EIT ICT Labs Education
Systematic Approach to EIT Label

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Education Director
Our Education Strategy aims at breeding and attracting top talents

EIT ICT Labs Education Strategy

Breed and attract top talent via our Master and Doctoral School

Establish our brand in entrepreneurial ICT education and use EIT Label

Expand into life-long entrepreneurial ICT education based on our Action Lines

Master School

MSc

Doctoral School

PhD
The Master School combines cross-node cutting edge technical and entrepreneurial education with strong industry collaboration.

### Unique features of the EIT ICT Labs Master School

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>First rate technical education</td>
<td>at top technical universities with a standardised business minor</td>
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<td>Strong industrial presence with guaranteed high standard industrial</td>
<td>internships in our partner companies</td>
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<tr>
<td>Flexible combination of organizational and geographical mobility</td>
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<td>Generating entrepreneurial students with a broad European perspective</td>
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We build on First Rate Technical Majors

Internet Technology & Architecture
Human Computer Interaction Design
Security & Privacy
Embedded Systems
Service Design & Engineering
Digital Media Technology
Distributed Systems and Services

at Top European Technical Universities

UNIVERSITY OF TWENTE.

TU/e Technische Universität Eindhoven University of Technology
KTH Royal Institute of Technology
TU Berlin
Univ. Nice Sophia Antipolis
UPMC University Paris-Saclay
Université Paris-Sud 11
Universität der Saarlandes
University of Turku
The EIT ICTLabs Master School

A 30 ECTS I&E minor + a 90 ECTS Technical major

Technical Specialization with thematic relevance

Thematically oriented and industry based thesis work

Internship

Centrally organized Summer Program with I&E and thematic focus

Technical Common Base

Basic I&E Course

Mentorship program

Business Development Lab - Winter school

Electives

Kicoff

I&E Thesis

Second year in University Y at Node B

Exit point specialization + thesis

First year in University X at Node A

Entry point

Mobility phase
Industrial mentorship and Internships programs with EIT ICT Labs Industrial and Institute Partners

Utilizing EIT ICT Labs Business activities in the Innovation and Entrepreneurship curriculum

Adding interdisciplinary inter node teambuilding activities such as a kickoff, summer school and winter school
Providing geographical mobility also utilizing the EIT ICT Labs network of Co-location centres

- First year at one university (Entry point) at one node
- Second year at another university (Exit point) at another node
- Getting Double Degrees complemented by an EIT certificate
Why to integrate I&E hands-on education to PhD studies

- Technology expertise is less useful in isolation
- It is vital for a PhD to understand the business ecosystem and to be able to function with it entrepreneurially
- Knowledge-intensive business (small and large) needs close interaction between business, technology, and content
- Modern global networked business means that all actors need business competence
- Most innovations to-day are created with customers
- Even those PhDs that continue their academic degree are exposed to businesses
Overall goals and characteristics

- Produce doctors with an Innovation and Entrepreneurial (I&E) mind-set
- Don’t perturb the scientific quality of PhD,
- Don’t alter the relationship between doctoral candidates and their supervisors
- Don’t create a new EIT labelled degree, provide a certificate for the EIT ICT Labs doctoral school on Innovation
Doctoral School strategy

- Influence existing students and current doctoral programs through integrated PhD and I&E study program
- Weaving I&E content to PhD program: PhD + MBA like program structure
- Creating more system and industrial oriented environment with Doctoral Training Centers
  - Students in various topics are integrated together with dynamic supervision content
  - Active participation of industry and placement of students to companies

Case study: DTC in Helsinki node
Innovation & Entrepreneurship Education

Two phases:

- **Business Competence**
  - Raising I&E awareness
  - Opportunity Recognition
  - Business Modelling and Development
  - Growth and Harvest

- **Business Development Experience**
  - Internship within industry
  - Or pre-incubation stay
  - Or starting-up a new venture
Components for the I&E education

<table>
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<tr>
<th>Component</th>
<th>ECTS</th>
<th>Duration</th>
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<tr>
<td>Raising I&amp;E awareness</td>
<td>0</td>
<td>2 days</td>
</tr>
<tr>
<td>Opportunity Recognition</td>
<td>6</td>
<td>1 week</td>
</tr>
<tr>
<td>Business Modelling and Development</td>
<td>15</td>
<td>10-20 weeks</td>
</tr>
<tr>
<td>Growth and Harvest</td>
<td>9</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Business Development Experience</td>
<td>30</td>
<td>3 months</td>
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PhD start → OR → BM → GH → BDE → Defence
Doctoral Training Centres

- From professor centric to student and problem centric learning
- Common thematic or technology
- Critical mass (around 20 to 30 PhD students)
- Network of involved companies
- Commitment of researchers
- I&E part of the training and integrated to MBA like program
- Common European wide selection
Main characteristics

- Industry-focused scientific challenges around a common thematic
- Critical mass of doctoral students
- Half of students’ time in industry, half in DTC
- Well identified premises
- Accumulation of open knowledge
- Commitment of permanent researchers
- Distributed supervision of doctoral students