Erasmus+ Cooperation Partnerships: The Impact of STEM Projects

Moderated by Martin Gradl (OeAD) and Veronika Kulaga (OeAD)

Today's Workshop Agenda

Definition & Objectives

Project Spotlight Session

Project insights from **Gabriele Permoser**, University of Applied Sciences St. Pölten, Austria

STEM Project Design Challenge

Group activity using Erasmus+ KA220 project logic: **Create and pitch a mini project idea**

Wrap-Up & Networking

KA220 Partnerships — Driving Innovation and Skills in Higher Education

Core Objectives

- Improve quality and innovation
- Build institutional and staff capacities
- Address shared challenges
- Foster long-term transformation

Horizontal Priorities

- Inclusion & diversity
- Digital transformation
- Environment & climate action
- Civic engagement & Democracy

HE-Focus

- Interconnected systems
- Innovative teaching
- STE(A)M & women in STEM
- Excellence & green-digital skills

…and more

KA220 Cooperation Partnerships turn EU priorities into collaborative innovation and lasting impact!

For full details, see the Erasmus+ Programme Guide

Why Cooperation Partnerships? Why now? Why CEEDUCON?

STEM KA220-HED projects and Europe's skills development agenda

Erasmus+ Cooperation Partnerships support the *European Skills Agenda* through cooperation and innovation.

STEM partnerships foster digital and green skills essential for *Europe's competitiveness*.

They contribute directly to key EU strategies: **Green Deal, Digital Education Action Plan, and the Union of Skills.**

These projects can bridge **higher education, business, and research**, translating policy into practical skills development.

CEEDUCON goals – where STEM fits

CEEDUCON promotes *smart and sustainable international cooperation* in higher education.

CEEDUCON provides a platform to exchange **impact-driven practices** and shape *future learning models* through digitalization and research.

STEM projects exemplify this by connecting **innovation, technology, and global collaboration**, strengthening **capacity building** and **skills ecosystems** across European universities.

Question for you ☺

Join at menti.com with code 6868 4100

Which STEM skills do you think will be most in demand in 2030?

Project Spotlight Session

Gabriele Permoser *University of Applied Sciences St. Pölten*

Project: **DIGIHealth UASHome Incubators Boost Programme**

KA220-HED – Call 2022

Facts and Figures

Funding Scheme: Erasmus+ Cooperation Partnership

Funding Agency: OeAD

Project Duration: 1 September 2022 – 30 August 2024

Project Partners

UC Leuven Limburg
MOVING MINDS

University of Applied Sciences St. Pölten

jamk | University of Applied Sciences

UIIN
University Industry Innovation Network

crazy town

Our main objectives and priorities

Strengthen the capacity of regional Universities of Applied Sciences to become „home-bases“ for innovation and entrepreneurship centers for Digital Health

Our horizontal priorities

- Adressing digital transformation through development of digital readiness, resilience and capacity
- Creating upskilling pathways, improving accessibilitiy and increasing take-up of adult education
- Strengthening the employability of young people

Our Methodology

2023-01-13 Investigation & Regional Mapping Instrument Development (WP2) – yellow are changes

A2. Literature Review & Good Practice Collection (Needs)

Method: Desk Research (10/22 until 2/23) – total 104 man days

A2.1 Literature Review

- Key-Literature on DH (HEI)
- Definition Digital Health
- Available Meta Analysis
- Additional Literature (all partner) *Zotero Coll.*
- Key-Literature on Incubator (UIIN & CT)
- 10 Digital Health Keywords /Clusters?
- 10 Incubator Keywords / Clusters ?

Consortium Decision

A2.2 Good Practice Collection (until 01/23)

- 5*5 Good Practice Cases (Consortium)
- Guidelines towards Digital Health Innovation

A3. Regional Challenges Scanning (Status Quo)

Methods: Desk Research (All) (10/22 – 11/22)

- Challenge and context:
- Target groups affected
- Relevance:
- Needs:
- Future trends and opportunities

Summary Pressing Challenges & Overlaps between Regions

1.) Each Institution needs to report for its own region
2.) UIIN / Crazy Town (Literature on other regions?, Austria)

Regional specific Questions*

Regional specific Questions for Researchers*

word cloud / semantic linkage

A4.1. Interview (Needs)

Methods: interview (12/22 – 01/23)

2-3 professionals/academics working in incubators

~30 min *MS Teams Transscript / Textual (+DeepL/Google Translate)*

2-3 researchers working in digital health

Very clear instructions for how deep /shallow interviews are

4.) A4.2. Needs & Skill Gaps Analysis

1. **Descriptive (Textual) Analysis**
2. **Semi-Automatic** Visual Analysis (Word Count / Frequency) & Connections

A5. Asset Mapping (Status Quo)

Methods: Desk Research (All) (01/23 – 02/23)

Map 20 Keywords to each Asset (with a individual and combined institutional Ranking (e.g. 1-5) color coded

March and April 2023– Final Report

Identify:

- Physical Assets,
- Intellectual Assets
- Human Resources
- Network Resources
- Financial Resources
- Technical Assets

Analyze A2, A3, A4 according to own institution

- Boost Training Concept
- Facilitator Guide

Skills Gaps and Needs

Interviews Outcomes - Researchers

Interviews Outcomes - Incubators

Interviews Outcomes - Aggregate

Sustainability of project results

E3UDRES2

Engaged and Entrepreneurial European University as Driver for European Smart and Sustainable Regions

Master in Digital Health:
Citizen-Centered Digital Health and Social Care

LEAP XR

eit Health

Funded by the European Union

➡ Coming Soon

NextGenNurse - Preparing Future Nursing Professionals Through XR-Enhanced Education

Let's design our next STEM cooperation idea!

20 min

Step 1 – Pick your context:

(Choose one theme for your group project)

- STEM teaching innovation
- Digital/virtual lab collaboration
- Inclusive mobility or traineeship
- University–business cooperation in STEM
- Green transition & sustainability
- Or other

Step 2 - Build your project idea using KA220 logic:

(Sketch it on your group canvas / flipchart)

What to define	Guiding question
Relevance & Need	What problem or opportunity do you see? How do you want to solve it?
Objective	What change or benefit will your project create?
Main Activity	What action will you take to achieve it?
Outputs / Results	What tangible results will you produce?
Outcomes / Impact	What changes in skills, behavior or practice do you expect? How it will be maintained beyond the project?

Let's design our next STEM cooperation idea!
(continued)

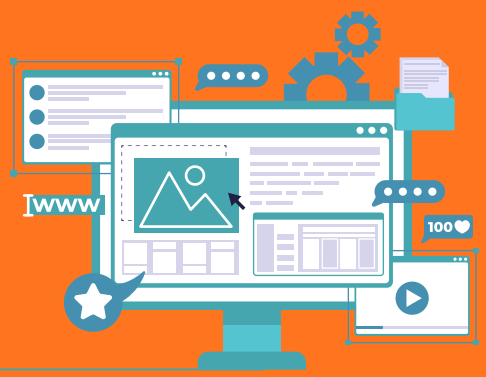
Step 3 – Pitch your idea:

Ending with this sentence:

Our project strengthens STEM Cooperation/ in Higher Education by ___ (main action / innovation) for ___ (main target groups), which will lead to ___ (key change / impact).

Wrap-Up & Networking

Pick up your idea



STEM TEACHING INNOVATION

Examples:

- Bridging courses for maths & science teachers
- Digital didactics & e-accessibility toolkits
- Video-based e-learning modules

DIGITAL/VIRTUAL LAB COLLABORATION

Examples:

- Virtual interface for smart interactions & online labs
- XR simulations for healthcare training
- Joint online module for chemical & biological entities and vaccines

INCLUSIVE MOBILITY/TRAINEESHIP

Examples:

- International up-skilling in agricultural engineering
- Internationalisation & digital transformation of a discipline

UNIVERSITY-BUSINESS COOPERATION IN STEM

Examples:

- Green skills for cities: service-learning with city & industry partners
- Health innovation incubators & start-up support

OR ANY OTHER TOPIC YOU ARE INTERESTED IN!

Build your project idea

01. RELEVANCE & NEED IN HIGHER EDUCATION

- What concrete challenge in STEM cooperation do you want to solve?
- Who is affected (students, teachers, institutions)?
- Which Erasmus+ / institutional priorities does this address (digital, inclusion, green, innovation, etc.)?

02. OBJECTIVES & TARGET GROUPS

- What specific change do you want to see by the end of the project?
- For which target group(s) (students, academic staff, services, external partners)?
- Try to write 1–2 objectives (measurable).

03. MAIN ACTIVITIES (ACTIONS)

- What activities will partners implement to reach the objectives?
- How could they be grouped into 2–4 work packages (e.g. curriculum development, pilots, dissemination)?
- What is the added value of working transnationally?

04. OUTPUTS (PROJECT RESULTS)

- What tangible results will you produce? (e.g. modules, toolkits, guidelines, online platforms, pilots, policy recommendations...)
- For each result, how many people or institutions do you expect to reach? (simple indicators: numbers, %)

05. OUTCOMES / IMPACT (LONGER-TERM EFFECTS)

- What changes in skills, behaviour, or practice do you expect by the end of the project for your main target groups?
- What impact do you expect at institutional / regional / EU level?
- How will you make sure results are used and maintained after funding ends (integration into curricula, policies, services)?

Pitch your idea

Our project strengthens STEM cooperation in Higher Education by

_____

(main action / innovation)

for _____

(main target groups),

which will lead to _____

(key change / impact).