



Saxion | University of Applied Sciences  
School of Business, Building & Technology  
Netherlands



ISEP | Instituto Superior de Engenharia do Porto  
Departamento de Mecânica  
Portugal



Jan Amos Komenski University of Applied Sciences  
Poland



Szechenyi Istvan University  
Department of Logistics and Forwarding  
Hungary



Politécnico de Leiria  
Portugal



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## **Blended Intensive Programme (BIP)**

Innovation for Industrial  
Sustainability in an international  
context

## Colophon

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Author Bridget de Leijer and Mark Schrooten

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## 1 Basic Blended Intensive Programme information

Blended Intensive Program (BIP) name:

- **Innovation for Industrial Sustainability in an international context**

Organising institution:

- **Saxion | University of Applied Sciences | School of Business, Building & Technology**

Names of the organisers:

- **Bridget de Leijer, Mark Schrooten and Sabine Overgoor**

BIP registration number:

- **NEED INFO**

Objectives and Description

- The Blended Intensive Programme (BIP) on Innovation for Industrial Sustainability is a collaboration between Instituto Superior de Engenharia do Porto, Saxion University of Applied Sciences, Jan Amos Komenski University of Applied Sciences, and Széchenyi István University. It combines virtual preparation with seven online lectures and a physical mobility week, where students work on actual sustainability challenges for host companies. The program promotes teamwork, practical application, and intercultural exchange, helping students develop key skills in sustainability and innovation. The final outcomes include presentations to the host company, followed by feedback to refine reports.

Methods and outcomes

- The Blended Intensive Programme (BIP) involves a minimum of 85 hours of work, including preparation for lectures, online collaboration, exam study, and group work on sustainability challenges. Grading is split into a multiple-choice test (50%) and a business concept presentation with a final report (50%), both requiring a minimum grade of 10. The BIP promotes innovative learning through real-world business challenges, helping students develop soft skills, practical training, and communication abilities. It also encourages interdisciplinary teamwork, cultural exchange, and enhances mobility and collaboration within the Erasmus+ Programme, benefiting both students and host companies.

Field of Education (=ISCED-code)

- Minimum ISCED Level 6

Physical start date:

- May 12, 2025

Physical end date

- May 16, 2025

Virtual Component Timing (before, during, after)

- Before: **Week 13 till week 20:**
  - Prior to the presential week, there are seven online sessions where students are taught theory and models. Additionally, there are seven online sessions dedicated to collaboration on the final product, addressing the client's/company's problem. The theoretical knowledge will be assessed through a multiple-choice exam, and the outcome of the final assignment will be partially evaluated by the client/company. For specific details, please refer to one of the following chapters.
- During: **Week 20: May 12 until My 16, 2025**
  - During the presential week, there will be opportunities to communicate with the company via Teams at specific times
- After: **Week 21 till week 24:**

- After the presential week, there will be an additional online session where students present the final version of their work, incorporating the latest feedback, and discuss the definitive results with all students, lecturers, and the company.

Virtual Component Description

- There are seven online lessons where lecturers will teach theory and models, which will be concluded with a multiple-choice test. Additionally, there are eight sessions where students will collaborate on the assignment provided by a company. The company will ultimately assess and determine which group of students has offered the best solution to the presented problem.

City of Venue:

- **Enschede and Deventer, The Netherlands**

Main Teaching/Training Language

- **During joint sessions, the language will always be English**

Number of ECTS Credits Awarded

- **3 ECTS**

Number of HEIs in the Partnership

- **The total number of Higher Education Institutions (HEIs) that are part of the collaborative partnership is four**

Names partners (mention their OID or Erasmuscode)

- Instituto Superior de Engenharia do Porto (Department of Mechanical – Industrial Engineering), Porto, Portugal, **E10208246**.
- Jan Amos Komenski University of Applied Sciences, Leszno, Poland, **PL LESZNO01**.
- Szechenyi Istvan University (Audi Hungaria Faculty of Automotive Engineering, Department of Logistics and Forwarding), Győr, Hungary, **HU GYOR01**.
- Politecnico de Leiria, Leiria, Portugal, **P LEIRIA01**
- Saxion, University of Applied Sciences, School of Business, Building & Technology, Enschede, Netherlands, **NL ENSCHEDE03**.

## 2 What is a Blended Intensive Programme

A Blended Intensive Programme (BIP), as defined by the European Union, is an innovative teaching and learning format under the Erasmus+ program. It combines short-term physical mobility with a virtual component, promoting collaborative and cross-disciplinary education among higher education institutions across Europe. The program typically includes an on-site component of 5-30 days at a host institution, complemented by online activities before, during, or after the mobility period.

BIPs are designed to foster inclusive and flexible learning opportunities, enabling students and staff to collaborate on projects, courses, or research that address specific academic or societal challenges. They encourage international cooperation, cultural exchange, and the development of key digital and intercultural skills. Participation is open to diverse learners, including those who may face barriers to long-term mobility. Through BIPs, the EU aims to enhance the quality of education, foster innovation, and build a more interconnected European Education Area.

## 3 Description of the Blended Intensive Programme

The Blended Intensive Programme (BIP) on Innovation for Industrial Sustainability in an international context is an expansion of an existing annual student practical exchange activity, which has been developed over the past ten years by two of the partners in this BIP: Instituto

Superior de Engenharia do Porto (ISEP), Polytechnic of Porto and Saxion University of Applied Sciences. For the upcoming BIP, Jan Amos Komenski University of Applied Sciences, Polytecnico de Leira and Széchenyi István University will also join the collaboration. The partnership between Instituto Superior de Engenharia do Porto (ISEP), Polytechnic of Porto, and Saxion University of Applied Sciences has been in place for over a decade.

All participating students will be divided into multidisciplinary groups based on their respective study programs and interests. The program starts with a virtual component, which serves two main purposes: first, to prepare the students for the work for the host company, and second, to equip the students with the necessary knowledge and competences to address the company's assignment. The virtual component includes seven online lectures, delivered by experts from participating institutions, focusing on subjects directly related to the host company's assignment. The overarching goal is to help the host company in its transition towards more sustainable business practices.

After the virtual mobility component, students will attend a physical mobility week, where students from Instituto Superior de Engenharia do Porto, Jan Amos Komenski University of Applied Sciences, Szechenyi Istvan University, Polytecnico de Leira and Saxion, University of Applied Sciences, Enschede, Netherlands will work on the practical implementation of their assignment for the host company. The final day of the physical mobility period will involve a presentation to the host company, where participants will present their findings and analyses. This will be followed by a Q&A session, providing students with valuable feedback for preparing their final written report.

#### **4 Objectives of the Blended Intensive Programme**

##### **Virtual Preparation:**

- Provide students with the knowledge and competencies needed to complete the assignment given by the host company through seven online lectures.
- Equip students with the insights necessary to understand and address the sustainability challenges faced by the host company.

##### **Collaboration and Multidisciplinary Teams:**

- Organize students into multidisciplinary groups, ensuring diverse perspectives in solving the assignment.

##### **Physical Mobility and Practical Application:**

- Allow students to apply their learning in a real-world setting during the physical mobility week at Saxion University of applied Science in Enschede, the Netherlands, working on the sustainability challenge provided by the host company.

##### **Final Presentation and Feedback:**

- Present their findings to the host company during the final day of the mobility period, followed by a Q&A session that provides feedback to refine their final written report.

This BIP offers students an enriching international experience while contributing to the sustainability goals of the participating companies.

## 5 Methods and outcomes

### Workload: (minimum of 85 hours)

- 7-10.5 hours of preparation for the lectures
- 8-12 hours of online collaboration
- 7 hours of study for the exam
- 1 hour for asking questions to the company
- 2 hours for the final pitch presentation and report assessment of the project
- 30 hours of participation in real mobility activities (presential week)
- 30 hours of group work, including communication, self-study of materials, preparation of report, and final report.

### Grading:

The grading system is determined by two components:

- Multiple Choice Test – Contributes 50% of the grade, with a minimum passing score of 10 (on a 0-20 scale), totalling 50 points. This is an individual assessment.
- Business Concept Presentation and Final Report – Also accounts for 50% of the grade, requiring a minimum grade of 10 (on a 0-20 scale), totalling 50 points. This is a group assignment.

### Expected outcomes:

#### **Promotion of Innovative Pedagogical Learning:**

- The BIP fosters innovative learning methods by focusing on real business challenges. Each team will work on developing a concept to improve sustainability in business processes within the host company or introduce new sustainable products or services. This hands-on, co-creation approach ensures practical training based on the analysis of actual business models.

#### **Development of Soft Skills and Transferable Competencies:**

- Students will enhance their soft skills, with particular emphasis on teamwork in an international environment and self-presentation abilities. The collaborative nature of the program allows students to strengthen their communication, problem-solving, and interpersonal skills, which are critical in today's globalized job market.

#### **Practical Training and Problem-Solving:**

- Students will engage in practical training by analyzing real business models and creating concepts that aim to improve business processes or introduce new sustainable products/services within the host company. This fosters a deeper understanding of the challenges and opportunities in business innovation.

#### **Improvement of Communication Skills and Language Proficiency:**

- The BIP will help improve communication skills and language proficiency among both students and lecturers. As the program is conducted in English and involves international collaboration, participants will gain valuable experience in cross-cultural communication and enhance their ability to work in global teams.

#### **Building Interdisciplinary Work Skills:**

- The program encourages interdisciplinary collaboration by forming teams with students from diverse academic backgrounds. This approach maximizes the quality and impact of the outcomes, as students will bring different perspectives and knowledge to the task at hand, further enriching the problem-solving process.

**Promotion of Student Mobility:**

- The BIP actively promotes student mobility within the Erasmus+ Programme. By participating in this international program, students gain valuable experience in working and studying abroad, broadening their academic and cultural horizons.

**Fostering Cultural Exchange and Understanding:**

- The BIP serves as a platform for cultural exchange, allowing students to better understand and appreciate the cultural dynamics that influence the working and business environments across different countries. This experience helps students become more culturally aware and adaptable in the global workplace.

**For the Host Company:**

- The host company will benefit from fresh, innovative ideas generated by the students. Additionally, it offers the opportunity to connect with exceptional participants during the Business Acceleration Week, allowing the company to tap into new perspectives and potentially discover solutions that can help them advance their sustainability goals.

These outcomes ensure that students gain valuable practical experience, soft skills, and a deeper understanding of sustainability challenges, while also benefiting the host companies with innovative ideas and solutions.

## 6 Programme

Before presential week

**Online Sessions on TEAMS:**

The virtual component will consist of seven online meetings/lecturers and a closing meeting.

The content of the lessons will be tested with an exam in Enschede.

- Week 12: Kick-Off meeting: Tuesday March 18 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Introduction + information about the project and the company (Everyone)
- Week 13: Meeting 2: Tuesday March 25 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Sustainability and circular economy (Saxion)
- Week 14: Meeting 3: Tuesday April 1 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Designing products for sustainability (vacancy)
- Week 15: Meeting 4: Tuesday April 8 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Designing processes for sustainability (vacancy)
- Week 16: Meeting 5: Tuesday April 15 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Low energy districts (vacancy)
- Week 17: Final meeting: Tuesday April 22 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Sustainability and company strategy and MCDA methods (ISEP)
- Week 18: No scheduled meeting
  - No Meetings
- Week 19: Meeting 6: Tuesday May 6 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Sustainability and governmental (EU) regulations to CO2 neutral (Saxion)



Besides these lectures, a weekly meeting is scheduled for the students to work together online on the company challenge based on the divergent/convergent design thinking methodology. This meeting will be scheduled weekly at 7.00 p.m. (CET) and last for one hour.

- Week 12: Collaboration meeting 1: Thursday March 20 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Ice-breaking activity and introduction of the company and the project (to understand it) – Project Presentation by Bosch (Everyone)
- Week 13: Collaboration meeting 2: Thursday March 27 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - To frame the challenge (mind map), and discuss about data collection methodology (ISEP?? and Saxion).
- Week 14: Collaboration meeting 3: Thursday April 3 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Discussion about how to collect the data (primary and secondary), including literature review (Saxion)
- Week 15: Collaboration meeting 4: Thursday April 10 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Discussion and development of a PESTEL analysis (?? and Saxion)
- Week 16: Collaboration meeting 5: Thursday April 17 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Developing a value stream map/empathy map of the company processes related to the challenge (???)
- Week 17: Collaboration meeting 6: Thursday April 24 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Do “How-might-we” solve the challenge analysis (list of possible options to be ranked) and define actions and select the most promising sustainable solutions and develop the final report (???)
- Week 18: No scheduled meeting
  -
- Week 19: Collaboration meeting 7: Thursday May 8 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Refining and tuning the selected solution and its validation (???)

**Presential week – May 12 – May 16 (week 20)**

**Monday May 12, 2025**

- 09:00 - Official opening in the university with ice-breaking (introductory) activity
- 10:00 - Lecture “Welcome to Enschede/Deventer and the Netherlands”
- 11:00 - Lunch break
- 12:15 - Departure for a site visit and Lab site visit at the host company
- 14:00 - Presentation of the company and site visit
- 16:30 - Questions and answers
- 17:00 - Departure from the company
- 19:00 - Back in Enschede end of day

**Tuesday May 13, 2025**

- 09:00 - Tour of the university to get to know your way around
- 11:00 - Group work
- 13:00 - Lunch break
- 14:00 - Individual EXAM
- 15:00 - Group work
- 18:00 - Global Village and Start of teambuilding evening/activity. Presentation of the home country by Hungarian, Portuguese Polish and Dutch students

**Wednesday - Social day May 14, 2025**

- 09.00 – Meet-up at entrance of Saxion
- 10.30 - Traveling
- 11.00 – Giethoorn boat tour
- 14.00 - Traveling
- 16.30 - Walking city tour and drinks
- 19.00 - Dinner
- 21:00 - End of the day

**Thursday May 15, 2025**

- 09:00 - Online question session with the host company
- 10:00 - Group work
- 13:00 - Lunch break
- 14:00 - Lecture provided by one of the experts in Industrial Sustainability
- 15:00 - Group work
- 17:00 - End of the day

**Friday May 15, 2025**

- 09:00 - Preparation of the intermediate results and a short pitch
- 10:30 - Intermediate presentations of results for the host company
- 13:00 - Lunch break
- 14:00 - Intermediate presentations of results for the host company
- 15:30 - Closing of the presential week with certificates

After presential week

- Week 22: Final meeting 8: Tuesday May 27 (7:00 p.m. (Central European Time), (6:00 p.m. Portugal Time))
  - Final Pich presentation