Catalogue of Learning Modules

Deliverable 3.3

Contents

1. Catalogue of learning modules and learning projects

A large variety of different learning modules was developed within the CIM consortium corresponding to the highly diverse study and business fields.

The organisation specific learning modules were comprised in so called “learning projects” that vary according to target groups, learning objectives, contents, duration and methodology. Within the projects and modules, the related competence frameworks with their 3-dimensional learning objectives were connected with relevant learning contents, modalities, methods, and materials.

The learning modality (e.g. f2f, e-learning, project learning or a blend) was determined in accordance to the learning environment, context, internal and external factors of the target group and the available resources.

The contents and designs vary in regard to:

- The learning context and level of formality; ranging from formal HEI courses to rather informal internships,
- The study subjects on the one hand and the purposes of internship settings on the other,
- The entry level and pre-knowledge of the learners and
- other internal and external factors

The common denominator within all the CIM pilot projects and delivered modules has been the competence-oriented learning approach based on the specific competence framework related to Creativity and Innovation Competences (workpackage 2). The partner organisations developed their specific learning projects based on this approach.

Hence the learning projects consist of learning modules that were clustered along the competence levels on which the relevant contents were delivered, with assignments and eventually also assessments which were corresponding to the competence levels. Learning methods, instruments and resources were assigned accordingly.

The following catalogue (D3.3) is an overarching and overviewing document of learning modules and learning projects which will be refined in (D3.4) which presents the modules in a more curricular way.

While the catalogue is describing modules and projects in a structural way along the competence levels the following document presents them in a sequential way.

In this catalogue file, each project of the CIM partners and its modules are presented (starting with a summary) with Target group, Themes (content area), Learning objectives, Methods/Activities and Resources and materials.

1.1. Learning Modules by UDE

- **Summary**

The learning modules delivered at the UDE were interwoven in 3 courses within the Master of Adult Education and delivered over 3 semesters in the following:

1. Validation and Professionalisation of AE Professionals in Europe
2. Educational Organisations and Institutions in Europe
3. Scientific workshop – Research project on Digital Literacy

The first 2 modules are fully accessible on the learning platform (CIM-mahara) and reflect the interconnection of domain specific contents with the CIM approach. Concretely this means that, based on the scientific knowledge on "Validation and Professionalisation of AE Professionals in Europe" and "Educational Organisations and Institutions in Europe" the students designed and delivered projects tackling these contents. This is a paradigm change from a sheer knowledge transfer (which is still common practice in University courses) we moved into a constructive learning design in which the students develop needs driven, concrete and practice related projects based on the 2 course themes.

The third project was related to the theme of digital literacy. It aims at introducing the cross-cutting theme into a module within the "Research workshop" which is an obligatory module which runs over 2 semesters. It combines knowledge and skills related to digital literacy with research techniques related to a "Mixed Method" research approach applying quantitative (questionnaire based) and qualitative (interviews) approach. The students developed a research project on digitally delivered teaching and learning in the Covid period. It involved 130 responding students from 6 European countries.

All modules within the three courses were delivered via synchronous online sessions (substituting the F2F sessions), asynchronous content parts (via study tasks plus learning materials (if not delivered via learning platform) plus a learning project.

The modules were piloted with a group of 10 students (course 1), 8 students (course 2) and 4 students in course 3 in SS20 and WS 21. 4 Students of the first group continued their studies in their internships within the partner blinc.

- **Target group**

Please give a short description of your target group: age, what kind of educational background, study subjects,…

- Students of the Master Adult Education
- Most of the students work part-time parallel to the studies
- They are in their first and in semester 2 in their second year

- **Themes (content area)**

Please list the themes/content areas that you worked on with your students.

- Design Thinking
  - Spotting Ideas and Opportunities
  - Teamwork
- Digital literacy

- Research design on Digital literacy
    - **Learning objectives**

Courses 1&2

- **Knowledge:** *Please describe the knowledge that students are supposed to acquire during the project.*
    - *Basic Understanding (L2)*
        - Understanding traditional and innovative teaching and learning methods
        - Understanding Europe and European Educational Policy and history
        - Understanding Educational Organisations
        - Understanding Innovation and creativity
        - Understanding of Educational Institutes and Organisations
        -
    - *In depth theoretical knowledge* (L3) on
        - Competence Oriented Learning
        - European Skills agenda
        - Validation of informal and non-formal learning
        - Concrete European educational instruments, initiatives and programmes
        - Professionalisation of educational personnel with special regard to KA1
        - Design Thinking and Creativity techniques
        - The impact of Organisational structures on staff, flexibility, innovation
    - Applied knowledge (L4)
        - Transfer of the theory knowledge in concrete Design Thinking projects within ideating, selecting, refining, prototyping and pitch sessions.
        - Essays on the development trajectory and reflection on the own competence development
- **Skills:** *Please describe the skills that students are supposed to acquire during the project.*
    - Exercises (L2)
        - Exercising basic components of institutional and organisational analysis
        - Exercising certain components of validation within educational contexts of different formality
    - Applying selected instruments
        - Applying validation assignments
        - Designing a prototypical organisation
    - Applied knowledge/ Developing in complex cases

- Designing concrete Design Thinking projects within ideating, selecting, refining, prototyping and pitch sessions.
- Essays on the development trajectory and reflection on the own competence development

- **Attitudes:** *Please describe which attitudes students are supposed to develop during the project.*
  - Becoming interested in different educational organisational and institutional structures and relating it to oneself
  - Becoming motivated to apply the concepts in concrete projects
  - Ability to cope with ambiguity within the design thinking process

Course 3:

- **Knowledge:** *Please describe the knowledge that students are supposed to acquire during the project.*
  - Understanding the concept of Digital Literacy and it's facettes
  - Knowledge on the components of digitalisation related to teaching and learning
  - Know how to transfer literacy on digital work and learning into research question, hypotheses and research design
- **Skills:** *Please describe the skills that students are supposed to acquire during the project.*
  - Exercising basic components of qualitative and quantitative research
  - Applying singular instruments for a joint research question
  - Developing a research design and justification (written and in presentation)
  - #1 applying empirical research methods on Digital Literacy
  - #2 #1 developing a project concept for different educational organisations in a design thinking approach on Digital Literacy
- **Attitudes:** *Please describe which attitudes students are supposed to develop during the project.*
  - Becoming curious about Data Literacy as scientific topic
  - Becoming motivated to develop a research activity on it

- **Methods/Activities**

Which teaching methods did you use? Which activities will you carry out with your students?

- Blended learning
  - Synchronous zoom sessions
  - Asynchronous moodle sessions with interactive materials

- Self-assessments (electronically, issuing competence profiles)
- Collaborative via mahara (team presentations) and MIRO (joint boards)

- Workgroups
- Learning and research project

- **Resources and materials**

Which resources/materials do you need/use to carry out your project? Please note if you developed the material, bought it, borrowed it,…

- *Moodle of the UDE*
- *M 8.2 and 4.1 contents digitally available*
- *Zoom professional (incl. breakout rooms)*
- LEVEL5 learning suite
- Competence profile app
- Videos *and scientific literature*

1.2. Learning Modules by DIE – German Institute for Adult Education

- Summary

At the DIE the project was implemented with DIE staff instead of interns. Due to the Covid-19 developments it was not possible to recruit interns as originally planned. Therefore, an alternative solution was sought. A good opportunity to implement a CIM learning project in the DIE context arose in the context of an informal "Art Working Group".

The DIE building is located in the grounds of the National Ministry of Education, a few kilometres outside the city centre, which can only be entered by appointment and by presenting an ID card. There are several interesting modern works of art (sculptures) scattered around the grounds, but due to the aforementioned access restrictions, these are essentially only noted by the staff of the institutions on the premises.

A small number of DIE colleagues interested in art had recently joined together informally in a working group to discuss the artworks and ways of communicating them to a wider audience. This informal project was transformed into a CIM learning project. We choose this way because indeed there were very pronounced points of overlap and connection between the Art Working Group and the CIM project's aims and approach. The art group had the intention to develop or conceive something new (an innovative approach to art education), but at the beginning - due to its informal origin - it had rather vague ideas about what it wanted to work towards and how. The Design Thinking approach lent

itself here to support the project in a structured way that encouraged creativity and to promote the corresponding competences for innovation development among the participants.

The competence area that was focused upon in the learning project was:

1. Spotting ideas and opportunities

The concept of design thinking was taken to frame the whole process. As a first step a session on design thinking was organised at the end of June and the participants of the art working group were introduced to this concept as well as to the CIM project. Then the group over a series of sessions until end of September continued their intention to work on the art works on the premises, following the concepts and principles of design thinking. The group started by defining more precisely their design challenge and went on to ideate and generate more concrete ideas to implement this challenge.

At the end, members of the working groups completed a self-assessment focused on the competence area “Spotting ideas and opportunities”, comparing their competence level at the start and at the end of the learning experience.

The whole process was facilitated by a DIE staff member, who had taken part in the CIM training.

- Target group

The participants were DIE staff members of different ages and educational backgrounds. However, all of them already had several years of professional experience in the field of adult education. With one exception all members of the working group came from the DIE department “Knowledge Transfer”. In this department, staff are working on developing useful tools and information services for practitioners in the field of adult education. Creativity and innovation is therefore highly relevant to this group of staff members.

- Themes (content area)
  - Art works
  - Information media and strategies

- Learning objectives
  - Knowledge:
    - Spotting ideas and opportunities: - L4 Knowing when to apply the right instruments from the portfolio of different ideation and prototyping approaches and tools. Knowing when to use certain ideating and prototyping strategies

- Skills:
  - Spotting ideas and opportunities: L4 Deliberately searching for and selecting appropriate ideation and prototyping techniques and instruments for the own business. Creating and executing an ideation and prototyping strategy for the own context and the professional domain.
- Attitudes:
  - Spotting ideas and opportunities: L4 Being determined and pro-active in using and improving ideation and prototyping in the own environment. Finding it important to be creative in this respect.

- Methods/Activities
  1. Session: Introduction to Design Thinking
  2. Facilitated group sessions following the steps in the design thinking process.
  3. Self-organised research activities of the working group participants in between the sessions.
  4. Self-assessment on own competences before and after the learning experience

- Resources and materials

We developed own materials on design thinking, using material from the CIM workshop in Palermo as well as additional freely accessible resources on the net.

1.3. Learning Modules by blinc

- **Summary**

5 interns carried out the CIM project in our premises. They were intensively prepared and mentored during their 3 months stay. Their internship was carried out within the Master of Adult Education, in the "module" 8 - "Adult Education in Europe" with the courses "Validation" and "Institutions and Organisations in AE".

In their internship they intended to acquire practical knowledge and skills related to different European Educational projects carried out within our cooperative and to develop scientific projects ("practice research") within these working contexts of blinc. By the end of the CIM project 2 of them even prepared their Master Theses on EU projects coordinated by blinc and developed research for the sake of the EU, more specifically in the field of learning mobility.

The internships consist of competence-oriented learning and development units which can be clustered to "learning modules". This approach led to a smooth development and a conscious step-by-step development – rather like a trainee programme which focused on Creativity and Innovation Management methodology and approaches.

The aim of the internship was to equip the students with practical skills and competences to document, design and develop educational projects relating to validation and professionalisation.

For this purpose, they went through different phases:

- to get familiar with running projects, to research both applications, programme documents and the current project state and it's documentation
- To take over certain defined tasks within the projects
- To develop own activities and take over the coordination
- To self-reflect the own projects and to self-assess the own competence development

The methodology turned out to be extremely successful, even if the internships were carried out 95% online. There is a huge impact on these competence oriented internships - not just for the blinc eG to improve the performances and the "value" of the interns but also for the students, since all of them found a job in our company.

- **Target group**
  - Interns from the University of the Master of Adult Education

- **Themes (content area)**
  - Design Thinking
  - Project documentation and communication
  - Project development

- **Learning objectives**
  - **Knowledge:** *Please describe the knowledge that students are supposed to acquire during the project.*
    - L2/L3: Getting to know educational projects
      - Monitoring of project activities and deliverables based on the plans and applications and the real actions
      - Controlling of project resources and programme specific documentation
    - L3/L4: Project Communication
      - Project communication (online)
      - different approaches to guide groups in a virtual learning app
    - L3/L4: Learning Project Didactics: Planning and informal Learning in project phases:
      - Identifying project phases (L2)
      - Identifying navigation and assignments (L3/4)
      - Transferring tasks to partners using DT techniques (L4)
  - **Skills:** *Please describe the skills that students are supposed to acquire during the project.*
    - L2: PM (Admin): Exercising project administration tasks (timesheets, documentation)
    - L3: PA: taking over an own project documentation
    - L3: PD: writing a defined part of a project application
    - L2: DT: Taking part in DT workshops on PD
    - L3: organising specific tasks (singular steps) in the DT process
    - L4: applying the whole DT procedure and ending up with a prototype (project application part
  - **Attitudes:** *Please describe which attitudes students are supposed to develop during the project.*
    - L2 PM: becoming curious how European projects are designed and coordinated
    - L2: being ready to take over also admin tasks

- L3: becoming motivated to explore educational project theory (along the applications and sectoral programmes)
- L4: being committed to work in the PM and PE domain based on the experiences and to become “owner of an own sub-project
- L4: Becoming committed to apply DT techniques in different professional domains

- **Methods/Activities**

- Self assessment on own competences
    1. Teamwork
    2. DT and spotting opportunities
- Self-Learning on the moodle based in research materials
    1. Innovation and Creativity
    2. DT Theory
    3. KA1 mobilities
- Exercises on admin and structuring project activities under 2 stage mentoring:
    1. Documentation
        1. Exercising simple admin tasks on project documentation
        2. Creating overarching systems and connecting persons
            1. Content: Monitoring activities
    2. Developing
        1. Contributing to a new application
        2. Research works to explore certain sectors (e.g. the KA1 and validation), or the cultural, educational, sustainability sectors relevant for certain projects
- Teamwork in PE groups
- DT thinking workshops

1.4. Learning Modules by Q21

- **Summary**

3 interns carried out the CIM project in our premises. They were intensively prepared and mentored during their 3 months stay.

The idea was to turn their internship to their “own project” in which they practice both PM and DT techniques. In parallel they acquire and also act our specific knowledge in both domains in a staged procedure:

1. starting with and exploration (and documentation in their diary and mahara profile) and getting to know some of our projects and carrying out administrative tasks related to controlling and monitoring.
2. developing their vision based on knowledge on innovation and potential development pathways of our own project
3. selecting suitable, innovative and transferrable ideas in the Project Development activities
4. Developing the ideas up to concrete results
5. Doing a parallel validation which consists of a first self-assessment of PM skills and their competence to spot ideas and opportunities.

- **Target group**
  - Interns from course of project management coming from PIXEL, Florence for a European internship

- **Themes (content area)**
  - Project management
  - Project development
  - Competence theory and self-assessment

- **Learning objectives**
  - **Knowledge:** *Please describe the knowledge that students are supposed to acquire during the project.*
    - L2/L3: PM administration
      - Monitoring of project activities and deliverables based on the plans and applications and the real actions
      - Controlling of project resources and programme specific documentation
    - L3/L4: Mangement:
      - Project communication (online and f2f)
      - different approaches to guide groups
    - L3/L4: Project Didactics: Planning and informal Learning in project phases:
      - Identifying project phases (L2)
      - Identifying navigation and assignments (L3/4)
      - Transferring tasks to partners using PM techniques (L5)
  - **Skills:** *Please describe the skills that students are supposed to acquire during the project.*
    - L2: PM (Admin): Exercising project administration tasks (timesheets, documentation)
    - L3: PA: taking over an own project documentation
    - L3: PD: writing a defined part of a project application
    - L4: applying the whole PE procedure and ending up with a prototype (project application part)
  - **Attitudes:** *Please describe which attitudes students are supposed to develop during the project.*
    - L2 PM: becoming curious how projects may be managed differently
    - L2: PM: being ready to take over also admin tasks
    - L2 DT: being inspired to develop an own style to PM

- L3: realising that PM is not just an ordering exercise and motivation to continue with a more agile approach
- L4: being committed to work in the PM and PE domain based on the experiences

- **Methods/Activities**
  - Self assessment on own competences
    1. PM and sub-competences related to PM
  - Self-Learning on the moodle based in research materials
    1. Project management
       - ➔ Accompanied by reports/discussions and reflections (eg. To be documented in the profile/learning diary or in teams)
  - Exercises on admin and structuring project activities under 2 stage mentoring:
    1. Documentation
       1. Exercising simple admin tasks on project documentation
       2. Creating overarching systems and connecting persons
       3. Content:
          1. Monitoring activities
  - Teamwork in PE groups

1.5. Learning Modules by Joker & Trendhuis

- **Summary**

The learning project developed by Trendhuis and Joker gathered 20 unemployed jobseekers in an integrated training and internship opportunity on sustainable development. The main goal of the programme was to train the participants to become sustainability advisers using key innovative methods of design thinking and appreciative inquiry.

The 'SDG-FITplan' – developed by Trendhuis and Joker – forms the main backbone of the programme as it incorporates the main framework and concepts on sustainability: the 17 SDGs, the 6-P's and Circular Economy. This way, the SDG-FIT plan forms a structured growth and monitoring plan for sustainable business and career development.

The learning project combined theory with practice through an integrated approach where students were stimulated to engage their newly acquired competences on sustainability in organisations. More specifically the sustainability course contained:

- Theoretical training based on the SDG-FITplan
- Practical oriented exercises based on CIM techniques
- Networking and best practice learning opportunities
- Societal internship and job coaching

At the end of the programme the students were expected to gain new competences related to sustainability on an organisational and individual level. More specifically the participants gain:

- A holistic view on sustainability based on the SDGs
- A broad international perspective of the world
- Skills in promoting sustainability and societal commitment efforts in a company or organisation
- Ability to devise sustainability actions, based on the 6 Ps (people, planet, prosperity, peace, partnerships, pleasure), always linked to the 17 SDGs
- Contribute to the effective measurement of the results of sustainability strategies and actions.
- Provide insights for effective sustainability monitoring.

- Target group

The target group consists of motivated unemployed job seekers with an interest in the field of sustainable development. We focus on the unemployed and recent graduates (age 18 to 50+) who:

- want to gain personal development in a broader societal context
- want to gain insight into the importance and implementation of the SDGs
- want to engage in the sustainability sector or projects

- want to get to know new social organisations and socially engaged initiatives
- supplement their CV with a sustainability training and the associated socially relevant experience.

- **Themes (content area)**

The overarching theme of the training is 'sustainability'. This theme can be broken down into the different aspects of the SDG's and Corporate Social Responsibility (CSR). Overall, the training can be divided into four steps along the SDG-FIT plan:

- **Developing:** Management, executives, employees, founders, shareholders, suppliers and customers are the seven employable work domains in the "develop" step. In short: who are the actors in this development and what is their philosophy?
- **Integrating:** Mission, strategic plan, articles of association, internal communication, external communication, conversation and co-creation are the seven functional work domains in the step "integrate". In short: how is sustainability integrated?
- **Realisation:** People, Planet, Prosperity, Partnerships, Peace and Pleasure are the six work areas to be specified in the step 'realization'. The SDGs function as the compass here, but the 6 Ps form the light beacons on the way to sustainable entrepreneurship.
- **Monitoring:** Level measurement (Self-Assessment), Impact Measurement, Materiality Analysis, Annual Report / Integrated Reporting and SDG-FIT challenge are the five targeted work areas in the "Measurement" step. It is important that participants also learn ways to measure sustainability efforts. That is why there are various measuring methods that a company can systematically use to measure increasingly accurately.

- **Learning objectives**
  - Knowledge:
    - Understanding of the basic concepts of sustainability and Design thinking
    - Knowledge on the various actors related to sustainability
    - Knowing the innovative potential of sustainable entrepreneurship by using a Design Thinking approach
    - Know which sustainability models to apply in their organisation
    - Ability to transfer theory on sustainability and Design Thinking on their own case
  - Skills:
    - Ability to recognize sustainability opportunities in their organisation
    - Ability to apply sustainability and Design Thinking approaches in their organisation
    - Ability to measure sustainability efforts in an organisational context
  - Attitudes:

- Becoming curious about sustainability and practical implementation in organisations
- Being inspired to relate this to the own reality (either personal or professional)
- Becoming motivated to work with sustainability approaches and to transfer these within organisations
- Becoming committed to combine and apply sustainability and Design Thinking techniques in different professional setting

- Methods/Activities

We provided lectures, discussions, exercises and workshops. For these exercises and workshops, we used the Design Thinking method and Appreciative Inquiry. In the first stage, participants had to do a 'SDG-puzzle' where they had to work around a certain SDG and adopt the Design Thinking method on this SDG. Later on, we developed an exercise on circular economy where participants had to think themselves on circular business models. At the end, there was also time for networking, reflect on the best practice learning opportunities and some company cases.

- Resources and materials

We used our book "Journey to sustainable entrepreneurship with the SDGs as a compass". This book contains a practical method or the SDG-FITplan® to develop, implement, realize and measure sustainability in companies and organizations. In addition, the book outlines the inevitability of sustainable enterprise, the road to social responsibility, the beacons of sustainable enterprise, as well as the building cells and the new leadership for sustainable companies.

1.6. Learning Modules by Scuola Superiore Sant'Anna

- Summary

The current students of the Master in Human Rights and Conflict Management are about to start the module on Project Cycle Management and, due to the restrictions caused by Covid-19, they will work in groups from distance, through digital tools and platforms and develop their own project idea. In addition, five students of the same Master and other Master courses are currently doing an internship in an enterprise on Project Management. They, as well, are working from distance.

The idea is to turn their project work/internship to their "own project" in which they practice both PM and DT techniques. In parallel they acquire and also act our specific knowledge in both domains in a staged procedure:

1. starting with and exploration (through the definition of the own learning project) and getting to know some of our projects and techniques
2. developing their vision based on knowledge on innovation and potential development pathways of projects
3. selecting suitable, innovative and transferrable ideas in the Project Development activities
4. Developing the ideas up to concrete results
5. Doing a parallel validation which consists of an initial and final self-assessment of PM skills and their competence to spot ideas and opportunities.

- Target group
  1. 26 students of the Master in Human Rights and Conflict Management: different educational background, age 23 to 40, some have pre-knowledge on project management, none has pre-knowledge on design thinking techniques.
  2. Five students doing an internship at Smart Revolution Ltd (private consulting company) on European project management. Interns had different backgrounds but none of them had previous experience on design thinking techniques.

- Themes (content area)
  - Design Thinking (DT)
  - Project management (PM)
  - Project development (PD)

- Learning objectives
  - Knowledge:
    - L2/L3: PM

        - Knowing different approaches and techniques
        - L2/L3: DT
        - Knowing different ideation and prototyping approaches
    - Skills:
        - L2: PM (Admin): Exercising project administration tasks (timesheets, documentation)
        - L3: PA: taking over an own project documentation
        - L3: PD: writing a defined part of a project application
        - L2: DT: Taking part in DT workshops on PD
        - L3: organising specific tasks (singular steps) in the DT process
        - L4: applying the whole DT procedure and ending up with a prototype (project application part
    - Attitudes:
        - L2 PM: becoming curious how projects may be managed differently
        - L2: PM: being ready to take over also admin tasks
        - L2 DT: being inspired to develop an own style to PM
        - L3: realising that PM is not just an ordering exercise and motivation to continue with a more agile approach
        - L4: being committed to work in the PM and PE domain based on the experiences
        - L4: Becoming committed to apply DT techniques in different professional domains

- Methods/Activities
    - Self assessment on own competences (at the beginning and at the end)
        - PM and sub-competences related to PM
        - DT and spotting opportunities
    - Self-Learning on online platform (pre- and post-workshop)
        - Innovation and Creativity
        - Theory
        - Project management
        - Digital tools/workspaces for visual collaboration
    - Online workshop on DT
        - Group works
        - DT techniques
        - Presentation of project work
    - Practical phase
        - Group works during the PCM course
        - Management and development of project during internship

- Resources and materials

- Webex platform (already used by the Master students)
- Contents digitally available (developed)
- Zoom professional (incl. breakout rooms) (bought it)
- LEVEL5 learning suite
- Spot Ideas and Opportunities questionnaire (adapted)
- References and scientific literature

1.7. Learning Modules by Institute for Educational Technology (CNR – ITD)

- Summary

The learning project conducted in the framework of the CIM project has involved two research assistants and one financial manager of the Institute for Educational Technology of the National Research Council of Italy. All participants were interested in developing their knowledge in project management by adopting the techniques supported by the design thinking approach. The course was carried out during a period in which the restrictions due to Covid-19 has led participants to work remotely to develop their project idea. The objective of the learning project was to apply design thinking approaches in the management of research project. In this perspective, participants had the opportunity to practice the design thinking phases and to delve into project management techniques specifically focused on research projects.

The learning project included a validation consisting of an initial and final self-assessment of project management skills and Design Thinking.

The course has been conducted in collaboration with the Sant'Anna University partner of the CIM project.

- Target group
  1. 2 research assistants with different background: one has a PhD in Computer Science, and the second has a PhD in Cognitive Science. Both students have limited pre-knowledge on project management techniques, none of them has pre-knowledge on design thinking techniques.
  2. One financial manager, experienced in project management, but with no pre-knowledge on Design Thinking techniques.

- Themes (content area)
  - Design Thinking (DT)
  - Project management (PM)

- Learning objectives
  - Knowledge:
    - Project Management
      Knowing different approaches and techniques
    - Design Thinking
      Knowing different ideation and prototyping approaches
  - Skills:
    - PM: Practicing project management tasks (timesheets, documentation)

- PM: project monitoring techniques
- PM: understating the different parts of a project application
- DT: Taking part in DT workshops
- DT: organising specific tasks (singular steps) in the DT process
- DT: applying the DT procedure to create a prototype

- Attitudes:
  - PM: being motivated in understating different project management techniques
  - PM: being aware about the importance of monitoring tasks
  - PM: being curious and encouraged in keep learning on project management approaches
  - DT: being inspired to develop an appropriate approach to project management
  - DT: being interested in adopting design thinking approaches in research project management
  - DT: Becoming committed to apply Design Thinking techniques in different professional domains

- Methods/Activities
  - Self assessment on own competences (at the beginning and at the end)
    - PM and sub-competences related to PM
    - DT and spotting opportunities
  - Self-Learning on online platform (pre- and post-workshop)
    - Innovation and Creativity
    - Theory
    - Project management
    - Digital tools/workspaces for visual collaboration
  - Online workshop on DT
    - Group works
    - DT techniques
    - Presentation of project work
  - Practical phase
    - Group works during the PCM course
    - Management and development of project during internship

- Resources and materials
  - Webex platform (already used by the Master students)
  - Contents digitally available (developed)
  - Zoom professional (incl. breakout rooms) (bought it)
  - LEVEL5 learning suite
  - Spot Ideas and Opportunities questionnaire (adapted)
  - References and scientific literature

1.8. Learning Modules by CESIE

- Summary

The aim of the CIM learning programme is to complement and enrich the basic traineeship experience at CESIE, focused on Project Management, with learning activities aimed at developing specifically Creativity and Innovation skills of the interns and the staff. At the end of the learning programme, the interns will have acquired a set of transversal CIM competences in line with the most recent job market requests that will therefore increase their opportunities for employment.

Due to the limitations given by the Coronavirus emergency, this program includes activities that can be carried out remotely (e.g. independent study sessions) and when interactions with the team is required, we will opt for online meetings and other digital solutions. The learning program will consist of the following activities which may be subject to variations or postponements:

1. The interns involved in the CIM program have already started their internship at CESIE since few months, they support the project managers in a mix of different types of tasks such as the organisation of activities at local/international level (research, group welcoming, training, networking, etc.) and in the general management of daily activities of the organisation. They also participate in a project writing exercise and sometimes in project proposals writing (from the reading and analysis of calls for proposals to the finalization and submission of an application form, in compliance with provisions of each specific call).

2. Introductory activities to explain the process and Team Building activity on Miro (https://miro.com/) and Skype.
    - Online (on Skype and Miro).

3. Independent study on what is creativity and innovation. Creation of a shared folder to collect resources, methods to improve creativity and innovation, for example TRIM, IDEO and materials shared in CIM, Moocs and Case studies. Online tools for collaborative work of remote teams.
    - Independent study - Online (Google Drive shared folder).

4. Design Thinking process online that will let the interns acquire the methodology. This will involve both CESIE interns and staff.
   It is organised in a series of online workshops with weekly meetings that will address the different stages of the DT process. The starting point of the teamwork is the identification of the Challenge. In line with the current situation and the challenges of the remote working

the main topic to explore is how to make our work smarter. An important phase of the process will be observation and needs analysis of the staff, developed through interviews.

- Online (using e.g. Skype, Miro, Google Forms)

5. Creation of a Report where the interns will report the experience and reflect about what they have learned.
    - Online, creation of a Word document, independent work

6. Assessment of the competences
    - Online activity (Mahara and spider questionnaire for pre-self-assessment and final assessment)

Project team members are:

- CIM project manager at CESIE – CIM MENTOR
- a PM at CESIE with expertise in Design Thinking
- an HR office and International cooperation member
- three interns in Project Management: Lisa Avarello, Alessandro Bosco, Csaba Simon

- Target group

The general profile of the interns at CESIE:

- University and postgraduate students from Italy and abroad who are required to do an internship within their study curriculum. The internship has a length of 400 to 800 hours.
- Interns in the framework of training programmes such as: European Voluntary Service, Erasmus+ Traineeship, Youth Guarantee, Civil Service, VET mobility, etc.
- The educational background of the interns it may vary, e.g. European studies, international relations, languages, political sciences, education.
- The CIM learning programme will be delivered with three interns who already started their internship period at CESIE.

- Themes (content area)
    - Design Thinking

- Project management and implementation
- Project design
- Teamwork

- Learning objectives

Using 3 levels Reference system: 1 Orientation; 2 Able to do something on its own; 3 Being independent.

Design Thinking

- Knowledge:
  - L1 - Knowing about the TD method
  - L3 - Knowing how to apply DT techniques
- Skills:
  - L1 – Taking part in DT workshops
  - L3 – Organising small DT workshops (design own group vision and creating ideas)
  - L3 – Apply DT to project proposal design for idea creation
- Attitude:
  - L3 – Becoming committed to apply DT techniques in different professional domains

Project design

- Knowledge:
  - L2 - Knowing how to read the call requirements and how to address them
  - L2 - Knowing the basics of Logical Framework approach
- Skills:
  - L3 - Contributing to the idea development, finalisation and submission of the application form
  - L3 - Writing sections of a project proposal
- Attitude:
  - L3 - Being proacting in taking initiatives and proposing ideas

Project management

- Knowledge:
  - L1 - Knowing about the core project processes and project phases
  - L2 - Knowing about crosscutting tasks like dissemination, evaluation, monitoring and exploitation
- Skills:
  - L2 - Selecting certain project tasks according to the own abilities
  - L3 - Apply strategies and techniques to fulfil the tasks assigned to him/her by the project management
- Attitude:
  - L3 - Having a positive attitude towards project management
  - L2 - Recognise different project management styles
  - L3 - Starting developing own management style

Teamworking

- Knowledge
  - L1 - Knowing that teamwork is collaborating with others to reach a shared goal
  - L2 - Knowing how to engage in a coordinated work flow where the skills, qualities and limits of each member are taken into account in order to work efficiently
  - L3 - Knowing how to enhance team processes in different teams. Knowing how to help other people act successfully in teams and to assign specific responsibilities to people keeping in mind their relevant skills
- Skills
  - L1 - Recognising situations in which teamwork is feasible to reach goals
  - L2 - Actively reaching out to join a team or help create a team. Contributing to the team process according to own strengths and needs for reaching the shared goal
  - L3 - Leading a team in a way that members are able to contribute to the best of their abilities, supporting them to do so

- Attitude:
  - L1 - Seeing teamwork as something positive, but without considering developing own team work competence
  - L2 - Having a positive attitude towards working together in a team and to appreciate team
  - diversity. Finding it important to have a 'team spirit'
  - L3 - Having internalised the "culture" of constructive team work and to accomplish goals through mutual support. Inspiring others to improve their teamwork skills

Methods/Activities

1. Design Thinking workshop
2. Design Thinking tools and theory
3. Remote teamwork
4. Self-Learning (shared folder with resources)
5. Project writing exercise, teamwork in project design groups
6. Self-assessment and reporting
7. Validation, evaluation and reflection

1.9. Learning Modules by Vilnius University

The project is based on one of the key methodologies for creativity and innovation development – design thinking. It aims to spread the knowledge and usage of design thinking among the Higher Education students as well as enterprises where the students do their traineeships. The students are given a variety of tools enabling them to become a proficient users of design thinking – homework assignments, training sessions, case studies, mentorship, project deliveries and presentations. Also, the companies are involved in design thinking projects of students, as their employees participate in design thinking activities, organized by students. After all, the students gather to reflect on their experiences, present the outcomes and share the best practises.

- **Summary**

Vilnius University aims to spread design thinking methodology as one of the key tools for creativity and innovation. The main goal of the project is to promote CIM competences among students and make them transferable to the different business contexts.

- **Target group**

Our main target group is Vilnius University students who go on career traineeships within various private enterprises in Lithuania. Nevertheless, we believe that getting familiar to design thinking methodology and applying it to practice also benefits the private companies.

- **Themes (content area)**
  - Design thinking
  - Creativity and innovation
  - Problem solving
  - Ideation techniques: role-storming, brainwriting, anti-problem solution
  - Project management

- **Learning objectives**
  - **Knowledge**: students will obtain the strategic knowledge of design thinking and its steps (emphasizing, problem identification, ideation, prototyping and testing); also, they will get familiar with the ideation techniques – role-storming, brainwriting, anti-problem solution)
  - **Skills**: working in teams, students will be able to transfer design thinking in real life enterprise settings; also students will be able to produce prototypes for their problem solution
  - **Attitudes**: students will internalise design thinking

- **Methods/Activities**
  - Homework assignments
  - In-class training
  - Design sessions
  - Ideation session (role-storming, brainwriting and anti-problem solution)

- Prototyping activities (lego building and comics painting)
- Teamwork and individual work
- Case studies
- Mentorship (both on academic and business sides)
- Presentation planning and delivery
- Self-assessment and reporting
- Validation, evaluation and reflection

- **Resources and materials**
  - VU developed presentation on Design Thinking
  - Activity reports
  - Presentations
  - Questionnaires

1.10. Learning Modules by Lithuanian Confederation of Industrialists (LPK)

- **Summary**

1. A short summary of your project topic:

Students developing their entrepreneurship skills have accepted the KKF's challenge – to explore and analyse soup eating habits of the young generation and adapt existing company products to the new customer preferences. Students have learnt about existing products of KKF and the attitudes of young generation to it. The group has given a lot of thoughts, suggestions and creative ideas for a possible change on how young people perceive soup eating and have attained satisfactory appearance of soup for the new generation.

2. The background of the project (why did you choose it):

The group of students at the company had been introduced to the wide range of products that they are producing and students have showed a particular interest in the soups as this is a product that, to their opinion, is least known and bought by young people. The company suggested to go deeper in exploration of the soup eating habits and see where it can bring.

3. The objectives (what shall be done and what are students to learn). To identify the product(s) students want to develop; to prepare a questionnaire to analyse soup eating habits; to identify obstacles to soup eating habits and come up with the problem solutions. Students should learn to turn their ideas into action, by being able to plan their actions ahead, step by step making their vision actually happen in reality.

4. The expected outcomes and results. The students should gain insights about the product market and its demands, ability to identify the areas for innovation and development, foresee the possible risks, ability to make decisions and generate new ideas and approaches.

- **Target group**

The group of students was built by taking into consideration the need for and interdisciplinary group nature (different study programmes, age, experience, gender etc.).
The group consisted of 6 people:

a. Valdas Bačiulis (political sciences)
b. Vytautė Petkevičiūtė (systems analysis)
c. Rūta Gaškauskaitė (logistics and trade)
d. Evelina Mažintaitė (finance)
e. Domantė Urbonaitė (marketing)
f. Akvilė Cegelskienė (economics)

- **Themes (content area)**

Survey implementation, Analysis and report preparations, generation of creative ideas related to soup rebranding.

- **Learning objectives**

- **Knowledge**:
  Knowledge of canned food market, market demands. Know how to prepare surveys and analyse received data.
- **Skills**:
  Interdisciplinary team work skills, creativity, problem solving, self assessment, reflection of the own experience.
- **Attitudes**:
  Passion about their ideas and goals, be brave to measure and take risks, flexibility, integrity and strong work ethics.

- **Methods/Activities**

Design thinking, Lego rimto play and Business Model Canvas methodologie

1.11. Learning Modules by AUTh

- **Summary**

Within the 'Creativity and Innovation Management Project' (www.cim-project.eu), AUTH developed a PG course that focuses entirely on creativity and innovation in adult and continuing education programme design, implementation and assessment. The course includes an internship mobility unit that is organised in collaboration with a company from the tourism industry (TraceYourEcho), and focuses on the development of innovative educational tourism programmes. The premise behind the promotion of this idea in the CIM context –with particular reference to its relevance with the Greek socio-economic and cultural context– was that educational tourism offers a major advantage. It does not need to be weather dependent, it does not need special geography and usually, and most of the needed infrastructure is already in place. Educational tourism also comes in a great variety of formats; places seeking to enhance their educational tourism product however have to first consider who their market is and what they have to teach others that is special or unique. Educational tourism therefore is a way to use better existing facilities, especially during off-seasons, and increase interpersonal understanding through unique and creative travel experiences. The postgraduate course's aim is to provide adult education specialists with a range of simple creative thinking techniques that they can use to generate ideas and solve problems related to educational tourism. Real life work problems and opportunities are built into the training, to help generate some ideas and potential solutions that can be implemented at their line of work (hence training design, implementation and assessment). *In total 9 (nine) PG* students (5 women and 4 men) participate in the CIM activities within the PG course with the title 'Creativity and Innovation in Adult and Continuing Education Programmes: Design, Implementation and Assessment'. The course has three thematic units covering 13 training weeks and is offered in Greek language.

- **Target group**

Adult educators and education professionals and specialists with educational and pedagogical background. All students are postgraduates in the Faculty of Philosphy, School of Philosophy and Education, Department of Education, with a strong background in pedagogy and psychology. Their age varies from 24 to 36. They all have excellent background knowledge of adult and continuing education theory and practice and they are familiar with training design and development as well as assessment models and methods.

- **Themes (content area)**
  - Design Thinking
  - Creative problem solving
  - Directed training design focusing on educational tourism
  - Taking advantage of educational tourism products
  - Portfolio assessment
  - Validation of learning outcomes using LEVEL5

- **Learning objectives**
  - **Knowledge**:

- Identify with innovation processes and the role of creativity within them.
- Comprehend and be able to apply the basics of design thinking.
- Understand individual and group creative processes.

- **Skills**:
  - Be able to identify, analyse and explain an effective, creative concept leading to an innovation success.
  - Be able to apply theoretical concepts, frameworks and models to cases, illustrations and examples.
  - Be able to create ideas and opportunities within a specific context of action.
- **Attitudes**:
  - Value the nature of human creativity and innovation.
  - Appraise creativity and design thinking that helps educational organisations to solve complex problems.

- **Methods/Activities**
  - Benefits of using a creative approach
    - Facilitator presentation, participant personal introductions and ice breaker
  - Recognising the difference between creativity & innovation
    - Understanding the cycle of innovation
    - Facilitator presentation and group discussion
    - Breaking through thought patterns and assumptions
    - Recognising left and right brain thinking
    - Identifying how creative we are
    - Individual creative thinking exercise, group review and self assessment questionnaire
  - Enabling creativity
    - Simple methods and techniques to develop creativity
    - Identifying ways to further develop creative thinking
    - Individual practical exercises and group review
  - Methods and tools for generating ideas
    - Brainstorming or blue sky thinking session (on-line using BigBlueButton)
    - Reverse brainstorming (on-line using BigBlueButton)
    - Sort cards and mind maps (on-line using BigBlueButton)
    - Sticky notes/Metaplanning technique (on-line using BigBlueButton)
    - Identifying when best to use each idea generation technique (on-line using BigBlueButton)
    - Facilitator technique demonstration with group plus learning review (on-line using BigBlueButton)
  - Logical versus lateral thinking

- Recognising the differences between lateral and logical thinking (short presentation on-line using BigBlueButton)
- Appreciating our strengths (short presentation on-line using BigBlueButton)
- Energiser exercise, short presentation, 'Message in a bottle" exercise, review (on-line using BigBlueButton)

o Creative problem solving

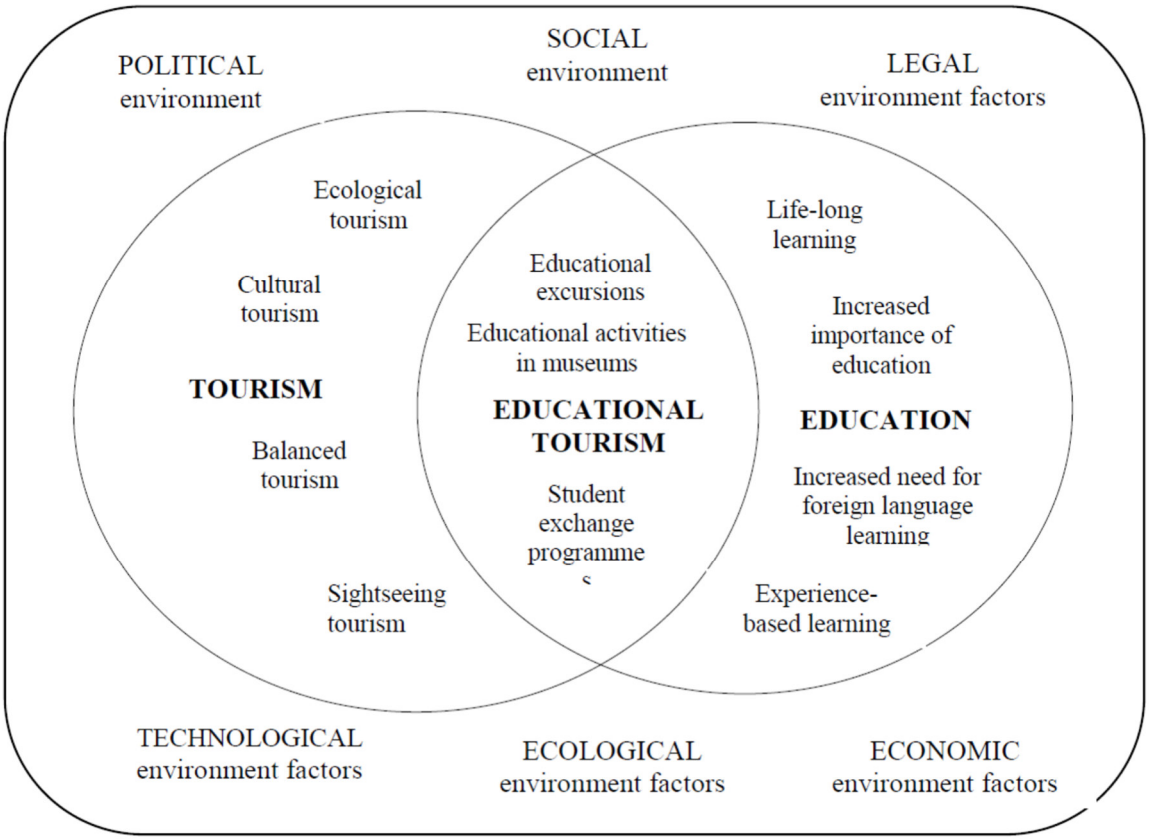
- Creative problem solving techniques (short presentation on-line using BigBlueButton)
- Using the problem checklist, "go wild" and 5 whys (on-line using BigBlueButton)
- Applying to work related problems (short presentation on-line using BigBlueButton)
- Facilitator demonstration of techniques, trios exercise (on-line using BigBlueButton)

- **Resources and materials**

All the material is original and was developed ad hoc for the purposes of the course in collaboration with TRACEYOURECHO, the company to which four of the participants decided to do their internship. The material (both printed and online) was developed taking in account the following areas of action:

- **School Trips/Museums/Geography tourism**
- **Ecological tourism**
- **Study Abroad Experiences/Student exchange programmes**
- **Seminar Vacations and Senior Seminars/Medical tourism**
- **Skill Enhancement Vacations/Conference tourism**
- **Educational Cruises/Cultural tourism**

The Educational Tourism Concept (see figure below) that TRACEYOURECHO and AUTH collaboratively agreed upon suggests that education can be implemented not only at schools providing general or higher education, but also through lifelong learning which helps to combine theoretical knowledge with practical experience. This could be implemented through student and pupil exchange programmes, educational activities in museums, educational excursions and trips, etc. Educational tourism is approached as an educational activity implemented during excursions or trips which facilitates gaining knowledge and competences through practice. The model of the structure of the educational tourism concept identifies three main components: the science of tourism, the science of education, and the factors of the external environment. Along this line the main task for the participants in the internship is to design, implement and assess educational programmes that fall into any of the above six opportunities.



- The AUTH-TraceYourEcho 'Educational Tourism Concept'

Characteristics of educational tourism as an innovative form for the organization of programmes have to be based on the fundamental changes in defining the contemporary educational objectives, principles, and approaches. In this line participants are called to design and organise their innovative programmes for educational tourism field trips that will be their final product for review, in groups of 3 (3 such groups are created), based on the following criteria:

Criteria for classification	*Types of field trips*
1. Category of participants	Schoolchildren
	Students
	Professionals
2. Purpose	Developing universal competences
	Developing general professional competences
	Developing special professional competences
3. Theme	All-inclusive
	Environment sciences
	Humanitarian
	Social and economic
	Technical
	Professional
4. Number of participants	Individual
	Groups
5. Method of organization	Individual
	Organized
6. Didactic targets	General pedagogic
	Subject-focused
	Interdisciplinary
7. Orientation to personality structure	Informative
	Operational
	Emotional and moral
	Heuristic
8. Organization of activities	Passive
	Dialogue
	Problem solving
	Creative
	Virtual
9. Area (territory)	Local
	Regional
	International
10. Market of field trips	Language study tours
	Sports study tours
	Professional study tours

1.12. Learning Modules by CATRO

- Summary

During our discussions with the Vice-dean of the Faculty of Economics and Business Administration (FEBA), Sofia University, we sought to identify the best environment for developing the creativity and innovation competences of students. We came to an agreement that graduate students are not the most suitable group, as the internships they are undergoing usually involve learning a lot about the basics of the functioning of the company they are working in – hardly the most conducive environment for innovating. Instead, we identified several other groups that could have more room for competence development. There was also an event for student's start-ups which might benefit from the CIM approach, but preparations were at an advanced stage. Therefore, it was decided that students tasked with organising a Career fair at the faculty are the most relevant group.

With the establishment of a COVID-19 quarantine, both the University and the CATRO team had to adapt their activities to a distance form on work and study, making use of recorded videos, lecture upload on Moodle, and holding team sessions through video conferencing.

- Target group

2nd year undergraduate students in the Faculty of Economics and Business Administration follow a 60 ECTS course (two semesters) in Business projects in an international environment. As part of the course, those students undergo an internship at the Career Centre of FEBA, where they fulfil various tasks. A year-long objective of all students is the organisation of a career fair involving dozens of companies and most of the students in the Faculty. The group of 16 highly motivated students is divided into 4 teams with different focus of activities. Each team follows a yearly plan and regularly updates their supervisor on their progress, while working mostly independently.

During lectures part of the respective discipline, students, in general, learn about what business projects are and how to conduct them. They perform the research connected to their tasks as a team.

Students part of the target group are around 20 years old. They are pursuing a bachelor's degree in Business administration or Economics at Sofia University. Most of them come from language schools and have strong interest in entrepreneurial disciplines. As 2nd year undergraduate students, they are familiar with general concepts in the field of Economics, Human Resources and Finance.

- Themes (content area)

The students were divided into 4 teams, each with a specific focus of activities, with an overarching objective of organising a faculty-wide career fair. The career fair at FEBA was organised for the first time in 2016 with 9 companies. In 2019 – 35 companies participated with even more applicants in the waiting list; the target for 2020 is 50 companies.

  - Team 1 - Career fair - In charge of the overall organisation of the career fair, logistics, placement of company stands, pricing etc.

- Team 2 – Communication – responsible for the communication between the Career centre and the students. Mobilising the student community.
- Team 3 – Content – Preparing content for the Career fair - plans for the location, photos, statistics; invitations; countdowns (Facebook posts).
- Team 4 – Event masters – taking care of the fan page of the Career centre in Instagram. Instagram was selected as most students consider Facebook an outdated channel.

- **Learning objectives**
  - **Knowledge:** Students had to learn more about organising events, motivating participants, developing communication strategies, and the overall application of design thinking to innovation projects.
  - **Skills:** Students were to improve their creativity, communication, and organising abilities.
  - **Attitudes:** Students needed to be motivated, flexible and willing to overcome unexpected difficulties.

  The principal competences developed by participants were **teamwork** and **project management**.

- **Methods/Activities**

Second semester start – 17 Feb

- **Lecture 1 – 19 Feb**: Introduction of the project

  Pre-assignment – self-study materials: what is expected of the teams; creativity vs innovation; what are the benefits of design thinking – why is it useful;

  The teams were already formed; they have their vision and mission defined; the target has been researched; Conducting pre-assessment;

- **18 March** Presenting design thinking in a video lecture

  Research task on carrier fairs

- **25 March** –Workshop –– Understand and Point of view phase – formulate the problem

  Self-study: further research on the problem

- **01 April –** Workshop – Improving the coordination of teams, clarification of responsibilities
- **03 April –** Workshop with team leaders on clarification of responsibilities
- **08 April** – Workshop – Ideating and Prototyping phase

  Further Prototyping with mentors – creation of videos

- **April -May** – Career fair – testing phase

- **After the carrier fair** – Presentation of results, video, self-assessment

  Every student gets an internship certificate– knowledge, skills, results + LEVEL 5 certificate

- Resources and materials
  - Presentation of the CIM project – completion of existing materials
  - Video Lecture on Design thinking – own development
  - Design Thinking templates, including pre-and post-assessment – own development;
  - LEVEL5 assessment grids – developed by blinc

1.13. Learning Modules by dieBerater

- **Summary**

At *die Berater*® we have two interns in the department for media competences. Both interns are students of Digital Media Production and Cross Media Production and during their internship at *die Berater*® they have been involved in the development of two new innovative projects on the development of learning tools.

From the beginning of the project both were part of the design process. They were Encouraged to bring in their own ideas and to think out of the box in developing new approaches.

The first project is a Restaurant called TOP-Lokal. It is a socio-economic enterprise, which is operated by *die Berater*® on behalf of the labour market service Vienna. The aim of the project is to enable long-term job seekers to re-enter the regular labour market by means of transit jobs in the Restaurant. For marketing purposes we needed to create modern image videos and presentations for the TOP-Lokal as well as our three socio-economic partner-enterprises

The second project is the Austrian BOYS' DAY. A vocational orientation day for young men between the ages of 12 and 18 which also serves to develop a positive male identity. At BOYS' DAY, boys can get to know professions in which only few men work. These are mainly professions from the social, educational and nursing area. The BOYS' DAY is intended to motivate male youths to consider non-gender-specific professions, such as nurse or elementary school teacher, for their future planning. In addition, they can reflect on their life planning, exchange views on images of masculinity and develop their social skills. We have never directly addressed this target group before and had to think of new approaches.

We chose these two projects for the CIM approach, because both are dealing with innovative ideas and the two young students have both a creative background in media design, so that they bring in the creative components of their professional knowledge and skills.

The CIM learning projects aimed at combining the creative potentials of both students with the competences to implement this potential within a project development process with a specific focus on client orientation. It is not only about having creative ideas, but also to find ways, how these ideas can be practically implemented in a project development process, which is also structured due to a given framework.

The competences we focus on in the learning project are:

1. Project management
2. Problem solving
3. Creating ideas and opportunities

The learning process of both interns started with a first self-assessment on the selected competences. The self-assessment process was also reflected by their mentors.

In the beginning of June a half-day workshop on design thinking was organised. The CIM project team of *die Berater*® presented input on creativity and innovation techniques, tools and methods – and how to apply them in their working context. Strategies for the practical implementation in the concrete tasks of the internship project were discussed.

In Mid-June 2020 the practical phase on the concrete project works started:

- Xi Zeng: Her main task was the production of image videos for several social projects: the video production included a lot of creative work - filming, cutting, etc.
- Alex Renz: Responsible for the design of a new e-learning offer, the development of material (marketing material for the website as well as learning material for the learning platform) for "BOYS` DAY" (Austrian-wide initiative to motivate your boys for professional education in the social, healthcare or educational sector). Apart from this, Alex was involved in current training courses for young people, which was a very new experience for him.

The practical phase ran until Mid -September. Then another moment for the validation/self-assessment was organised.

- **Target group**
  - Interns from the study Digital Media Production
  - Interns from the study Cross-Media-Production

- **Themes (content area)**
  - Project management
  - Problem solving
  - Creating ideas and opportunities

- **Learning objectives**
  - **Knowledge:**
    - Project management L4: Knowing how different project Management tools can be used in different phases of a project
    - Problem solving -L4: Knowing how to solve problem s in different contexts and know to actively use available resources
    - Creating ideas and opportunities: - L4 Knowing when to apply the right instruments from the portfolio of different ideation and prototyping approaches and tools. Knowing when to use certain ideating and prototyping strategies
  - **Skills:**
    - Project management: L3/4 Actively applying specific PM tools/adapting them to specific contexts
    - Problem solving - L4: Actively expanding own problem solving strategies
    - Creating ideas and opportunities: L4 Searching for and selecting appropriate ideation and prototyping techniques and instruments for the own business. Creating and executing an ideation and prototyping strategy for the own context and the professional domain.

- **Attitudes:**
  - Project management: L4 motivated to improve own PM competences
  - Problem solving – L3/4: being motivated to improvement problem solving competences - being open for innovative approaches to find solutions
  - Creating ideas and opportunities: L4 Being determined and pro-active in using and improving ideation and prototyping in the own environment. Finding it important to be creative in this respect.

- **Methods/Activities**
  - Half-day workshop on design thinking
  - Self-assessment on own competences
    - Project management
    - Problem solving
    - Creating ideas and opportunities
  - Self-Learning on the moodle, based on research materials and material from the design thinking training in Palermo
    1. Design thinking theory
    2. Project management

       ➔ Accompanied by discussions and reflections
  - Concrete tasks on structuring project activities and how to tackle given restrictions and challenges under mentoring
  - Internal team sessions and coaching “on the job”, regular mentoring and feedback sessions

- **Resources and materials**

Training material from the CIM workshop in Palermo, material provided on the mathetics/moodle platform

1.14. Learning Modules by Dublin City University (DCU)

- **Summary**

The students from Dublin City University (DCU), who participated in the CIM project in Ireland, are enrolled on the BSc in Education and Training in the Institute of Education in DCU and undertake a four-year undergraduate honours degree which qualifies them to teach in the FET sector in Ireland. The degree is classified as Level eight on the Irish NFQ, and Level 6 on the EQF with 60 ECTS credits awarded each year and 240 credits in total over the course of the degree. In the third year of the degree the students go out on placement to a variety of further Education and Training settings which they must source themselves and where they engage in teaching practice and other activities in those settings for the duration of the year. These placements are supervised and involve visits from the coordinators to the settings to observe the students in their teaching practice.
The academic year in DCU is broken up into two semesters and over the course of the placement year the students do one 30 ECTS credit module in each of those two semesters.

At the start of each semester on the placement year the students are given an intensive induction program where they are introduced to the different elements of teaching and learning that they will experience during the course of the coming semester and are given a detailed outline of the assessment for the module.

It was felt by the project Coordinators that the placement year of the degree was the most suitable location in the overall degree programme for the implementation of Design Thinking principles. During the induction process at the start of the semester the students engaged in a design thinking workshop and were then to go on to attempt to implement these principles and the skills that they had acquired in the workshop during their placement with the overarching aim of the project being that the students integrated more creative and innovative approaches into their overall teaching practice.

The implementation phase of the project was to involve the students choosing one aspect of their placement experience where they encountered a problem/issue or an opportunity for development and to apply the different stages of the design thinking process that they used in the workshop to devise and implement a solution to the problem or to build on the opportunity. They could choose any issue or scenario, but it had to have a professional dimension and application. They were asked to consider the DT process as a systematic way to deal with problems, overcome difficulties or seize an opportunity in their practice and setting in a creative, innovative and collaborative fashion.

They were asked to select one of the following five categories below as the area for choosing a topic where DT approaches and principles could be applied:

1. Planning (lesson and/or setting planning)
2. Teaching, Learning and Assessment
3. Classroom and Behaviour Management
4. Evaluations and Critical Reflection on practice
5. Non-Teaching Experiences which could include anything that was not directly teaching based in the classroom e.g. staff meetings, trips etc.

They were then asked to submit a 10-minute PowerPoint presentation or video which outlined how they used the DT process to identify the topic, develop a response, implement the action and evaluate and reflect on its application (its effectiveness i.e. did the intervention work and why/why not and secondly how useful did they find the process as a way to infuse creativity into their practice).

The PowerPoint presentation was to be accompanied by an audio OR written narrative (in the notes section of the ppt). The video similarly was also to contain a narrative in the body of the video or in the accompanying audio (this was similar in style and form to presentations the students had completed for other modules on the degree up to that point).

The DT element of the assessment for the module in each semester was worth 20% of the overall mark for the students.

Implementation of DT principles and approaches during placement. This phase of the project did not take place as the students were not in a position to fully engage in their placement activities due to restrictions resulting from the Corona virus pandemic. These restrictions included total and partial closure of the range of placement settings that the students were located in and a focus on providing only the basic teaching and learning experiences for the clients in these settings.

- **Target group**

The BSC in education and training offers two versions of the degree. The first version is a three-year program after which the students emerge with a general qualification in education and training. This gives the students a broad range and experience of knowledge and practice in the general area of education. However, if students wish to graduate from the degree with a recognised teaching qualification which will allow them to teach in Further Education and Training settings, they must undertake the second version of the degree which is a four-year program. The additional year of this program is the one that is outlined above, and the students spend that year on teaching placement. The participants for the project were 8 students who undertook the placement year on the 4-year version of the degree some of whom were returning to education and had prior experience of the world of work and some of whom had come directly from second level education.

They had already completed two years of the degree and had undertaken modules in a range of subject areas including Entrepreneurship in Education and Training, Education for Sustainable Development, Citizenship, Diversity and Inclusion, Professional Development & Lifelong Learning, Advanced Teaching Strategies, Reflective Work-based Practice, Professional Skills and Practice, Curriculum Development, and Assessment and Feedback.

None of the students had any prior knowledge or experience of design thinking approaches.

- **Themes (content area)**

Design Thinking (DT). The workshops introduced the students to Design Thinking principles, techniques and skills that they were to go on to implement in their placement setting and specifically related to aspects of that placement such as: Planning (lesson and/or setting planning); Teaching, Learning and Assessment; Classroom and Behaviour Management; Self-Evaluation and Critical Reflection on practice; Non-Teaching Experiences which could include anything that was not directly teaching based in the classroom e.g. staff meetings, trips etc. By doing this it was hoped that the trainee teachers would then go on to apply DT principles in other learning contexts (e.g. the remainder of their degree programme) and beyond into the further stages of their careers.

- **Learning objectives**

- **Knowledge:** *Please describe the knowledge that students are supposed to acquire during the project.*
  - L2: Having basic knowledge on creativity and innovation. Knowing that idea creation, a multiperspective view on the ideas and the check of ideas is an essential part of the product/service and business development.
  - L3: Knowing ideation and prototyping approaches: Spotting opportunities; Creating ideas; Working towards a Vision; Valuing ideas; Checking for Sustainability.
  - L4: Knowing when to apply right instruments from the portfolio of different ideation and prototyping approaches and tools. Knowing when to use certain ideation and prototyping strategies.
- **Skills:** *Please describe the skills that students are supposed to acquire during the project.*
  - L2: Taking part in DT workshops.
  - L3: Choosing singular ideation and prototyping tools from a given (known) portfolio.
  - L4: Creating and executing an ideation and prototyping strategy for the own context and professional domain.
- **Attitudes:** *Please describe which attitudes students are supposed to develop during the project.*
  - L2: Being curious and interested in ideating and prototyping and spotting of opportunities.
  - L3: Being motivated to develop own ideation and prototyping competences and visions.
  - L4: Being determined and pro-active in using and improving ideation and prototyping in their settings.

- **Methods/Activities**

1. Self-assessment on own competences (at the beginning and at the end)
   - DT and spotting opportunities
2. Online via ZOOM workshop on DT on 3 separate half days straddling the break between semesters 1 and 2
   - Design thinking theory
   - Group work
   - DT techniques
   - Presentation of project work
3. Practical phase
   - Implementation of DT principles and approaches during placement. This phase of the project did not take place as the students were not in a position to fully engage in their placement activities due to restrictions resulting from the Corona virus pandemic. These restrictions included total and partial closure of the range of placement settings that the students were located in and a focus on providing only the basic teaching and learning experiences for the clients in these settings.

- **Resources and materials**

Training material from the CIM workshop in Palermo. The project team members also devised several presentations and used supporting material drawn from their own resources.

1.15. Learning Modules by Politécnico de Leiria

- **Summary**

The learning project developed at Politécnico de Leiria in association with the CIM project involves the development of creativity and innovation within the design thinking and problem-solving approaches. This objective was incorporated in Master degree curricular unit where the students were given a challenge and some milestones that they must achieve, using a set of methods and tools that are introduced. In this pilot project the challenge was to produce a video to communicate a scientific paper for the general audience.
Addressing the challenge students became more proficient in the use of tools and methodologies like design thinking, video editing or multimedia communication. Some of the methods and tools were presented and exercised with students. Example videos were also presented, to inspire and help in the idea's generation. Finally, students presented their work and reflect on what was learned, the difficulties and victories.

- **Target group**

Project target group are master students from Biotechnology of Marine Resources, within Leiria Polytechnics. Students age around 22 years old already with a graduation related to marine biology and biotechnology, frequenting the master on marine resources biotechnology. The project was planned for autonomous students work within a curricular unit block related to biosensors. Students of two other curricular units one related to creativity and one other to business also interacted in some parts of the project.

- **Themes (content area)**

Within the CIM domain the contents/areas tacked with students within the development of their project were: Creativity and innovation development, Design thinking, Problem solving, Co creation, Video edition and Project management.

- **Learning objectives**
  - **Knowledge:** *S*tudents are expected to get basic knowledge of design thinking and its steps (emphasizing, problem identification, ideation, prototyping and testing); They will also need to develop knowledge about video editing and communication related competences.
  - **Skills: S**tudents will be able to transfer design thinking in real life problem; they will also need to translate scientific language to regular non-technical communication and to find ways to tell a story in a video format.
  - **Attitudes:** Students will get familiar with design thinking methodology and with video editing and communication. They are expected to get interested in these subjects while they are training and producing their film.

- **Methods/Activities**

Main teaching methods and activities carried out with students were:

- In-class training
- Design sessions
- Prototyping activities, recording and video editing
- Teamwork / individual work (due to pandemic confinement)
- Presentation planning and delivery
- Self-assessment, reflection, and reporting

- **Resources and materials**

Time and concentration were the main resources used in the project. Internet access to scientific papers was also needed. Additional resources for the film production include the mobile phone camera and a freeware video editing software. For the video conference classes and final presentations zoom platform was used.