty of Applied Physics and Mathematics**
- | Faculty of Architecture**
- | Faculty of Chemistry**
- | Faculty of Civil and Environmental Engineering**
- | Faculty of Electrical and Control Engineering**
- | Faculty of Electronics, Telecommunications and Informatics**
- | Faculty of Management and Economics**
- | Faculty of Mechanical Engineering**
- | Faculty of Ocean Engineering and Ship Technology**



Physics and mathematics are a recipe for success

Educational offer

Fields of study:

- Technical Physics
- Nanotechnology
- Applied Mathematics

Interfaculty fields of study:

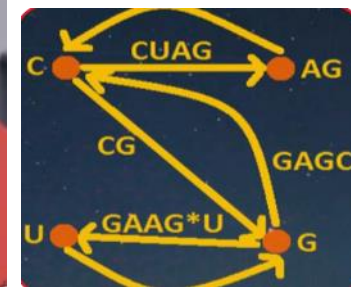
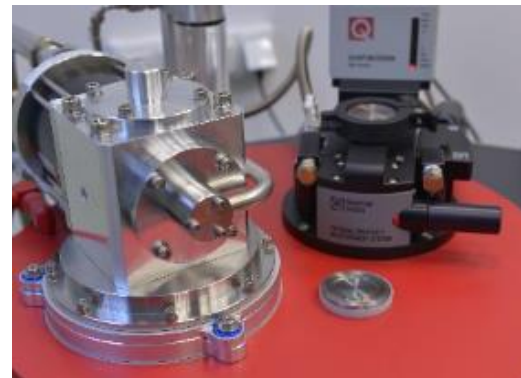
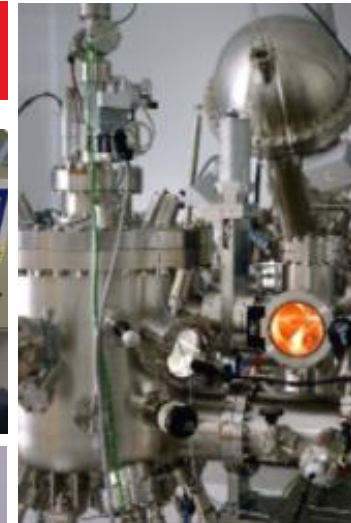
- Biomedical Engineering
- Material Engineering

Research activity

- | Department of Nonlinear Analysis and Statistics
- | Department of Atomic, Molecular and Optical Physics
- | Department of Solid State Physics
- | Department of Theoretical Physics and Quantum Information
- | Department of Physics of Electronic Phenomena
- | Department of Probability and Biomathematics
- | Department of Differential Equations and Mathematical Applications

Science popularization

- | The "Competence Lab" project
- | Winter break with physics for school students
- | Organizing lectures for schools
- | Organizing workshops for schools





Faculty of Architecture

Scientific activity of the faculty focuses on architecture and urbanism

The faculty's educational offer includes Architecture and Spatial Development

The faculty offers undergraduate, graduate, doctoral and postgraduate studies

Faculty of Architecture is a member of :

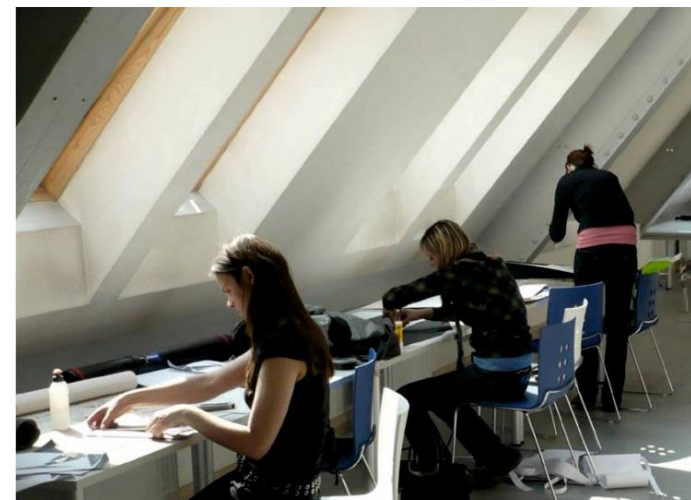
| European Association for Architectural Education (EAAE)



| European Network of Heads of Schools of Architecture (ENHSA)



| Association of European Schools Of Planning (AESOP)



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

Science

- | 150 scientific employees
- | ranked A+ in the evaluation of scientific units for 2013–2016
- | 260 articles published in JCR-listed journals
- | 71 national and international grants
- | 133 industry agreements

Innovation and cooperation

- | 15 Polish patents a year
- | 3 international patents a year
- | 15 new patent applications
- | Participation in numerous consortia, including Gdańska Chemia Akademicka (Gdańsk Academic Chemistry), Polskie Konsorcjum Polarne (The Polish Polar Consortium), EMQAL

Didactics

- | 3 levels of study (undergraduate, graduate, doctoral)
- | 9 fields of study
- | 1680 students (including PhDs)
- | Green Technologies & Monitoring taught in English



* in the Polish Ministry of Science and Higher Education comprehensive evaluation of scientific research or research and development activity of scientific units





The faculty conducts research related to:

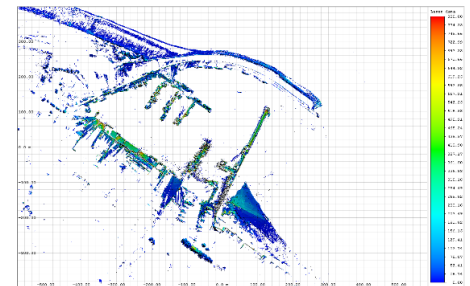
CIVIL ENGINEERING



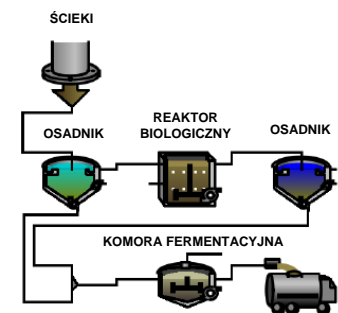
TRANSPORT



GEODESY AND CARTOGRAPHY



ENVIRONMENTAL ENGINEERING





Offers full-time as well as part-time undergraduate and graduate studies, full-time doctoral studies and also postgraduate studies

- | An opportunity to find a good job in Poland and abroad
- | A reliable source of information and engineering skills
- | Highly qualified teaching personnel

- | Fascinating studies
- | Modern fields of study
- | Industry placements

Automatic Control
and Robotics

Electrical
Engineering

Power Engineering

renewable energy sources

e-mobility smartgrids

The collage features three main visual elements: 1) A photograph of three people in business attire examining a large industrial component at a trade show. 2) A circular diagram with three green arrows forming a clockwise cycle, connecting three circular images: a battery pack, a solar panel array, and a building facade with 'LINTAS' signage. 3) A photograph of a control room with several large monitors displaying data and a person standing at the front of a meeting table.



Offers full-time as well as part-time undergraduate and graduate studies, full-time doctoral studies and also postgraduate studies

- | Candidates can choose from five fields of study:**
- | Automatics and Robotics (two graduate specializations in English)**
- | Electronics and Telecommunications (two graduate specializations in English)**
- | Informatics (one specialization in English as well as part-time undergraduate and graduate studies)**
- | Biomedical Engineering**
- | Data Engineering (in English exclusively)**
- | Space and Satellite Technologies (graduate)**

Doctoral studies last four years, postgraduate – 2 semesters

Detailed information related to fields of study and recruitment can be found at eti.pg.edu.pl/en/educational-offer



Ranked A by the Polish Ministry of Science
and Higher Education

| Full-time and part-time fields of study:

- Economic Analytics  
- Economics 
- Data Engineering 
- Management  
- Engineering Management 

| International MBA in Strategy, Programme
and Project Management 

| 32 postgraduate fields of study





Education – Research – Innovation

I Educates over 1500 students, including c. 10% international students, and offers 7 attractive fields of undergraduate, graduate and doctoral study:

- Energetics
- Material Engineering
- Mechanical and Medical Engineering
- Machine Construction and Mechanics
- Mechatronics
- Space and Satellite Technologies (started in 2017)
- Production Engineering and Management

I Experienced scientific and engineering personnel

I Applying the CDIO (Conceive, Design, Implement, Operate) educational framework – 49 modern laboratories with cutting edge equipment

I Graduate employability is over 90%!





Education – Innovation – Passion

The faculty prepares students to work in modern industry, offering undergraduate, graduate and doctoral studies.

Fields of study:

- Ocean Engineering (Studies with Future certified)
- Power Engineering
- Transport (Studies with Future certified)



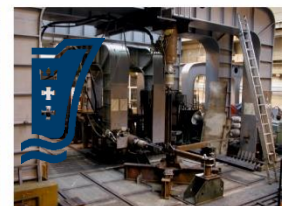
Innovative projects

- The Multipurpose Remotely Operated Underwater Vehicle System (Morświn)
- Disposable Mine Destruction Vehicle (Głuptak)
- A project of an eco-friendly ferry operating on the waters of Gdańsk
- A hybrid drive passenger ship

Developing passions and interests

- Organizing summer sailing camps
- Sailing licences, motorboat courses
- The STUKNUT conference organized on the STS Pogoria sailboat
- Scientific circles: KORAB, PIKSEL

Cooperation with the industry, accredited laboratories, analyses for the industry





One of the most beautiful campuses in Europe according to the Times Higher Education portal in 2018

- | **Elegant, modern and environment-friendly**
- | **Charming and majestic buildings from the 20th century**
- | **State-of-the-art lecture halls**
- | **Highly specialised laboratories**





Academic Sports Centre – modern sports facilities accessible to all students and employees



- | two swimming-pools: 25 m and 12,5 m
- | a full size football pitch 64mx105m
- | a sports hall, a volleyball pitch, outdoor tennis courts
- | a fitness gym, body-building gyms, a rowing gym, and a judo gym





The greatest and oldest as well as the most state-of-the-art technical library in Pomerania

- | 9 branches at the faculties
- | 12 reading-rooms
- | 470 reading stands
- | 120 computer stands with Internet access
- | over 600 000 volumens
- | 40,000 registered users within VTLS Virtua System





Access to:

- | 62 scientific databases
- | 8,000 online journals
- | 65,000 e-books
- | Collection of Standards

- | Internet customer service system
- | online catalogue

- | Leader of Tricity Libraries Association
- | Leader of Pomeranian Digital Library
- | Partner of Europeana project





**GDAŃSK UNIVERSITY
OF TECHNOLOGY**

For Students and Staff

**'EUREKA' REHABILITATION AND TRAINING
CENTRE IN SOPOT**

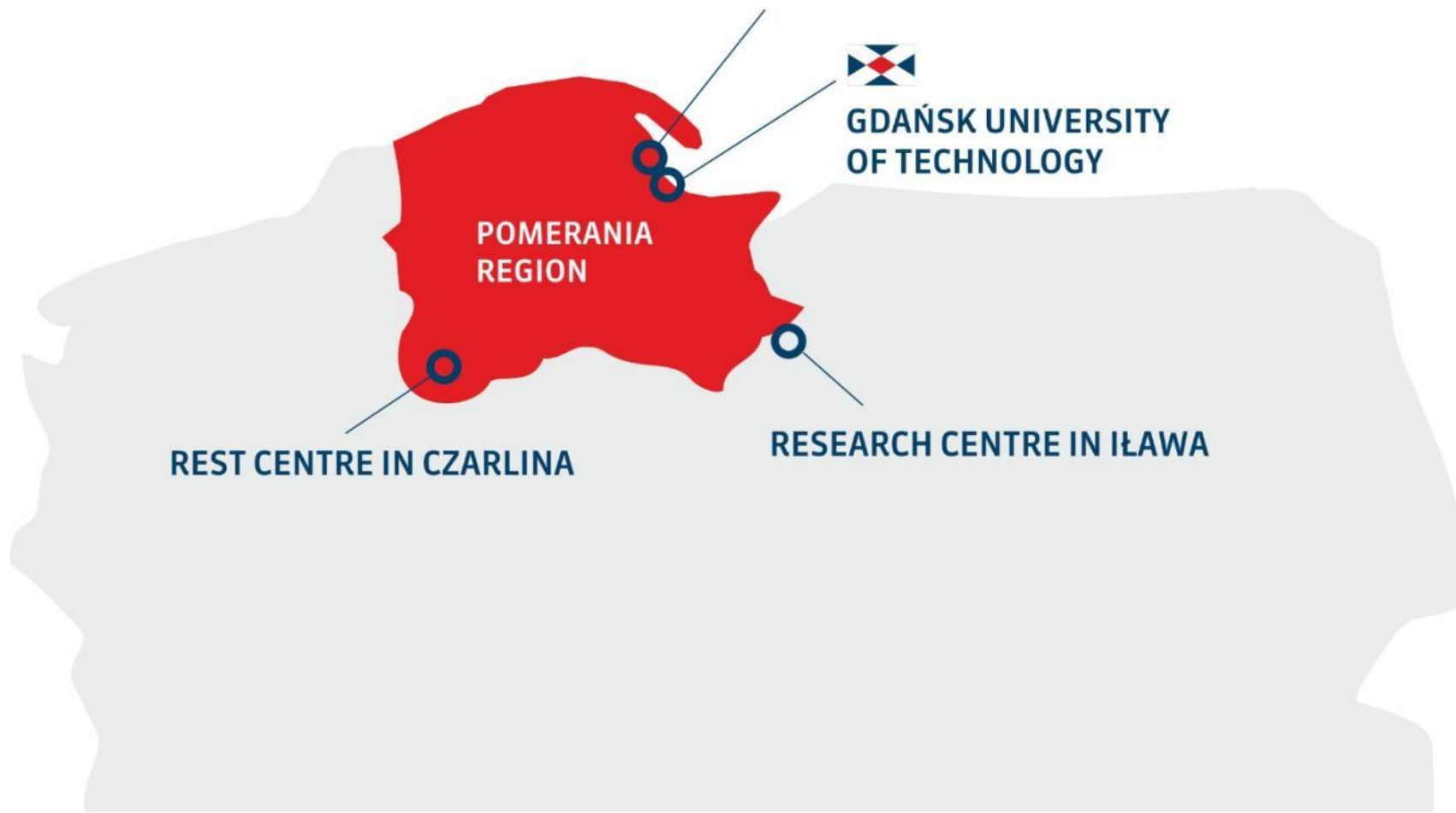


**GDAŃSK UNIVERSITY
OF TECHNOLOGY**

**POMERANIA
REGION**

REST CENTRE IN CZARLINA

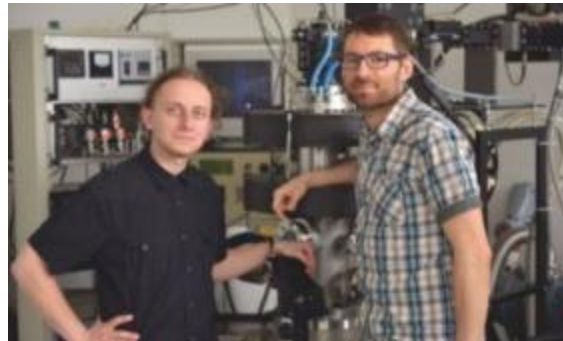
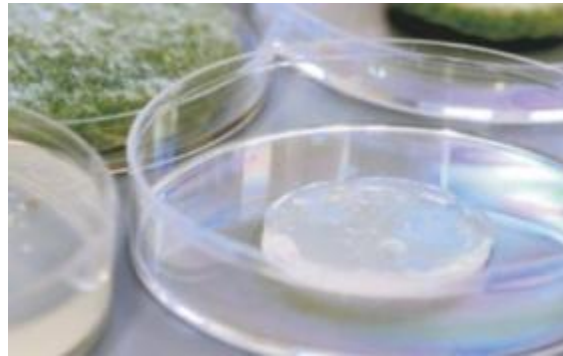
RESEARCH CENTRE IN IŁAWA





Prospects

Strategically determined
Maximally innovative
Atttractive to all
Relying on personalities
Totally created with passion



2012

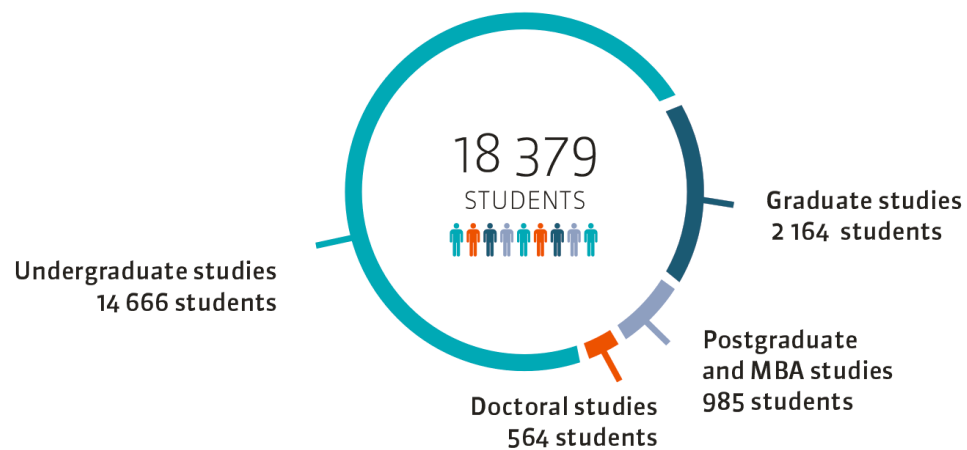
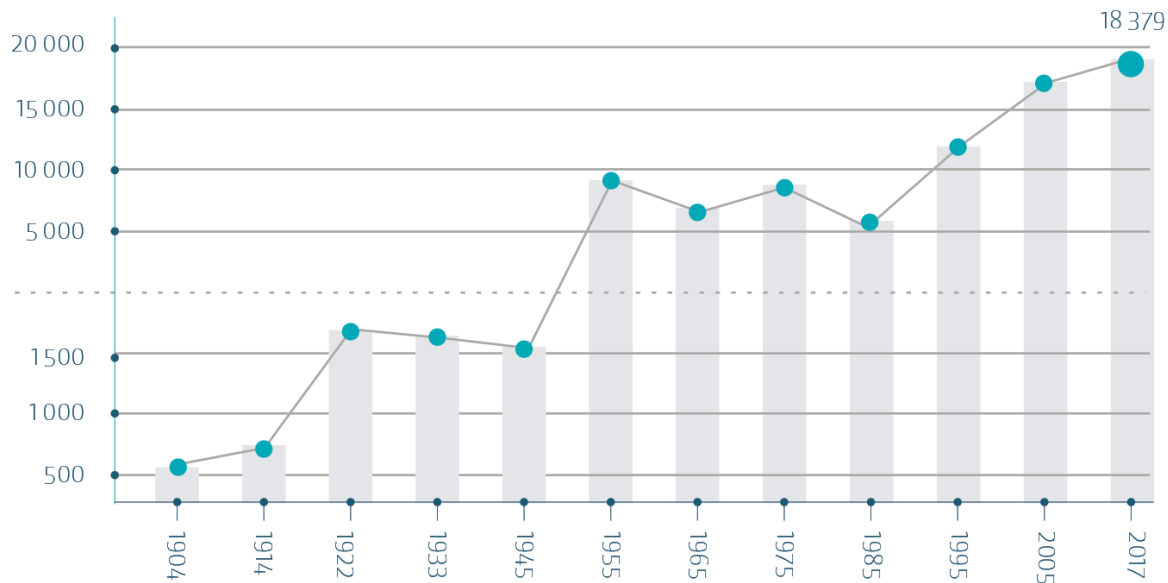
DIGITAL UNIVERSITY

SMART UNIVERSITY

2020

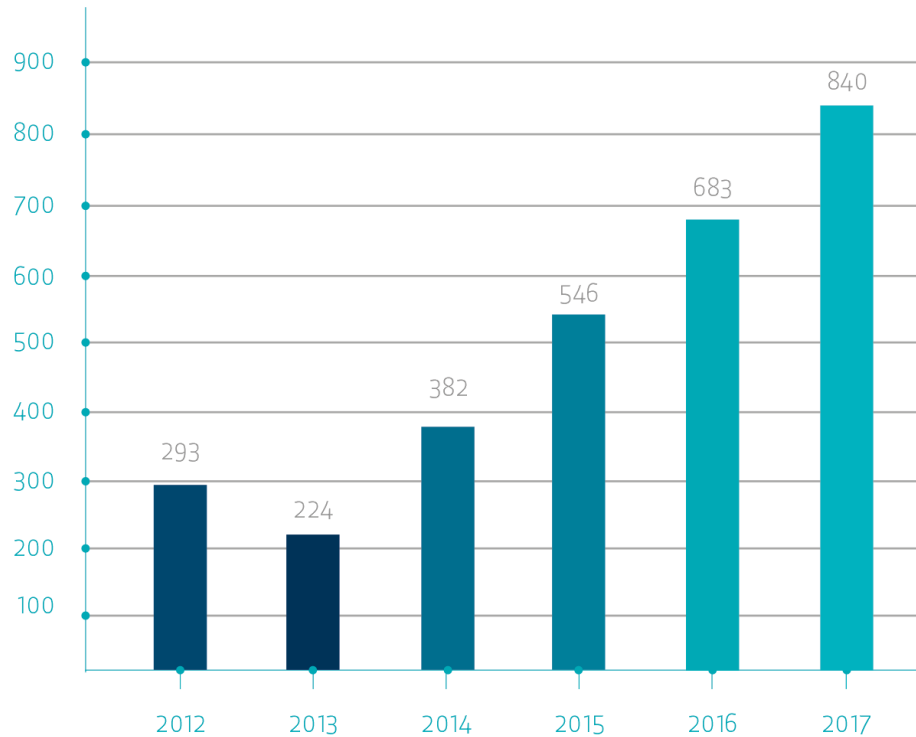


Number of students



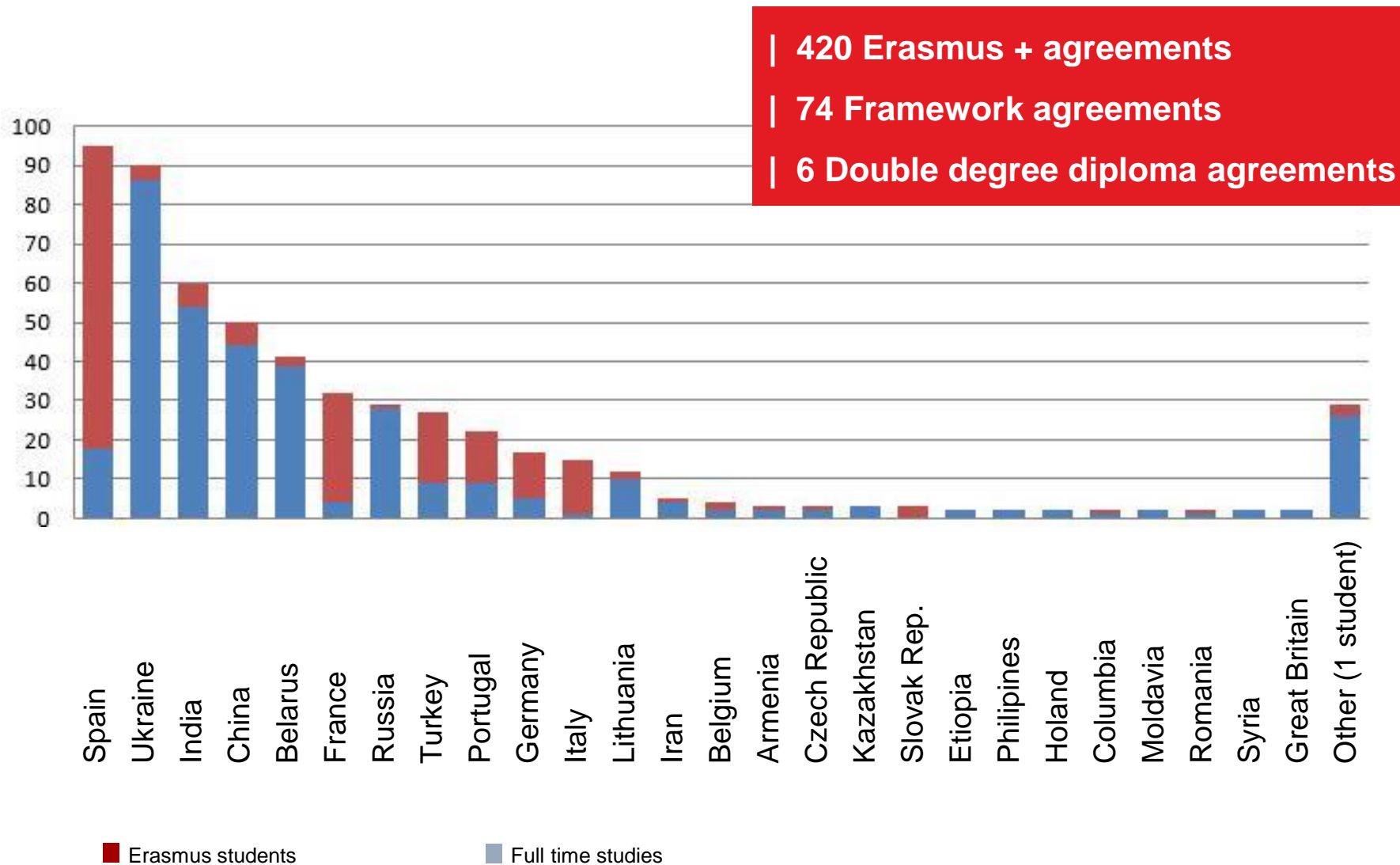


International students at GUT





Foreign students – nationalities at GUT





IROS's responsibilities:

- | coordination of activities related to international cooperation of GUT**
- | cooperation with foreign institutions and organizations within international cooperation**
- | international promotion and information activities**
- | registration and service of outgoing students and university staff for the scientific, educational and professional training purposes**



GDAŃSK UNIVERSITY
OF TECHNOLOGY

International standards of education and research

CESAER

conference of european schools
for advanced engineering education
and research

| CESAER Certificate

It confirms quality of scientific excellence in engineering education and research and close cooperation with industry



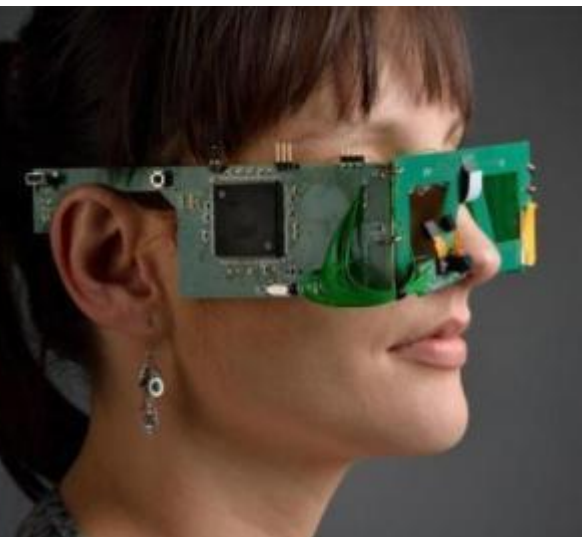
HR EXCELLENCE IN RESEARCH

| the European HR Excellence in Research logo

It is granted by The European Commission as a symbol of quality assuring the highest standards in research and employment



- | 300 inventions to be implemented (currently)
- | 200 R&D projects with national and international funds (in progress)
- | 700 contracts with entrepreneurs within the last 3 years





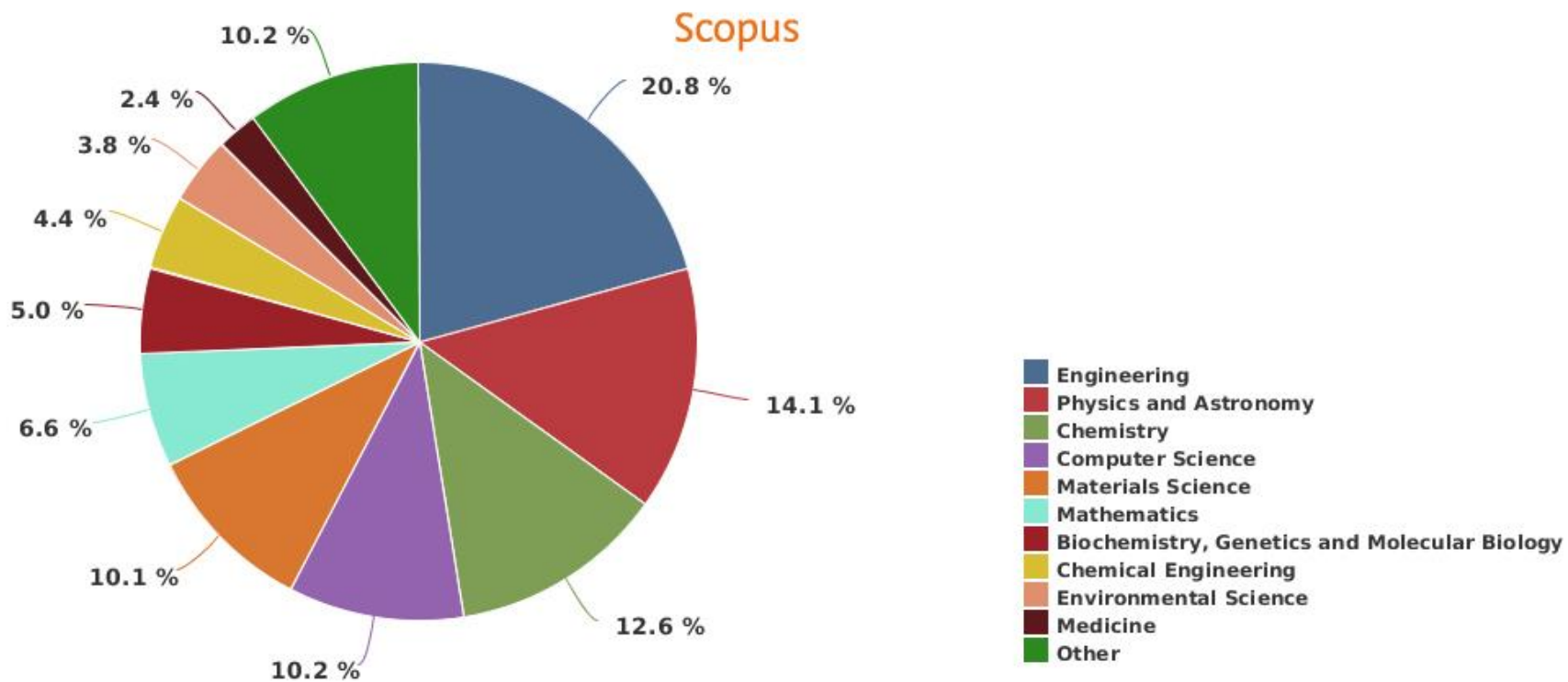
The University hosts a number of research centers including:

I Immersive 3D Visualization Lab - among the best ones in the world

Laboratory provided with a cubic system CAVE (Cave Automatic Virtual Environment) equipped with a spherical gait simulator, which allows unlimited hike in the virtual world

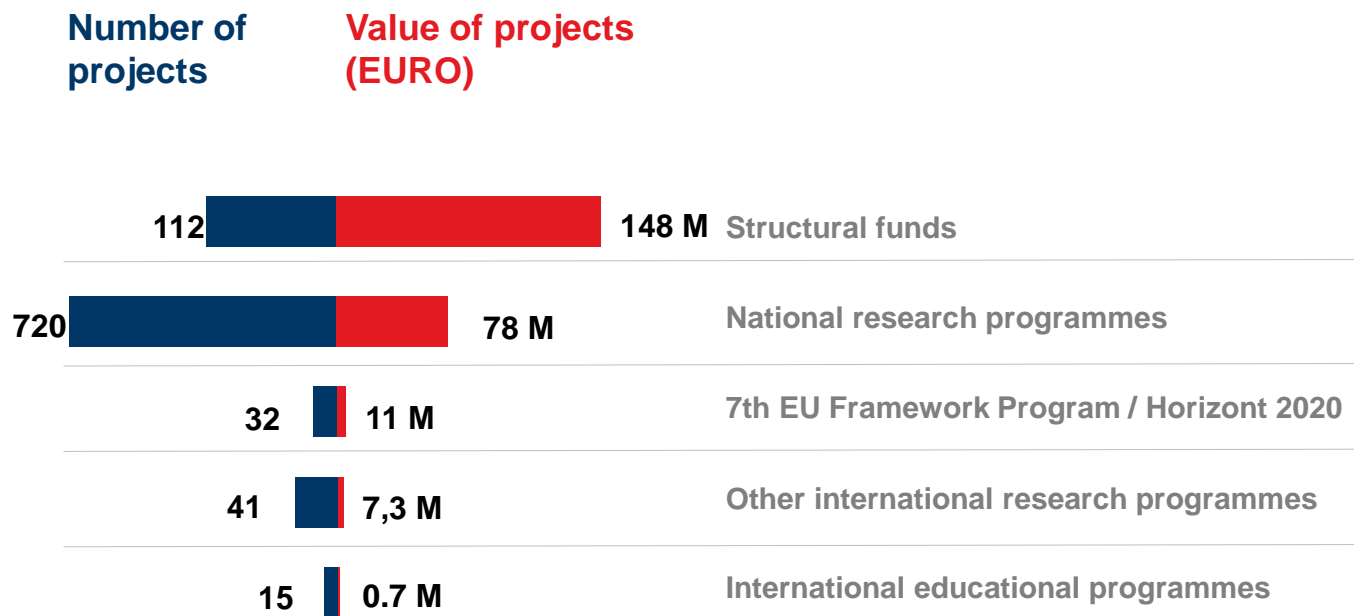
I Nanotechnology Centre houses 36 modern teaching and research laboratories and provides unique equipment for studies at the atomic level







Projects at GUT (2007–2017)





The most important projects

- I The idea of the ‘MOST Wiedzy’ project is to **design and build a platform that integrates data from multiple databases** (of both Gdańsk University of Technology and other scientific units), which will increase accessibility, coherence and reuse of science, knowledge and technology resources.

This will result in a **bridge connecting the research community** and their economic environment (businesses, nonprofit organizations, citizens).

Project value: **2,33 M EURO**

Period of implementation: 01.07.2016 - 30.06.2019

Project leader: Ph.D. Eng. Paweł Lubomski

Operational Program Polska Cyfrowa (Digital Poland)



The most important projects

I The aim of the project is to obtain a new antitumor compound that interacts within telomeres. This will be the first antitumor compound which affects telomeres, which significantly raises the prestige of the project.

The target of the project is the selection of one or two compounds with desirable antitumor and low toxicity properties that may be commercialized.

Project value: 4, 69 M EURO

Period of implementation:

April 2017 – March 2020

Project leader: Prof. Ph.D.

with habilitation, Eng. Maciej Bagiński

Program: STRATEGMED

Partners

**Gdańsk University,
Gdańsk Medical University,
Ludwik Hirszfeld Institute of Immunology
and Experimental Therapy,
Polish Academy of Sciences, Wrocław,
M.Nencki Institute of Experimental Biology,
Polish Academy of Sciences, Warsaw
Regional Hospitals in Gdynia,
Innovabion LLC
EU-CONSULT LLC**



The most important projects

I The aim of the project is to obtain high quality competencies **by 46 graduates of interdisciplinary doctoral programme** of 3 faculties of Gdańsk University of Technology (Chemistry, Electronics Telecommunications and Informatics, and Civil and Environmental Engineering) and INERCHEM programme jointly conducted by the Faculty of Chemistry at GUT and the Faculty of Chemistry of the University of Gdańsk.

Modification of the existing interdisciplinary doctoral programme by making it **international** and introducing new elements .i.e.:

- interdisciplinary doctorates in English
- participating in international theme conference, summer school or **international workshops**
- special soft-skills workshops
- task-based scholarships for 85% of doctoral students

Project value: **2,25 M EURO**

Implementation period:

01.09.2017 - 31.12.2021

Partner: University of Gdansk

Project Manager: Prof. Ph.D.

with habilitation, Eng. Maciej Bagiński

Operational Programme

Knowledge Education

Development



The most important projects

- I The aim of the project is the conceptual design, construction and testing of a new type of **intelligent road signs** that will help prevent the most common collisions on the fast roads due to the rapid piling up of vehicles in the event of a need for violent braking.

Result: Development of a series of products, including smart hanging, and mobile, road signs, displaying dynamically updated recommended speeds.

Partners: Siled LLC (Poland)
AGH University of Science and Technology (Poland)
Microsystem LLC (Poland)

Project value: **1,66 M EURO**

Period of implementation: 07.05.2017-06.05.2020

Project leader: Prof. Ph.D. with habilitation, Eng. Andrzej Czyżewski

Operational Program Intelligent Development



The most important projects

- I The project is focused **on ensuring the secure communication of devices using IoT**. The design solutions will be utilised, among others, in next generation networks (5G) and will be used by clients from various industries such as aeronautics, automotive or railway industries, and intelligent buildings.

The main task of the Gdańsk University of Technology team is to create new mechanisms for securing the IoT 5G network. These will be based on spatial information associated with radio signals using smart antennas.

Project value: **1,14 M EURO**

Period of implementation: 01.05.2017 - 30.06.2020

Project leader: Ph.D. Eng. Łukasz Kulas,

Faculty of Electronics Telecommunications and Informatics

Partner Countries: 54 partners from 10 EU countries

HORIZON 2020 ECSEL Innovation Action



**GDAŃSK UNIVERSITY
OF TECHNOLOGY**

Largest investment projects at GUT dedicated for science-business cooperation



Nanotechnology Center



**Laboratory of innovative electroenergy
technologies and integration of
renewable energy sources LINTE²**

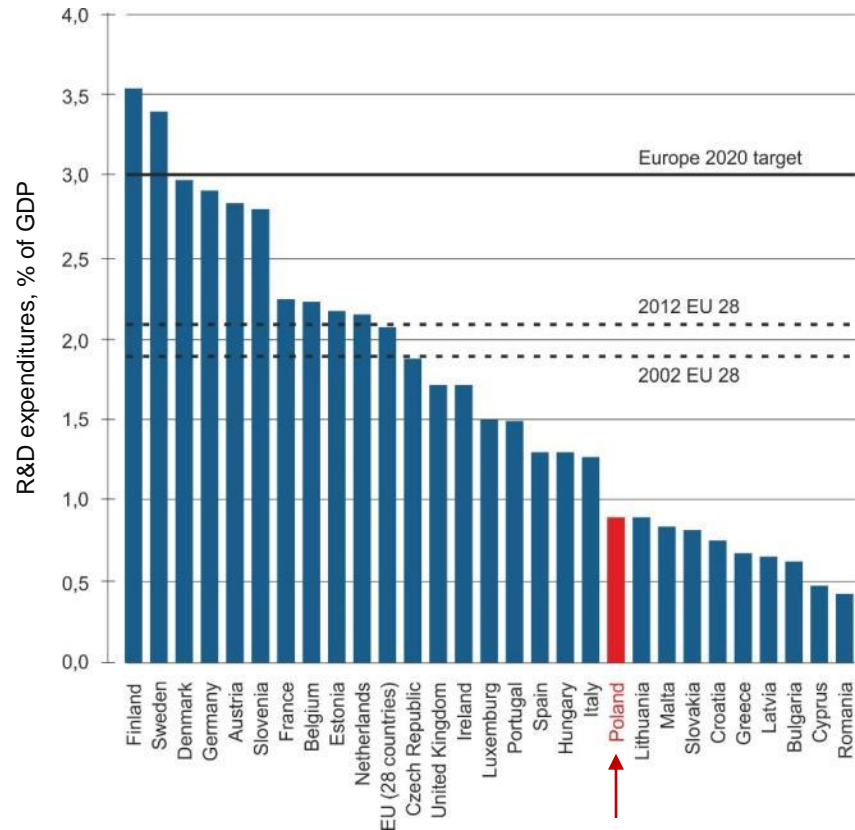
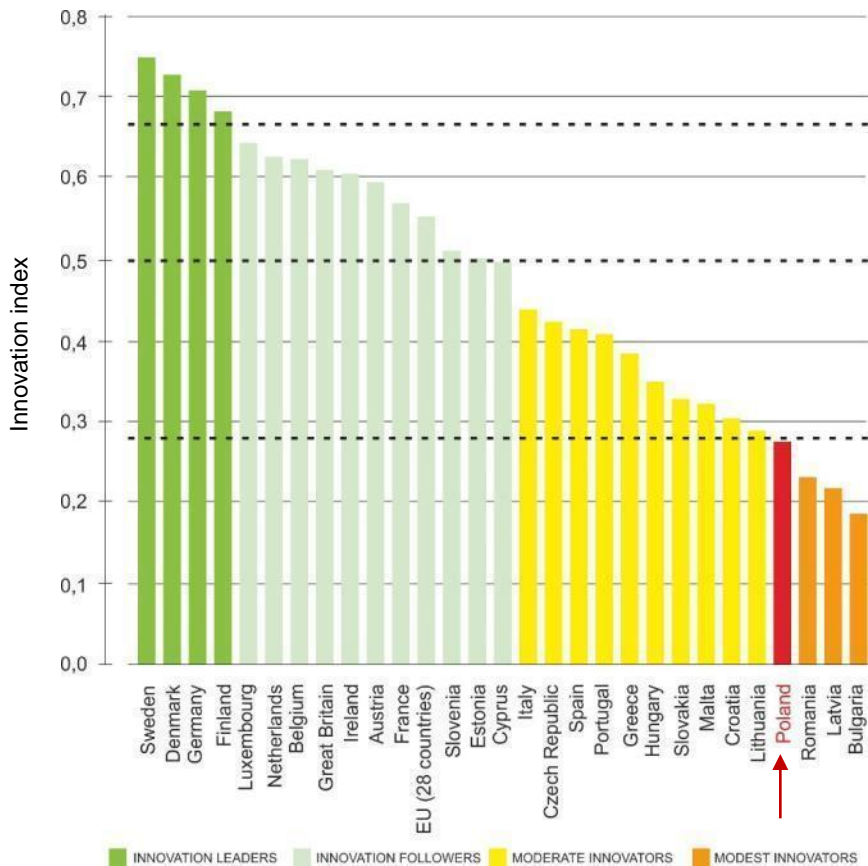


Engineer of the Future



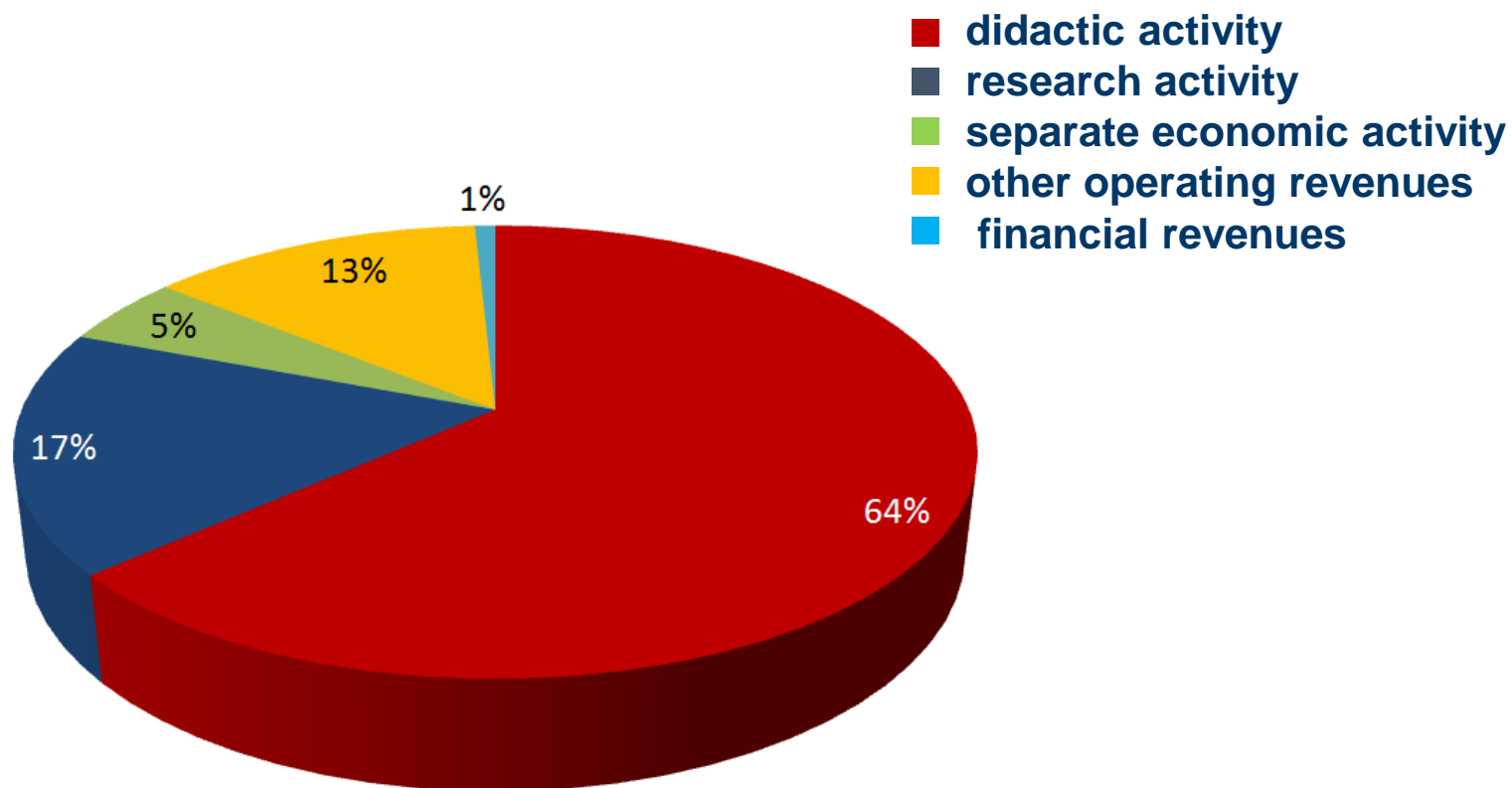


Innovation index and R&D expenditures in Europe



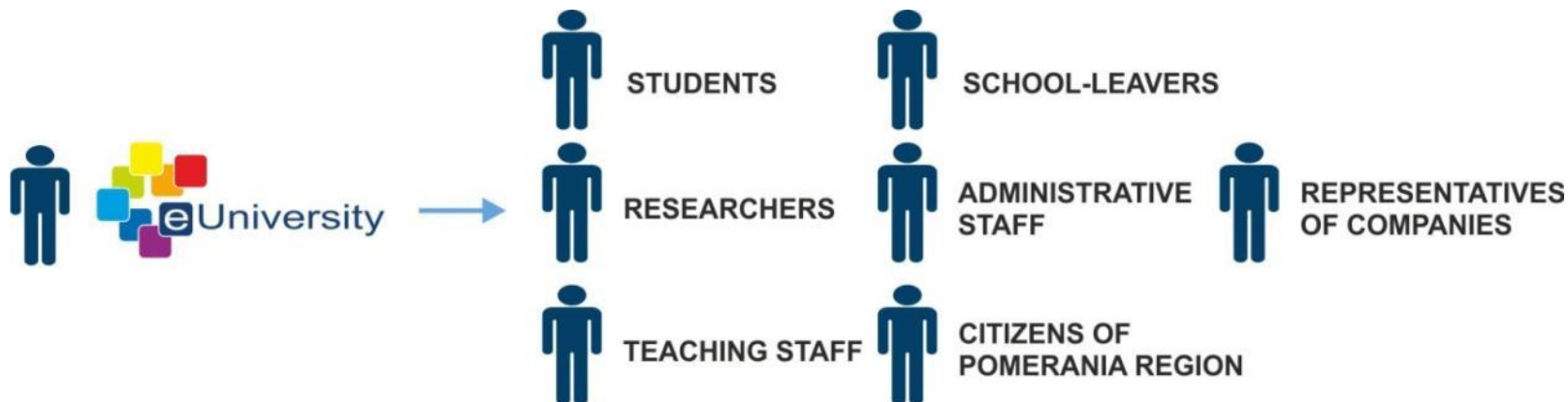


GUT income in 2016





e-University – information system



course of studies organisation

keeping track of financial transactions

on-line forms management system

transcript of records and timetable

devising mobile course of studies

innovative documents circulation system

research and e-projects service

inter-university projects management

technical resources registry

internship information exchange

innovation browser for entrepreneurs

research and patent presentation

platform based distance learning

virtual work emulators in labs

e-courses and tests browser

electronic repository of resources

online access to scientific and didactic database

lending and borrowing services

information base about the university

consolidation of scientific and business environments



Modern Research and Development Centre



<https://www.youtube.com/watch?v=eFhXzGaYFsQ>