



Aims and goals

The project aims at:

- improving the quality of education in university STEM (Science, Technology, Engineering and Mathematics) faculties.
- promoting Continuous Professional Development (CPD) at the EU universities;
- developing a sustainable cooperation between people who organize Technological Pedagogical Content Knowledge (TPACK) oriented CPD activities;
- creating a community of CPD Ambassadors, namely people actively involved in sharing their knowledge and experience in STEM CPD at European universities.

2020
September
Start of Project

2021 February -
Ljubljana
Workshop: "How to
design a MOOC"

2022 October -
Naples
Second Summer
School

2023 August
End of Project

2020 November
– on-line
Kick-Off meeting

2021 October -
Krakow/on-line
First Summer School

2023 June -
Ljubljana
Final meeting

What are we doing and why?

Nobody is born to be a teacher. Development of TPACK competences is necessary to become a good lecturer. How to encourage lecturers to find a balance between teaching and research and how to help them to develop teaching competences and to find new educational approaches?

WHAT is needed?

- A roadmap of STEM CPD: define which competences, which attitudes, which CPD activities

HOW to approach it?

- STEM-CPD on the CPD-Ambassador principle framework

HOW to support CPD-Ambassadors?

- open online modules, the μ MOOCs
- Summer Schools with the aim of training future CPD-Ambassadors
- exchange User Cases



μ MOOCs



μ MOOC is an open online course in which a topic is presented in the most condensed form possible (2-3 hours of independent work).

For each μ MOOC, the 1–3 learning outcomes (ILOs) that describe what participants should be able to do at the end of the course have been defined. Participants receive a certificate for successfully completing a μ MOOC, but can also be rewarded with microcredits, which they then combine.

μ MOOC is composed of different activities: text documents, multimedia documents (videos, photos, PowerPoint presentations, Google Docs, H5P), forms, quizzes and assignments (including peer-review assessment).

Some of the topics already developed in μ MOOC include continuous online assessment, eliciting misconceptions, communications between students and academics, peer- assessment (<https://ms.ectnmocs.eu/>).

PARTNERS

European Chemistry Thematic Network (ECTN) - Sanjiv Prashar
University of Amsterdam - Ștefania Grecea, Nataša Brouwer
University of Oulu - Matti Niemelä
University of Naples Federico II - Vincenzo Russo, Oreste Tarallo
University of Ljubljana - Krištof Kranjc, Črtomir Podlipnik
Jagiellonian University in Krakow – coordinator - Iwona Maciejowska, Aleksandra Lis



Summer Schools



The participants of Summer Schools are university lecturers who will become CPD-Ambassadors and return to their home universities to organize STEM-CPD activities among their peers. During Summer Schools participants coming from different countries share their expertise in the field in an international context. The format of the summer schools enable an autocatalytic cascade process, where the learners of today will become teachers of tomorrow promoting CPD in teaching. Teaching and learning materials include examples of **user cases** (describing specific educational challenges related to the local context) and the open online modules (μ MOOCs). CPD-Ambassadors bring a change in their local organization using different scenarios learned at the Summer Schools which lead to both the improvement of the teaching skills of the local teaching staff and to the improvement of the quality of the Bachelor and Master degree courses at their institution.



First Summer School in Krakow



Second Summer School in Naples

University of Naples Federico II Local Team: Martino Di Serio, Silvia Galano, Alessio Petrone, Vincenzo Russo, Oreste Tarallo, Riccardo Tesser, Italo Testa