

# Research environment in Timisoara

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# Actors in Timisoara's Research Ecosystem

- Academic Players (ATU Alliance)
  - West University of Timisoara
  - “Politehnica” University of Timisoara
  - “Regele Mihai I” University of Life Sciences
  - “Victor Babeş” University of Medicine and Pharmacy
- Research Institutes
  - National Institute for Research and Development in Welding and Materials Testing - ISIM Timisoara
  - National Research and Development Institute for Electrochemistry and Condensed Matter - INCEMC Timisoara
- The Romanian Academy – Timis County Branch
  - 4 areas (Chemistry Institute; *Titu Maiorescu* Social-Humanistic Institute; Sustainable Rural Development Centre; Centre for Basic and Advanced Technical Research)
- Other
  - Research departments in companies (e.g., Continental, Nokia)
  - Research centres in non-academic facilities (e.g., OncoGen – County Hospital)
  - Regional Stakeholders (e.g., West Regional Development Agency)
  - Small companies (e.g., IT technological transfer)

# The largest university in Timisoara



## Natural Sciences

Mathematics, Computer Science, Physics, Chemistry, Biology, Geography



## Social Sciences

Economics (various), Psychology, Sociology, Social Work, Educational Sciences, Political Sciences, Journalism, Communication



## Humanistic Sciences

Philology, Modern Applied Languages, Theology, History, Philosophy, Law



## Vocational Domains

Music, Theatre, Visual Arts, Physical Education, Kinetotherapy

- 75+ years of existence
- 11 faculties
- 27 academic departments
- 25 domains with Ph.D. studies
- ~ 16.000 students
- ~ 650 teaching and research staff
- Best-ranked Romanian university in the western part of RO
- +50 EU and nationally funded research projects/year
- 60% national / 30% European / 10% companies
- +500 Scopus publication/year
- 1 out of 2 publications based on international collab.
- 4 out of 10 publications in Q1 WoS Journals
- ~ 100 defended Ph.D. theses/year

# Research environment



- 1 major institute – **ICAM (Institute for Advanced Environmental Research)**
  - Approx. 8 million euros investment (~ 50% in state-of-the-art research equipment)
  - Five research departments (Geography and Environmental Science, Physics; Biology & Chemistry; Mathematics & Computer Science; Economics, Law, and Human-Environment Interaction)
  - Supporting units – (i) Centre for Technological Transfer; (ii) UVT Digital & Green Living Lab
- 3 strategic applied research areas: (i) energy/environmental research; (ii) digital (IT); (iii) health and quality of life
  - +30 research labs
  - prestigious collaboration (e.g., CERN, ESA)
  - 1 spin-off (Institute e-Austria)
  - member of the future Romanian HUB on Artificial Intelligence (POCIDIF)
  - 2 supporting units - (i) Research Support Department (DCSCU); (ii) Counseling Centre for Researchers
- Active steps for enreaching the research ecosystem
  - UNITA alliance (e.g., shared research infrastructure; research hubs; joint Ph.D. coordination)
  - Local companies (e.g., regular meetings with stakeholders; living lab, cooperation stimulants)
  - Citizens (e.g., science popularization, a digital tool to enhance citizen science projects)

# The oldest university in Timisoara

## „Politehnica” University of Timisoara

- 100+ years of existence
- 10 faculties
- 25 departments
- 25 research centers
- 13.000 students
- Over 123.000 graduates
- High employability of graduates
- 600 teaching staff
- 600 administrative and additional staff
- 200 international agreements
- 51 Honorary Professor
- Ranked 11-15 on the Romanian Meta-Ranking



Politehnica University of Timisoara has around 160 active partnerships with the industry, as most engineers working in local companies are UPT graduates

(e.g., Continental, Flex, ABB, National Instruments, Texas Instruments, SSI Schaefer, Draexlmaier, TRW, Océ Software, Linde, Nokia, IBM, Atos, Hella, Procter & Gamble, Zoppas)

# RESEARCH CONTRACTS AND PROJECTS

## RESEARCH\*

### National Research, Development and Innovation Plan

- number of contracts: 373
- value (in Euro): 12,210,068

### Third-party contracts (Private Companies)

- number of contracts: 910
- value (in Euro): 3,427,769

### International Research Projects

- number of contracts: 92
- value (in Euro): 3,985,210

## EUROPEAN STRUCTURAL FUNDS\*\*

### Structural Operational Program - Human Resources Development

- number of contracts: 24
- value (in Euro): 8,410,133

### Structural Operational Program - Economic Competitiveness Increase

- number of contracts: 6
- value (in Euro): 6,785,198

### Hungary-Romania Cross-Border Co-operation Program

- number of contracts: 6
- value (in Euro): 491,800

### Romania-Serbia Cross-border Cooperation Program

- number of contracts: 14
- value (in Euro): 1,950,248

### Regional Development

- number of contracts: 4
- value (in Euro): 7,978,170

### Interreg – Danube Transnational Programme

- number of contracts: 2
- value (in Euro): 277,540

Framework agreements ongoing with companies between 2015-2021: 1464

Third-party contracts (Private Companies) between 2015-2021

- number of contracts : 910
- value (eq. EUR) : over 3,427,769

Support provided by companies between 2017-2021

- donations in equipment (value in eq. EUR) : over 570,850
- sponsorship (value in eq. EUR) : over 263,371

\* 2015-2022 Period

\*\* 2015-2022 Period



UNIVERSITATEA  
DE MEDICINĂ ȘI FARMACIE  
„VICTOR BABEȘ“ DIN TIMIȘOARA

UMFVBT

„Victor Babeș” University of Medicine and Pharmacy, Timisoara

- 75+ years of existence
- 3 faculties (medicine, dental medicine, pharmacy)
- ~7.000 students
- ~850 teaching and research staff
- 10 advanced research centers
- 39 labs / small research facilities
- 12 ongoing national and international grants
- ~350 WoS articles/year
- Ranked 16-20 on the Romanian Meta-Ranking
- Significant research facilities available in collaboration with clinical settings



# USVT – „King Mihai I” University of Life Sciences, Timisoara

- 6 faculties
- ~ 300 faculty members
- ~ 5000 students
- ~ 150 WoS articles/year

## I. **Bioengineering**

- ✓ **Nanotechnologies**
- ✓ **Agriculture 4.0**
- ✓ **Animal breeding**
- ✓ **New and emerging technologies**

## II. **Biosecurity**

- ✓ **Renewable energy**
- ✓ **Water and waste management**
- ✓ **Soil erosion and climate change**
- ✓ **Animal and human health**
- ✓ **Food safety**
- ✓ **Geomatics and land cadastre**

- ❑ Interdisciplinary Research Platform "*Organic, Sustainable Agriculture and Food Safety*"
- ❑ "*Horia Cernescu*„ Research Laboratories
- ❑ Research Center for " Food Science,,
- ❑ Laboratory of Food and Waterborne Pathogens Detection (LFWPD)
- ❑ Invasive species monitoring unit
- ❑ Diagnosis Laboratory and Phytosanitary expertise
- ❑ Geomatics research laboratory
- ❑ Laboratory of Extraction, Isolation and Characterization of Bioactive Compounds
- ❑ ELISA Diagnostic Laboratory - Infectious Diseases
- ❑ Bacterial Infectious Diseases Laboratory
- ❑ Molecular Genetics Laboratory
- ❑ Aquaculture research laboratoy
- ❑ Research unit for fish farming in recirculating aquaculture system
- ❑ Technological platform for sturgeon farming in recirculating aquaculture system





# Technology transfer center

- ensures the transfer of research results to the economic environment
- patents
- registered trademarks

## The Agricultural Experimental Station

**The Agricultural Experimental Station has 2,507 ha of agricultural land, of which: 2,330 ha arable land; 78 ha grasslands; 64 ha haymaking fields; 24 ha vineyards; 8 ha orchards.**

The *Multidisciplinary Conference on Sustainable Development* is held each year in May, it brings together experts and researchers from over 25 countries and promotes the exchange of ideas and innovative experiences in the multidisciplinary field of life sciences.



## **Instead of conclusions.**

### **An overview on the environment opportunities and challenges**

#### Opportunities

- Increased funding opportunities  
(European – Horizon; National – PNCDI 4, PNRR, cohesion/structural funds)
- Closer connection between companies and academic sector

#### Challenges

- Increasing difficulties in attracting Human Resources (a structural issue)
- Fragmentation of resources (e.g., no formal equipment sharing, some competition)

*THANK YOU FOR YOUR ATTENTION!*