



**ELE VET**

# Desk research report and definition of good practices – Entrepreneurship, Digital Skills and Innovative Pedagogical Approach

INSIGNARE, EGINA



**ELE VET**

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ELE VET

## Introduction

The [ELE\\_VET project](#) aims to enhance the professional profile of VET teachers and trainers in the field of entrepreneurship and digital skills by offering online, face-to-face and work-based learning opportunities. To do so, the project will support the establishment of an international network of VET – Vocational Education and Training – providers in two different countries (Azerbaijan and Armenia) with the potential to furtherly extend within the EU, as well as in the whole Neighbourhood East.

The background and rationale of the project stem from the broader context of the Eastern Partnership (EaP) initiative, initiated collaboratively in 2009 by the European Union alongside its Member States and a group of countries including Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, and Ukraine, collectively referred to as "the partner countries". This initiative is characterized by its strategic and ambitious nature, built upon shared values, rules, mutual interests, and commitments, as well as a sense of collective ownership and responsibility. The initiative has five main objectives that need to be addressed in the long term:

- Together for resilient, sustainable, and integrated economies;
- Together for accountable institutions, the rule of law and security;
- Together towards environmental and climate resilience;
- Together for a resilient digital transformation;
- Together for resilient, fair and inclusive societies.

Within this framework, the project seeks to address existing challenges in vocational education and training (VET) in these countries, particularly in the realms of entrepreneurship and digital skills.

## The ELE\_VET project in a nutshell

The ELE\_VET project has begun with a **research phase** and the **collection of best practices** and **resources**, which will help the consortium develop a first draft of the training curriculum, which will be evaluated and validated by VET teachers and educators from Armenia and Azerbaijan. Once the curriculum is validated, the EU partners will begin with the development of educational materials, while partners from



AM and AZ will be involved in the feedback and validation session and will translate and localise the materials into their national language.

The training content will be compiled in a **blended training course on entrepreneurship, digital and innovative teaching methodologies**. Before the blended course is implemented, 6 selected VET teachers (2 x NE partners) from Armenia and Azerbaijan will have the opportunity to attend the Training of Trainers in Italy, a 1-week training where they will get familiar with the **ELE\_VET curriculum**, produced materials and methodologies, along with the overall structure of the blended course.

After this training, the blended training course will be implemented, involving at least **30 VET teachers** from AM and AZ. The blended course will include *online learning, F2F training sessions* in AM and AZ and **1-week job-shadowing experiences** in one of the EU countries. The focus shall be on entrepreneurship, digital and innovative teaching methodologies.

Once the teachers are trained, they will involve their students in piloting the ELE\_VET methodologies and integrating what they have learned in their lessons and students will be actively involved in the organisation of **National Hackathons**, which will lead the winning teams to the International Hackathon in Italy.

## 1) Framework

ELE\_VET's task 2.1 **“Desk research and definition of the good practices and design of a training curriculum”** required that the EU partners carry out desk research and analysis of different good practices that have been implemented in previously funded projects, and they identify differences and similarities for the development of a training curriculum for VET teachers and trainers. The aim is to come up with a first draft of the ELE\_VET training curriculum, which will be delivered during the blended training course, to be offered within the project lifetime.

In this report, several good practices can be found, grouped in three dimensions: Entrepreneurship, Digital skills, and Innovative pedagogical approaches. Each of them has a detailed analysis of its relevance to the project and how it can be adapted to VET providers' reality.

After the selected good practices have been carefully gathered and analysed, the consortium proceeded to identify specific training modules to be included in the ELE\_VET training programme. The first draft of the curriculum, along with a comparative analysis, can be found at Chapter 5.

## 2) Entrepreneurship

### 2.1) PAP - Professional Aptitude Project (Prova de Aptidão Profissional) in Management courses

PAP consists of the presentation and defence, before a jury, of a project embodied in a material or intellectual product, in an intervention or in a performance, depending on the nature of the courses, as well as the respective final report of completion and critical assessment, demonstrating knowledge, skills, attitudes and professional competences acquired throughout the student's training path, in all training components, with a special focus on the areas of competencies included in the Profile of Students Leaving Compulsory Schooling and in the professional profile associated with the respective qualification.

The PAP project focuses on themes and problems envisaged and developed by the student, in close connection with work contexts, and is carried out under the guidance and supervision of a teacher or trainer.

Depending on the nature of the project, it can be developed by a team, as long as, in all its phases and moments of implementation, the specific individual contribution of each of the team members is visible and assessable.

The implementation of the project comprises three essential moments:

- a) Design;
- b) Development phases;
- c) Self-assessment and preparation of the final report.

The final report referred to in paragraph c) includes, in particular:

- a) The justification for choosing the project;
- b) Documents illustrating the implementation of the project;

- c) A global critical analysis of the project's execution, considering the main difficulties and obstacles encountered and the ways to overcome them.

The PAP evaluation jury is appointed by the school's administration and management body and is composed of the following:

- a) The school principal or his / her representative, who presides;
- b) The course director;
- c) The class director;
- d) The project supervisor;
- e) A representative of business associations or companies from sectors related to the course;
- f) A representative of the trade unions of the sectors of activity related to the course;
- g) A person of recognized merit in the area of professional training or sectors of activity related to the course.

The PAP for the Management vocational courses in Portugal, which are supported by the European Social Fund, consists of an individual project carried out during the last year of the course.

It is a final, comprehensive and integrative work of the content taught essentially in the technical area of the course (Management, Accounting and Taxation, Organizational Law and Financial Calculation and Statistics). The theme of the project is chosen by the student, as it is individual, and consists of the creation and simulation of the activity of a company, aiming to develop his / her entrepreneurship strategical skills. It has two parts: the written document, which has all the information, and a pitch, a summary which will be presented before a jury.

During the five phases of the project, developed according to a specific script and schedule, the aim is for the student to apply the content taught, develop their skills and competencies in a practical case and use the Management / Accounting software used in the classes.

The objective is for the student to create a business project, stimulating the entrepreneurial spirit and gaining awareness of how the real market works.

- a) In the first step, the student presents the company and aims to describe the scope / object of the company's activity (evolution over time / needs / interesting

facts) and justify the choice of the topic presented. The student develops its technical description: company's name; legal form; headquarters; number / identification / participation of owners; share capital; corporate purpose; number of employees and drafts the articles of the statutes according to the type of company.

- b) In the second step, the student creates the company's Marketing by identifying and characterizing the market segment (for whom); analyzing the main competitors; defining the positioning and slogan / logo; defining the marketing mix (what to sell; defining the price; where and how to sell; how to advertise); doing the SWOT analysis (at least 2 Strengths, 2 Weaknesses, 2 Opportunities and 2 Threats).
- c) In step three, the organizational dynamics are developed by creating the organizational chart; describing the functions and departments and preparing the personnel table: identification of workers; types of contract (model / justification); category; department; salary and benefits; profile; tax and welfare contributions.
- d) In the fourth step, the student presents the operational or productive dynamics, where he / she characterizes the manufacturing / service provision or sales process; defines the productive or operational area / layout; the table of used materials or goods and its costs; the production cost calculation maps (if it is an industry); table with necessary external supplies and services; table with the identification of equipment / fixed assets (costs, useful life, amortization rate, etc.).
- e) The last stage involves the financial coverage of the project (financing sources, financial costs involved); reference to the documentary cycle to be used in the company, definition and presentation of at least one of them; initial/opening balance sheet; simulation of accounting movements relating to one month of activity (December) / documents justifying some operations (minimum 6); VAT calculation; end-of-year adjustments; calculation of results; final balance sheet and income statement; analysis of some economic and financial indicators (table of ratios and main conclusions; analysis of what distinguishes my business? (why is it worth investing in it – at least 3 reasons).

This methodology fits the goal of ELE\_VET as, although it is focused on VET students' evaluation, it requires an entrepreneurship mindset for the teachers. They are requested to act as Advanced players, as such considered by the EntreComp Progression Model, as they take responsibility for making decisions and working with others (namely their students, and the stakeholders who are invited to assess the latter's final results – indirectly, these guest also evaluate the teachers' job, as mentors).

Hence, teachers need to be continuously updated on the three areas of the EntreComp framework, and all its competencies, but they also should be able to define learning outcomes for each of them, to properly train and mentor their students in their final project.

Moreover, within the "Working with others" and "Learning through experience" competencies, it is compulsory for teachers to develop a suitable network of business people, managers and staff, who will be invited to come to school and share their experiences with the students, assisting them in the creation of value for their projects.

It should be mentioned that several startups were created by our former students, from their PAP: <https://poupaemtudo.pt/>, by Plastikrohn, and <https://www.facebook.com/madeinnature.ecoshop/> are two examples.

To adapt this proposal to other VET providers' reality, the organisations should:

- ✓ Allocate proper time throughout the last year of the chosen courses for the teachers and students to implement it, from the idea to the final work.
- ✓ Define which part of the areas of the EntreComp the teachers involved will require additional training;
- ✓ Detail which of the criteria – and its percentage – will be chosen to assess the students' final work, and which weight shall be given to internal and external people evaluations.
- ✓ Clarify if, besides the written document and the pitch / presentation, a prototype of the product (if it isn't a service) is mandatory. If so, it should be considered an amount the organisation should foresee to support the students with buying and assembling the components.
- ✓ Indicate, right from the start, the day or week when the jury assessment will take place, and how long will take for each student's pitch, plus Q&A time.

- ✓ Invite relevant stakeholders from the students' ideas sectors or the local / regional Business Association. It should be defined a deadline for the students to complete the written document, so it could be sent to the external jury for a previous assessment.

## 2.2) “Labour Market at School” Erasmus+ KA2 project

This Erasmus+ project was a partnership between five European countries. These schools aspired to create an experience that allowed their students to gain professional experience, personal development, opportunities to utilize critical and creative thinking, and an entrepreneurial mindset that they could utilize to assist their communities.

Of the participating schools, three had vocational profiles (Greece, Italy and Portugal) and the other two schools had general education profiles (Bulgaria and Turkiye), coming from small / medium size communities. By having a variety of profiles represented, the Erasmus+ experience was more meaningful because it exposed students to different methods of entrepreneurship.

We considered this project as a best practice due to its different approach to Entrepreneurship and its students' starting point:

- ✓ It was decided not to include courses that had already classes with topics related to Entrepreneurship, like Management or Design.
- ✓ Partners defined a top-down approach – for each meeting, entrepreneurs or businesspeople would come to school and explain which skills local / regional companies look for in young people, or what skills a young entrepreneur should have if he / she wishes to start a company.
- ✓ An in-depth look at local economies and their needs provided insight for the students, as well as sites where to look for statistical data.
- ✓ Only after were students grouped in international teams to create a company, where those skills should be emphasized, offering an opportunity to work together to find solutions to address the needs of the economies.
- ✓ A business template canvas was provided and explained so that students could save time. After getting to a common idea, it was required to fill it in.

Consequently, the learning outcomes that were defined by and to the teachers were primarily connected to the “Ideas and opportunities” area of the EntreComp, and the Foundation level of proficiency was the only one required.

Therefore, the five key competencies that were targeted, and the ones the students were given feedback, were:

- ✓ Spotting opportunities: were they able to find opportunities to generate value for others?
- ✓ Creativity: were they able to develop multiple ideas that create value for others?
- ✓ Vision: could they imagine a desirable future?
- ✓ Valuing ideas: could they understand and appreciate the value of different ideas, discuss them and reach a common decision?
- ✓ Ethical and sustainable thinking: were they able to recognise the impact of their choices and behaviours, both within the community and the environment?

To adapt this proposal to other VET providers’ reality, the organisations should:

- ✓ Define a short period (two or three days) for an event like this.
- ✓ Ask the teachers involved to properly define the expected learning outcomes, focusing mostly on the process of entrepreneurship, not on the result;
- ✓ If possible, have multiple classes / courses involved, to provide as many different views as possible, and define mixed classes / courses groups.
- ✓ Prepare a starting presentation with key aspects from local economies and their needs and one or two sites with relevant statistical data.
- ✓ Invite entrepreneurs or business people, or the local / regional Business Association, to come to school and explain to them carefully what is expected for the students to achieve, so they can adapt their intervention.
- ✓ Characterize with high precision the methodology to the students, including the expected learning outcomes, and provide them with a limited time allotment, so they can focus on what is important.

### 2.3) “RISE - Realising Integration through Social Enterprise” Erasmus+ KA2 project

The RISE Project had the intention to investigate the integration of unemployed adults and young people into the labour market through the mechanism of Social Enterprise. It

focused on the creation of positive social change for individuals and communities, while at the same time enabling our learners to harness their entrepreneurial potential to deliver a viable, commercial product or service within a spirit of cooperation and collectivism. It was coordinated by Austria, with partners from Belgium, Germany, Greece, Ireland, Romania and Portugal.

The target groups mentioned in the application were diversified: persons at risk of social exclusion and unemployment, young people and adults with disabilities, single mothers and mothers of many children, young persons and adults experiencing unemployment or the risk of it due to area depopulation and closing down of services, autistic people, long-term unemployed refugees, who want to start their own business and have innovative ideas, civil society organizations, people who are distant from the labour market, low-skilled, long term unemployed and young people at risk of social exclusion, low-skilled women; gypsies; mentally disabled adult citizens; rural low-skilled farmers.

This project is relevant for ELE\_VET as it had two distinctive added values: its target groups and the type of entrepreneurship it highlighted: Social Enterprises.

Two of the results were:

- ✓ A collection of 27 best practices in the partner countries; this collection is a valuable tool for providers of I-VET and C-VET education and external stakeholders.
- ✓ A common guideline for setting up a Social Enterprise. From project meeting to project meeting this document grew, as the expertise of the group, as we were following the examples of the best practices, presented by its founders, managers, staff, or other stakeholders, like funding authorities.

The learning outcomes that we outlined showed us that, for specific target groups, some of the EntreComp competencies may be more relevant than others:

- ✓ In the “Ideas and opportunities” area, “Spotting opportunities” and “Vision”.
- ✓ In the “Resources” area, the most important of all are self-awareness and self-efficacy and “Motivation and perseverance”.
- ✓ In the “Into action” area, “Coping with uncertainty, ambiguity and risk”.

Hence, before one starts developing the entire framework, specific work should be carried out to motivate the learners, as they come from a specific background.

## 2.4) Social Cooperative Contest for Secondary Schools (SCoopConSS)

Social Cooperative Contest for Secondary Schools (SCoopConSS) piloted an innovative and engaging methodology to introduce and enhance cooperative business education in secondary schools, starting from topic-related teachers who will involve colleagues from other disciplines and students in the simulated establishment of a social cooperative focused on one or more of the 17 UN SDGs (Sustainable Development Goals).

The SCoopCons curriculum has been articulated and structured with the aim of guiding students and teachers towards the development of a business idea, and provided them with practical knowledge and templates (business canva, business plans template, etc), that can be found here <https://scoopconss.eu/en/resources/>. The materials could be adapted to the ELE\_VET Hackathons.

This initiative supports the core objectives of VET by combining theoretical knowledge with practical application, preparing students for both the workforce and entrepreneurial ventures that can have a lasting impact on their communities.

## 2.5) WINBIZ project: learning modules

This course addresses the needs of migrant women or women with a non-Western background and with medium-high levels of education, that would like to exploit the potential of entrepreneurship to participate equally in the economy. In this regard, they shall develop their competencies in the following areas: Entrepreneurship & Social Entrepreneurship, with a focus on design thinking Sustainable Development Business Planning Innovation & Social Innovation Marketing & Sales Financial Management Leadership & Communication Legal Issues, Funding Opportunities, Support Structures Creativity Critical Thinking Networking Problem Solving Prioritization, Organization. The platform will be made accessible if it is needed to explore the good practice further (<https://elearning.daissy.eu/course/index.php?categoryid=8&lang=en>).

The course offers relevant learning materials which can be useful to accompany learners towards an hackathon and the development of an idea. Offering practical tools and theoretical elarning on design thinking, prototyping and testing an idea, social innovation

and its impact, technology and its importance in society, learners are guided throughout the development and practical application of an idea.

The modular approach provides adaptability to the VET reality, the core of ELE\_VET.

## 2.6) SEED4AFRICA training methodology and resources

The SEED4AFRICA project aims to enhance the professional profile of African VET teachers and trainers in the field of agriculture and rural development by offering online, face to face and work-based learning opportunities. In order to do so, the project will support the establishment of an international network of VET providers in three different countries (Italy, Belgium and Spain) and other Sub-Saharan countries, with the potential to further extend within the EU, as well as in the whole southern African region. The final activity of the project will be a series of hackathon in the African countries. Besides the link to the Erasmus+ project website, we shared the link to a Miro board with a guided path for the development of a business idea.

SEED4AFRICA (<https://www.seed4africa.eu/it/>) can serve as a reference model for integrating learning experiences in the field within ELE\_VET, and this project can build on the SEED4AFRICA approach to ensure the sustainability of the international network beyond the project duration.

Other VET providers can adapt SEED4AFRICA to their reality by creating interactive teaching materials and practical guides for teachers to facilitate integration into VET pathways.

## 2.7) SPINTeams "WOULD BE ENTREPRENEUR" training course

The "WOULD BE ENTREPRENEUR" training course aims to improve entrepreneurial and business skills addressed to advanced students, PhD students, and researchers (would-be entrepreneurs or spin-off / start-up founders). The training course is a blended learning course composed of a collection of 8 thematic modules with a collection of video training, complemented by a short manual and infographics and complementary workshops in the international cooperation platform.

The course offers theoretical and practical knowledge aimed at improving entrepreneurial and business skills: <https://www.spintteams.eu/would-be-entrepreneur-training-course.html?lang=it>.

The materials can be adapted and simplified to other VET providers' realities.

### 3) Digital Skills

#### 2.1) Interdisciplinary Teaching and Training 4.0

Interdisciplinary work processes are becoming more and more important against the backdrop of digital transformation. An understanding of the entire process chain in companies as well as a mutual understanding of basic knowledge for technical or commercial requirements are becoming increasingly important. Overall interdisciplinary work has become a prerequisite for innovative business development for companies. Accordingly, skilled workers of the future must be prepared for these changing requirements. For VET this has the consequence of developing teaching sequences that prepare students to be able to cooperate especially at the interface between different industrial-technical and commercial areas, because mutual understanding in the work process becomes more and more important. For that, among other results, the INTENT project has characterized a set of free digital tools and methods ready for use by teachers in interdisciplinary cooperation.

It gathered partners from Czechia, Germany, Italy, Portugal and Spain.

The project was able to collaboratively work with the teachers from diversified classes / courses in several tools, related to competencies of areas 2 – “Digital Resources”, 3 – “Teaching and Learning”, 4 – “Assessment”, 5 – “Empowering Learners” and 6 – “of DigCompEdu framework, collected in a common template.

It should be noted that these tools did not require previous solid IT skills, but were chosen precisely for their transversal and feasibility characteristics – their usability should be clear for teachers coming from different backgrounds and different qualifications.

|                       |                                                                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tool name</b>      | Camtasia ( <a href="https://www.techsmith.com/camtasia">https://www.techsmith.com/camtasia</a> )                                                                                                                   |
| <b>Main objective</b> | Screen recording software                                                                                                                                                                                          |
| <b>Advantages</b>     | <ul style="list-style-type: none"> <li>• Computer screen and video recording are possible;</li> <li>• Have large video formats to support more than 4GB;</li> <li>• Recording sound from your computer;</li> </ul> |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       | <ul style="list-style-type: none"> <li>• Creating, delivering and managing educational courses smarter;</li> <li>• Give students a combined audio-visual learning environment. They are useful to those who learn best through seeing rather than hearing or reading;</li> <li>• Help students improve self-study;</li> <li>• Allow students to learn by example. For instance, see a step-by-step procedure in detail or easily understand a technical term through a simulation;</li> <li>• Screencasts help improve students' attention and retention, compared to classroom and text-based learning.</li> <li>• Students create their screencasts to prove what they understand. Or, record a video to share their ideas with the teacher.</li> <li>• Can include many multimedia elements – music, sound effects, audio, and graphics – along with text, making any content topic engaging while also appealing to different learning modalities.</li> </ul> |
| <b>Disadvantages</b>                  | <ul style="list-style-type: none"> <li>• Sometimes the video (with audio) doesn't have the quality that we expect.</li> <li>• If you have to manipulate the audio and the video it can be a bit tedious and time-consuming.</li> <li>• Rendering takes a long for long videos.</li> <li>• Doesn't provide as many pre-made sound themes as they should.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Teacher / trainer's experience</b> | <ul style="list-style-type: none"> <li>• Beneficial to students who prefer learning through seeing and practising.</li> <li>• Students become more proactive. They can learn at their own pace: watch, pause, or replay videos whenever they want.</li> <li>• Offer students 24/7 online access to knowledge. Learn anywhere and easy to review lessons before tests and exams;</li> <li>• Allow students to learn by example, seeing for instance a step-by-step sequence in great detail or viewing a screencast video directly related to lesson content.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                           |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       | <ul style="list-style-type: none"> <li>Students can watch a screencast video anytime, anywhere and have complete control of the lesson, which means they review any part of the presentation as needed.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Recommendations:</b>               | <ul style="list-style-type: none"> <li>Don't forget to save the project when you finish the task, if you need to make changes later.</li> <li>It can be used in all sorts of subjects.</li> <li>Screen recording is becoming crucial in many spheres of life, especially in the academic sector, where how-to videos are important, namely for teachers and students who come from other areas to learn the basics on their path.</li> <li>We can use it also for online courses in any subject, for instance in robotics or IT tools. (example in PT: <a href="https://www.youtube.com/watch?v=HbGuI7XROuM">https://www.youtube.com/watch?v=HbGuI7XROuM</a>)</li> </ul> |
| <b>DigCompEdu Area and Competence</b> | 2.2 Creating and modifying digital content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tool name</b>      | Socrative ( <a href="https://www.socrative.com">https://www.socrative.com</a> )                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Main objective</b> | Collaboration, collection of knowledge.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Advantages</b>     | <ul style="list-style-type: none"> <li>It is a good tool to measure the knowledge of the students.</li> <li>The teacher can create one's tests.</li> <li>Students can have a healthy competition, because of the ludic side of this software.</li> <li>It allows to work with groups of students.</li> <li>It is easy to get results.</li> <li>It is possible to use with PC or mobile phone.</li> <li>Don't need a video projector do let students know the questions.</li> </ul> |
| <b>Disadvantages</b>  | <ul style="list-style-type: none"> <li>Teachers must dedicate time to prepare the questions.</li> <li>There is a database of existing questions but is not easy to use.</li> <li>The free option allows only to have a small group of rooms.</li> <li>There are only 3 types of questions allowed.</li> </ul>                                                                                                                                                                      |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Teacher / trainer's experience</b> | <ul style="list-style-type: none"> <li>• Students like to work with Socrative.</li> <li>• The game-based side of Socrative is always the most attractive part for the students.</li> </ul>                                                                                                                                                                                                                   |
| <b>Recommendations</b>                | <ul style="list-style-type: none"> <li>• It can be used in all sorts of subjects.</li> <li>• It is good for measuring the knowledge of the class after a presentation;</li> <li>• It goes from quizzes to polls, creating whatever type of activity suits teachers' needs;</li> <li>• Activities are graded automatically in real-time, allowing teachers to spend less time grading assignments.</li> </ul> |
| <b>DigCompEdu Area and Competence</b> | 4.1 Assessment strategies                                                                                                                                                                                                                                                                                                                                                                                    |

|                                       |                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tool name</b>                      | Classroom screen ( <a href="https://classroomscreen.com/">https://classroomscreen.com/</a> )                                                                                                                                                                                                                                                                           |
| <b>Main objective</b>                 | It is an online tool that supports class activities and helps students to work.                                                                                                                                                                                                                                                                                        |
| <b>Advantages</b>                     | <ul style="list-style-type: none"> <li>• If you want to use the tool you do not need to subscribe to the website with basic functions.</li> <li>• There are about ten widgets and you can choose any language.</li> </ul>                                                                                                                                              |
| <b>Disadvantages</b>                  | The basic is free, yet you have to pay for other possibilities.                                                                                                                                                                                                                                                                                                        |
| <b>Teacher / Trainer's experience</b> | <ul style="list-style-type: none"> <li>• It is a great tool for brainstorming ideas at the beginning of a lesson, and for making the students think and communicate.</li> <li>• Students enjoyed it and they were helped to concentrate on their tasks.</li> <li>• It was also used for pair and group work.</li> <li>• It helps cooperative learning a lot</li> </ul> |
| <b>Recommendations:</b>               | <ul style="list-style-type: none"> <li>• It is accessible to those who are less advanced in using such software.</li> <li>• It has been used in marketing lessons and other projects to prepare and train the students on making choices, getting</li> </ul>                                                                                                           |

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|                                       | organized, working in groups, and being able to create a final artefact. |
| <b>DigCompEdu Area and Competence</b> | 3.3 Collaborative learning                                               |

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| <b>Tool name</b>                      | KanbanFlow ( <a href="https://kanbanflow.com/">https://kanbanflow.com/</a> )                                                                                                                                                                                                                                           |
| <b>Main objective</b>                 | Organisation and schedule.                                                                                                                                                                                                                                                                                             |
| <b>Advantages</b>                     | <ul style="list-style-type: none"> <li>• Easy to use. Quick start.</li> <li>• Colourful.</li> </ul>                                                                                                                                                                                                                    |
| <b>Disadvantages</b>                  | <ul style="list-style-type: none"> <li>• It is free but it has a Premium version you have to pay (5\$ + VAT).</li> </ul>                                                                                                                                                                                               |
| <b>Teacher / Trainer's experience</b> | <ul style="list-style-type: none"> <li>• In our institution in the module of Web Applications our students are doing a challenge and they are using this tool to schedule their tasks.</li> <li>• Sometimes students wait a lot of time using this tool and teachers have to control and measure their use.</li> </ul> |
| <b>Recommendations</b>                | It is a nice tool to organise a team and schedule the tasks.                                                                                                                                                                                                                                                           |
| <b>DigCompEdu Area and Competence</b> | 3.1 Teaching                                                                                                                                                                                                                                                                                                           |

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| <b>Tool name</b>      | Powtoon ( <a href="https://www.powtoon.com/">https://www.powtoon.com/</a> )                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Main objective</b> | It is a cloud-based animation software (SaaS) for creating animated presentations and animated explainer videos.                                                                                                                                                                                                                                                                                                                                                         |
| <b>Advantages</b>     | <ul style="list-style-type: none"> <li>• A blended learning environment</li> <li>• Creativity is unleashed and class content is more memorable and impactful</li> <li>• Co-teachers can easily collaborate and reuse templates again and again</li> <li>• Students can develop lifelong skills such as critical thinking, creativity, collaboration</li> <li>• Students help students learn through cooperative</li> <li>• Projects while enjoying themselves</li> </ul> |

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| <b>Disadvantages</b>                  | The subscription and the first try are free, then it has to be paid.                                                                                                                                                                                                                                                                          |
| <b>Teacher / Trainer's experience</b> | <ul style="list-style-type: none"> <li>• It is a great tool for brainstorming ideas, and for making the students think and communicate.</li> <li>• Students have a lot of fun with this tool and enjoy it.</li> <li>• It has been also used for pair and group work.</li> <li>• It helps cooperative learning and creativity a lot</li> </ul> |
| <b>Recommendations:</b>               | <ul style="list-style-type: none"> <li>• After the first steps you have to pay, but it is worth it.</li> <li>• It has been used in marketing lessons and other projects to prepare and train the students on making choices, getting organized, and working in groups</li> </ul>                                                              |
| <b>DigCompEdu Area and Competence</b> | 6.3 Digital content creation                                                                                                                                                                                                                                                                                                                  |

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| <b>Tool name</b>      | Tinkercad ( <a href="https://www.tinkercad.com">https://www.tinkercad.com</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Main objective</b> | Online Tool to create 3D Objects, electronic components and coding, specially created for younger users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Advantages</b>     | <ul style="list-style-type: none"> <li>• It's online and has free access;</li> <li>• All the work done stays in the account (cloud);</li> <li>• Allows project sharing and collaborating on projects;</li> <li>• It has a simulator function to verify the schematic and the code;</li> <li>• Easy to use, with quick lessons to facilitate a quick start;</li> <li>• Has a learn section with tutorials and webinars;</li> <li>• Has galleries of projects done by a large community of 3D design, 3D printing, coding and electronic circuits enthusiasts (Tinkercad is part of Autodesk), for the user to see and tinker with.</li> </ul> |
| <b>Disadvantages</b>  | <ul style="list-style-type: none"> <li>• Has limited resources in 3D design and in the components' library;</li> <li>• Relies on the internet connection;</li> <li>• Relies on the browser and the operating system (prefers Chrome on a Windows machine).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                        |

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| <b>Teacher / Trainer's experience</b> | <ul style="list-style-type: none"> <li>• Students like to work on the platform;</li> <li>• Increase of proactivity and curiosity of the students;</li> <li>• Students can access the platform from anywhere;</li> <li>• Easy to use for beginners, with a short learning curve.</li> </ul>                                                                                                                                                                                                                                                                                                 |
| <b>Recommendations:</b>               | <ul style="list-style-type: none"> <li>• If you want to share your projects, don't forget to put the privacy option of the project as "public".</li> <li>• Useful for complex and multi-step projects, for example, when developing an electronics project, students learn to source the parts, do the programming and design in 3D the enclosure for the device.</li> <li>• The students can be given a task, with some instructions, and develop the project there, from the electronic schematic to the programming and if needed design an enclosure for the project in 3D.</li> </ul> |
| <b>DigCompEdu Area and Competence</b> | 5.3 Actively engaging learners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| <b>Tool name</b>                      | Evernote ( <a href="https://evernote.com/intl/de/">https://evernote.com/intl/de/</a> )                                                                                                                                             |
| <b>Main objective</b>                 | Note-taking, organizing, task management, and filing.                                                                                                                                                                              |
| <b>Advantages</b>                     | The app allows users to create notes, which can be text, drawings, photographs, or saved web content. Notes are stored in notebooks and can be tagged, annotated, edited, searched, given attachments, and exported.               |
| <b>Disadvantages</b>                  | It is free to use with monthly usage limits and offers paid plans for expanded or lifted limits.                                                                                                                                   |
| <b>Teacher / Trainer's experience</b> | It is a great tool for getting students to research and write notes about stuff they find useful for their studying.                                                                                                               |
| <b>Recommendations:</b>               | <ul style="list-style-type: none"> <li>• The tool is in English.</li> <li>• It was used in marketing lessons for preparing students' presentations. So, it can be useful for teamwork organization and task management.</li> </ul> |
| <b>DigCompEdu Area and Competence</b> | 4.2 Analysing evidence                                                                                                                                                                                                             |

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| <b>Tool name</b>                      | Mendeley ( <a href="https://www.mendeley.com/reference-management/reference-manager/">https://www.mendeley.com/reference-management/reference-manager/</a> )                                                                                                   |
| <b>Main objective</b>                 | It is most known for its reference manager, used to manage and share research papers and generate bibliographies for scholarly articles.                                                                                                                       |
| <b>Advantages</b>                     | The major advantages of Mendeley are the ability to extract metadata from PDF files and integrate itself into Office.                                                                                                                                          |
| <b>Disadvantages</b>                  | <ul style="list-style-type: none"> <li>• The free version has a storage limit for documents and references.</li> <li>• The usability is somehow confusing.</li> </ul>                                                                                          |
| <b>Teacher / Trainer's experience</b> | It is a great tool for helping students write research papers.                                                                                                                                                                                                 |
| <b>Recommendations</b>                | <ul style="list-style-type: none"> <li>• The tool is in English.</li> <li>• It was used in marketing lessons to help write workgroup reports. It is useful for students from other subjects to research works on topics they are not familiar with.</li> </ul> |
| <b>DigCompEdu Area and Competence</b> | 6.1 Information and media literacy                                                                                                                                                                                                                             |

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| <b>Tool name</b>                      | Todoist ( <a href="https://www.todoist.com">https://www.todoist.com</a> )                                                                         |
| <b>Main objective</b>                 | Get all those tasks out of your head and into your to-do list (no matter where you are or what device you use).                                   |
| <b>Advantages</b>                     | Todoist gives you the confidence that everything's organized and accounted for, so you can make progress on the things that are important to you. |
| <b>Disadvantages</b>                  | There's a premium account.                                                                                                                        |
| <b>Teacher / Trainer's experience</b> | It is a great tool to help students organize themselves.                                                                                          |
| <b>Recommendations</b>                | <ul style="list-style-type: none"> <li>• The tool is in English.</li> <li>• It is useful to help to organize work, like mind maps.</li> </ul>     |

**DigCompEdu Area  
and Competence**

**3.4 Self-regulated learning**

## 2.2) Pact for TOURism Skills – Towards a greener and more digital Tourism Era

TOURing aimed at establishing and sharing a standard model for skills in the EU's tourism sector to address the skills mismatches and “invest” for future developments. It established an effective mechanism where partnering VET Institutions and Tourism Businesses engaged in mutual learning, peer counselling, and capacity building, aimed at raising the quality and attractiveness of VET provision and a European, National, Regional and Local Level. TOURing was the answer towards bridging the gap between the market needs in terms of skills and competencies in the Tourism Sector, and the ability of the VET to provide more tailored Curricula and Up-Skilling opportunities that would create balance in the booming tourism sector. It gathered twelve partners from Belgium, Cyprus, Germany, Greece, Italy and Portugal.

Based on the above, its main goals were:

- To support Tourism Stakeholders to respond immediately to the fast-changing and increasing skills gaps in digital and green skills sets;
- To contribute to the Knowledge Hub of Pact for Skills by providing updated and state-of-the-art curricula addressing the need for digital and green skills in the tourism sector;
- To create the ground for partnerships and cooperation structures between VET / Education Providers and Labour Market Representatives in the Tourism Sector;
- To raise the awareness of VET systems and the Tourism Industry in digital and green transitions in tourism;
- To increase the quality of the VET Curricula related to Tourism which nowadays goes hand in hand with digital technologies and environmental sustainability.

One of the project's results was an online survey, where any person – not related to Tourism – can assess one's level of digital skills. This self-assessment was thought of as a way of understanding which stage one is in his / her Digital journey. Starting from one's

answers and the result, one may profit from training, tutorials, and other information that will help to improve his / her skills.

The survey can be found here: <https://touringproject.eu/self-assessment-tools/>

It may be considered as a starting point, or an entrance, to one's path into the DigCompEdu framework, namely its first dimension: the Educator's professional competencies in the Digital world.

### 2.3) TEF – Tourism Education of the Future

The European tourism industry was severely impacted by the COVID crisis: it affected around 2/3 of direct tourism jobs, whilst the tourism ecosystem struggles to recruit qualified people. In addition, the tourism workforce is generally less qualified than the EU working population, with up to 25% possessing low-level qualifications. Changing skills needs and bridging skills gaps in a highly seasonal sector is a major challenge for tourism businesses, education providers and public bodies. The project has been realized to provide future and current tourism professionals (in I-VET and C-VET) with the required digital, soft and professional skills to find and maintain a tourism occupation.

The main problem addressed by the project was the difficulty of reducing the skills gap between schools and the tourism industry, due to the lack of digital skills of teachers and students, the lack of soft skills of students and the lack of professional skills of students and professionals. The project also addressed the need to increase advocacy capacity towards VET stakeholders; to have staff trained to establish relationships with other schools and networks; and the need to recruit qualified staff and the difficulty of upskills professionals.

It brought partners from Belgium, Bosnia & Herzegovina, Greece, Italy, The Netherlands, Portugal and Spain.

The specific objective was to improve the ability to reduce the skills gap between schools and the tourism industry. It was achieved through the following results:

1. Improved digital competencies of teachers and students;
2. Improved soft skills of students;

### 3. Improved professional competencies of students and professionals.

The achievement of the project-specific objective led to a better quality of VET provision, an increased employability of students and professionals, and an improved quality of the tourism offer. A series of long-lasting benefits for the target groups are:

- Improved ability of teachers to develop digital teaching, to motivate, support and engage students, to adapt teaching to trends and changes, and to teach soft skills;
- Improved ability of students to develop digital skills;
- Improved ability to recruit qualified professionals; improved ability to upskill and reskill professionals;
- Improved cooperation with companies, stakeholders and schools.

The project contributed to the creation of skills ecosystems and intelligence, mobility and international cooperation, digital transformation of teaching methods, attractiveness of VET, transparency and recognition of qualifications, flexibility and sustainability.

Its relevance to ELE\_VET relies on one of its results – a digital course catalogue, where the consortium researched, tested and evaluated over 100 free online courses in 5 different categories. One of them matches this project's goals: Digital Teaching. Below are the courses that ELE\_VET may find useful, as they are transversal, and not focused on Tourism:

|                                       |                                                                                                                                                                                                           |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title of the course</b>            | Rapid Teacher Training Programme on Distance, Open and Online Learning                                                                                                                                    |
| <b>Specific topic</b>                 | Online learning – teaching                                                                                                                                                                                |
| <b>Brief description</b>              | It presents different ways of teaching online. It is free but requires creating an account.                                                                                                               |
| <b>Link</b>                           | <a href="https://learn.openlearning.unesco.org/learning/course/course-vi:UNESCO+UNESCO-05+2021_01/home">https://learn.openlearning.unesco.org/learning/course/course-vi:UNESCO+UNESCO-05+2021_01/home</a> |
| <b>DigCompEdu Area and Competence</b> | 3.1 Teaching                                                                                                                                                                                              |

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| <b>Title of the course</b> | Adventure Tourism Innovation Partnerships                      |
| <b>Specific topic</b>      | Help learners acquire entrepreneurial skills and competencies. |

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| <b>Brief description</b>              | Adventure tourism is widely recognized as a powerful tool that can promote sustainable growth, generate smart jobs, as well as provide strong incentives for conserving the natural environment. The strategy identifies the need to develop skills in a range of areas to support the industry's ambitions for growth, including management and leadership; enabling high-quality customer experiences; and ensuring the availability of appropriate training. Among others, the project develops flexible learning modules on digital technologies, to transform graduate and SME capacity to digitize their business experience, and develops flexible learning modules on product development/innovation, to help learners acquire commercialization skills and competencies. |
| <b>Link</b>                           | <a href="https://www.adventuretourism.eu/online-course/">https://www.adventuretourism.eu/online-course/</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>DigCompEdu Area and Competence</b> | 5.3 Actively engaging learners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| <b>Title of the course</b>            | Get Interactive: Practical Teaching with Technology                                                                                                                                                                                                                                                                                                      |
| <b>Specific topic</b>                 | Create dynamic, interactive online courses using multimedia tools.                                                                                                                                                                                                                                                                                       |
| <b>Brief description</b>              | This course is designed to help you create dynamic, interactive online courses using multimedia tools, student collaboration opportunities, and formative assessment and feedback. You will have a range of materials to read, videos to watch, topics to research, activities to perform, discussions to participate in, and an assessment to complete. |
| <b>Link</b>                           | <a href="https://epale.ec.europa.eu/en/content/get-interactive-practical-teaching-technology">https://epale.ec.europa.eu/en/content/get-interactive-practical-teaching-technology</a>                                                                                                                                                                    |
| <b>DigCompEdu Area and Competence</b> | 6.3 Digital content creation                                                                                                                                                                                                                                                                                                                             |

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| <b>Title of the course</b>            | Creating virtual reality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Specific topic</b>                 | Virtual reality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Brief description</b>              | Build professional VR apps using Unity 3D, a powerful cross-platform 3D engine that provides a user-friendly development environment. In this course, part of the Virtual Reality Professional Certificate program, you will learn how to build a VR engine from the ground up, so you fully understand the entire rendering pipeline from 3D model to pixels in the VR display. We will also cover motion prediction, 3D stereo, lens distortion, time warp and other optimizations for a fluid, realistic VR experience.                  |
| <b>Link</b>                           | <a href="https://www.edx.org/es/learn/virtual-reality/the-university-of-california-san-diego-creating-virtual-reality-vr-apps?index=spanish_product&amp;queryID=b40f43e1c2a479a40b2b735bbbf848dc&amp;position=1&amp;v=1&amp;linked_from=autocomplete&amp;c=autocomplete">https://www.edx.org/es/learn/virtual-reality/the-university-of-california-san-diego-creating-virtual-reality-vr-apps?index=spanish_product&amp;queryID=b40f43e1c2a479a40b2b735bbbf848dc&amp;position=1&amp;v=1&amp;linked_from=autocomplete&amp;c=autocomplete</a> |
| <b>DigCompEdu Area and Competence</b> | 6.3 Digital content creation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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| <b>Title of the course</b>            | Creating open educational resources                                                                                                                                                                                                                                                       |
| <b>Specific topic</b>                 | Online learning-teaching                                                                                                                                                                                                                                                                  |
| <b>Brief description</b>              | This free course will help you to write a learning course and provide you with links to various resources for open-learning materials. You will learn about the different purposes of self-instruction and receive advice about the techniques and strategies to help the learner.        |
| <b>Link</b>                           | <a href="https://www.open.edu/openlearn/education-development/creating-open-educational-resources/content-section-0?active-tab=description-tab">https://www.open.edu/openlearn/education-development/creating-open-educational-resources/content-section-0?active-tab=description-tab</a> |
| <b>DigCompEdu Area and Competence</b> | 6.3 Digital content creation                                                                                                                                                                                                                                                              |

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| <b>Title of the course</b>            | Strategic planning for online learning                                                                                                                                                                                                                                                                |
| <b>Specific topic</b>                 | Online learning-teaching                                                                                                                                                                                                                                                                              |
| <b>Brief description</b>              | School leaders need to plan digital strategies, devise plans and allocate resources in such a way that the learning environment is fully inclusive. This course will help you make better decisions for your school about the use of digital technology.                                              |
| <b>Link</b>                           | <a href="https://www.open.edu/openlearn/education-development/strategic-planning-online-learning/content-section-overview?active-tab=description-tab">https://www.open.edu/openlearn/education-development/strategic-planning-online-learning/content-section-overview?active-tab=description-tab</a> |
| <b>DigCompEdu Area and Competence</b> | 4.3 Feedback and Planning                                                                                                                                                                                                                                                                             |

## 2.4) Basque Country's Training and Certification Program

During a KA1 Jobshadowing, INSIGNARE's staff was able to visit some VET Schools in the Basque Country, where, among other issues, they were introduced to this region's educators training programme.

The Basque Country strongly emphasises enhancing the quality of its VET system through comprehensive training and development initiatives for VET teachers. These initiatives are designed to ensure educators are qualified to meet evolving industry standards and effectively deliver modern educational practices. One of the key components of the Training and Certification Program is professional and pedagogical development: the Basque Centre of Research and Applied Innovation in VET (TKNIKA) offers annual training sessions to all VET teachers. These courses are structured in two levels:

- Basic Level: Focuses on teamwork, communication, and project-based learning.
- Advanced Level: Delves into collaborative learning methodologies, challenge-based learning, and competency assessment techniques.

The system actively incorporates the DigCompEdu framework to enhance the digital competencies of its educators. This integration aligns with the region's commitment to digital transformation and high-quality education:



**ELE VET**

- **Framework Adoption:** the Basque Government utilizes the DigCompEdu framework as a vital tool to design and implement its digital strategy for education. This framework assists in mapping and developing the digital competencies of teachers, ensuring they are well-prepared to meet modern educational demands.
- **Training and Certification:** in line with the DigCompEdu framework, the Basque Country offers structured training programs for educators. These programs are designed to certify teachers' digital competencies across various proficiency levels, fostering continuous professional development in digital education.
- **AI Integration:** the Basque Country is also exploring the integration of Artificial Intelligence (AI) in education. This initiative aims to equip teachers with the necessary skills to effectively integrate AI tools into their teaching practices.

Below there is a list of AI and other digital content creation tools which are taught to educators, all but the last suitable for DigCompEdu 6.3 – Digital Content Creation competence.

| Tool name                                                                                  | Main objective                                                                                                                                                                                                                                    |
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| Copilot<br>( <a href="https://copilot.microsoft.com/">https://copilot.microsoft.com/</a> ) | One can redact content, review what has been missed and get answers to open questions with AI-generated information. Answers are given in real-time and include web-based content and work content.                                               |
| Gamma<br>( <a href="https://gamma.app/">https://gamma.app/</a> )                           | It is an AI-powered tool designed to help create presentations, documents, and reports quickly by using templates, automatic design, and content generation based on user input.                                                                  |
| Gemini<br>( <a href="https://gemini.google.com/">https://gemini.google.com/</a> )          | It can handle various tasks, including text generation, translation, summarization, image recognition, and more.                                                                                                                                  |
| ThingLink<br>( <a href="https://www.thinglink.com/edu">https://www.thinglink.com/edu</a> ) | It is a web application that allows the creation of unique experiences with interactive images, videos and 360° media, helping learners to become fluent in using and combining multiple forms of media in class, and at home. It requires a fee. |



|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Pictarize ( <a href="https://pictarize.com/">https://pictarize.com/</a> ) | It is a free-to-use web-based drag-n-drop editor, building and publishing interactive web Augmented Reality apps with 3D models, video, audio and text!                                                                                                                                                                                                                                                                                        |
| LessonApp ( <a href="https://lessonapp.fi">https://lessonapp.fi</a> )     | It contains pedagogically savvy lesson structures, different teaching methods to choose from, and an opportunity to create own lesson plans and share them with other users within one's group or globally. It also offers access to a database of ready-to-teach lessons to browse and the possibility to connect with other users for collegial support and new ideas.<br>This tool is related to 1.2 Professional Collaboration competence. |

## 2.5) SHIFT4IT curriculum

The SHIFT4IT project (Shifting the paradigm for women in the IT sector) was designed as an answer to this problem – as part of the project, training for project managers in the IT sector will be developed, which will provide young women with the skills to understand the language of developers, be able to coordinate teams of developers and act as a bridge between developers and clients or users.

Through the project, 80 young women with degrees in humanities and social sciences will develop skills and knowledge to prepare for jobs in the IT sector. The partners will develop a curriculum that is closely related to the needs of employers in each country and aligned with quality standards in non-formal education, as well as learning materials for project managers in the IT sector.

The curriculum is structured around 4 modules, under 2 topics: IT education and Project Management (<https://ctk-rijeka.hr/en/projects/about-project/shift4it-2/>).

The IT education modules are focusing on programming, web development, and UX/UI design. For the hackathons, students and teachers can benefit from a simplified introduction on basic programming and basic web applications using HTML, CSS and JavaScript.

To ensure the training is practical and relevant for VET providers, it should be tailored to their resources, students' skill levels, and industry needs. When adapting the content, our staff will make sure to use accessible tools and platforms to practice the skills without complex setups, and will focus on practical exercises rather than heavy theory. We will also make sure to use real-world projects relevant to students' interests and realities.

## 2.6) All Digital Academy

The platform is ALL DIGITAL's training hub, where we provide a collection of free online courses and open-access resources. At ALL DIGITAL, our primary mission is to advance the digital transition by enhancing the skills of adult educators and trainers. This website is dedicated to supporting this mission with a compilation of enriching training content from various European projects – ADA, DigCompHub, IBox and GenAIEdu.

The courses offer relevant learning materials on the hot topics of today's digital field, such as AI, the Internet of Things, and the DigComp framework.

VET providers shall adapt courses to include real-world case studies and simulations relevant to different VET sectors.

## 4) Innovative Pedagogical Approaches

### 4.1) PAP - Professional Aptitude Project (Prova de Aptidão Profissional) in Hospitality courses

As described in 2.1, PAP is a project which focuses on themes and problems envisaged and developed by the student, in close connection with work contexts. It is carried out under the guidance and supervision of a teacher or trainer, to be presented to an internal and external jury, as a final, comprehensive and integrative work of the content taught essentially in the technical area of the courses.

Each VET school in Portugal can adapt the PAP to its reality, although it must follow the legal guidelines and requirements described in 2.1. INSIGNARE developed its own approach for its Hospitality courses, which have been nominated and even won the Hospitality Innovation Awards, the most relevant Portuguese award for Tourism Education. The project accounts for 30% of the student's final mark.

These methodologies can be used by other VET providers as a new way of preparing the students for their labour market entrance, to train them for highly stressful moments and to bring the surrounding community / stakeholders to the school.

#### 4.1.1) Live cooking: a Cook's & Waiter's final practical exam

There are two parts of the project: a written one and a practical one, for the students to prepare. Every year, several national and international regions / countries are selected by the Pedagogical Board to be researched. Those regions are then allocated by a lottery to the students.

For the written one, the student has to prepare a detailed report.

- Chapter 1
  - A brief historical and cultural background of the region that was awarded in the class draw;
  - The gastronomic terms of the region, highlighting its most characteristic products / uses;
  - The most used techniques and methods of preparation / confection;
  - Brief overview of its agriculture, livestock and fish, its specific products, and wine-producing framework;
  - Predominant cheeses and fruits/fruits.
- Chapter 2
  - Preparation of the required technical sheets for the menus, with presentation of ratios, team tasks and management of the work brigades;
  - Definition of the HACCP and Hygiene, Safety and Health at Work plans;
  - Translation of the menu into the two foreign languages taught during the course (Cook – French and English / Waiter – English and Spanish), as well as a brief explanation of every dish;
  - Europass Curriculum Vitae, in Portuguese and English.

The Live Cooking description is as follows, for the Cooks:

- In the beginning, each student will be assigned a workstation with the basic equipment essential for running a small kitchen;



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- A workbench will be drawn per student, where a surprise basket will be available with the products needed to make a main dish and a dessert (mandatory elements: creamy base, solid base, fruit);
- In a common space, they will have at their disposal a set of products and base ingredients, which are common to all groups, and that can be used by all students to prepare the starter, main course or dessert (as appropriate);
- Dishes must be prepared for two persons;
- After analysing the variety of existing products, students have 10 minutes to define the delicacies to be prepared;
- After this phase, students have 2 hours and 30 minutes to present the final result and submit it to the tasting phase:
  - 15 minutes to define how to plan and prepare the delicacies;
  - 1 hour and 45 minutes to present the main course;
  - After the presentation to the Jury, the student has another 30 minutes to present the Dessert.

For the Waiters, the process (Live Beverage Service), although similar, has some differences:

- In the beginning, each student will be assigned a workstation with the basic equipment;
- A workbench will be drawn per student, where a surprise basket will be available with the products needed to make a delicacy and a cocktail;
- In a common space, they will have at their disposal a set of products and base ingredients that are common to all students;
- After analysing the existing products, students have 10 minutes to plan the delicacies / drinks to be prepared;
- Then, the practical step begins:
  - Preparation of a Cocktail with a base drink (classic / contemporary) available in the surprise basket awarded in the draw (15 minutes);
  - Preparation of a Sandwich according to the available ingredients (20 minutes);
  - Cooking a dining room dish, according to the products available in the surprise basket (20 minutes);



- Preparation of a cheese board / plate for 2 people, according to the elements available in the surprise basket (10 minutes).
- Cleaning and sanitizing the workstation are also evaluated;
- Students are evaluated by a Jury of 1 waiter, 1 businessman/woman and 1 member of the Technical Pedagogical Board;
- Students must prepare the same beverage / dish twice (except the cheese plate), one for Jury tasting and the other for public display.

After the preparations for the Jury are done, and if the jurors approve, the final step begins – facing the external customers:

- Preparing and serving to a live audience a complete menu of the region / country that was drawn, with: starter, fish dish, meat dish and dessert;
- The menu has a fixed price, which actual customers will pay;
- The event lasts one week, with lunches and dinners, to provide all students with the same methodology for assessment.

The jurors evaluate both the written part and the practical one.

#### 4.1.2) Live Tour: Tourism's final practical exam

Is the name given to the Professional Aptitude Project carried out by students in the 3rd year of the technical course in Tourism and consists of:

- A written project that allows the assessment of the student's ability, as well as the design and development of an integrated project that involves the various acquired skills and knowledge.
- The creation of a detailed script using the written project that will be converted, in a third stage, into an oral presentation performed at a specific regional landmark, which was before randomly drawn to the students.

Hence, it's the practical implementation of the written project developed throughout the year converted into a practical test – an on-site guided visit to a monument or a place of important tourist interest in the framework of the Tourism activity in the region surrounding Fátima. The project layout is the following:



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- Each theme is worked individually by 4 students and should contain and develop the following aspects:
  - Location: Geography, landscape and historical sites
  - History, culture and art
  - Gastronomy and beverage (Wines, Liqueurs, Juices...)
  - Handicraft
  - Trivia (folk tales, habits, language...)
- Joint preparation of the Live Tour Script and a study visit (funded by the School) to the sites.
- Conducting, before an internal and external jury, an on-site guided tour (funded by the School) in Portuguese, English and French, lasting 90 minutes.
- Moreover, each student has to:
  - Prepare a Europass CV in English and French;
  - Prepare an Intermediate Report (self-assessment);
  - Prepare a Final Report (self-assessment).
- For the development of the Project students will be accompanied and advised by a teacher (belonging to the technical area of the course) designated by the school's board.

The evaluation criteria are:

- Quality of the written work;
- Quality of the analysis and research;
- Commitment and personal involvement;
- Technical communication skills (welcoming, conversation development and farewell);
- Presentation skills, synthesising skills and argumentation skills;
- Foreign language skills;
- Student's self-assessment regarding his performance

This methodology was awarded because it allows:

- The School to assess:
  - Communication skills;
  - Knowledge regarding tourist information;
  - Ability to work in groups;



- Ability to work under stress – students have a limited time and it is not a simulation, but a real-time presentation on-site.
- Ability to interact with tourists – the presentation is made on-site, with actual tourists present, and interaction is stimulated;
- Design of itineraries and tours;
- Narrowing the gap between School and the Job Market:
  - It brings students closer to the reality of the job market they will enter;
  - It gets the students acquainted with the most important tourist products this region has to offer;
  - Provides the region with qualified professionals to present its most and least known historical heritage to the millions of tourists that visit it every year.

#### 4.2) The Carmelite Route – a transdisciplinary project that connected the School and the Tourism Market

Fátima belongs to the Center of Portugal, one of the biggest Tourism regions in Portugal, where it plays the main part, as its most relevant attraction, both internally and externally, due to Religious Tourism.

So it can be better understood its relevance, let's look into a quick historical framework. In 1917, Our Lady appeared to three children in Fátima: Jacinta, Lúcia and Francisco. The 1st and 3rd are Saints of the Catholic Church, since 2017. Lúcia is Blessed (the first step) and it is expected to become a saint soon. After the apparitions were recognized by the Catholic Church, it became one of the main places of pilgrimage for Catholics.

Consequently, Fátima has been growing steadily in the Tourism industry, especially after Pope John Paul II came to thank Our Lady for having saved his life after the attack at St. Peter's Square, on May 13th, 1981, and for having played an important role in the fall of the Soviet Union. It receives around 7 million tourists every year.

The Top 10 Incoming markets for Fátima (descending order) are: Portugal, Spain, Italy, USA, Poland, Brazil, South Korea, France, Philippines and Ireland.

Jacinta and Francisco died almost immediately after the apparitions, but Lúcia lived a long life – she became a nun and, after living in Spain for almost 20 years, she returned to Portugal, staying at the Carmel Convent in Coimbra from 1946 until her death, in 2005.

The Carmelite Route, connecting the Carmel Convent, in Coimbra, to Fátima (111 km through 6 municipalities), was based on the world-famous Camino Routes, the several pilgrimage routes to Santiago de Compostela, in Spain. These routes are no longer only for religious reasons, but for fitness, for the mental benefits of unplugging from their daily lives, allowing them time for peace and self-development, or even to feel a genuine connection with nature.

However, when the School was invited to the project, the Carmelite Route was not yet finished: it lacked the complete study of all the stages it passes through, lacking information on most tourist points. The entire route needed to be identified with Landmarks, Signs and Information Totems:

- “Where to eat / where to sleep” and where to rest during the path;
- Local customs and traditions;
- Local places of interest;
- Other relevant information.

The potential was very interesting, given the tourist / pilgrim profile that walks through these types of paths. The School would be part of a wider program, with public and private stakeholders, aiming to make the Route known. For the School, it intended to add value to the existing “product”, with students and teachers from several courses working together. For that, it was chosen as the School’s Annual Theme, aiming to provide the School’s community with a pedagogic reason to leave its premises, to develop students’ and teachers’ creative thinking, and to interact with stakeholders and with the surrounding environment.

Internally, the project had the following goals:

- To study the Route’s endogenous products;
- To develop new gastronomic product(s), directly connected to those products;
- To include cultural references to the Route;
- To provide a “user-friendly” environment to the Route, with a youth-critical look.

The teachers involved (10) came from diverse subjects: Cooking, Maths, Integration (a general subject, that has topics from several Social Sciences, aiming to help students to become better citizens and to develop their critical thinking), Portuguese, English and

Physical Education. During the implementation of the project, one more, from Metalworking/CNC, coming from Ourém Vocational School, joined the team.

The beginning of this “new” Route was set for September 27, World Tourism Day, with the participation of Ourém City Council and ACISO Ourém-Fátima Business Association, which supported the School's initiative.

This was followed by internal planning, namely meetings with teachers, to discuss:

- The methodology to achieve those goals – a mix of theoretical research and field visits;
- The calendar;
- The resources;
- The templates to report the findings;
- The results and their assessment, both internal and external.

After these preparatory steps were concluded, the need to walk the route to gather elements soon emerged. Several field visits were made with the students, in order to research and record, locally, the path; the products; and the testimonies. Taking pictures of the landmarks was also required.

Before the field visits started, the classes were given the templates and the goals:

- Tourism:
  - To identify, to characterize and to take pictures of the most relevant places;
  - To check for local habits and traditions;
- Cook / Pastry:
  - To identify, to characterize and to gather endogenous natural products that can be used in Gastronomy;
  - To discuss how and to try to include them in contemporary or new Gastronomy preparations;
  - To meet the new trends in Gastronomy:
    - The incorporation of local products;
    - To blend traditional and new ways of cooking.

When analyzing a Route, there is always information that had never been compiled, which adds value to it. The Tourism and Cook classes are more than the study of what is

known and exists: they learn product development, one of the most requested needs in the sector job market.

One of the ending points of the Route is Fátima, which is the core of religious tourism, so there was a lack of balance in the less commercial, less urban and more regional part of the Route. Hence, all the dynamics taught to the students in class brought the possibility of creating new tourist products for it.

In this research, the acorn, less used and known in gastronomic preparations, emerged as evident. Throughout history, the acorn was famous for being used to obtain flour, used to make bread. The acorn sweetbread softened flavours, reinforcing its conservation conditions.

Along the way, new ideas emerged, such as the use of indigenous products to carry out experiments in new confections. There were several failed attempts, but all of them were funny and were given importance as part of a learning-by-doing process.

The entire route was covered more than once by teachers and students, focusing on topics to be studied later in the classroom, challenging their inspiration for “something more”.

This resulted in the creation of two new gastronomic products, using indigenous ingredients: “O Carmelito” – a pastry designed to be allusive to the Route and “Pão Doce de Bolota” – a bakery product with acorn flour; the metal moulds to cook it; and several landmarks’ descriptions were designed to be included on the Route website.

This transdisciplinary project is a practical example of how a school project can have a non-theoretical, out-of-the-box approach, as it was highly appreciated by the students (it developed their critical thinking, creativity and market-related skills), the teachers (it allowed them to cooperate with colleagues in an actual practical and sustainable project, not a mere theoretical one) and the School’s stakeholders (the City Council, which had the rural part of the territory included in an integrated tourism product; and the Business Association, that was able to show small businesses in that area how they could benefit from being included in the Route).

#### 4.3) Basque Country's ETHAZI methodology

As mentioned in 2.1, during a KA1 Jobshadowing, INSIGNARE's staff was able to visit some VET Schools in the Basque Country, where, among other issues, they were introduced to this region's VET system. It was also shown how the Basque Country strongly supports its VET system. In this chapter, the innovative teaching methodology that was designed by the Basque Centre of Research and Applied Innovation in VET (TKNIKA) will be presented. The model has been recognized as an innovative approach to modernizing VET systems and is influencing educational policies beyond Spain.

ETHAZI stands for "Estrategias de Alto Rendimiento en FP", or "High-Performance Strategies in Vocational Training". Its key characteristics are:

- Collaborative Learning Based on Challenges
  - It moves away from traditional classroom instruction and replaces it with challenge-based learning.
  - Students work on real-world problems that simulate professional situations, fostering critical thinking, teamwork, and autonomy.
- Interdisciplinary Approach
  - Instead of isolated subjects, different disciplines are integrated into comprehensive learning units, making learning more applicable to real-life job scenarios.
- Competency-Based Assessment
  - The evaluation is continuous and formative, focusing on practical skills rather than memorization.
  - Feedback is provided in a constructive and ongoing manner, rather than relying solely on traditional exams.
- Flexible and Adaptive Learning Environments
  - Classrooms are redesigned into open, dynamic spaces that encourage teamwork and active learning.
  - Teachers take on a facilitator role rather than merely delivering lectures.
- Strong Connection with the Labour Market
  - It is closely aligned with the needs of companies and industries.
  - The goal is to enhance students' employability by developing technical and soft skills required in the workplace.
- Teacher Collaboration and Co-Design

- Teachers / trainers work in teams to design and implement the challenge-based curriculum.
- This requires continuous training, innovation, and adaptation to new teaching methodologies.

So, when teachers / trainers prepare a challenge for their students, the following steps should be considered, because they should bear in mind that this methodology is designed to mimic real-world work environments, helping students develop both technical skills and soft skills like teamwork, problem-solving, and adaptability.

#### 1) Understanding the Context

- a. A problem or scenario is introduced, often based on real industry needs.
- b. Teachers do not provide direct solutions but rather guide students in identifying key questions.

#### 2) Defining the Challenge

- a. The students analyze the problem and propose an action plan.
- b. The challenge is usually interdisciplinary, integrating knowledge from different subjects (e.g., mechanics, business, sustainability). Hence, the commitment from the School's Board is vital, as well as proper planning (the teachers required for the team, the time allotment and eventually some financial resources).

#### 3) Developing a Solution

- a. Students collaborate in teams to research, design, and develop a working solution.
- b. This phase is highly practical, often involving prototyping, testing, and feedback cycles.

#### 4) Presenting & Evaluating the Results

- a. The final project is presented to real stakeholders, such as companies, public institutions, or professionals.
- b. Assessment is formative and based on competency development rather than memorization.

The impact evaluation Basque schools made of this methodology highlights its positive results, both for teachers and for students:

- Students

- Higher motivation & engagement, as learning becomes more dynamic and job-relevant.
- Better soft skills, as cooperation, leadership, and critical thinking are constantly practised.
- Improved job skills, because the graduates enter the workforce with real project experience, making them more competitive.
- Teachers:
  - More active role, as teachers become facilitators and mentors, focusing on guiding students rather than just delivering content.
  - Continuous learning, as they cooperate between them and with industry experts to update content.
  - Greater industry connections, as companies often co-create challenges with the schools, helping teachers stay updated on market trends.

#### 4.4) Blended Skills Competition Manual

As mentioned in 2.3), the TEF – Tourism Education of the Future project was a VET partnership that had several products, mostly related to Tourism, but some can be used in any sector of VET. One of the latter was the Blended Skills Competition Manual, which was designed and piloted by the VET schools that were part of the consortium.

Blended learning is a mixture of face-to-face and ICT-based educational activities, learning materials and tools. Both types of learning activities are a substantial part of education; ideally, they reinforce each other.

Let's imagine a given provider VET provider wishes to organise a skills competition for students of any kind of course. The competition should consist of an online and offline part, involving students from VET providers, based upon a national or international collaboration.

- 1) Write a concept and share it with potentially participating VET providers
  - Explore existing collaborations between schools; or:
  - Look for new collaboration opportunities within the same sector in which the VET provider works.

2) Launch the collaboration between the participating VET providers and plan an initial joint online meeting to establish the topic and structure of the competition

- Topic:
  - Preferably integrated into the curriculum;
  - Finding the common value of training;
  - Establishing the topic;
  - Setting goals for the contest.
- Structure:
  - Half of the competition is online;
  - Half of the competition is offline.

However, there might be the possibility that the VET school does not yet have steady partners, or it is in the first stage of its internationalization process. So, how can partners be found?

There are some ways to find similar organizations, which are suitable for both public and private providers. The first step is to define a suitable profile: what type of school(s) are you looking for? Here are some options to be considered:

1. A school with a similar course offer, or with a complementary one?
2. One with a similar size (number of students), a smaller or a bigger one?
3. One with experience in organizing a Blended Skills Competition or one without, so both can learn?

Another important issue is the contact person at the school – who will send and receive the communication with potential and chosen partners? Will it be the manager or headmaster / headmistress or will a teacher be appointed for that? Regardless of the decision, the person should have an advanced level of English and be able to make decisions on behalf of the school.

Then, here are several channels that can be used to connect with potential partners:

- European platforms – all these sites require registration, but are free and managed by the European Commission:
  - eTwinning-European School Education Platform (<https://school-education.ec.europa.eu/en/etwinning>) – this is the oldest platform but has

been continuously renewed. The school can place its projects here, include its teachers / staff, network with other schools, ...;

- EPALE-Community of European VET practitioners (<https://epale.ec.europa.eu/en>) – as the name says, it's a network of VET teachers and staff;
- Erasmus+ Projects Results Platform (<https://erasmus-plus.ec.europa.eu/projects>) – this site is where the details and outcomes of projects funded under the Erasmus+ Programme are presented, as well as the organizations involved in them, including its contacts.
- Erasmus+ National Agencies (<https://erasmus-plus.ec.europa.eu/contacts/national-agencies>) – the European Commission works with National Agencies to bring the Erasmus+ program as close as possible to the participants. The National Agencies are based in the EU Member States and third countries associated with the Programme. Although they cannot recommend schools, they publish on their website their country's schools that have projects funded by the program, which can be a good starting point.
- European VET umbrella associations – several associations aim to represent, at a European level, the VET providers. The school must be an associate to have access to their full services, but some list its associates on its website:
  - All Digital (<https://all-digital.org/>);
  - EFVET – European Forum of Technical and Vocational Education and Training (<https://efvet.org/>);
  - EVBB – European Association of Institutes for Vocational Training (<https://evbb.eu/>);
  - EVTA – European Vocational Training Association (<https://www.evta.eu/>).
- Social networks – namely on Facebook and LinkedIn, there are several groups where schools ask for partners / to be included as partners: type Erasmus+, or Erasmus+ on the search icon.

Before starting the Blended Skills Competition, the school's / provider's Board must consider the following:

- Appointing teachers to be involved in the process, and their classes: 1 up to 3 classes per school.
- Defining a transnational element is important to get students engaged with the project and add language improvement as one of the project goals for students.
- Discussing whether there are any cultural, traditional, or religious habits in each of the participating countries, that need to be taken into account.
- Having enough students who want to participate in the competition, after which it can select a proper number of students for the teams per country.

Another important issue is the calculation of a detailed budget, as it is of utmost importance to know, in advance, the costs and the sources to pay for them, so that the competition can be properly planned and implemented. Specific amounts will not be mentioned here, as it depends on the topic of competition, number, type, and geographical origin of participants, and number of days, among other issues. The expenses may cover several chapters:

- Staff: consider the number of teachers' and staff's hours/days involved, from the beginning to the end of the project. If these costs are not covered by their salary, or if overtime compensation is required, the calendar should be carefully designed, so that won't overcome what was foreseen.
- Equipment and materials: usually these competitions won't require the purchase of specific machines or tools – as the participating schools or providers already have them – but materials might be in order. Hence, depending on the duration of the tasks / activities and the number of participants, a precise calculation on how many / how much would be needed should be discussed and agreed upon among partners. Also relevant is the decision on where it will be bought (at the city where the hosting school is located), or if the incoming schools shall bring it.
- Indirect costs: normally they are not considered, as electricity, gas, internet, and water, are covered by the hosting school. However, that depends on the type and duration of the competition.
- Meals: although, commonly, the breakfast is at the accommodation, lunches, dinners and, eventually, coffee breaks, shall be taken together by the hosting and incoming teams, so how many will occur, where and how much it will cost shall be calculated.

- Social time: it is expected that the hosting school provides visits to local or regional landmarks to the guests, which may have paid entrances. If they also need a transfer or even a public transport ticket, those amounts should be included in the budget.
- Accommodation: there are several possibilities concerning where the visitors will stay – from hosting families to hostels / hotels, or even school dorms, if available. It should mention if the breakfast is included or not. As this is the second biggest part of the budget, it should be carefully chosen.
- The last but the one with the most impact – plane tickets. It is very important that the calendar of the competition is defined in advance, and the dates for the trips agreed as soon as possible, so that the participants that have to travel may buy their tickets. It should also be considered the travel between the closest airport and where the competition will take place, and return.

When the budget is finished, finding the funds to support it is the next step. Hence, for the revenues, the school may have a mix, or choose only one, from public or private funding sources.

- Erasmus+ KA1 Mobility for Learners and Staff in Vocational Education and Training – it supports events in which competitive demonstration of skills is central for promotion, recognition, and exchange of experience, know-how, and technological innovations in VET. Funding is also provided for staff, mentors, or experts accompanying the learners during the activity. The participating schools should apply to their Erasmus+ National Agencies; however, the hosting school cannot, as it only funds outgoing mobilities.
- Local, regional, or national grants from public authorities.
- Sponsors: some local, regional, and national stakeholders, directly or via foundations, provide grants, in cash or kind, for similar projects.
- School's own budget.
- Students' activities: students who are willing to take part in the competition may organize activities, both inside and outside the school, to collect money.

- Families: this should be the last resort. Otherwise, students who come from disadvantaged backgrounds cannot take part.

If the costs cannot be covered entirely by external sources, partners must agree on its equitable division. Moreover, even if they are covered, incoming schools must have a clear and detailed agenda, with all the foreseen costs they will have to cope with, right from the beginning of the process.

Concerning the platforms, it depends on the participating schools / providers: TEAMS, for example, is included on MSOffice for Schools, but Google Meet is free.

Now it is time to set up the online part of the contest. An online contest between students from different countries is a fun and educational way to learn about other cultures, languages, and skills. To organize such a contest, one needs to consider several things, such as:

- The purpose and target group of the contest.
- What do you want to achieve with the contest and who do you want to appeal to? This determines the content, format, and promotion of your contest.
- The platform and tools you use for the contest. How are you going to broadcast the contest online and what interaction options do you offer? You can choose from several options, such as live streaming, webinars, video conferences, or online games.
- The program and duration of the contest. How long does the contest last and what are its components? Make sure you hold your participants' attention by offering an engaging and varied program, with a clear structure and a good balance between information and entertainment.
- Communication and participant registration. How do you make sure your participants know about the contest and register? Send clear and attractive invitations, reminders, and confirmations, and use a registration system that collects your participants' data.
- The European Union as a source of inspiration and support. How can you connect the contest to European values, themes, and projects? For example, you could use

the information and opportunities offered by the European Union in the field of education and training.

- During the first online contest students can present their topic concerning their own country and/or region.
- Students are working together online on the chosen topic.
- Students should also be asked to reflect on the ‘lessons learned’, professionally and socially.
- External assessors (stakeholders’ representatives, for example) can be requested to participate in assessing the results.

After the online part is set, the offline part also needs to be prepared. Setting up the offline part of the contest. Hence, before the arrival, these issues should be taken care of:

- Each school defines itself how many groups/students participate in the contest, and there are at least two possibilities:
  - A “national” competition to choose which team will go abroad – this internal competition rules should be determined also, as well as the deadlines and documents for the application and selection.
  - Choosing directly the group of students to take part in the mobility – the application stage should be preceded by defining the selection criteria: the best-performing students can participate in transnational groups, or the students who need most the benefit of participating in the contest.
- After the partners’ selection:
  - A videoconference should be organized by the hosting school, to provide logistics or social details that can be relevant for the teams before they travel.
    - The closest international airport.
    - How to reach the city of the competition by public transport, the available schedules, terminals, ... If possible, sending the partners links for bus / train companies’ timetables, locations and costs beforehand is a good idea, with all related information.
    - Accommodation for the teams: families, hotels, ... If this last option is the chosen one, define who will book it – the hosting school, so all the

teams be placed together – or if each team can choose, depending on its budget.

- How will the transfer from the accommodation to the school be made, if applicable.
- If letters of invitation are required, which details should be included and what is the deadline for them to be sent.
- Will it be needed that the outgoing students take something in particular: working clothes/shoes, outdoor activities clothes or shoes, or a specific object (material, equipment, ...) for the contest?
- Besides those issues, other ones, more pedagogic, should also be decided upon:
  - When will the transnational groups be formed: before the contest, or in the beginning? Besides one student from each country for each group, for example, there can be other criteria to be considered.
  - The goals to be achieved, individual and / or related to a specific project.
  - Tasks / activities to be developed:
    - What resources will be needed (equipment, materials, time, staff, ...);
    - When will it be done (before the contest, during and/or after);
    - When is each deadline to be ready for the other partners to prepare for;
    - Who will draft them;
    - If there are tasks / activities to be prepared by students, appoint a tutor for them.
    - Will the sending schools need to take something in particular (equipment, materials, ...)?
  - Define the assessment to be made:
    - Deadline and agenda;
    - Participants in the assessment;
    - Document(s) (paper / online) to be answered;
    - Partner that will draft them;
    - Elements (dimensions / skills / knowledge / criteria) to be included.
    - Prize(s) for the teams:
      - Common ones;
      - Each school decides how to reward its students.
  - Certification:

- Any official national and / or European document(s) (like Mobility Europasses, for example).
- Include any required logos or mentions to sponsors, ...
- Partner responsible.
- Deadline for the hosting school to send the agenda, including the foreseen costs.

The planning is almost done. After the teams arrive at the hosting school / provider, here are some items to consider.

- Students should be at least 2 days in the country in which the contest will take place: 1 day for cultural experience and team activities and 1 day for doing the contest. In total 4 days, including travel time.
- If possible, the teams should have lunch and dinner together, including the hosting one(s), even on the arrival day.
- The first activity of the contest should be an icebreaker, where students and teachers can finally meet face-to-face and get to know each other better. If there is enough time, icebreaking activities should include individual tasks first, and group ones second; those group ones should have the groups that will work together in the contest.
- A lesson on the topic of the contest can be organized for all the teams, in English, to provide a theoretical framework for the contest.
- Already in groups, students are explained the agenda, namely the detailed activities they have to perform and their dedicated time slots. The goals to be achieved, the assessment, and the rewards should be clearly detailed.
- The tutoring during the activities should be also explained, as what are its limits; in other words, what can the teachers in that role can and cannot do.
- The hosting students should provide their peers with a school-guided tour, focusing on the places/rooms where the activities will be held and where the equipment and materials for them can be found.
- If possible, study visits to companies / organizations related to the topic should be included in the agenda, or an invitation to their managers / staff to come to the school and talk to the students.
- If needed, a meeting with the participating teachers should have allocated time, but not while they are involved in the students' activities.

- A contact person from the hosting school should be available at all times, to deal with unexpected situations, but should not be involved in the activities and/or in the assessment, as (s)he might be asked to perform some task that requires being absent.
- Social activity(ies) shall be included, targeted primarily for the students, which may include travelling to a local / regional landmark.
- A final ceremony with all the teams shall be held, where the awards should be given.

#### 4.4) Eco-digithon methodology

The Eco-Digithon Methodology provides methodological and practical guidelines for conducting an Eco-Digithon, which can be found here [https://www.enneproject.eu/enneplus/wp-content/uploads/2024/09/ENNEPlus\\_Eco-Digithon-Methodology\\_vers.1.pdf](https://www.enneproject.eu/enneplus/wp-content/uploads/2024/09/ENNEPlus_Eco-Digithon-Methodology_vers.1.pdf). It is primarily addressed to educational stakeholders interested in engaging VET teachers and students in challenge-based and service-learning activities in the field of eco-innovation.

The document presents a step-by-step on how to organise a Hackathon – the materials could be adapted to the purposes of the ELE\_VET project, as the document is already framed within the VET sector.

#### 4.5) Winbiz toolkit

Developed within the Erasmus+ Winbiz project, the WINBIZ Toolkit for Trainers (<https://elearning.daissy.eu/course/index.php?categoryid=8&lang=en>) aims to support the professional development of operators who are engaged in tutoring, guiding, and coaching the project's target group, migrant women.

The toolkit comprises open methodologies, tools, and training materials that have been compiled by the partnership and validated through the implementation of coaching circles with trainers. This toolkit is designed as a resource for the professional development and training of operators engaged in guiding and coaching migrant women and its main goal is to function as an adequate operational tool for the support and coaching of the participants in the WINBIZ blended training course (PR3) and project work (PR4).

The Toolkit focuses on the different stages and challenges that a trainer/operator may find during the blended training course, providing adequate resources to guide trainers,

each topic including OER-type resources such as guidelines, infographics, videos, links, interactive exercises, self-assessment questionnaires, and other training content.

The following topics will be addressed:

- How to use these OERs – guidelines for trainers.
- How to engage with the participants.
- How to keep the conversation alive.
- How to communicate with the target groups (migrant women).
- How to engage with participants in blended learning.
- Diversity training (being aware of people's situations and challenges faced).
- Creating engagement (dynamic, interactive lessons).
- Dealing with setbacks: how failing helps us evolve in our practice.

With the comprehensive coverage of different topics in this Toolkit, trainers will be able to improve their practice and provide the best possible support to migrant women. The toolkit can provide trainers with the necessary tools, methodologies, and resources to guide and support students in entrepreneurial learning.

To adapt the Toolkit to other VET providers' reality, these organizations should:

- Map the WINBIZ modules to VET competency frameworks (e.g., EQF, ECVET).
- Identify which toolkit sections align with existing VET curricula in different countries.



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## 5) Training programme

After collecting and validating the best practices, a training programme was drafted and agreed upon by the consortium, as it laid the basis for the conclusion of this deliverable. The expected blended training course for teachers in VET providers will be prepared to include 10 hours of self-paced online or offline study for 5 months (**50 hours total**).

This represents the very first draft of the proposed ELE\_VET training curriculum, which will be validated through interviews and focus groups, following the proposed methodology (see D2.1 “Framework for the adaptation of materials”).

The modules were designed around the aforementioned three main dimensions: **Digital Skills; Pedagogical Approaches;** and **Entrepreneurship**.

As this deliverable foresees the conduction of a comparative and assessment analysis of the learning outcomes, the Consortium agreed on mapping them according to the main EU frameworks, as already specified in D2.1 “Framework for the adaptation of materials”. To this end, the fine-tuned outcome will be aligned and validated with the DigComp and EntreComp frameworks. A summary table can be found at the end of this chapter.

### Module 1 – Digital Skills

#### 1.1) Education and Digital Transformation (15 hours)

##### **Learning Outcomes** (related to areas 2 and 3 of DigCompEdu)

- To be introduced to DigCompEdu Framework;
- To discuss current problems, challenges and emerging scenarios in the area of Digital Education;
- To analyse how digital transformation can enhance and/or create innovative teaching practices and promote the development of education;
- To promote the development of digital learning environments;
- To know and apply tools for digital creation.

##### **Topics**

- Digital Transformation in Education and introduction to DigCompEdu;
- Technologies in Digital Education:



- o Selecting Digital Resources
- o Creating and Modifying Digital Resources
- o Managing, Protecting and Sharing Digital Resources
- Digital communication, collaboration and content creation
  - o Free Digital tools / Open Educational Resources
  - o Drafting digital content scripts
  - o Creating digital content
- Pedagogical methodologies and practices in Digital Education:
  - o Teaching
  - o Guidance

## 1.2) Online Safety and Cybersecurity- Preventing Cyberviolence (5 hours)

### Learning Outcomes

- To support teachers in Internet Safety;
- To train teachers to help students understand the different types of involvement in online sexual violence: who is the victim, who perpetrates and who witnesses the acts of violence;
- To support teachers' actions in terms of the mechanisms and possibilities for protecting those who are victims of this type of violence;
- To enable teachers to make students aware of the importance of those who witness acts of online sexual violence and their responsibility to contain the spread and report this phenomenon.

### Topics

- Theoretical framework (stereotypes; sexism; social networks; digital footprint; cyber threats: internet black market, online gaming and gambling, spam and phishing; cyberbullying: online violence and online sexual violence – causes, characteristics, forms and impact on boys and girls).
- Combating online violence (different types of involvement in online violence, containing the spread and reporting).

- Online violence in relationships between young people (healthy and abusive relationships, centrality of consent)

### 1.3) Facilitating and Assessing Learners' Digital Competencies (5 hours)

#### **Learning Outcomes** (related to areas 4 and 6 of DigCompEdu)

- To design and implement learning activities that generate data for various digital assessment formats
- To analyse and interpret evidence on learners' activity and progress
- To use digital technologies in innovative ways and transfer knowledge to new situations

#### **Topics**

- Assessment strategies
- Analysing evidence
- Feedback and planning
- Students' e-portfolio

## Module 2 – Pedagogical Innovation

### 2.1) Active Methodologies and ICT in Education (15 hours)

#### **Learning Outcomes**

- To look at new forms of pedagogical work, integrating the use of active methodological tools with a focus on students.
- To understand and debate the concept and place of active teaching/learning methods concerning the profile of the 21st century student, in the current context of technological change.
- To select and use the tools and active methodologies best suited to the learning objectives pursued.

#### **Topics**

- Approach to Active Methodologies and Digital Support Tools



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- o Tools for Problem-Based Learning
- o Resources for Project-Based Learning
- o Gamification in Education
- Contest-based learning and Hackathons
  - o Organizing and implementing skills competitions
  - o Organizing and implementing Hackathons

## Module 3 – Entrepreneurship

### 3.1) Entrepreneurship Education (10 hours)

Learning Outcomes (related to the Foundation level of EntreComp)

- To understand the competencies that result in an entrepreneurial profile.
- To promote the adoption of learning methodologies that foster entrepreneurial attitudes.
- To prepare active, student-centred and project-based learning methodologies.

Topics

- Entrepreneurial Competencies and the Entrepreneurial Attitude
- Teaching-learning methodologies and entrepreneurial skills
- Student work activities to promote entrepreneurial skills
- Organising an entrepreneurial project – Business Simulation
- ICT in the management and organisation of an entrepreneurial project

Title: **Desk research and definition of good practices – Entrepreneurship, Digital Skills and Innovative Pedagogical Approach**

Authors: INSIGNARE and EGINA

WP: 2 Activity: 2.1

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Summary table mapped according DigCompEdu and EntreComp areas

| Modules                                                                | Hours | Main DigCompEdu and EntreComp areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1.1 Education and Digital Transformation</b>                        | 5 h   | <p><b>Area 2: Digital Resources</b></p> <ul style="list-style-type: none"> <li>Selecting, creating, modifying, and managing digital content</li> </ul> <p><b>Area 3: Teaching and Learning</b></p> <ul style="list-style-type: none"> <li>Implementing digital technologies in instructional strategies.</li> <li>Enhancing collaborative and student-centered learning</li> </ul>                                                                                                                                 |
| <b>1.2 Online Safety and Cybersecurity</b>                             | 15 h  | <p><b>Area 5: Empowering Learners</b></p> <ul style="list-style-type: none"> <li>Promotes safe and responsible use of digital technologies.</li> <li>Focuses on inclusivity, equity, and protecting vulnerable groups.</li> </ul> <p><b>Area 6: Facilitating Learners' Digital Competence</b></p> <ul style="list-style-type: none"> <li>Helps learners become aware of digital risks and develop responsible behaviours online</li> <li>Encourages reporting and containment of online sexual violence</li> </ul> |
| <b>1.3 Facilitating &amp; Assessing Learners' Digital Competencies</b> | 5 h   | <p><b>Area 4: Assessment</b></p> <ul style="list-style-type: none"> <li>Designing digital assessment tools, collecting and analyzing evidence.</li> </ul> <p><b>Area 6: Facilitating Learners' Digital Competence</b></p> <ul style="list-style-type: none"> <li>Supporting students in acquiring digital skills (e.g., through e-portfolios, formative feedback).</li> </ul>                                                                                                                                      |
| 2.1 Active Methodologies & ICT                                         | 15 h  | <p><b>Area 3: Teaching and Learning</b></p> <ul style="list-style-type: none"> <li>Active methodologies (PBL, gamification) promote innovative pedagogical use of digital tools.</li> </ul> <p><b>Area 2: Digital Resources</b></p> <ul style="list-style-type: none"> <li>Choosing digital tools aligned with pedagogical strategies.</li> </ul> <p><b>Area 5: Empowering Learners</b></p>                                                                                                                        |

|                                       |      |                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       |      | <ul style="list-style-type: none"> <li>Student-centered approaches foster autonomy and engagement</li> </ul>                                                                                                                                                                                                                                          |
| <b>3.1 Entrepreneurship Education</b> | 10 h | <p><b>EntreComp Key Areas</b></p> <p><b>1. Ideas &amp; Opportunities</b><br/>Spotting opportunities, Creativity, Valuing ideas</p> <p><b>2. Resources</b><br/>Self-awareness, Motivation, Mobilizing resources, Financial literacy</p> <p><b>3. Into Action</b><br/>Taking initiative, Planning, Working with others, Learning through experience</p> |