



RIGA TECHNICAL  
UNIVERSITY

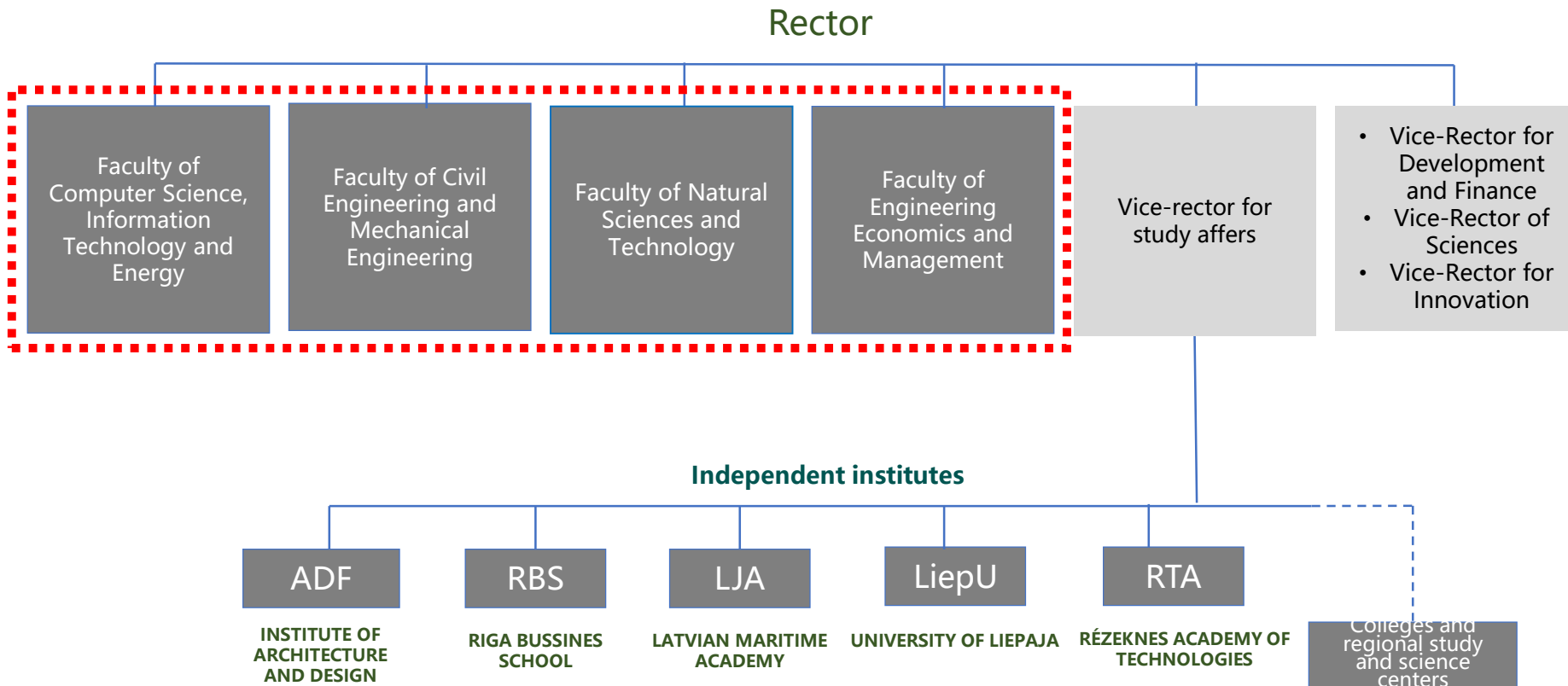
# RIGA TECHNICAL UNIVERSITY

January 8, 2025





# Structure – RTU ecosystem



# FACTS & FIGURES



## Research platforms

Environment&Energy  
Cities&Development  
ICT  
Transport  
Materials&technologies  
Security



RIGA TECHNICAL  
UNIVERSITY  
Founded in 1862



14.000 STUDENTS

5298 FOREIGN  
STUDENTS

500 PhD STUDENTS



STUDY PROGRAMS  
COMPLETELY TAUGHT IN ENGLISH

1300 ACADEMIC STAFF AND  
RESEARCHERS

RTU ENGINEERING HIGH SCHOOL

MORE THAN  
160.000  
ALUMNI

## 4 FACULTIES

## 4 Institutes:

Maritime Academy, RTU<sub>Liepāja</sub>  
Architecture&Design, Riga Business School





# Faculty of Natural Sciences and Technology – institutes



RTU  
FACULTY OF  
NATURAL SCIENCES  
AND TECHNOLOGY



Biomaterials and  
Bioengineering

Materials and Surface  
Engineering

Water Systems and  
Biotechnology

Technical Physics

Chemistry and Chemical  
Technology

Particle Physics and  
Accelerator  
Technologies



Energy Systems and  
Environment

**Biomaterials  
research**

**Polymers and composite  
materials**  
(including their physics)

**Organic chemistry**  
(broadly defined)

**Inorganic materials**  
(including their physics)

**Water  
technologies  
Biotechnology**

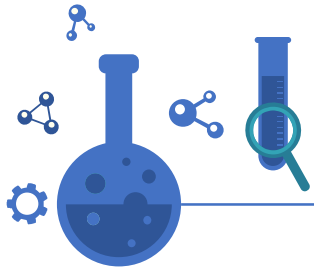
**Environmental science  
Climate technologies**

# Faculty of Natural Sciences and Technology – strengths



RTU  
FACULTY OF  
NATURAL SCIENCES  
AND TECHNOLOGY

## Research Based



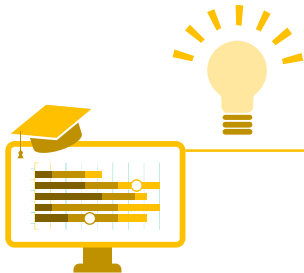
**20%** Teaching  
**80%** R&D

## Excellence Driven



**150-200** Q1+Q2  
publications annually  
**2.1** Q1+Q2 publications  
per 1 PhD FTE

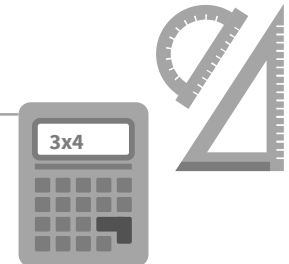
## Critical Mass



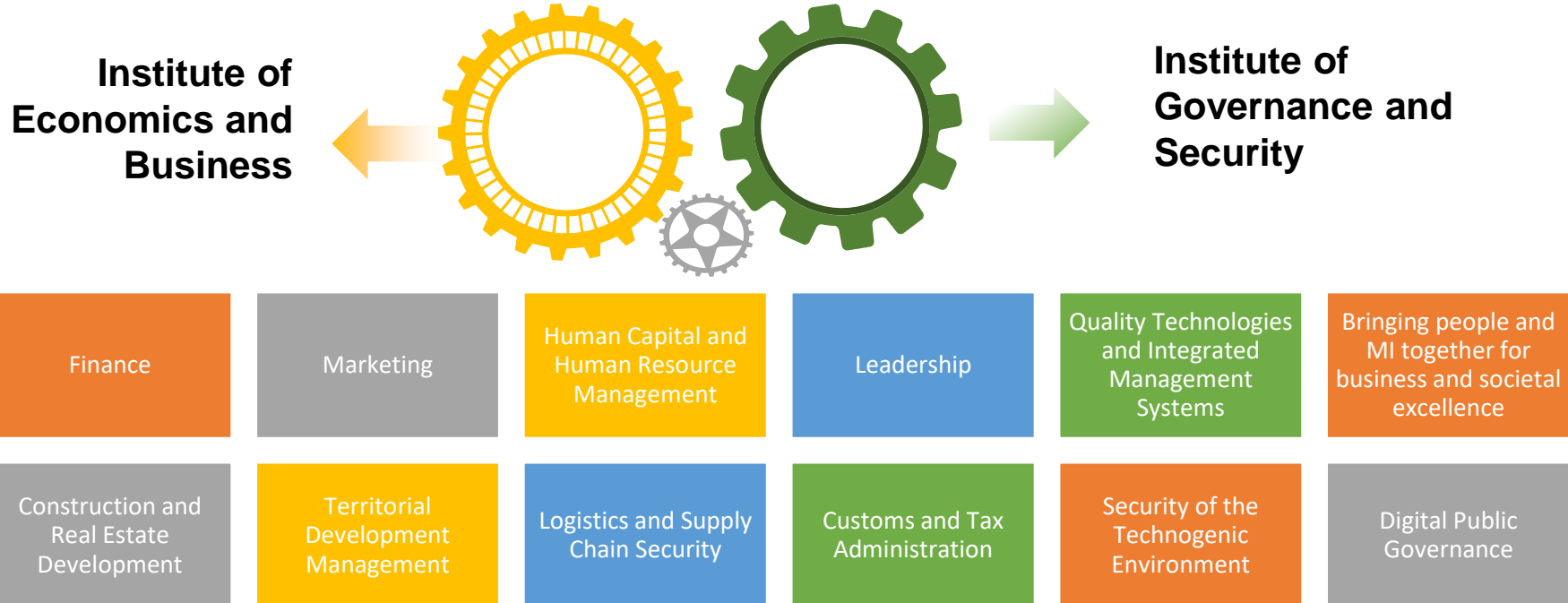
**125** PhD  
**100** PhD students  
**300** Employees

## Industry Oriented

Knowledge Transfer:  
> 10 patents annually  
Contract Research



# Faculty of Engineering Economics and Management – Research Institutes and Academic Groups

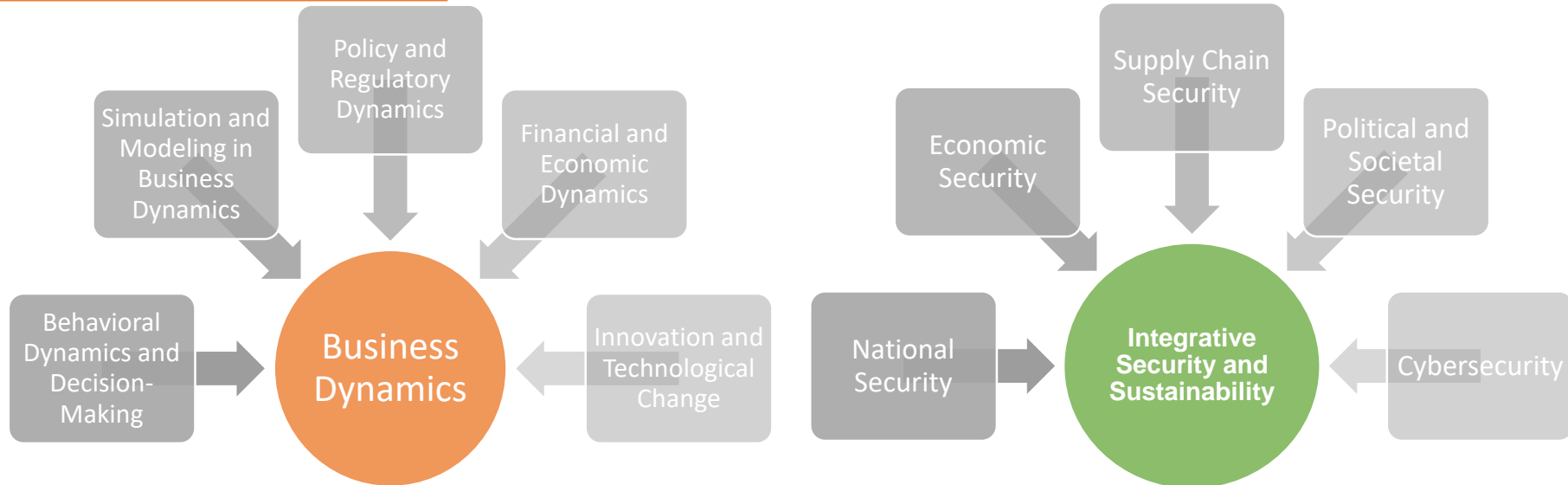


# Faculty of Engineering Economics and Management – Excellence Areas



RTU  
FACULTY OF ENGINEERING  
ECONOMICS  
AND MANAGEMENT

125 employees  
105 academic personnel  
~61% publications are Scopus Q1 & Q2  
Several international networks

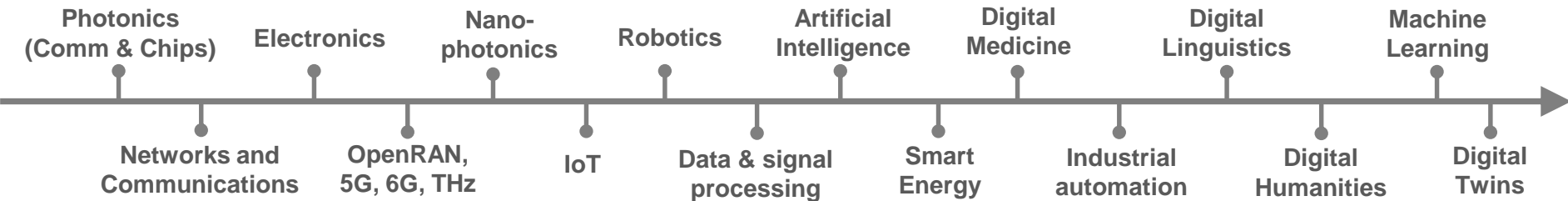




# Faculty of Computer Science, Information Technology and Energy – institutes



- Digital Humanities
- Photonics, Electronics and Telecommunications
- Applied Computer Systems
- Information Technology
- Applied Mathematics
- Industrial Electronics, Electrical Engineering and Energy



# Faculty of Computer Science, Information Technology and Energy – main figures

## SCIENCE & INDUSTRY

- FCSITE attracts > **5 MEUR** in external funding annually;
- Active in contract research and knowledge transfer (licensing, patents, know-how).
- >**120** SCOPUS Q1 and Q2 articles each year
- Several **startups** initiated: RoboticSolutions, RobotNest, RRTech, and Bdetect, etc.
- Research activities focus on both **fundamental & applied studies**, extending to industrial applications

## STUDY PROGRAMS

- **36** Bachelor's, Master's, and PhD programs
- **50%** delivered in both English and Latvian
- Study programs, such as "Computer Systems," maintained a **strong reputation among employers** for several years.

## FOREIGN STUDENTS

- Enroll **1050** from **15** countries including Germany, France, India, Kazakhstan, Turkey, etc. (increasing trend)
- Including **290** mobility (e.g., ERASMUS+ students)
- Annual growth of around **10%**
- Programs cover all levels, including PhD

## ACADEMIC STAFF

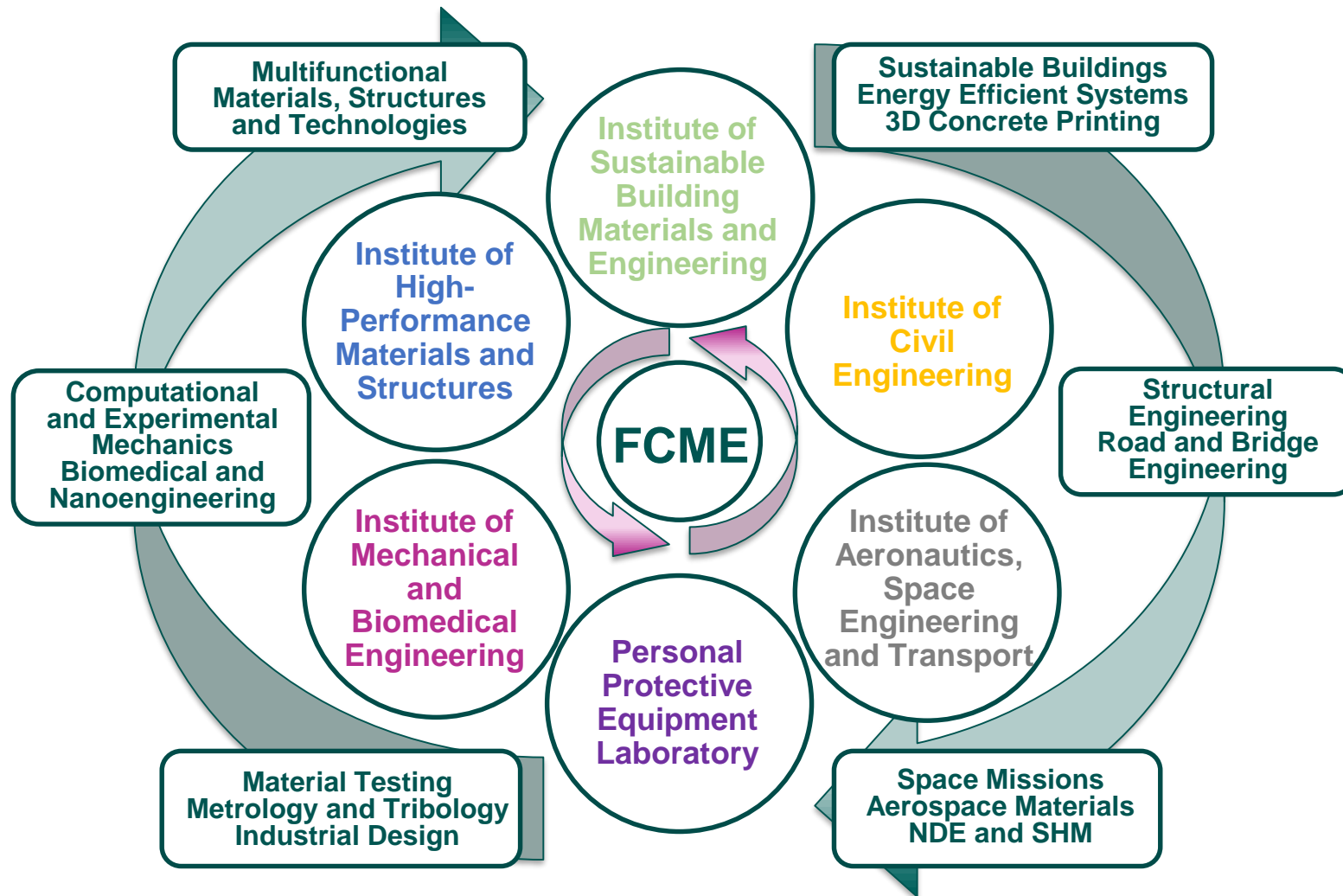
- **320** (>70% elected academic staff)
- **43** Professors and **57** Associated professors
- About **9%** of academic staff are attracted from abroad

## STUDENTS

- **4100** students (+**700** new students per year)
- The average competition for "main" programs is ~1.5-2 students per study place
- About **120** PhD (doctoral) students
- Around **530** graduates (including **15** PhD) each year



RTU  
FACULTY OF CIVIL  
AND MECHANICAL  
ENGINEERING



# Faculty of Civil and Mechanical Engineering



RTU  
FACULTY OF CIVIL  
AND MECHANICAL  
ENGINEERING

## Students



2735

Bachelor	2329
Master	319
PhD	87
International	403

## Academic Staff



118

Professors	25
Associate Professors	24
Leading Researchers	49
Researchers	39
Scientific Assistants	32

## Research Projects



134

2.6  
M€

International	33	0.9
National	42	0.9
Industrial	59	0.8

## Publications



148

Scopus/WoS	148
Intern. collab.	56
Q1/Q2	68





**RTU  
FACULTY OF CIVIL  
AND MECHANICAL  
ENGINEERING**

Mechanical engineering, metrology, tribology and nano-engineering



Road and bridge engineering, railway engineering and traffic engineering. Geographic information systems, building information modeling, Artificial Intelligence in construction



Structural engineering, construction management and maintenance of buildings



**WE DO RESEARCH**



Aerospace materials and coatings, space environment tests, analysis of new space missions with advanced software tools



Operation, maintenance and design, aeronautical testing and aerodynamic calculations, drone engineering, aerodynamic design optimization, remote control and autonomous aircraft solutions, aerodynamic design problems and solutions for hydrogen-powered aircraft



Development of innovative manufacturing process for materials, analysis of creep, durability, dynamics and vibrations, health monitoring of structures, acoustics, material systems for hydrogen storage, all types of composites including - natural fiber, thin-film, hybrid and multifunctional materials.



Building engineering systems, energy efficiency, indoor air quality, secure energy solutions



Soil mechanics, geotechnical and hydrogeological modelling, environmental geology

**FROM UNDERGROUND TO SPACE**

# We are looking for cooperation



RIGA TECHNICAL  
UNIVERSITY

## Research

Joint Research Interests

## Joint Proposals

ERASMUS Mundus  
Horizon Europe

**And more...**

## Studies

Joint program  
development (double  
degrees)

Student exchange

**Uniting  
Minds,  
Creating  
Value**