CHALLENGING CONVENTIONAL THINKING

ECIU University at Linköping university

-> eciu.org
European Consortium of Innovative Universities founded in 1997

- Tampere University, Finland
- University of Stavanger, Norway
- Linköping University, Sweden
- Aalborg University, Denmark
- Dublin City University, Ireland
- Kaunas University of Technology, Lithuania
- Hamburg University of Technology, Germany
- University of Twente, Netherlands
- Groupe INSA, France
- University of Trento, Italy
- University Autònoma de Barcelona, Spain
- University of Aveiro, Portugal
- Tecnológico de Monterrey, Mexico

Students 330,000
Academic staff 34,000
All ECIU Universities

• Are research intensive and have particular strengths in both engineering and in social sciences

• Are relatively young and share entrepreneurial values: Innovation, Social engagement and Entrepreneurship is in the DNA

• Are committed to developing new forms of teaching and learning (PBL, Challenge Based Learning, Design thinking, CDIO...)

• Are active and crucial players in their regions contributing to economic development and the creation of regional prosperity

• Work in close collaboration with industry, business, NGOs, and the public sector

• Have a good track record in innovation, technology transfer, knowledge exchange and entrepreneurship activities
ARTUR SILVA  
Vice-Rector Research  
University of Aveiro

ASTRID BIRGITTE EGGEN  
Pro-Rector Education  
University of Stavanger

AUGUSTINAS BYTAUTAS  
Member of KTU Student Union  
Student

BERTRAND RAQUET  
Director INSA Toulouse, President INSA Group  
Institut National des Sciences Appliquées

CHRISTIAN RINGLE  
President's Office International Relations  
Hamburg University of Technology

DAIRE KEOGH  
President  
Dublin City University

DANIELE FINOCCHIARO  
Chairman of the Research and Innovation Committee at Confindustria  
Stakeholder Industry

EUGENIJUS VALATKA  
Rector  
Kaunas University of Technology

ISABEL DAMASCENO  
President of CCDRC  
Stakeholder Society

JAN-INGVAR JÖNSSON  
Vice-Chancellor  
Linköping University
ECIU Bord Members

JOAQUIN GUERRA ACHEM  
Vice-President IA  
Tecnológico de Monterrey

MAGNE BARTLETT  
Member of the central board  
in the Norwegian Union of Students  
Student

MARI WALLS  
Vice-Chancellor  
Tampere University

MAURIZIO MARCHESE  
Vice-Rector International Affairs  
University of Trento

MÀRIUS MARTÍNEZ  
Vice-Rector for International Relations  
Universitat Autònoma de Barcelona

ONNO VAN VELDHUIZEN  
Mayor Enschede  
Stakeholder Society

PER MICHAEL JOHANSEN  
Rector  
Aalborg University

PETRA VORSTEHER  
Co-Founder & former Chief Alliances Officer of the company Smaato  
Stakeholder Industry

VICTOR VAN DER CHIJS  
President  
University of Twente

ÀNGELS GUITERAS MESTRES  
ABD–Asociación Bienestar y Desarrollo  
Social Entrepreneur
ECIU regular offers and activities

- Staff Mobility Program
- Researcher Mobility Fund
- Master classes
- Student mobility
- Joint minor and twin programmes
- Summer and winter schools at all levels

- Brussels office support and events
- Leadership development programme
- Expert groups
  - Innovative Teaching and Learning
  - Life-long Learning
  - Entrepreneurship and Societal Impact
  - EU policy
  - Mobility
ECIU MINOR PROGRAMMES IN MECHANICAL ENGINEERING

This programme offers you

- A fixed set of pre-approved courses of 30 ECTS
- Fully recognized Credits
- Fits in curriculum set of courses at your home institution
- Pre-established enrolment requirements
- All courses are in English
- Suitable for groups of students (four students per partner per academic year)
- ECIU Certificate after successfully passing the full course load
- An excellent study experience at a well-known and like-minded partner institution

Involved members

- University of Trento
- Kaunas University of Technology
- Tecnológico de Monterrey
- University of Stavanger
- University of Aveiro
- Linköping University
- University of Twente
CURRENT SUMMER SCHOOLS AT ECIU

Scientific Summer Schools
INSA Toulouse, France

Choose from 4 summer courses taking place for 3 weeks in June or July 2021, depending on your choice. Our ambition is to contribute to the major societal challenges of tomorrow (Energy transition, industrial renewal, digital transition, sustainable development, transport [aeronautics, trains, automotive], mobility and urban systems...), by adapted educational programs in relation with our associated Research Laboratories in the fields of Biorefining, Biochemical Engineering, Applied Mathematics or Applied Physics.

Trento Sustainable Summer School 2021 - TRES2021, Università di Trento, Italy
12-23 July 2021
TRES2021 will focus on the topic of sustainable design and management of environmental resources in Trentino. We will address key issues regarding the relationship between the territory, the cultivated landscape, food certification, the built environment and the capacity to absorb waste and wastewater due to human impacts.

Picture Credits: Università di Trentoarchive ©Giovanni Cavalli

And many more @ www.eciu.org
ECIU Events

January 28, 2021
JOIN US AT THE VERY FIRST ECIU UNIVERSITY ONLINE EXPERT EVENT ON MICRO-CREDENTIALS!

UNIVERSITY STAFF EVENT

At this event, we will present our white paper on micro-credentials, and we look forward to learning about your views on this topic. The final programme will be published here early January.

February 8, 2021
KEY QUESTIONS ON HOW TO DEFINE, DEVELOP AND PROMOTE CITIZEN SCIENCE

RESEARCHERS EVENT

At the ECIU University Citizen Science Consultation event in December 2020, over 80 participants from across the ECIU alliance connected and shared their views on the topic of citizen science.

February 11, 2021
ECIU UNIVERSITY CHALLENGES: THE LAUNCH EVENT

LEARNERS EVENT

Over 300 students have signed up for more than 30 ECIU University challenges on offer in this spring semester round. Now it’s time to bring the challenge teams together and confront the real-world questions that affect us all.
The European Universities Initiative

European Universities are transnational alliances that will become the universities of the future, revolutionising the quality and competitiveness of European higher education. In order to achieve this major step forward, the Commission is testing different cooperation models for European Universities.

The alliances

• are based upon a co-envisioned long-term strategy focussed on sustainability and excellence
• adopt a challenge-based approach according to which students, academics and external partners can cooperate in inter-disciplinary teams to tackle the biggest issues facing Europe today
• offer student-centred curricula jointly delivered across inter-university campuses, where diverse student bodies can build their own programmes and experience mobility at all levels of study
• 21st century skill set: creative thinking, inter-cultural communication, inter-professional learning, teamwork ...
Two pilot projects under the umbrella of the EU commission’s European Universities Initiative
EUROPEAN UNIVERSITIES
A key pillar of the European Education Area

More than 280 HIGHER EDUCATION INSTITUTIONS

Up to €5 million from Erasmus+
Up to €2 million from Horizon 2020 per alliance

27 MEMBER STATES + Iceland, Norway, Serbia and Turkey + United Kingdom

41 ALLIANCES
Swedish partners of the European University Initiative
Europa formerar sig

Stort fokus på EU kommissionens flaggskepps initiativ ’European Universities’ inom EEA.

- EU kommissionens budgeten för programmet 2022-2027 uppgår till 1,1 Miljarder Euro!
- Erasmus+ såväl som delar av Horizon Europe anpassas för EUI
- Nästa utlysning för de existerande nätverken 24 M€

Tre banbrytande hörnpelare som kommer att förändra landskapet:

- Ackreditering på EU-nivå (European Degree)
- Flexibelt livs-långs lärande - Micro-credentials (Mikromeritering)
- Utmaningsdrivet lärande CBL
LiU formerar sig

- Rektor i ECIU:s ledning - presidium
- Tar position som drivande av utvecklingen av ett komplementärt utbildningsystem baserat på micro-credentials (LiU:s äskande i BU, myndighetsdialog samt nytt VP uppdrag)
- Tillför resurser för en administrativ programkoordinator som stöd för LiU:s interna EUI arbete
- Utlyser kursutvecklingsmedel för deltagande i ECIU-U, med centralt medfinansierad OH
- Pedagogisk utveckling CBL - Didacticum
Societal Challenges are the backbone of our initiative and are translated into our curriculum supported by challenge-based learning pedagogies.
Challenge-based learning
ECIU Smart Regions Agenda

Focusing on SDG11
viable communities

SMART-ER: SWAFS, Horizon 2020
ECIU University: European Universities, Erasmus+

- Energy and sustainability
- Circular economy
- Transport and mobility
- Resilient communities

Cross-cutting
- Human capital, Citizens science
- Digitalisation
- Co-creation, Impact and Innovation
Industry stakeholders
Public stakeholders

- Autonomous Province of Trento, Italy
- Barcelona City Council, Spain
- Cerdanyola del Vallès City, Spain
- City of Enschede, The Netherlands
- City of Hamburg, Germany
- City of Stavanger, Norway
- City of Tampere, Finland
- Danish Ministry of Higher Education, Denmark
- Fingal County Council, Ireland
- Inter-Municipal Community of the Region of Aveiro, Portugal
- Kaunas City Region, Lithuania
- Kaunas District Municipality, Lithuania
- Municipality of Trento, Italy
- Region Östergötland, Sweden
- Linköping Municipality, Sweden
- Norrköping Municipality, Sweden
- Tampere Region, Finland
- Confindustria Trento, Italy
- Oost NL, The Netherlands
- Hub Innovazione Trentino, Italy
- PIMEC 2030, Spain
Education

Objective: to solve real-life, multi-disciplinary societal challenges

**Micro-modules**
- Support for real-life challenges
- Knowledge acquisition
- General competences
- Personal skills

**Micro-credentials**
- Proof of learning outcome following short learning experience
- Stackable and portable
- Personalised learning

**Challenges**
- External stakeholders
- Multi-disciplinary
- International environment
# Handshake procedure

## Digital inclusion for all citizens

<table>
<thead>
<tr>
<th>SDG area(s):</th>
<th>11</th>
<th><strong>Resilient communities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge provider:</td>
<td><strong>Region Östergötland, Sweden</strong></td>
<td>Public</td>
</tr>
<tr>
<td>Contact person:</td>
<td>Carina Malmgren, Innovation and Business Strategist</td>
<td></td>
</tr>
<tr>
<td>Partner University:</td>
<td><strong>Linköping University, Sweden</strong></td>
<td></td>
</tr>
<tr>
<td>CM / Facilitator:</td>
<td>Michael Peolsson; <a href="mailto:michael.peolsson@liu.se">michael.peolsson@liu.se</a></td>
<td></td>
</tr>
<tr>
<td>Suitable for challenges:</td>
<td><strong>Mini, Standard</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Eligible for modules:

<table>
<thead>
<tr>
<th>Offered by:</th>
<th>Type</th>
<th>Name</th>
<th>Code</th>
<th>Credits</th>
<th>ECIU AC</th>
</tr>
</thead>
</table>

### Innovation support:

| Innovation support: | **Innovation Hub North** |
| Contact: | Gio Fornell; gio.fornell@liu.se |

### Quality Criteria’s on CBL alignment

- Significance [low, medium, high] | **H**
- Complexity [low, medium, high] | **H**
- Content coverage [low, medium, high] | **M**
- Innovation Potential [low, medium, high] | **H**
ECIU Challenge platform

- On-line https://challenges.eciu.org
- In total 84 challenges: 11 open, 25 in progress, 49 closed
- 630 registered students, 360 applicants to spring challenges
- Learning management system http://learn.eciu.org
Challenges - Benefits for the programmes

• Collaboration with external actors

• Hands-on experience with real-life issues

• Contact with labour market → professional network

• Building meaningful professional experience
Micro-modules/challenges - requirements

• Challenge-based learning
• UN Sustainable Development Goal 11
• Multi-disciplinary
• International environment
• English
Micro-modules – LiU – H21

- 799G52 InGenious - Cross Disciplinary Project
- 721G28 Ethics of Artificial Intelligence
- 746G54 Sustainable Development in the Global Context
- 709A01 Strategic Urban and Regional Planning
- 709A02 Planning and Public Administration
- 709A03 Strategic Planning of Urban Climate Transitions
- 746A80 Critical Perspectives on Sustainable Development
- 746A61 Environmental and Resource Use Challenges
- 714G37 Swedish for Foreign Students
- 799G47 Intensive Beginner’s Course in Swedish for Exchange Students, level A1
- 701G23 Intercultural Communication in an English-speaking World
- ETE318 Elements of AI
- TNK103 Analysis of Communication and Transport Systems
- 8FG074 Sustainable development

14 micro-modules

Adopting CBL pedagogics
Micro-modules - Benefits for the programmes

• New, innovative learning method

• International and multi-disciplinary classroom

• Develop new skills

• Gate to the ECIU U opportunities for the programme students