



Title: European Hackathon, Towards sustainable mobilities

Type of participants (learners): students (Master 1 & 2 levels) – From Université Gustave Eiffel and EU Partner Universities

Priorities addressed: Environment and fight against climate change

Objectives and description:

Objectives

The ambition of the training programme is to mobilise students from all over Europe to contribute, via a hackathon, to issues on evolution of mobilities and related needs, which is the topic addressed by the Université Gustave Eiffel within its partnership with AFIT France (French Organisation for Investments in Transportation and Infrastructure).

The Hackathon is dedicated to twenty to forty master 1 and 2 students from the university and its European partners and take advantage from their different learning backgrounds. The partners are : TH Köln (DE), LAUREA (FI), University of Zilina (SK), ISCTE (PT), UniBo (IT), PoliMi (IT), University of Cantemir (RO), University Tomas Bata (CZ), University of Huelva (SP), Avans university (NL), IuaV (IT)

The duration of the programme is of 5 days of presential learning from March 22 to March 26 (+ an equivalent of 2 days of distance learning before that). The main objectives for the students are:

- To address sustainable mobility issues in an inter-disciplinary way within working groups mixing groups with different backgrounds;
- To interact and cooperate in English, discuss ideas and confront them to different territorial contexts;
- To improve their knowledge through insights from dedicated experts and mentors;
- To propose and defend innovative projects resulting from the Hackathon week in front of an international jury. Each project is expected to be user centric, sustainable, prototype oriented, viable from an economic point of view.

Description

The programme is organised in 3 stages

Stage 1. Mobilisation of students (from October 17 to December 15)

Target: 30 students appointed by their home university

The call for participation will be open in October among the partner universities. The prerequisites for participation are to be a master student and show a strong interest and motivation to participate. The organisers will define the working groups so to ensure the diversity of backgrounds (e.g. groups with students from different countries, and mixing backgrounds of disciplines).

Stage 2. Active preparation of the Hackathon week (from January 20 to March 9) at EIVP (rue Rébeval, Paris 19e)

This stage is a distance learning programme with a double two focus: enhance the knowledge by attending keynote lessons from experts and generate ideas to address the sustainable mobility issues.

During a first 3 hours webinar (**February 3 10:00-13:00 CET**), after a presentation of the objectives and methods and expectation, two keynote lessons will be provided, one with a science of engineering approach, one with a social science approach.

A second 3 hours webinar (**March 9 10:00-13:00 CET**) is dedicated to the presentation of first ideas and gets first feedbacks from the mentors.

Between the two webinars, the working groups are expected to work on first ideation on their own. They will be coached during this process with at least two one-hour meetings with their coach.

Stage 3. Hackathon week (March 22-March 26)

The students travel on March 22 (Morning) and March 26 (afternoon)

This week, organised in the premises of the university in the heart Paris will be mainly dedicated to mature their innovative projects with following steps:

- Day 1: from ideation to a value proposition
- Day 2: from value proposition to a first approach of a sustainable business model
- Day 3: crash-test and refining of the projects
- Day 4: prepare the content and presentation of the pitch, rehearsals
- Day 5: last rehearsals and presentation to the jury.

During the 5 days, students will be provided with tools and methodological advice to guide their work. Mentors will attend some sessions to provide their expertise and feedback.

Detailed organisation of the Hackathon week:

Fr March 22:

AM: Arrival of students, welcome at 12:00 PM and launch



PM and evening: Teamwork

Sa March 23:

AM: Team work

PM: Team work and discussions with mentors

Evening: Mingeling event with experts

Su March 24

AM: Team work

PM: field visit of Paris

Mo March 25

AM: teamwork

PM and evening: rehearsals

Tu March 26

AM: last rehearsals + final presentation

PM: cocktail - Official closure and departures

The learning team:

Experts: these professors are senior researchers and provide knowledge during the lessons in mobility issues

Mentors: provide feedback and advice during Stage 2 and 3 on the feasibility (technological and economic point of views).

The mentors mobilised have expertise on mobility and transportation issues and/or have an industry or entrepreneur background.

Student Coaches:

- Organisers: they ensure the logistics before and during the venue of the students (traveling, hosting, catering, etc.);
- Learning coach: provides students with tools and methods to reach the expectations

Methods and outcomes:

Methods

The main learning method is **an active method of problem solving**. Students are invited to be pro-active within their dedicated team, to organise in an effective way, to do their research and to appropriate the feedback from the experts and mentors.

The heart of the programme is a presential hackathon. The preparation stage (2) is distance learning.

Students will be provided lessons from expert professors to get an insight in the current sustainable mobility issues. To generate their first ideas, they will be provided dedicated tools and methodology inspired from innovation management and design thinking methods.

During stage 3, working group sessions which represent the main part of the programme will alternate with short methodological sessions (presentation of tools) inspired from Osterwalders methods on business models canvas and discussion with mentors who will provide feedback and advice. The preparation of the presentations will be guided by the rules of pitches with a focus on problem/solution/how to make it happen approach. As mentioned before, each project is expected to be user centric, sustainable, prototype oriented, viable from an economic point of view.

Outcomes

The intended learning outcomes are to enhance capacities on:

- Designing an original/innovative project;
- Positioning and treating the subject in its complexity, including all the determinants of mobility;
- Questioning the deployment of the recommendations / solutions proposed (appropriation by the actors; existing sector; existing skills);
- Working in a new team with students from different backgrounds
- Delivering a relevant presentation with good elocution

Field of education: 1041 Transport services, 0413 Business and administration

Level of study: Master

Physical start date: 22/3/2024 **Physical end date:** 26/3/2024

Virtual component timing: from Feb 2 & March 9 for on-line sessions, group work in between

Virtual component duration: 2 days

Virtual component description: see description of stage 1.

Country of venue: France

City of venue: Paris, premises of the Université Gustave at the EIVP



Main teaching/Training language: English
Number of ECTS Awarded: 3

NB: student Erasmus + grant will be used for

- local transportation during the 5 days (including from airport to City center)
- accommodation

External contributions required:

Experts on line (1st Webinar February 3rd 10_13:00 CET): engineering / social sciences on sustainable mobilities

Mentors (2nd webinar March 9 10-13:00; March 23 afternoon and evening in Paris + rehearsals): entrepreneurs, technical expertise on sustainable mobility, academics)

Financial scheme for mentors to be defined.

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