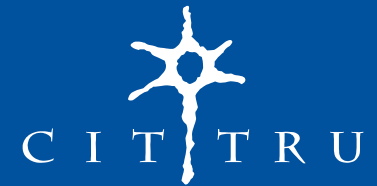






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# **Cracow – Science – Industry.**

## **Links for effective economy**

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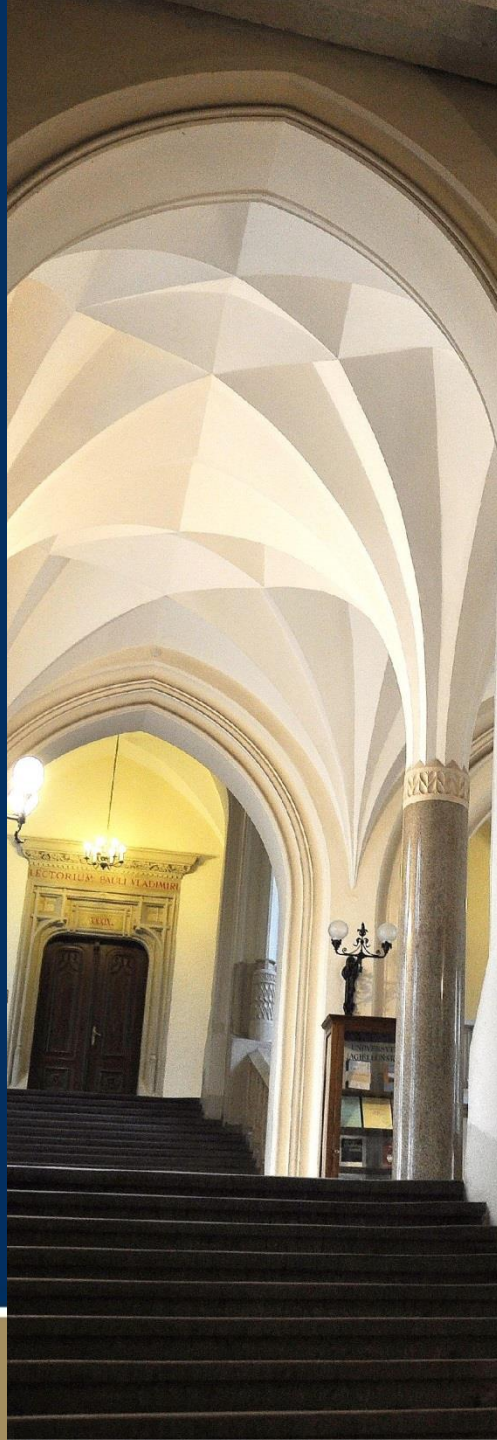
Radosław Rudź, PhD  
Centre for Technology Transfer CITTRU  
Jagiellonian University





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## Jagiellonian University overview

**The oldest university in Poland**

**One of the oldest universities  
in the world**

**One of the best universities in Poland**

**One of the biggest universities in Central  
Europe: 45 000 students**

**One of the widest educational offer  
in Poland:**

- 16 faculties
- over 150 study programmes

**Our famous graduates include:  
astronomer Nicolaus Copernicus  
and Pope John Paul II**

**Poet Wisława Szymborska,  
later Nobel Laureate in Literature,  
studied at the Jagiellonian University**



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## International collaboration



### Over:

**300** bilateral agreements  
with universities worldwide  
**1500** Erasmus+ agreements  
**2000** international students  
**1000** foreigners participating  
in short-term programmes

### Networks

- AUCSO
- Baltic University Programme
- COIMBRA Group
- European University Association
- EUNIS
- EUROPAEUM
- SAR
- The Guild
- Una Europa
- Unitown
- UTRECHT Network



## Jagiellonian University – leading research fields

**Medical sciences** (drug discovery, medical diagnostics)

**Life sciences** (chemistry, biotechnology, earth sciences)

**Technical sciences** (physics, mathematics, IT, SOLARIS synchrotron)

**Humanities and social sciences**

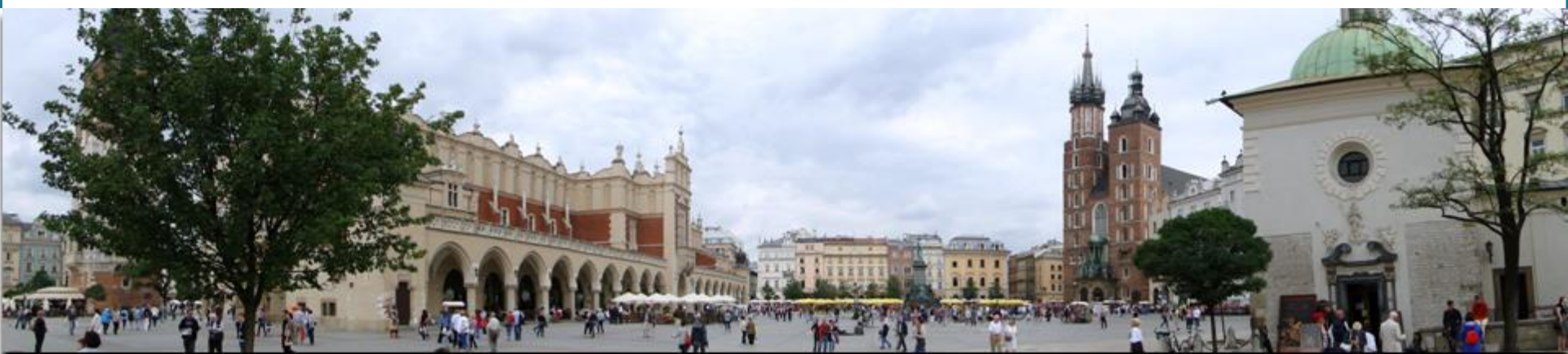




## Jagiellonian University

Situated in **Kraków** (Malopolska region):

- ca. **760 thousand** residents (**200 thousand** students)
- a dynamic research and development centre (**23 HEI**, R&D centres: ABB, Google, IBM, Motorola, Delphi)
- 1st in Poland as a place for business services sector (BPO/SSC)
- one of the **10 most attractive** cities in the world for outsourcing investments ("Top 100 Outsourcing Destinations Report 2013")
- leading tourist destination: 9.25 m. tourists, the European Capital of Culture (2000), the European City of Literature (2013)



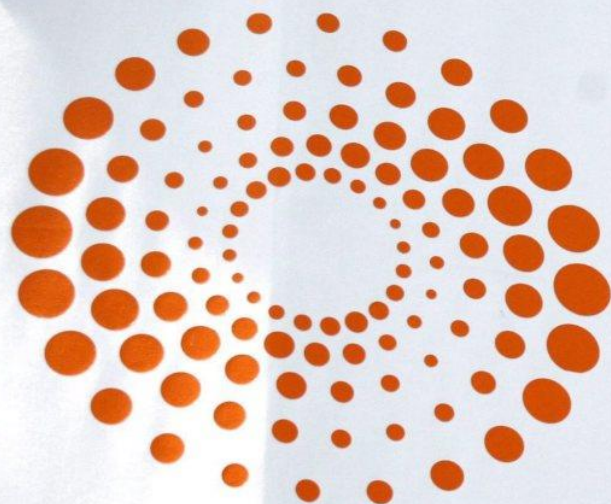


# Ecosystem of innovation





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THOMSON

REUTERS

## THOMSON REUTERS TOP 100

**Jagiellonian University** - the sole Polish and Eastern Europe university included to prestigious group of 100 most innovative European universities.

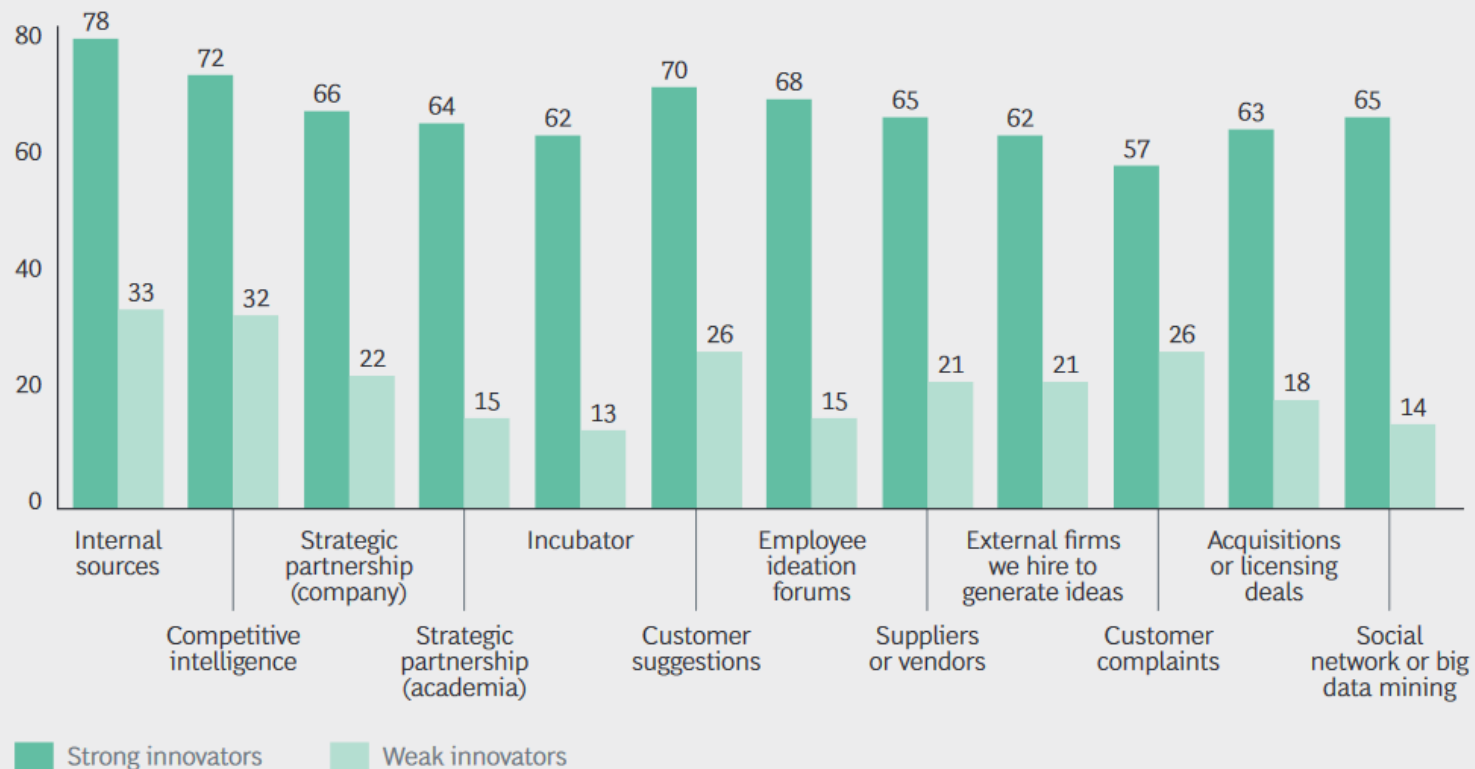


# Source of innovations in companies?

## EXHIBIT 2 | Strong Innovators Cast a Wide Net

HOW OFTEN DO NEW PROJECTS AND IDEAS FOR GROWTH GENERALLY COME FROM EACH OF THE FOLLOWING SOURCES?

% of respondents selecting "Often" and "Very often"



Source: BCG Global Innovation Survey, 2016.



To search *(and hopefully find)* for effective ways of  
developing and transmitting knowledge  
for the **public good**

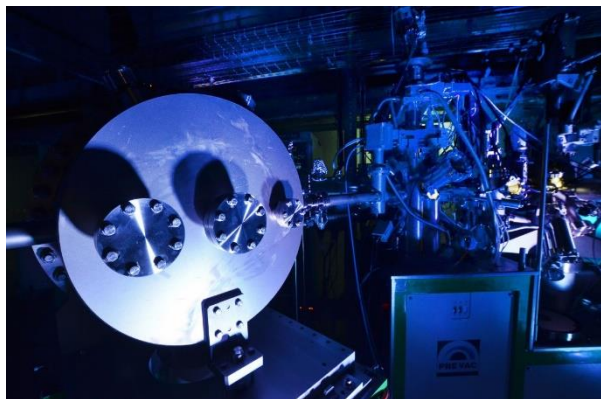


photo: Anna Wojnar



photo: Swifteye



photo: Filip Radwański



## R&D spendings by Polish companies in 2018 [bln USD]\*



CD PROJEKT

0,0418



0,0116



0,0195



0,0106





## R&D spendings in 2018 – top global companies [bln USD]\*

 **amazon** 22,6

 **Alphabet** 16,2

 **SAMSUNG** 15,3

 **Microsoft** 12,3

 11,6

 **Johnson & Johnson** 10,6

 10,0

 **Pfizer** 7,7

\* - Ranking of the 20 companies with the highest spending on research and development in 2018 ([www.statista.com](http://www.statista.com))



# There is still a lot of work to do...

## So... what we do?



photo: Swifteye



photo: Swifteye



photo: Swifteye



photo: Filip Radwański



# Contract research for business and public institutions

## Local and regional impact:

- **Centre for Evaluation and Analysis of Public Policies:** reports and evaluation for the government, NGOs, Małopolska and the City of Kraków)
- **Institute of Geography:** research and services for national parks and environmental institutions
- **Faculty of Physics, Astronomy and Applied Computer Science:** air quality monitoring installed in a few neighbouring municipalities
- **Social faculties:** supporting social activity and integration of excluded groups





## Joint projects - examples

- Joint research project with Waterworks Kraków for **more efficient water purification** (including specified pollution – e.g. medicines)
- Cooperation between Kraków and 8 universities for **disabled students – improvement of their quality of life**
- **Environmental monitoring and education** (air pollution monitoring, Jagiellonian University Apiary)



## Start-ups

- **Mar Cel Li Adv Tech** - technological start-up developing electrode material manufacturing technology as well as electrolytes designed for applications in lithium-ion batteries (Li-ion), used in the Energy Storage Systems (ESS) and in electromobility (xEV)





## Jagiellonian Centre for Innovation

- Company owned by Jagiellonian University
- Mission:
  - Management of the Life Science Technology Park (infrastructure for science-industry cooperation)
  - services for life sciences: rental of specialised laboratories, financial support for innovative companies, contract research (incl. clinical trials), educational initiatives







## Innovative „safari” – how does it work

Main topic is determined –  
2019: energy  
efficient  
construction,  
renewable energy  
sources

SME companies  
are taken to  
universities

Discussion  
between science  
and business

Cooperation –  
joint research  
project/contract  
research/expertise  
/tech transfer



photo: Herbert Aust

Free of charge  
SME just apply and come  
Organisation – Małopolska Region



## Centre for Technology Transfer CITTRU

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