



Entrepreneurship, Creativity
and Arts for Future Teaching

Project Result 1

FOCUS GROUP FINAL RESULT

e-craftproject.eu



Co-funded by
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PROJECT PARTNERS





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THE PROJECT

E-CR.A.F.T.: Entrepreneurship, Creativity and Arts for Future Teaching is a 2 year Erasmus+ project – Strategic Partnerships in the field of School (Agreement n. 2021-1-IT02-KA220-SCH-000032480) - that involves **10 partners from 4 EU countries (Italy, Spain, Greece, Portugal)** that are an expression of:

a) the School education system

- Istituto di Istruzione Superiore Caselli (Italy) LEAD PARTNER
- Istituto Tecnico Tecnologico “Abate Zanetti”: indirizzo Grafica e Comunicazione con Potenziamento dell’Offerta Formativa in Arte del Vetro (Italy)
- Colegio Caude (Spain)
- 3 geniko lykeio neas filadlfias (Greece)

b) Vocational and educational training

- Escola Artística e Profissional Arvore (Portugal)
- CONFORM S.c.a.r.l (Italy)
- Formación y Education Integral (FEI) (Spain)
- AKMI (Greece)
- Modatex (Portugal)

c) the craftsmanship employer system

- ASECOM (Spain)

d) communication and digital marketing companies:

- Kraken Lab (Italy)

The project responds to a need commonly felt by the organisations of the multi-actor European Partnership integrating Schools, Training and Methodological Research Centres, Employers' Associations and Digital Communication Companies, to evolve methods, tools, solutions and learning situations and to foster an interdisciplinary, interactive and integrated, gamified and workshop-based "art-inspired" didactics, able to involve, motivate and enthuse young people in entrepreneurship and creative thinking, while experimenting and producing new creative and inventive 4.0 digital communication ideas for fine art products.

This is due to the need to systematically introduce and make entrepreneurial learning linked to creativity and innovation complementary and to raise the digital maturity of teachers and students to make the most of ICT opportunities for teaching/learning. This is central in the contemporary educational challenge and has become a priority, also as a result of COVID. Traditional e-learning applications need to be rapidly innovated and extended also to those strongly empirical artistic-creative-gestural-behavioural disciplines that risk being marginalised in distance learning.

In particular, this need was further analysed in the partner schools by means of a field analysis conducted by means of focus groups.

INTRODUCTION

This report contains the results of the 6 focus groups that were held in all partner countries, i.e. 2IT, 2ES, 1EL, 1 PT.

The E-CR.A.F.T. project foresaw the involvement of at least 2 teachers and 5 students in at least 5 focus groups.

A total of 18 teachers and 94 students were involved by the partnership.

The basis for all activities of the field analysis was the definition of competences, skills and learning outcomes of the learning course (PR 1).

A variety of tools were used to achieve the most of all focus groups, as described and annexed further on, including sample questions to be used, self-assessment questionnaire and reporting templates. All questionnaires used with the target populations were translated into the national language of the partners and are annexed to this document.

This report contains the results of the focus groups held both with students and of the focus groups held with teachers and contains conclusions that summarise the outcomes.

Attached to the document are the guidelines for conducting the focus groups and the templates for the questionnaires that were administered as Google forms.



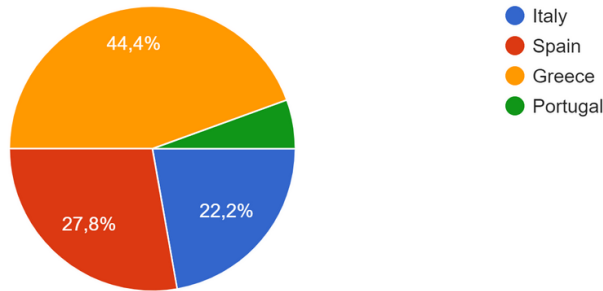
RESULTS OF FOCUS GROUPS HELD WITH TEACHERS

A total of 6 focus groups were held during the period April – June 2022 by the E-CR.A.F.T partners.

They involved a total of 18 teachers and educators selected mainly on the basis of their technical and graphic skills and their real interest in this project and were moderated by 6 researchers / moderators.

Which country are you from?

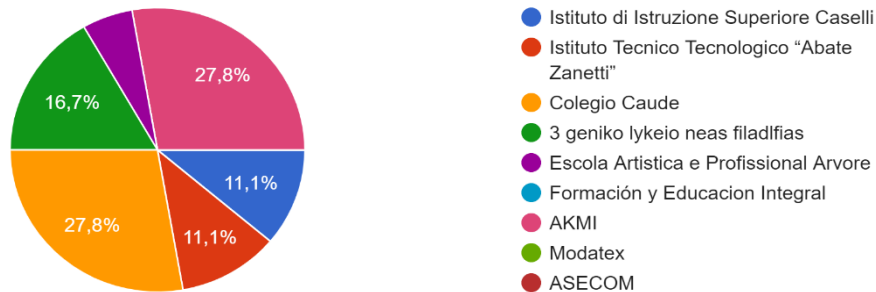
18 risposte



Participants were predominantly selected on the basis of their background in IT and graphic design, and of their interest in this project.

Which partner involved you in this focus group?

18 risposte



On average the focus groups lasted for one and half hours and sometimes they were held on two separate occasions.

All participants were asked to complete a signature list and to complete a questionnaire developed as a google form at the end of the focus group.

As regards the results of all the national focus groups, please see the individual focus group reports that each country has provided.

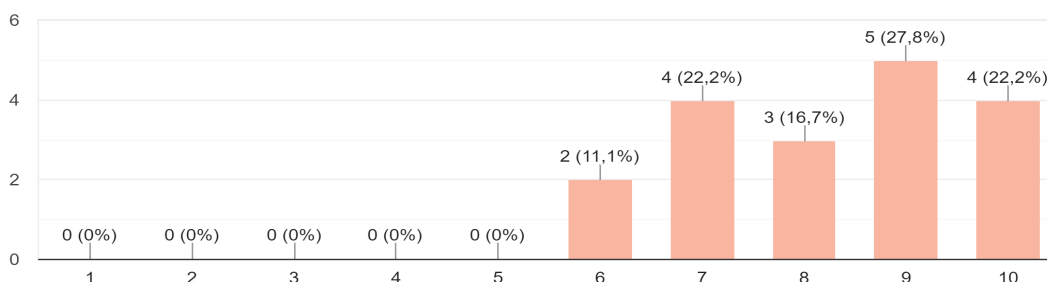
1. How important do you consider interdisciplinarity to introduce digital and entrepreneurial learning on a permanent basis in the educational offer of the school?

0 (not at all important to 5 (quite important) to 10 (very important)



On a scale of 1-10, where 1 is not at all important, 5 is quite important and 10 is very important, how important do you consider interdisciplinarity to int...anent basis in the educational offer of the school?

18 risposte

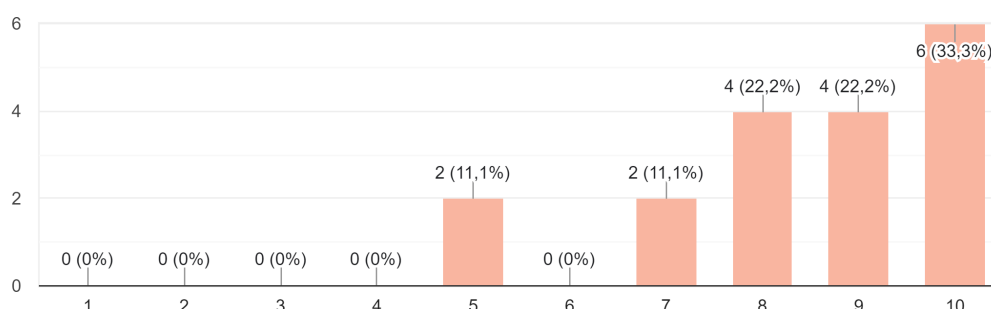


18 teachers answered the question. 5 of them answered 9 and 4 answered 10, so the majority consider it to be important or very important.

2. How important do you think it is to be effective today in the process of creating online educational projects able to combine creativity, labs/workshops and virtual sessions?

On a scale of 1-10, where 1 is not at all important, 5 is quite important and 10 is very important, how important do you think it is to be effective today i...ine creativity, labs/workshops and virtual sessions?

18 risposte



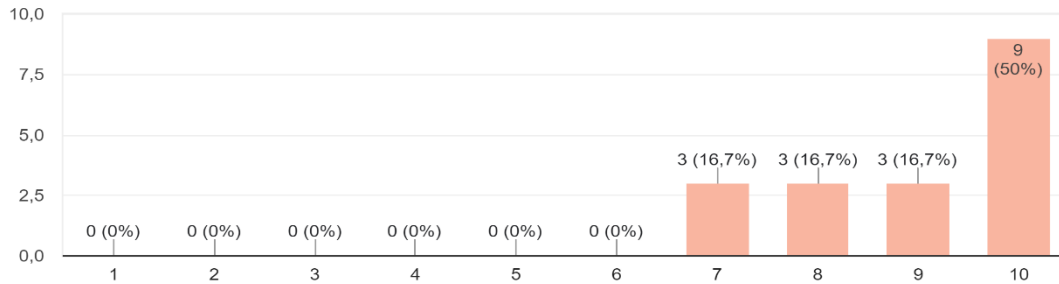
18 teachers answered the question. 2 answered 5 and 2 answered 7. However, 4 of them answered 8, 4 answered 9 and 6 answered 10, so the majority consider it to be important or very important.

3. How important do you think it is to develop relational, communicative and team working qualities with a motivating style capable of valorising the potential of young people?



On a scale of 1-10, where 1 is not at all important, 5 is quite important and 10 is very important, how important do you think it is to develop relational, ...apable of valorising the potential of young people?

18 risposte



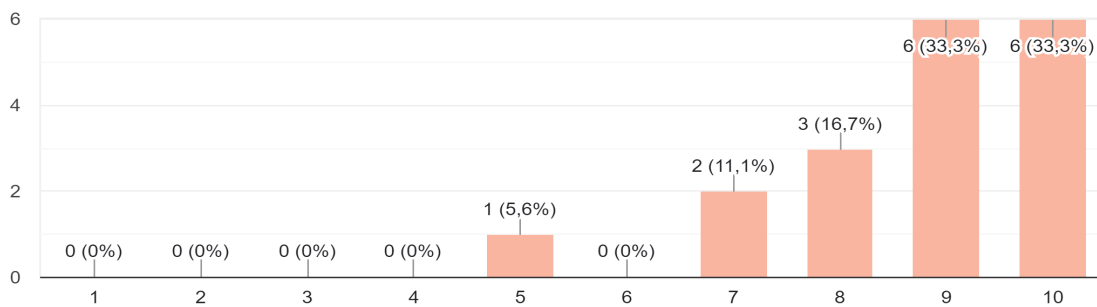
18 teachers answered the question. 3 answered 7, 3 answered 8 and 3 answered 9. 9 of them answered 10, so the majority consider it to be important or very important.

4. How important do you think it is to develop educational pathways in schools that focus on creativity, innovation and entrepreneurship, as transversal and interdisciplinary issues?

18 teachers answered the question. 1 answered 5, 2 answered 7, 3 answered 8. 6 of answered 9 and 6 answered 10, so the majority consider it to be important or very important.

On a scale of 1-10, where 1 is not at all important, 5 is quite important and 10 is very important, how important do you think it is to develop educational ...urship, as transversal and interdisciplinary issues?

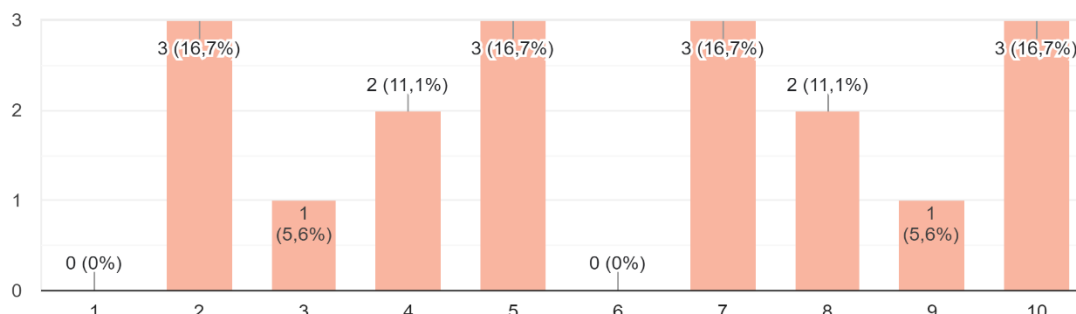
18 risposte



5. How satisfied are you with the current offer of learning on young people's behavioural qualities as regards creativity, innovation and initiative present in your school?

On a scale of 1-10, where 1 is not at all satisfied, 5 is quite satisfied and 10 is very satisfied, how satisfied are you with the current offer of learning ...y, innovation and initiative present in your school?

18 risposte



18 teachers answered the question. In this case, the teachers' responses varied significantly. 9 teachers were not very satisfied while the other 9 appeared to be quite or very satisfied.

If not very satisfied:

- **What suggestions/indications would you propose?**

Typical answer included:

- Continuous professional development for teachers is essential, particularly in the form of Blended Peer Learning Communities.
- It would be important to have more time for team-building and interactive activities.

- **What are the main challenges/barriers to contain/remove (e.g. perception of the creativity as a pathway to finding a job; impact of COVID for students; strict curriculum; time constraints)?**

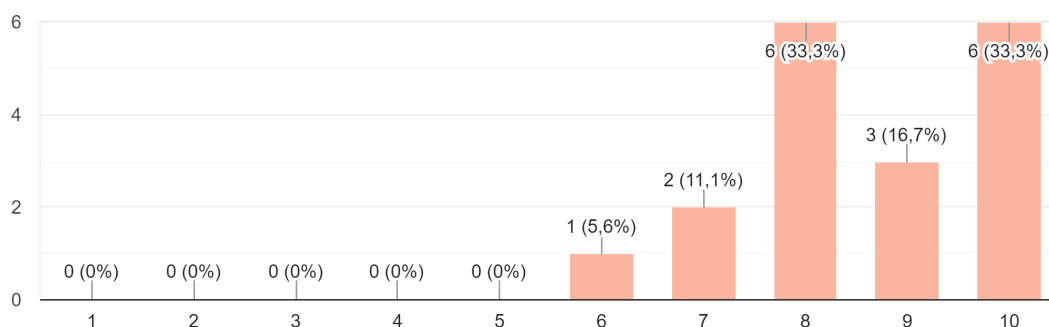
The most recurrent answer was:

- Time and curriculum constraints.

6. To what extent do you consider the development of teaching-methodological skills, functional to managing creative, interactive, immersive and laboratory solutions (e.g. virtual methodologies, virtual tools, workshops), to be important for your professional training as a teacher

On a scale of 1-10, where 1 is not at all, 5 is quite a lot and 10 is very, to what extent do you consider the development of teaching-methodologic...tant for your professional training as a teacher?

18 risposte

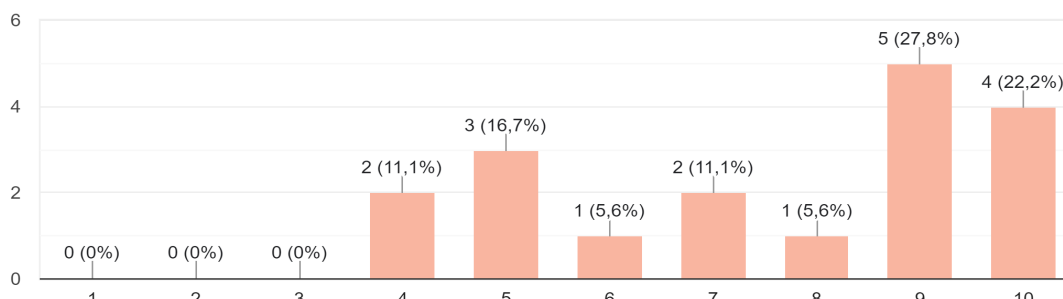


18 teachers answered the question. 1 answered 6 and 2 answered 7. However, 6 of them answered 8, 3 answered 9 and 6 answered 10, so the majority consider it to be important or very important.

7. How free are you to be creative in your classroom?

On a scale of 1-10, where 1 is not at all, 5 is quite a lot and 10 is very much so, how free are you to be creative in your classroom?

18 risposte

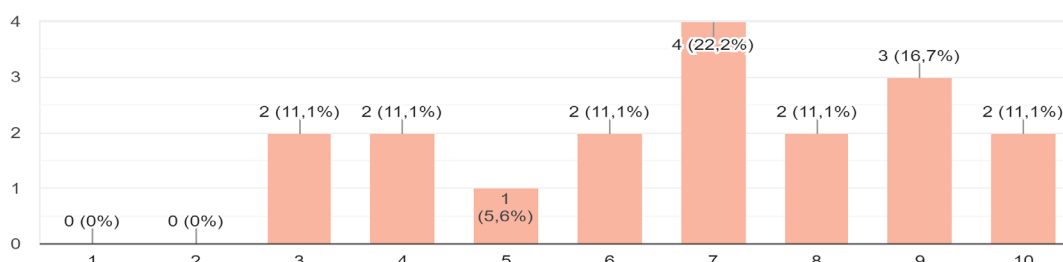


18 teachers answered the question. The answers to this question varied considerably. 2 answered 4, 3 answered 5, 1 answered 6, 2 answered 7, 1 answered 8. 5 answered 9 and 4 answered 10 so 50% of them consider that they are free or very free to do this.

8. How satisfied are you with the methodological and didactic experiments undertaken by your school to support the full personal and professional development of students?

On a scale of 1-10, where 1 is not at all satisfied, 5 is quite satisfied and 10 is very satisfied, how satisfied are you with the methodological and did...rsonal and professional development of students?

18 risposte



18 teachers answered the question. Again, the answers vary considerably. 4 of them answered 7, 2 answered 8, 3 answered 9 and 2 answered 10, however, 11 out of 18 are satisfied or very satisfied.

Answers included:

If not very satisfied:

- **What suggestions/indications would you propose?**

- It is necessary that the school leadership inspire the teaching staff to seek Continuous Professional Development opportunities and so contribute to the students' personal and professional development instead of insisting on memorisation of information for academic success only.
- We need resources in terms of materials, labs and time. It is also important to bring students in contact with enterprises and professional realities.
- A more creative approach on the part of the school personnel to compensate for the nature of school curricula (inherently rigid as per the national institutions' necessities).

- **What are the main challenges/barriers to contain/remove (e.g. technical restrictions)?**

- Lack of support from the Ministry of Education.
- Technical restrictions.



- The main barrier is lack of time.

- **What could help or be done to make your students be as creative, entrepreneurial as possible?**
 - An overall change in the establishment of the educational system; it needs to integrate more experiential and game-based learning instead of reproducing knowledge in a dull and difficult to comprehend way.
 - Teamwork in groups of mixed ability and differentiation of instruction as well as bringing enterprises in contact to the students.
 - More local initiatives dedicated to developing graphics and communication projects, where students should also get some kind of prize.
 - Organising outings, workshops and out-of-class activities to nurture the connection between schools and working realities.
 - Training courses for entrepreneurship, business simulation activities.

- **What does your school do that particularly promotes those skills in your students?**
 - There is a plan for cooperation with and visits to the local enterprises as well as for lectures by experts and professionals.
 - Our school already organises many projects in the fields of graphics and communication, involving as many school subjects as possible.
 - Workshops and projects.
 - Experiential learning activities tailored to their needs

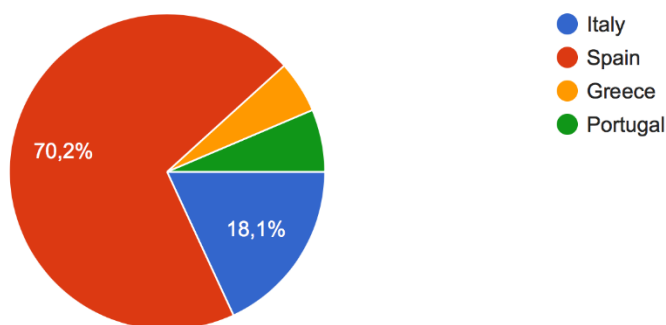


RESULTS OF FOCUS GROUPS WITH STUDENTS

The student focus groups were held in the **period April - May 2022** by the partners of the E-CR.A.F.T. project. They involved a total of **94 students who were selected mainly on the basis of their interest in this project** and were moderated by researchers / moderators.

Which country are you from?

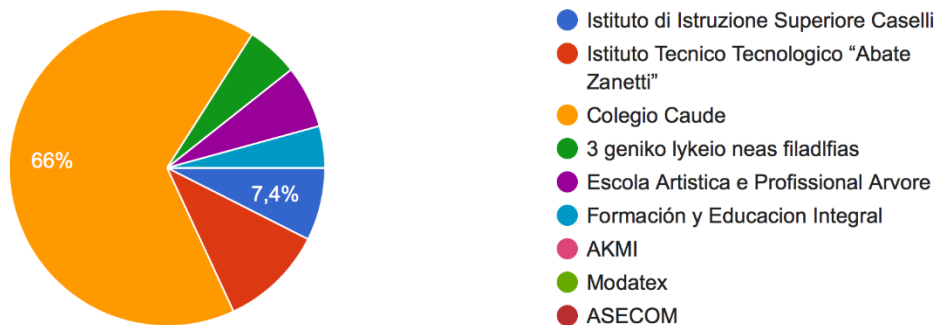
94 risposte



Participants were predominantly selected on the basis of their interest in this project.

Which partner involved you in this focus group?

94 risposte



In your opinion, what are the crucial skills for your professional development?

Most students of the 94 respondents believe that the crucial skills for professional development are knowing how to work in an empathic way in a team, developing entrepreneurial skills, digital skills, creativity, teamwork and other soft skills; being able to express and communicate in different languages and cultural environments; responsibility, organisation and, above all, initiative and motivation. In terms of working with others, it is also necessary to be able to communicate easily and solve problems, but teamwork and adaptability are also important, as well as having digital competence, because today everything is related to it.



How do you think of e-learning, as a training methodology, to acquire the knowledge/skills mentioned in the previous answer?

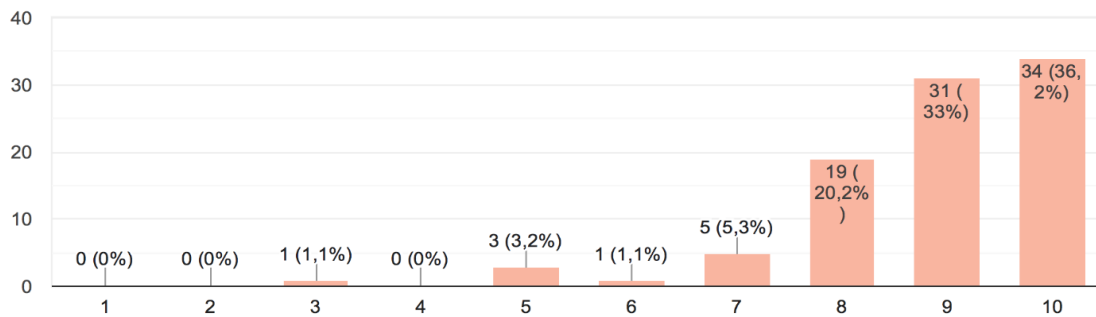
Most students of 94 respondents believe that e-learning is of fundamental importance for learning in step with the times and with what is required by modern society. The characteristics that a virtual learning environment should have to help develop these skills / competences are:

- be easy to use so that both teachers and students can work on it, also it must provide the possibility of immediate communication between students and teachers so that everyone understands everything;
- video conferencing, chat and instant messaging and ease of use.
- a virtual learning environment should mainly involve teamwork because it is very useful for the development of new skills and competences;

The use of learning technologies for all learners is critical to working life. Virtual learning also offers flexible schedules and the ability to connect from anywhere. Getting used to it as soon as possible and having those facilities, as I said before, are crucial characteristics. It should be an inspiring but safe space that allows the student to interact with the technology on their own. Many students ask for proper preparation of teachers

On a scale of 1-10, where 1 is not at all important, 5 is quite important and 10 is very important, how important do you think it is to develop your digital skills for your professional success?

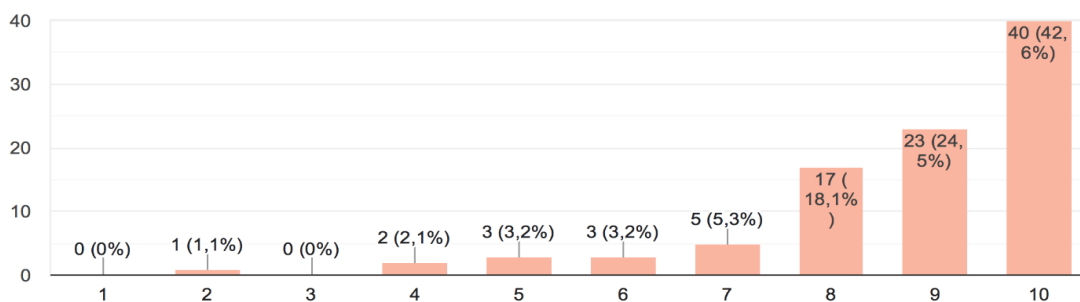
94 risposte



Here one person answered 3 and 3 answered 5 and one answered 6. However, 5 answered 7, 19 answered 8, 31 answered 9 and 34 answered 10. So, 89 out of 94 recognise that digital skills are important in this day and age.

On a scale of 1-10, where 1 is not at all, 5 is quite a lot and 10 is very much so, do you want to develop your digital skills for your professional success?

94 risposte

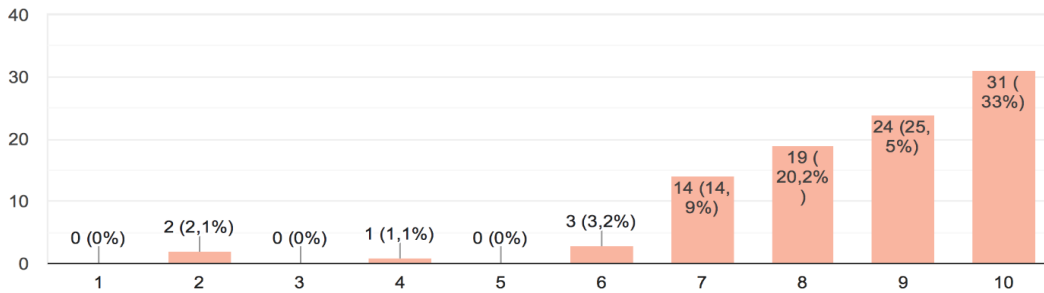




The answers to this question in many ways reflect the answers to the previous question where we can see that 85 out of 94 respondents show that they want to develop their digital skills.

On a scale of 1-10, where 1 is not at all important, 5 is quite important and 10 is very important, how important do you think it is to develop your entrepreneurial skills for your professional success?

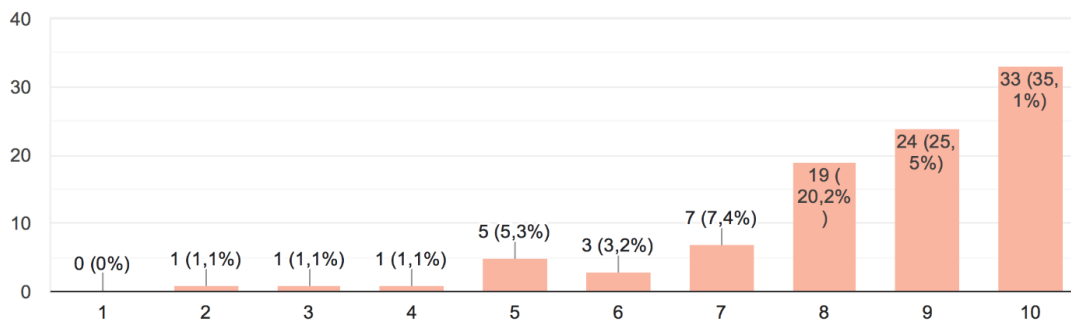
94 risposte



The answers to this question show that 91 out of 94 students recognise the importance of developing entrepreneurial skills in order to be successful as they have answered 6 or more.

On a scale of 1-10, where 1 is not at all, 5 is quite a lot and 10 is very much so, do you want to develop your entrepreneurial skills for your professional success?

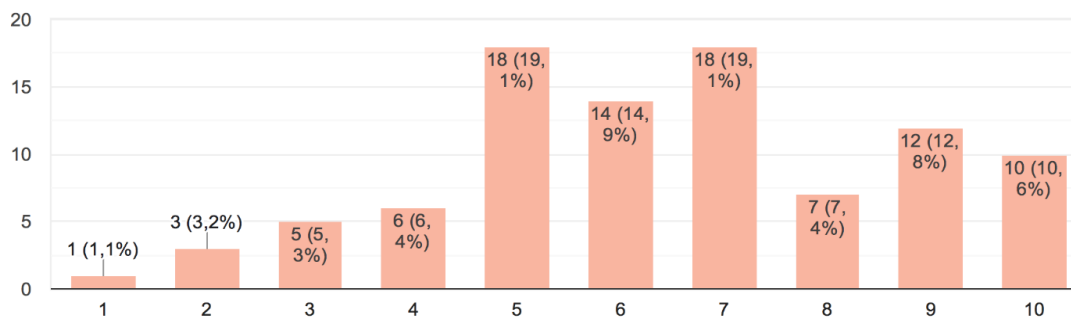
94 risposte



As regards their willingness to develop their entrepreneurial skills 86 answered 6 or more. 76 have a very strong desire to learn entrepreneurial skills.

On a scale of 1-10, where 1 is not at all satisfied, 5 is quite satisfied and 10 is very satisfied, how satisfied are you with the current offer of learning on digital skills in your school?

94 risposte



If not very satisfied, what limits do you find?

All 94 students answered. Only a few students are satisfied. Most of the answers fall in the middle. Most complain that the time devoted to teaching new technologies is insufficient, left to the goodwill of teachers and often with obsolete tools and programs

If not very satisfied, what suggestions would you propose?

Again all 94 students answered this question. Students first suggest teacher training, the implementation of teaching hours and the purchase of more modern devices. In school you should be taught more useful things like web page development and ways to advertise your company or product on the internet, video editing or music production. Interesting is the suggestion to use different methods to get the same answer to develop not only knowledge of the area you are learning, but to develop creativity and the ability to overcome problems on your own. A student, alas, claims that teachers teach us what they already know!

From the discussions and questionnaires during the focus groups it emerged that **the majority of students believe that the crucial skills needed for their professional development are summarised in three keywords: creativity, innovation and entrepreneurship. Students also believe that soft skills regarding communication, teamwork and adaptability are essential for their future professional life.** Obviously, the acquisition of digital skills is a priority, but most students complain that the time dedicated to teaching new technologies is insufficient, left to the good will of teachers and often with obsolete tools and programs.

STUDENTS SELF ASSESSMENT

During the Focus Group students were also asked to complete a detailed self-assessment questionnaire based on **the DigComp: the European Digital Competence Framework** as a reference framework to explain what it means to be 'digitally competent' and on **the EntreComp: The entrepreneurship competence framework** that were delivered through a google form.

The form can be found here:

- Other partners: [SELF ASSESSMENT QUESTIONNAIRE STUDENTS - Moduli Google](#)
- Italian partners: [SELF ASSESSMENT QUESTIONNAIRE STUDENTS - IT - Moduli Google](#)

Here follows a summary of the results provided to the Self –Assessment questionnaires of entrepreneurial and digital competences/abilities, administered to students from schools in partner countries (Italy, Spain, Portugal, Greece).

The questionnaires asked students to indicate, **for each of the 10 of 15 competences in the ENTRECOMP Framework**, and **for each of the 21 competences in the DigComp** declined in 8 levels of possession/exercise, following self-evaluation, students' level of possession and exercise of the aforementioned competence/ability.

To enable students to make a motivated and conscious self-evaluation, it included, in coherence with the EQF - European Qualifications Framework logic, a key to the 8 levels of possession/exercise of each competence:

Level 1: under direct supervision of others

Level 2: with reduced supervision of others, limited autonomy and together with peers

Level 3: alone and with peers

Level 4: taking and sharing some responsibilities

Level 5: taking on responsibilities, with limited guidance and together with others

Level 6: taking on responsibility for taking decisions and working with others

Level 7: taking on responsibility for contributing to complex developments in a specific sector

Level 8: substantially contributing to the development in a specific sector.

The total number of answers was **108**.

RESULTS OF STUDENTS SELF ASSESSMENT

In reference to **ENTREPRENEURIAL** competence n. 1 - "**Identify opportunities**", the lowest level was found in **level 8** (*I can spot and quickly take advantage of an opportunity where I can maintain a competitive advantage, promoting a culture within my organisation that is open to spotting even weak signals of change, leading to new opportunities to create value*) and **level 3** (*I can explain what makes an opportunity create value and that different groups may have different needs*); the highest level was found in **level 6** (*I can seize opportunities at the right time to respond to challenges and needs of different stakeholders and create value*).

As regards **ENTREPRENEURIAL** competence n. 2 - "**Creativity**", the lowest level was found in **level 7** (*I can tailor a variety of ways of involving stakeholders to suit the needs of my activity and apply different design approaches to create new products, services or processes*); the highest level was found in **level 3** (*I can experiment with different techniques to generate alternative solutions to problems, using resources available in an effective way and identifying the basic functions that a prototype should have to illustrate the value of my idea*).

In reference to **ENTREPRENEURIAL** competence n. 3 - "**Vision**", the lowest level was found in **level 1** (*I can imagine a desirable future*); the highest level was found in **level 5** (*I can identify different strategic visions to create value and identify the changes needed to achieve my vision*).

In reference to **ENTREPRENEURIAL** competence n. 4 - "**Evaluating ideas**", the lowest level was found in **level 1** (*I can find examples of ideas that have value for myself and others*) and **level 8** (*I can recognise the value of a new idea from different perspectives of different stakeholders. I can develop a tailored strategy to protect intellectual property rights*); the highest level was found in **level 4** (*I can decide which type of value I want to create and then choose the most appropriate route to create it, including the most appropriate licence for sharing and protecting the value created by my ideas*).

As regards **ENTREPRENEURIAL** competence n. 6 - "**Self-awareness and self-efficacy**", the lowest level was found in **level 8** (*I can design strategies to overcome my (or my team or organisation's) weaknesses and to develop our strengths in anticipating future needs*); the highest level was found in **level 6** (*I can help others identify their strengths and weaknesses and I believe in my ability to understand and make the most of the experiences that others may label as failures*).

In reference to **ENTREPRENEURIAL** competence n. 7 - "**Motivation and perseverance**", the lowest level was found in **level 2** (*I am motivated by the idea of creating value for myself and others and persevere when trying to achieve my (or my team's) goals*) and **level 6** (*I can coach and use strategies to keep my team motivated and focused on creating value*). The highest level was found in **level 5** (*I can use strategies to stay motivated (for example, set goals, monitor performance and evaluate my progress) and keep creating value despite setbacks*).

In reference to **ENTREPRENEURIAL** competence n. 10 - "**Talking initiative**", the lowest level was found in **level 3** (*I can initiate simple value creating activities*); the highest level was found in **level 6** (*I can help and encourage others to take initiative in solving problems and creating value*).



In reference to **ENTREPRENEURIAL** competence n. 12 - "**Coping with uncertainties**", the lowest level was found in **level 8** (*I can evaluate high-risk investments, use strategies to reduce risks and monitor data to take decisions based on sound evidence*); the highest level was found in **level 1** (*I'm not afraid of making mistakes while trying new things*).

In reference to **ENTREPRENEURIAL** competence n. 13 - "**Working with others**", the lowest level was found in **level 2** (*I can work in a team contributing to simple value-creating activities*) The highest level was found in **level 6** (*I can give people the help and support required to perform to their best within a team and contribute to creating value by teaming up with distributed communities through digital technologies*).

In reference to **ENTREPRENEURIAL** competence n. 14 - "**Learning by experience**", the lowest level was found in **level 3** (*I can reflect on the relevance of my interaction with others (including peers and mentors) for my future opportunities and choices and learn from it*). The highest level was found in **level 5** (*I can improve my personal and professional skills through lifelong learning so as to develop my ability to create value, taking into account my previous experience*).

As regards **DIGITAL** competence "**1.1 Browsing, searching, filtering data, information and digital content**", the lowest level was found in **level 7** (*I can create solutions to complex problems with limited definition that are related to browsing, searching and filtering of data, information and digital content; integrate my knowledge to contribute to professional practice and knowledge and guide others in browsing, searching and filtering data, information and digital content*). The highest level was found in **level 6** (*I can assess information needs; adapt my searching strategy to find the most appropriate data, information and content in digital environments; explain how to access to these most appropriate data, information and content and navigate among them; vary personal search strategies*).

As regards **DIGITAL** competence "**1.2 Evaluating data, information and digital content**", the lowest level was found in **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to analysing and evaluating credible and reliable sources of data, information and content in digital environments; propose new ideas and processes to the field.*). The highest level was found in **level 6** (*I can critically assess the credibility and reliability of sources of data, information and digital content; critically assess data, information and digital content.*).

As regards **DIGITAL** competence "**1.3 Managing data, information and digital content**", the lowest level was found in **level 1** (*With guidance, I can identify how to organise, store and retrieve data, information and content in a simple way in digital environments; recognise where to organise them in a simple way in a structured environment.*) and **level 7** (*I can create solutions to complex problems with limited definition that are related to managing data, information, and content for their organisation, storage and retrieval in a structured digital environment; integrate my knowledge to contribute to professional practices and knowledge and to guide others in managing data, information and digital content in a structured digital environment*). The highest level was found in **level 4** (*I can organise information, data and content to be easily stored and retrieved; organise information, data and content in a structured environment*).

As regards **DIGITAL** competence "**2.1 Interacting through digital technologies**", the lowest level was found in **level 1** (*With guidance, I can select simple digital technologies to interact, and identify appropriate simple communication means for a given context.*). The highest level was found in **level 4** (*I can select a variety of digital technologies to interact with, and select a variety of appropriate digital communication means for a given context.*).



As regards **DIGITAL** competence “**2.2 Sharing through digital technologies**”, the lowest level was found in **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to sharing through digital technologies. Propose new ideas and processes to the field*). The highest level was found in **level 6** (*I can assess the most appropriate digital technologies to share information and content; adapt my intermediation role; vary the use of the more appropriate referencing and attribution practices*).

As regards **DIGITAL** competence “**2.3 Sharing through digital technologies**”, the lowest level was found in **level 1** (*I can identify simple digital services in order to participate in society. I can recognise simple appropriate digital technologies to empower myself and to participate in society as a citizen.*) and **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to engaging in citizenship through digital technologies; propose new ideas and processes to the field*). The highest level was found in **level 5** (*I can propose different digital services to participate in society; use appropriate digital technologies to empower myself and to participate in society as a citizen*) and **level 6** (*I can vary the use of the most appropriate digital services in order to participate in society; vary the use of the most appropriate digital technologies to empower myself and to participate in society as a citizen*).

As regards **DIGITAL** competence “**2.4 Collaborating through digital technologies**”, the lowest level was found in **level 1** (*I can choose simple digital tools and technologies for collaborative processes*) and **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to using collaborative processes and co-construction and co-creation of data, resources and knowledge through digital tools and technologies; propose new ideas and processes to the field*). The highest level was found in **level 6** (*I can vary the use of the most appropriate digital tools and technologies for collaborative processes; choose the most appropriate digital tools and technologies for co-constructing and co-creating data, resources and knowledge*).

As regards **DIGITAL** competence “**2.5 Netiquette**” the lowest level was found in **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to digital etiquettes respectful to different audiences and cultural and generational diversity; propose new ideas and processes to the field*). The highest level was found in **level 4** (*I can discuss behavioural norms and know-how while using digital technologies and interacting in digital environments; discuss communication strategies adapted to an audience and discuss cultural and generational diversity aspects to consider in digital environments*).

As regards **DIGITAL** competence “**2.6 Managing digital identity**” the lowest level was found in **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to managing digital identities and protection of people’s online reputation; propose new ideas and processes to the field*). The highest level was found in **level 5** (*I can use a variety of digital identities, apply different ways to protect my reputation online, use data I produce through several digital tools, environments and services*).

As regards **DIGITAL** competence “**3.1 Developing digital content**” the lowest level was found in **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to content creation and edition in different for- mats, and self-expression through digital means; propose new ideas and processes to the field*). The highest level was found in **level 6** (*I can change content using the most appropriate formats, adapt the expression of myself through the creation of the most appropriate digital means*).

As regards **DIGITAL** competence “**3.2 Integrating and re-elaborating digital content**” the lowest level was found in **level 8** (*I can create solutions to solve complex problems with many interacting factors that are related to modifying, refining, improving and integrating new content and information into existing knowledge to create new and original ones; propose new ideas and processes to the field*). The highest level was found in **level 5** (*I can operate with new different items of content and information, modifying, refining,*



improving and integrating them in order to create new and original ones.) and level 6 (I can assess the most appropriate ways to modify, refine, improve and integrate specific new items of content and information to create new and original ones).

As regards **DIGITAL** competence “5.1 Solving technical problems” the lowest level was found in level 3 (I can indicate well-defined and routine technical problems when operating devices and using digital environments, and select well-defined and routine solutions to them.). The highest level was found in level 2 (I can identify simple technical problems when operating devices and using digital environments, and identify simple solutions to solve them).

As regards **DIGITAL** competence “5.2 Identifying needs and technological responses” the lowest level was found in level 8 (I can create solutions to solve complex problems with many interacting factors using digital tools and possible technological responses, and to adapt and customise digital environments to personal needs; I can propose new ideas and processes to the field). The highest level was found in level 4 (I can explain needs, and select digital tools and possible technological responses to solve those needs; select ways to adjust and customise digital environments to personal needs).

As regards **DIGITAL** competence “5.3 Creatively using digital technology” the lowest level was found in level 8 (I can create solutions to solve complex problems with many interacting factors using digital tools and technologies; propose new ideas and processes to the field.). The highest level was found in level 2 (I can identify simple digital tools and technologies that can be used to create knowledge and to innovate processes and products; follow individually and collectively simple cognitive processing to understand and resolve simple conceptual problems and problem situations in digital environments).

As regards **DIGITAL** competence “5.4 Identifying digital competence gaps” the lowest level was found in level 8 (I can create solutions to solve complex problems with many interacting factors that are related to improving digital competence, and to find opportunities for self-development and to keep up-to-date with the digital evolution; propose new ideas and processes to the field.). The highest level was found in level 6 (I can decide which are the most appropriate ways to improve or update one’s own digital competence needs, assess the development of others’ digital competence; choose the most appropriate opportunities for self-development and to keep up-to date with new developments.).

CONCLUSIONS

The Focus Groups organised with the two target groups of teachers and students have provided similar results in terms of competence needs.

From the summary of the answers of 18 teachers involved in the focus group, with reference to the relative synthetic descriptors indicated in the questionnaire, an initial homogeneous picture emerges of the importance given to the introduction of digital, entrepreneurial skills and the creative process in school education (levels 8-10), as well as the value of relational development in communication and school paths that support creativity and innovation in a transversal and interdisciplinary manner (levels 9-10).

The subsequent variability of the teachers' answers is particularly noticeable in the degree of satisfaction with the current learning offer for young people, regarding the aforementioned topics and initiatives in the various schools (levels distributed from 2 to 10 - from not at all satisfied to very satisfied). At the same time, the following are considered important by all the teachers: training and the development of methodological and teaching skills in relation to creativity and interactive workshops. (levels 7 to 10). The response regarding the freedom to be creative in one's own classroom and satisfaction with the teaching experiments undertaken by the school to support staff and students' professional development also varied.



The suggestions include the search for opportunities for continuous professional development and resources in terms of tools, time and practical workshops. The biggest obstacles are the limited budget available and support from the Ministry of Education, as well as the general lack of time. The organisation of territorial initiatives with the establishment of projects and awards and the organisation of weekly workshops to support students in creativity and entrepreneurship could also help.

From the discussions and questionnaires during the focus groups with 94 students it emerged that **the majority of them believe that the crucial skills needed for their professional development are summarised in three keywords: creativity, innovation and entrepreneurship. Students also believe that soft skills regarding communication, teamwork and adaptability are essential for their future professional life.** Obviously, the acquisition of digital skills is a priority, but most students complain that the time dedicated to teaching new technologies is insufficient, left to the good will of teachers and often with obsolete tools and programs.

Students were also asked to complete a detailed self-assessment questionnaire of entrepreneurial and digital skills/skills was completed by 79 students. From the summary of entrepreneurial skills/skills with reference to the related summary descriptors indicated (assessing opportunities and ideas; ability to develop creative and meaningful ideas; ethical and sustainable thinking; self-awareness and self-efficacy; motivation and perseverance; taking initiative; working with others; learning from experience - ability to learn by doing) it emerges that **the level expressed by most of the students, considered necessary to effectively carry out entrepreneurial activity, is high** with respect to the identification of opportunities, but low with regard to interaction through digital technologies (level 4). **The level of creativity for most students is on average low**, as is problem solving, dealing with uncertainties and ambiguities and risks, a skill deemed necessary for an entrepreneur to effectively supervise it, was answered on a range from 1 to 5 by the students.

Based on these results, partner have identified the following the target competences on which they designed the study course:

1. CREATIVITY AND INNOVATION
2. SELF-EMPLOYED ENTREPRENEURSHIP
3. COMMUNICATION AND MARKETING OF FINE CRAFT PRODUCTS
4. AR AND VR DESIGN



ANNEXES

ANNEX 1: GUIDELINES FOR THE FOCUS GROUPS ORGANIZATION

Aims and objectives

A focus group is a quality technique of data collection, involving a small group of people with similar characteristics, who are asked to discuss an issue in-depth, in an informal setting and with the help of a moderator. In the case of the E-CRAFT project, focus groups with teachers/students have been planned as part of the competence needs analysis, in order to accurately define the entrepreneurial and digital skills to better describe the nature and extent of the needs that emerged from the Field Analysis conducted in the pre-design phase, to ensure the transition from the identification of the demand to the identification of needs highlighting the specificities of each country involved.

Overview of focus groups

5 focus groups have been planned in all partner countries, namely 2IT, 1ES, 1EL, 1PT with the involvement of:

- 2 teachers
- 5 students

To achieve balanced and comparable results, it is necessary that at least one focus group per target population is organised per partner country.

The basis for all activities of the field analysis is the definition of competences, skills and learning outcomes of the learning course (PR 1).

A variety of tools will be used for achieving the most out of all focus groups, as described and annexed further on, including sample questions to be used, self-assessment questionnaire and reporting templates. All questionnaires to be used with the target populations need to be translated in the national language of the partners.

Focus group planning stage

Resources



To successfully run a focus group, you need to plan for a **researcher/moderator**, as well as an **assistant moderator**.

The moderator facilitates the discussion. The ideal focus group moderator has the following traits: a) Can listen attentively with sensitivity and empathy b) Believes that all group participants have something to offer c) Has adequate knowledge of the topic d) Can keep personal views and ego out of the facilitation e) Can appropriately manage challenging group dynamics.

The assistant moderator is a silent observer who takes notes on the discussion. This figure is necessary to support group management and, if possible, avoid the recording of the discussion, which could compromise spontaneity on behalf of the participants. Recording of the discussion can be arranged if all participants feel at ease and consent to that. In such a case please make sure that participants sign a relevant consent form.

Room Setting

Focus groups are usually organised in dedicated rooms of schools or training/research organisations. Regardless of the location, the room that will be used for the focus groups should be spacious to allow for comfortable sitting of the participants. Any distractors should be removed from the room, while a silent surrounding should be ensured. Adequate lighting should also be arranged. A round or square table with chairs around them for the moderator and participants should be arranged. If possible, the assistant moderator should be sited in a small distance from the table, but on a spot with good visual and auditory contact, to be able to take notes without distracting participants.

Time and structure

The date and time of each focus group should be agreed upon at national level and in accordance to the preferences and availability of the participants. However, please remember that all focus groups should have been organised by 13th-20th April, 2022 at the latest, to allow time for data processing and reporting.

A focus group should last between **90 - 120 minutes**. Shorter times may not activate the group; too much time could lead to the discussion turning into "living room gossip". The following is a suggested plan for the development of each focus group. You could foresee different times than the suggested, but the overall duration of the focus group should not exceed 120 minutes.

- 10 minutes are needed to introduce the **topic of the focus group** (please note that you must warn the group of any recording of the meeting)
- 10 minutes to allow participants to **introduce themselves**;
- 15 minutes should be devoted to **introductory questions**;
- 45 minutes (at least) should be reserved for **questions of substance**;
- 10 minutes should be devoted to **closing** to take stock of the situation.

Participants' recruitment

Focus group participants can be recruited in the following ways:

- _____

Please note that participants' recruitment methods selected will need to be reported after the completion of each focus group. Please also note that we use the term "competent participant", which means that focus groups participants should fit the ideal profiles:

- Students
- Teachers

Please note that you will need to report details on the profile of selected participants.

Prior to the focus group organisation



Once the participants' list per focus group is finalised, and before the actual focus group takes place, partners should translate and send if necessary the questionnaires developed in word and google form format and ask participants to fill out and return:

- **For teachers:**
- **For students:**

Please make sure that all participants provide their full contact details, in case any clarification is needed.

During the focus group

Suggested questions for the Teacher focus group

Introductory questions

This is the warm-up part of the focus group, and its aim is to provide participants with the opportunity to express their views on a few general, but relevant, questions. It also serves as a smooth introduction to the analytical part of the focus group. The following are suggested questions for this part:

- *According to your experience, how can your school integrate and innovate the educational offer of humanistic and artistic craft? [they must name only one] Why? [they must provide a short justification]*
- *According to your experience, what are the 3 biggest challenges/difficulties to develop an entrepreneurial mind-set and a digital maturity in students? [make additional, open-ended clarification questions if needed]*
- *According to your experience, what are the most suitable methodologies to develop an entrepreneurial mind-set and a digital maturity in students*

In-depth questions

See interview canvas.

Please make sure that any other comments, apart from the level, participants mention with regards to any of the skills, are noted down by the assistant moderator, for further analysis.

Suggested questions for the Student focus group

Introductory questions

This is the warm-up part of the focus group, and its aim is to provide participants with the opportunity to express their views on a few general, but relevant, questions. It also serves as a smooth introduction to the analytical part of the focus group. The following are suggested questions for this part:

- *In your opinion, what are the crucial skills for your professional development?*
- *What do you think of e-learning, as a training methodology, to acquire the knowledge/skills mentioned in the previous answer? [make additional, open-ended clarification questions if needed. i.e. "not a good option" "What about blended learning instead?"]*



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- *What features should a virtual learning environment have to help you develop these skills/competencies?* [make additional, open-ended clarification questions if needed i.e. “tests” “why do you think that tests should be included?”]

In-depth questions

See interview canvas

Analysis of Results and Reporting

The analysis of results will be done at two levels:

- **Partner(s) level:** data collected during each focus group will be decoded, processed, interpreted, and reported
- **Coordinator level (Italian high schools):** all partners’ reports will be collected, analysed, summarised and conclusions will be reported

Analysis at partner(s) level

Each partner responsible for the organisation of a focus group will need to process the data collected and report the results in the reporting template (Annex 1). Please note that the reporting template should be filled out in English, so translation of participants’ comments will be needed. It is advisable that each partner studies the reporting template up front, to be certain that he/she collects all the information required.

It is also advisable that right after each focus group, the researcher/moderator cooperates with the assistant moderator to prepare a first draft of the report, so that no information is left out or forgotten. Then, the researcher can further process and analyse the data in order to provide the coordinator with a final report of conclusions for the specific focus-group.

In short: researcher/moderator and assistant moderator cooperate to combine information collected during the focus group and prepare a first draft; the researcher analyses the data, draws up and reports conclusions in English. **You should keep any recording, notes or other relevant material on file, in case of an audit.**

Analysis at coordinator level

The coordinator of IO1 will: a) consolidate all data and analyse it; b) collect all partners’ reports on focus groups, analyse each focus group type based on such reports; c) use the analysis of a and b to extract useful conclusions for the rest of the IOs, d) prepare the relevant report.

Other relevant issues

Depending on national legislation, you may/may not be required to ask a written consent from participants for using sensitive information, showing their faces on-line, listing their names, etc. Please make sure that you follow the national requirements and you keep all the relevant documentation on file.

You may wish to offer refreshments/snacks to the focus group participants. In such a case, please make sure that no snacks are on the table during the focus group, as they could distract the participants’ attention. You can serve the participants before or after the end of the focus group.

Please ask participants to **turn off their mobile phones during the focus group.**

Please don’t forget to **take pictures during the focus groups, upon consent of the participants. They can be used as proof for the implementation of focus groups.**

Please make sure that each questionnaire or other document sent/handed to participants need to be in the E-CRAFT project template (Erasmus+ logo and Lead Partner’s logo on top, partners’ logos on the bottom, reference to the full title of the project and the agreement number).

Please plan your time and activities in respect to the deadlines set in the Action Plan.



Annex 2: Focus Group Report template

Country of Conduct			
Date of Conduct		Place of Conduct	
Partner Responsible for the Focus Group			
Type of Focus Group	<input type="checkbox"/> Student	<input type="checkbox"/> Teacher	
Researcher/moderator Name and Credentials	[please write a short bio 7-10 lines, describing the prior knowledge/experience of the researcher with focus groups and the subject matter]		
Assistant moderator name and credentials	[please write a short bio 7-10 lines, describing the prior knowledge/experience of the assistant researcher with focus groups and the subject matter]		
Number of participants		How were participants selected?	[please describe the method(s) used to locate competent participants]
Participants' profile	[please report the participant's name, and a couple of lines on his job/position or status in case of individuals]		

Please fill out part A or part B according to the type of focus group you have organised. Delete the part that does not apply to your case:

Part A: Teacher Focus Group	
Overview of the focus group	[please provide a short description of how the focus group was structured. How long did it last? Did you follow the structure (general



	<p>questions first, in-depth questions then) suggested at the guidelines? How was the atmosphere? Did all participants provide their views? Are there any important general comments, observations, notes by the participants? Did you face any problems that could affect the validity of results?]</p>
Analysis of the participants' feedback in general questions:	
Question 1: According to your experience, how can your school integrate and innovate the educational offer of humanistic and artistic craft? Why?	
[please write the one thing that participants have named. Did they name different things? Did 2-3 participants share the same view? How did they justify their answers? Description and analysis based on participants' comments]	
Question 2: According to your experience, what are the 3 biggest challenges/difficulties to develop an entrepreneurial mind-set and a digital maturity in students?	
[please report the 3 challenges mentioned by participants. Did they refer to different or same/similar challenges? Did they report mainly internal, or external difficulties? Did they justify their answers? Did you have to clarify further an answer? Description and analysis based on participants' comments]	
Question 3: According to your experiences what are the most suitable methodologies to to develop an entrepreneurial mind-set and a digital maturity in students	
[please report all the factors mentioned by participants. Similarities/differences among participants' views? Did they justify their answers? Did you have to clarify further an answer? Description and analysis based on participants' comments]	

Please fill out the matrix according to all participants' views. In each block, please note down two numbers: **level # / # of participants** who rated the skill this way. Please see an example below:

INSERT INTERVIEW CANVAS

Please describe any comments, observations or debates among participants with regards to the level required for each defined skill, under a competence.

[Click here to enter text.](#)

Any additional comments by the researcher

[Click here to enter text.](#)

Final comments/conclusions by the researcher

[Click here to enter text.](#)

Part B: Students' Focus Group



Overview of the focus group	[please provide a short description of how the focus group was structured. How long did it last? Did you follow the structure (general questions first, in-depth questions then) suggested at the guidelines? How was the atmosphere? Did all participants provide their views? Are there any important general comments, observations, notes by the participants? Did you face any problems that could affect the validity of results?]
Analysis of the participants' feedback in general questions:	
Question 1: In your opinion, what are the crucial skills for your professional development?	
[please write the one competency each participant has named. Did they name different competencies? Did 2-3 participants share the same view? How did they justify their answers? Description and analysis based on participants' comments. You may need to refer to the self-assessment questionnaires of the participants in order to further justify their answers. Draw conclusions]	
Question 2: How do you think of e-learning, as a training methodology, to acquire the knowledge/skills mentioned in the previous answer?	
[please describe the participants' views on e-learning as a training methodology. Are they in favour of it or against it? Do they have other suggestions? How did they justify their answers? Conclusions]	
Question 3: What features should a virtual learning environment have to help you develop these skills/competencies?	
[please list the participants' suggestions. Did 2-3 have similar ideas? How did they justify their answers? Elaborate and draw conclusions]	

Further direct/implied comments/observations/suggestions that the researcher could spot:

[Click here to enter text.](#)

Analysis of the participants' feedback in the in-depth questions:

Please fill out the matrix according to all participants' views. In each block, please note down two numbers: **level # / # of participants** who rated the skill this way.

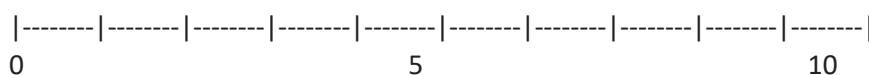
INSERT INTERVIEW CANVAS



ANNEX 3: FOCUS GROUP FOR TEACHERS - QUESTIONNAIRE

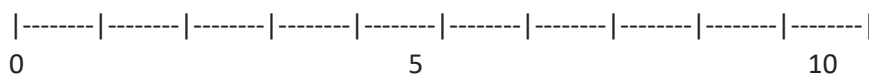
How important do you consider interdisciplinarity to introduce digital and entrepreneurial learning on a permanent basis in the educational offer of the school?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



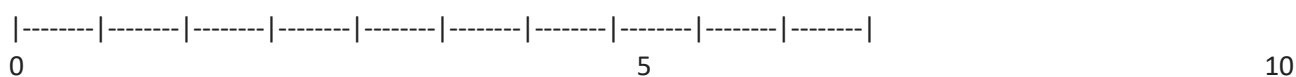
How important do you think it is to be effective today in the process of creating online educational projects able to combine creativity, labs/workshops and virtual sessions?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



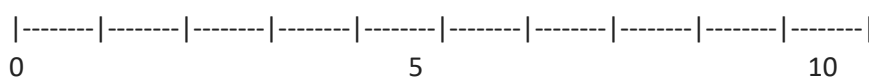
How important do you think it is to develop relational, communicative and team working qualities with a motivating style capable of valorising the potential of young people?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



How important do you think it is to develop educational pathways in schools that focus on creativity, innovation and entrepreneurship, as transversal and interdisciplinary issues?

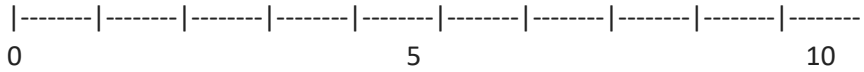
Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)





How satisfied are you with the current offer of learning on young people’s behavioural qualities as regards creativity, innovation and initiative present in your school?

Place a cross along the continuum from 0 (not at all satisfied) to 5 (quite satisfied) to 10 (very satisfied)



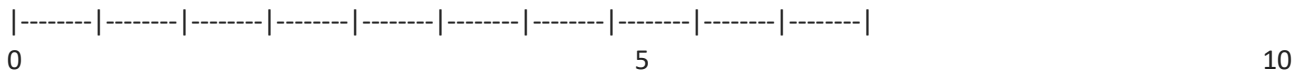
If not very satisfied:

- **What suggestions/indications would you propose?**

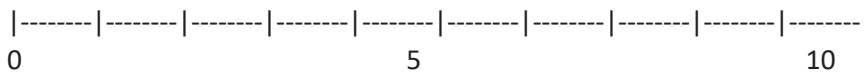
- **What are the main challenges/barriers to contain/remove (eg. perception of creativity as a pathway to finding a job; impact of COVID for students; strict curriculum; time constraints)?**

To what extent do you consider the development of teaching-methodological skills, functional to managing creative, interactive, immersive and laboratory solutions (eg. virtual methodologies, virtual tools, workshops), to be important for your professional training as a teacher

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)

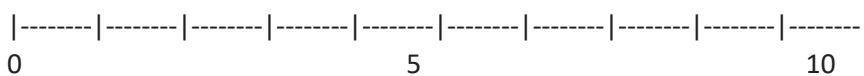


How free are you to be creative in your classroom?



How satisfied are you with the methodological and didactic experiments undertaken by your school to support the full personal and professional development of students?

Place a cross along the continuum from 0 (not at all satisfied) to 5 (quite satisfied) to 10 (very satisfied)



If not very satisfied:

- **What suggestions/indications would you propose?**



- **What are the main challenges/barriers to contain/remove (e.g. technical restrictions)?**

What could help or be done to make your students be as creative, entrepreneurial as possible?

What does your school do that particularly promotes those skills in your students?

ANNEX 4: FOCUS GROUP FOR STUDENTS - QUESTIONNAIRE

Warm-up phase

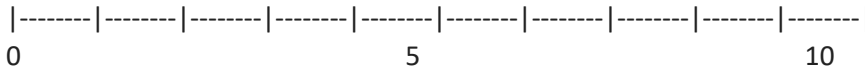
In your opinion, what are the crucial skills for your professional development?

How do you think of e-learning, as a training methodology, to acquire the knowledge/skills mentioned in the previous answer? [make additional, open-ended clarification questions if needed. i.e. “not a good option” “What about blended learning instead?”]

What features should a virtual learning environment have to help you develop these skills/competencies? [make additional, open-ended clarification questions if needed i.e. “tests” “why do you think that tests should be included?”]

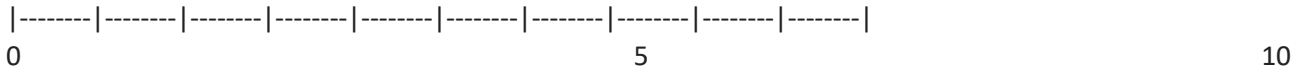
1. How important do you think it is to develop your digital skills for your professional success?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



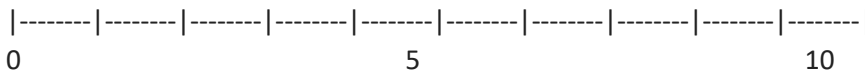
1.1 Do you want to develop your digital skills for your professional success?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



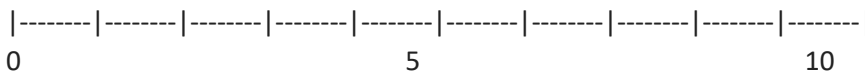
2. How important do you think it is to develop your entrepreneurial skills for your professional success?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



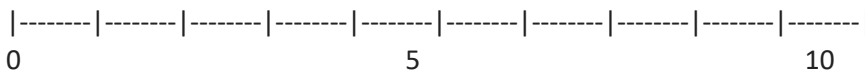
2.2 Do you want to develop your entrepreneurial skills for your professional success?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



3. How satisfied are you with the current offer of learning on digital skills in your school?

Place a cross along the continuum from 0 (not at all satisfied) to 5 (fairly satisfied) to 10 (very satisfied)



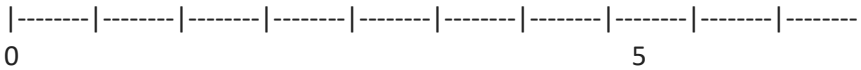
If not very satisfied:

What limits do you find?

What suggestions would you propose?

4. How satisfied are you with the current offer of learning on entrepreneurial skills in your school?

Place a cross along the continuum from 0 (not at all satisfied) to 5 (fairly satisfied) to 10 (very satisfied)



10

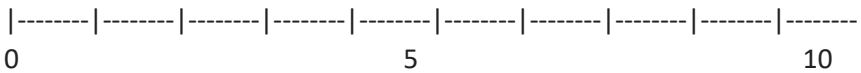
If not very satisfied:

What limits do you find?

What suggestions would you propose?

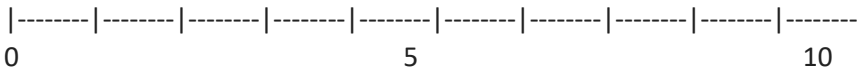
5. How satisfied are / how important do you consider the use of interactive and engaging digital teaching to be important for your learning ?

Place a cross along the continuum from 0 (not at all important) to 5 (quite important) to 10 (very important)



6. How satisfied are you with the distance learning methodologies used by your school?

Place a cross along the continuum from 0 (not at all satisfied) to 5 (quite satisfied) to 10 (very satisfied)



If not very satisfied,

What limits do you find?

What suggestions would you propose?

ANNEX 5: Self –evaluation Questionnaire of entrepreneurial and digital competences/abilities

Here follows a summary of the **ENTREPRENEURIAL SKILLS/ABILITIES** with short, relative descriptors:

- **Spotting opportunities** - ability to use your imagination and abilities to identify opportunities for creating value
- **Creativity** - ability to develop creative and purposeful ideas
- **Vision** - ability to work towards your vision of the future
- **Evaluating ideas** - ability to make the most of ideas and opportunities
- **Self-awareness and self-efficacy** - ability to believe in yourself and keep developing
- **Motivation and perseverance** - ability to stay focused and not give up
- **Take initiative** - ability to try
- **Coping with uncertainty, ambiguity and risk**- ability to make decisions dealing with uncertainty, ambiguity and risk
- **Working with others** - ability to team up, collaborate and net-work
- **Learning by experience** - ability to learn by doing

The questionnaire asks you to indicate, for each of the 10 of 15 competences in the ENTRECOMP Framework, declined in 8 levels of possession/exercise, following self-evaluation, your level of possession and exercise of the aforementioned competence/ability. To enable you to make a motivated and conscious self-evaluation, here follows, in coherence with the EQF - European Qualifications Framework logic, a key to the 8 levels of possession/exercise of each of the 15 core competencies of the "mother" competence regarding **the ability to create entrepreneurial value**:

Level 1: under direct supervision of others

Level 2: with reduced supervision of others, limited autonomy and together with peers

Level 3: alone and with peers

Level 4: taking and sharing some responsibilities

Level 5: taking on responsibilities, with limited guidance and together with others

Level 6: taking on responsibility for taking decisions and working with others

Level 7: taking on responsibility for contributing to complex developments in a specific sector

Level 8: substantially contributing to the development in a specific sector.

In reference to competence n. 1 - "**Identify opportunities**", choose the level you have from the 8 levels it has been declined in

1	SPOTTING OPPORTUNITIES	Level of possession
Level 1	<i>I can find opportunities to help others, as well as challenges that need solutions</i>	<input type="checkbox"/>
Level 2	<i>I can recognise opportunities to generate value in my community and surrounding area, as well as challenges that I can contribute to solve</i>	<input type="checkbox"/>
Level 3	<i>I can explain what makes an opportunity create value and that different groups may have different needs</i>	<input type="checkbox"/>
Level 4	<i>I can proactively look for opportunities to address my or specific user groups' needs that have not been met</i>	<input type="checkbox"/>
Level 5	<i>I can describe different analytical approaches to identify entrepreneurial opportunities in the context I live in and carry out a needs analysis involving relevant stakeholders</i>	<input type="checkbox"/>
Level 6	<i>I can seize opportunities at the right time to respond to challenges and needs of different stakeholders and create value</i>	<input type="checkbox"/>



Level 7	<i>I can group different opportunities to create value and decide whether and which ones to seize at different levels of the system I work in</i>	<input type="checkbox"/>
Level 8	<i>I can spot and quickly take advantage of an opportunity where I can maintain a competitive advantage, promoting a culture within my organisation that is open to spotting even weak signals of change, leading to new opportunities to create value</i>	<input type="checkbox"/>

In reference to competence n. 2 - "**Creativity**", choose the level you have from the 8 levels it has been declined in

2	CREATIVITY	Level of possession
Level 1	<i>I can develop ideas that solve important problems for me and my surrounding area and assemble objects that create value for me and for others</i>	<input type="checkbox"/>
Level 2	<i>I can develop various ideas that create value for others and improve products, services and processes so that they better meet my needs or those of the community</i>	<input type="checkbox"/>
Level 3	<i>I can experiment with different techniques to generate alternative solutions to problems, using resources available in an effective way and identifying the basic functions that a prototype should have to illustrate the value of my idea</i>	<input type="checkbox"/>
Level 4	<i>I can test the value of my solutions with end users, assembling and progressively refining prototypes that simulate the value I want to create</i>	<input type="checkbox"/>
Level 5	<i>I can describe different techniques to test innovative ideas with end users and I can create (alone or with others) products and services that solve my problems and needs</i>	<input type="checkbox"/>
Level 6	<i>I can set up processes to involve stakeholders in finding, developing and testing ideas, transforming them into solutions with basic features</i>	<input type="checkbox"/>
Level 7	<i>I can tailor a variety of ways of involving stakeholders to suit the needs of my activity and apply different design approaches to create new products, services or processes</i>	<input type="checkbox"/>
Level 8	<i>I can design new processes to involve stakeholders in generating, developing and testing ideas, as well as design and implement innovative process to create value</i>	<input type="checkbox"/>

In reference to competence n. 3 - "**Vision**", choose the level you have from the 8 levels it has been declined in

3	VISION	Level of possession
Level 1	<i>I can imagine a desirable future</i>	<input type="checkbox"/>
Level 2	<i>I can develop simple future scenarios where value is created for my community and surrounding area</i>	<input type="checkbox"/>
Level 3	<i>I can develop (alone or with others) an inspiring vision that involves others</i>	<input type="checkbox"/>
Level 4	<i>I can build future scenarios for my activity that creates value</i>	<input type="checkbox"/>
Level 5	<i>I can identify different strategic visions to create value and identify the changes needed to achieve my vision</i>	<input type="checkbox"/>
Level 6	<i>I can use my vision to guide strategic decision-making processes</i>	<input type="checkbox"/>
Level 7	<i>I can develop (alone or with others) and compare different future scenarios</i>	<input type="checkbox"/>
Level 8	<i>I can demonstrate to others the benefits of my vision during turbulent times, encouraging enthusiasm and sense of belonging around it</i>	<input type="checkbox"/>

In reference to competence n. 4 - "**Evaluating ideas**", choose the level you have from the 8 levels it has been declined in



4	EVALUATING IDEAS	Level of possession
Level 1	<i>I can find examples of ideas that have value for myself and others</i>	<input type="checkbox"/>
Level 2	<i>I can show how different groups, such as firms and institutions, create value in my community and surrounding areas</i>	<input type="checkbox"/>
Level 3	<i>I can tell the difference between the social, cultural and economic value and between different types of licences that can be used to share ideas and protect rights</i>	<input type="checkbox"/>
Level 4	<i>I can decide which type of value I want to create and then choose the most appropriate route to create it, including the most appropriate licence for sharing and protecting the value created by my ideas</i>	<input type="checkbox"/>
Level 5	<i>I recognise the many forms of value that can be created through entrepreneurship, (social, cultural or economic) and the different ways to protect intellectual property</i>	<input type="checkbox"/>
Level 6	<i>I can break down a value chain into its different parts, identifying how value is added in each part and I define dissemination and exploitation agreements</i>	<input type="checkbox"/>
Level 7	<i>I can develop strategies to effectively make the most of the value created by ideas of my organisation/company, including aspects to protect intellectual property rights</i>	<input type="checkbox"/>
Level 8	<i>I can recognise the value of a new idea from different perspectives of different stakeholders. I can develop a tailored strategy to protect intellectual property rights</i>	<input type="checkbox"/>

In reference to competence n. 6 - "**Self-awareness and self-efficacy**", choose the level you have from the 8 levels it has been declined in

6	SELF-AWARENESS AND SELF-EFFICACY	Level of possession
Level 1	<i>With guidance, I can identify things that I am good and not good at and I believe in my ability to do what I am asked to do successfully</i>	<input type="checkbox"/>
Level 2	<i>Autonomously, I can identify things I am good and not good at and I believe in my ability to achieve what I aim to do</i>	<input type="checkbox"/>
Level 3	<i>I can identify my strengths and weaknesses and those of others, as well as evaluate the control I have of my achievements (with respect to any external control)</i>	<input type="checkbox"/>
Level 4	<i>I can make the most of my (or my team/organisation's) strengths and weaknesses and I believe I can influence people and situations for the better</i>	<input type="checkbox"/>
Level 5	<i>I can compensate for my weaknesses by teaming up with others and by further developing our strengths, believing in my ability to achieve what I have planned, despite obstacles, limited resources and resistance from others</i>	<input type="checkbox"/>
Level 6	<i>I can help others identify their strengths and weaknesses and I believe in my ability to understand and make the most of the experiences that others may label as failures</i>	<input type="checkbox"/>
Level 7	<i>I can design professional development strategies for my team and organisation based on a clear understanding of our strengths and weaknesses, in relation to both current and future opportunities to create value</i>	<input type="checkbox"/>
Level 8	<i>I can design strategies to overcome my (or my team or organisation's) weaknesses and to develop our strengths in anticipating future needs</i>	<input type="checkbox"/>

In reference to competence n. 7 - "**Motivation and perseverance**", choose the level you have from the 8 levels it has been declined in

7	MOTIVATION AND PERSEVERANCE	Level of possession
Level 1	<i>I am passionate about and willing to achieve my goals and contribute to something that is good for me or for others</i>	<input type="checkbox"/>
Level 2	<i>I am motivated by the idea of creating value for myself and others and persevere when trying to achieve my (or my team's) goals</i>	<input type="checkbox"/>
Level 3	<i>I can overcome small obstacles/ adverse circumstances when trying to achieve my goals</i>	<input type="checkbox"/>



Level 4	<i>I am determined and do my utmost, using the resources needed to overcome challenges and achieve my (or my team's) goals</i>	<input type="checkbox"/>
Level 5	<i>I can use strategies to stay motivated (for example, set goals, monitor performance and evaluate my progress) and keep creating value despite setbacks</i>	<input type="checkbox"/>
Level 6	<i>I can coach and use strategies to keep my team motivated and focused on creating value</i>	<input type="checkbox"/>
Level 7	<i>I can create the right climate to motivate my team and cope with unexpected changes and failures, staying focused on my vision and goals</i>	<input type="checkbox"/>
Level 8	<i>I am motivated to make sure that my team's (or my organisation's) outcomes develop in a continuous cycle of improvement and innovation</i>	<input type="checkbox"/>

In reference to competence n. 10 - "**Taking initiative**", choose the level you have from the 8 levels it has been declined in

10	TAKING THE INITIATIVE	Level of possession
Level 1	<i>I can try to solve problems that affect me</i>	<input type="checkbox"/>
Level 2	<i>I show initiative in dealing with problems that affect my community</i>	<input type="checkbox"/>
Level 3	<i>I can initiate simple value creating activities</i>	<input type="checkbox"/>
Level 4	<i>I am driven by the possibility of being able to independently initiate value creating activities</i>	<input type="checkbox"/>
Level 5	<i>I can initiate value-creating activities alone or with others</i>	<input type="checkbox"/>
Level 6	<i>I can help and encourage others to take initiative in solving problems and creating value</i>	<input type="checkbox"/>
Level 7	<i>I take responsibility in complex value-creating activities, encouraging and rewarding initiatives taken by others within my organisation</i>	<input type="checkbox"/>
Level 8	<i>I can take responsibility in seizing new opportunities and when facing unprecedented challenges in value-creating activities</i>	<input type="checkbox"/>

In reference to competence n. 12 - "**Coping with uncertainties**", choose the level you have from the 8 levels it has been declined in

12	COPING WITH UNCERTAINTY, AMBIGUITY AND RISK	Level of possession
Level 1	<i>I'm not afraid of making mistakes while trying new things</i>	<input type="checkbox"/>
Level 2	<i>I use my own ways to achieve things and I can describe the risks of a simple value-creating activity in which I take part</i>	<input type="checkbox"/>
Level 3	<i>I can critically identify and evaluate acceptable and unacceptable risks with an idea that creates value</i>	<input type="checkbox"/>
Level 4	<i>I can critically evaluate the risks related to the formal set-up of a value-creating venture, actively looking for, comparing and contrasting different factors and sources of information</i>	<input type="checkbox"/>
Level 5	<i>I can make decisions by weighing up both the risks and the expected benefits of a value creating activity, even when information is incomplete, applying the concept of acceptable losses</i>	<input type="checkbox"/>
Level 6	<i>I can compare value-creating activities and take informed decisions based on a risk assessment, as well as on a risk management plan</i>	<input type="checkbox"/>
Level 7	<i>I can assess risks, use strategies to reduce them and take informed decisions for my company</i>	<input type="checkbox"/>
Level 8	<i>I can evaluate high-risk investments, use strategies to reduce risks and monitor data to take decisions based on sound evidence</i>	<input type="checkbox"/>

In reference to competence n. 13 - "**Working with others**", choose the level you have from the 8 levels it has been declined in

13	WORKING WITH OTHERS	Level of possession
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Level 1	<i>I can show empathy towards others</i>	<input type="checkbox"/>
Level 2	<i>I can work in a team contributing to simple value-creating activities</i>	<input type="checkbox"/>
Level 3	<i>I can work together with a wide range of individuals and groups constructively contributing to group decision-making</i>	<input type="checkbox"/>
Level 4	<i>I can create a team of people who can work together in a value-creating activity sharing the ownership of ideas with members</i>	<input type="checkbox"/>
Level 5	<i>I can build a team using my network to find the right people to work for me</i>	<input type="checkbox"/>
Level 6	<i>I can give people the help and support required to perform to their best within a team and contribute to creating value by teaming up with distributed communities through digital technologies</i>	<input type="checkbox"/>
Level 7	<i>I can design physical and virtual spaces for team working and work with a remote team of people, contributing independently to a value-creating activity</i>	<input type="checkbox"/>
Level 8	<i>I can design working methods and incentives that enable team members to work well together, as well as processes to build networks of stakeholders and keep them engaged</i>	<input type="checkbox"/>

In reference to competence n. 14 - "**Learning by experience**", choose the level you have from the 8 levels it has been declined in

14	LEARNING BY EXPERIENCE	Level of possession
Level 1	<i>I can recognise what I have learnt by taking part in value-creating activities</i>	<input type="checkbox"/>
Level 2	<i>I can reflect on my past experience in taking part in value-creating activities and learn from it</i>	<input type="checkbox"/>
Level 3	<i>I can reflect on the relevance of my interaction with others (including peers and mentors) for my future opportunities and choices and learn from it</i>	<input type="checkbox"/>
Level 4	<i>I can reflect on and judge my achievements and failures and learn from them</i>	<input type="checkbox"/>
Level 5	<i>I can improve my personal and professional skills through lifelong learning so as to develop my ability to create value, taking into account my previous experience</i>	<input type="checkbox"/>
Level 6	<i>I can help others reflect on their achievements and failures providing constructive feedback, as well as help them to develop their strengths and reduce their weaknesses</i>	<input type="checkbox"/>
Level 7	<i>I can identify opportunities for self- improvement in my organisation and learn from the results of monitoring and evaluation of my organisation's performance</i>	<input type="checkbox"/>
Level 8	<i>I can learn lessons from monitoring and evaluation processes, as well as design and implement a strategy for my business to continue to generate value</i>	<input type="checkbox"/>



Here follows a summary of some **DIGITAL COMPETENCES** grouped by competence area:

1: Information and data literacy

1.1 Browsing, searching, filtering data, information and digital content to articulate information needs, to search for data, information and content in digital environments, to access and navigate between them. To create and update personal search strategies

1.2 Evaluating data, information and digital content to analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content. To analyse, interpret and critically evaluate the data, information and digital content

1.3 Managing data, information and digital content. To organise, store and retrieve data, information, and content in digital environments. To organise and process them in a structured environment.

2: Communication and collaboration

2.1 Interacting through digital technologies. To interact through a variety of digital technologies and to understand appropriate digital communication means for a given context.

2.2 Sharing through digital technologies. To share data, information and digital content with others through appropriate digital technologies. To act as an intermediary, to know about referencing and attribution practices.

2.3 Engaging in citizenship through digital technologies. To participate in society through the use of public and private digital services. To seek opportunities for self-empowerment and for participatory citizenship through appropriate digital technologies.

2.4 Collaborating through digital technologies. To use digital tools and technologies for collaborative processes, and for co-construction and co-creation of data, resources and knowledge.

2.5 Netiquette. To be aware of behavioural norms and know-how while using digital technologies and interacting in digital environments. To adapt communication strategies to the specific audience and to be aware of cultural and generational diversity in digital environments.

2.6 Managing digital identity. To create, and manage one or multiple digital identities, to be able to protect one's own reputation, to deal with the data that one produces through several digital tools, environments and services.

3: Digital content creation

3.1 Developing digital content. To create and edit digital content in different formats, to express oneself through digital means.

3.2 Integrating and re-elaborating digital content. To modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge.

5: Problem solving

5.1 Solving technical problems. To identify technical problems when operating devices and using digital environments, and to solve them (from trouble-shooting to solving more complex problems).

5.2 Identifying needs and technological responses. To assess needs and to identify, evaluate, select and use digital tools and possible technological responses and to solve them. To adjust and customise digital environments to personal needs (e.g. accessibility).

5.3 Creatively using digital technologies. To use digital tools and technologies to create knowledge and to innovate processes and products. To engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments.

5.4 Identifying digital competence gaps. To understand where one's own digital competence needs to be improved or updated. To be able to support others with their digital competence development. To seek opportunities for self-development and to keep up-to-date with the digital evolution.



1.1	INFORMATION AND DATA LITERACY	Level of possession
	Browsing, searching, filtering data, information and digital content	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> • identify my information needs, • find data, information and content through a simple search in digital environments, • find how to access these data, information and content and navigate between them, • identify simple personal search strategies. 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> • identify my information needs, • find data, information and content through a simple search in digital environments, • find how to access these data, information and content and navigate between them, • identify simple personal search strategies 	<input type="checkbox"/>
Level 3	<p><i>I can:</i></p> <ul style="list-style-type: none"> • explain my information needs, • perform well-defined and routine searches to find data, information and content in digital environments, • explain how to access them and navigate between them, • explain well-defined and routine personal search strategies 	<input type="checkbox"/>
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> • illustrate information needs, • organise the searches of data, information and content in digital environments, • describe how to access to these data, information and content, and navigate between them, • organise personal search strategies. 	<input type="checkbox"/>
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> • respond to information needs, • apply searches to obtain data, information and content in digital environments, • show how to access to these data, information and content and navigate between them, • propose personal search strategies. 	<input type="checkbox"/>
Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> • assess information needs, • adapt my searching strategy to find the most appropriate data, information and content in digital environments, • explain how to access to these most appropriate data, information and content and navigate among them, • vary personal search strategies. 	<input type="checkbox"/>
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to complex problems with limited definition that are related to browsing, searching and filtering of data, information and digital content, • integrate my knowledge to contribute to professional practice and knowledge and guide others in browsing, searching and filtering data, information and digital content. 	<input type="checkbox"/>
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to solve complex problems with many interacting factors that are related to browsing, searching and filtering data, information and digital content, • propose new ideas and processes to the field. 	<input type="checkbox"/>

1.2	INFORMATION AND DATA LITERACY	Level of possession
	Evaluating data, information and digital content	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> • detect the credibility and reliability of common sources of data, information and their digital content. 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> • detect the credibility and reliability of common sources of data, information and their digital content. 	<input type="checkbox"/>



Level 3	<p><i>I can:</i></p> <ul style="list-style-type: none"> perform the analysis, comparison and evaluation of the credibility and reliability of well-defined sources of data, information and digital content, perform the analysis, interpretation and evaluation of well-defined data, information and digital content 	<input type="checkbox"/>
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> perform the analysis, comparison and evaluation of sources of data, information and digital content, perform the analysis, interpretation and evaluation of data, information and digital content. 	<input type="checkbox"/>
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> carry out an evaluation of the credibility and reliability of different sources of data, information and digital content, carry out an evaluation of different data, information and digital content. 	<input type="checkbox"/>
Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> critically assess the credibility and reliability of sources of data, information and digital content, critically assess data, information and digital content. 	<input type="checkbox"/>
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> create solutions to complex problems with limited definition that are related to analysing and evaluating credible and reliable sources of data, information and content in digital environments, integrate my knowledge to contribute to professional practices and knowledge and to guide others in the analysis and evaluation of the credibility and reliability of data, information and digital content and their sources. 	<input type="checkbox"/>
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> create solutions to solve complex problems with many interacting factors that are related to analysing and evaluating credible and reliable sources of data, information and content in digital environments, propose new ideas and processes to the field. 	<input type="checkbox"/>

1.3	INFORMATION AND DATA LITERACY	Level of possession
	Managing data, information and digital content	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> identify how to organise, store and retrieve data, information and content in a simple way in digital environments, recognise where to organise them in a simple way in a structured environment. 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> identify how to organise, store and retrieve data, information and content in a simple way in digital environments, recognise where to organise them in a simple way in a structured environment. 	<input type="checkbox"/>
Level 3	<p><i>I can:</i></p> <ul style="list-style-type: none"> select data, information and content in order to organise, store and retrieve in a routine way in digital environments, organise them in a routine way in a structured environment. 	<input type="checkbox"/>
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> organise information, data and content to be easily stored and retrieved, organise information, data and content in a structured environment. 	<input type="checkbox"/>
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> manipulate information, data and content for their easier organisation, storage and retrieval, carry out their organisation and processing in a structured environment. 	<input type="checkbox"/>
Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> adapt the management of information, data and content for the most appropriate easy retrieval and storage, adapt them to be organised and processed in the most appropriate structured environment. 	<input type="checkbox"/>
Level 7	<p><i>I can:</i></p>	<input type="checkbox"/>



	<ul style="list-style-type: none"> • create solutions to complex problems with limited definition that are related to managing data, information, and content for their organisation, storage and retrieval in a structured digital environment, • integrate my knowledge to contribute to professional practices and knowledge and to guide others in managing data, information and digital content in a structured digital environment. 	
Level 8	<p>I can:</p> <ul style="list-style-type: none"> • create solutions to solve complex problems with many interacting factors that are related to managing data, information, and content for their organisation, storage and retrieval in a structured digital environment, • propose new ideas and processes to the field. 	<input type="checkbox"/>

2.1	COMMUNICATION AND COLLABORATION	Level of possession
	Interacting through digital technologies	
Level 1	<p>With guidance, I can:</p> <ul style="list-style-type: none"> • select simple digital technologies to interact, and • identify appropriate simple communication means for a given context. 	<input type="checkbox"/>
Level 2	<p>With autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> • select simple digital technologies to interact, and • identify appropriate simple communication means for a given context. 	<input type="checkbox"/>
Level 3	<p>I can:</p> <ul style="list-style-type: none"> • perform well-defined and routine interactions with digital technologies, and • select well-defined and routine appropriate digital communication means for a given context. 	<input type="checkbox"/>
Level 4	<p>I can:</p> <ul style="list-style-type: none"> • select a variety of digital technologies to interact, and • select a variety of appropriate digital communication means for a given context. 	<input type="checkbox"/>
Level 5	<p>I can:</p> <ul style="list-style-type: none"> • use a variety of digital technologies in order to interact, • show others the most appropriate digital communication means for a given context 	<input type="checkbox"/>
Level 6	<p>I can:</p> <ul style="list-style-type: none"> • adapt a variety of digital technologies for the most appropriate interaction, and • adapt the most appropriate communication means for a given context. 	<input type="checkbox"/>
Level 7	<p>I can:</p> <ul style="list-style-type: none"> • create solutions to complex problems with limited definition that are related to interacting through digital technologies and digital communication means. • integrate my knowledge to contribute to professional practices and knowledge and to guide others in the interaction through digital technologies. 	<input type="checkbox"/>
Level 8	<p>I can:</p> <ul style="list-style-type: none"> • create solutions to solve complex problems with many interacting factors that are related to interacting through digital technologies and digital communication means • propose new ideas and processes to the field. 	<input type="checkbox"/>

2.2	COMMUNICATION AND COLLABORATION	Level of possession
	Sharing through digital technologies	
Level 1	<p>With guidance, I can:</p> <ul style="list-style-type: none"> • recognise simple appropriate digital technologies to share data, information and digital content. • identify simple referencing and attribution practices. 	<input type="checkbox"/>
Level 2	<p>With autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> • recognise simple appropriate digital technologies to share data, information and digital content. • identify simple referencing and attribution practices. 	<input type="checkbox"/>
Level 3	<p>I can:</p>	<input type="checkbox"/>



	<ul style="list-style-type: none"> • select well defined and routine appropriate digital technologies to share data, information and digital content. • explain how to act as an intermediary for sharing information and content through well-defined and routine digital technologies, • illustrate well-defined and routine referencing and attribution practices. 	
Level 4	<p>I can:</p> <ul style="list-style-type: none"> • manipulate appropriate digital technologies to share data, information and digital content. • explain how to act as an intermediary for sharing information and content through digital technologies, • illustrate referencing and attribution practices. 	<input type="checkbox"/>
Level 5	<p>I can:</p> <ul style="list-style-type: none"> • share data, information and digital content through a variety of appropriate digital tools, • show others how to act as an intermediary for sharing information and content through digital technologies. • apply a variety of referencing and attribution practices. 	<input type="checkbox"/>
Level 6	<p>I can:</p> <ul style="list-style-type: none"> • assess the most appropriate digital technologies to share information and content. • adapt my intermediation role, • vary the use of the more appropriate referencing and attribution practices. 	<input type="checkbox"/>
Level 7	<p>I can:</p> <ul style="list-style-type: none"> • create solutions to complex problems with limited definition that are related to sharing through digital technologies. • integrate my knowledge to contribute to professional practices and knowledge and guide others in sharing through digital technologies. 	<input type="checkbox"/>
Level 8	<p>I can:</p> <ul style="list-style-type: none"> • create solutions to solve complex problems with many interacting factors that are related to sharing through digital technologies. • propose new ideas and processes to the field. 	<input type="checkbox"/>

2.3	COMMUNICATION AND COLLABORATION	Level of possession
	Engaging in citizenship through digital technologies	
Level 1	<p>With guidance, I can:</p> <ul style="list-style-type: none"> • identify simple digital services in order to participate in society. • I can recognise simple appropriate digital technologies to empower myself and to participate in society as a citizen. 	<input type="checkbox"/>
Level 2	<p>With autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> • identify simple digital services in order to participate in society. • recognise simple appropriate digital technologies to empower myself and to participate in society as a citizen. 	<input type="checkbox"/>
Level 3	<p>I can:</p> <ul style="list-style-type: none"> • select well-defined and routine digital services in order to participate in society. • indicate well-defined and routine appropriate digital technologies to empower myself and to participate in society as a citizen. 	<input type="checkbox"/>
Level 4	<p>I can:</p> <ul style="list-style-type: none"> • select digital services in order to participate in society. • discuss appropriate digital technologies to empower myself and to participate in society as a citizen. 	<input type="checkbox"/>
Level 5	<p>I can:</p> <ul style="list-style-type: none"> • propose different digital services to participate in society. • use appropriate digital technologies to empower myself and to participate in society as a citizen. 	<input type="checkbox"/>
Level 6	<p>I can:</p> <ul style="list-style-type: none"> • vary the use of the most appropriate digital services in order to participate in society. • vary the use of the most appropriate digital technologies to empower myself and to participate in society as a citizen. 	<input type="checkbox"/>



Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to complex problems with limited definition that are related to engaging in citizenship through digital technologies. • integrate my knowledge to contribute to professional practices and knowledge and guide others in engaging in citizenship through digital technologies. 	<input type="checkbox"/>
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to solve complex problems with many interacting factors that are related to engaging in citizenship through digital technologies. • propose new ideas and processes to the field. 	<input type="checkbox"/>

2.4	COMMUNICATION AND COLLABORATION	Level of possession
	Collaborating through digital technologies	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> • choose simple digital tools and technologies for collaborative processes with guidance 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> • choose simple digital tools and technologies for collaborative processes with autonomy 	<input type="checkbox"/>
Level 3	<p><i>I can:</i></p> <ul style="list-style-type: none"> • select well-defined and routine digital tools and technologies for collaborative processes. 	<input type="checkbox"/>
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> • select digital tools and technologies for collaborative processes. 	<input type="checkbox"/>
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> • propose different digital tools and technologies for collaborative processes. 	<input type="checkbox"/>
Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> • vary the use of the most appropriate digital tools and technologies for collaborative processes. • choose the most appropriate digital tools and technologies for co-constructing and co-creating data, resources and knowledge. 	<input type="checkbox"/>
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to complex problems with limited definition that are related to using collaborative processes and co-construction and co-creation of data, resources and knowledge through digital tools and technologies. • integrate my knowledge to contribute to professional practice and knowledge and guide others in collaborating through digital technologies. 	<input type="checkbox"/>
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to solve complex problems with many interacting factors that are related to using collaborative processes and co-construction and co-creation of data, resources and knowledge through digital tools and technologies. • propose new ideas and processes to the field. 	<input type="checkbox"/>

2.5	COMMUNICATION AND COLLABORATION	Level of possession
	Netiquette	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> • differentiate simple behavioural norms and know-how while using digital technologies and interacting in digital environments. • choose simple communication modes and strategies adapted to an audience and • differentiate simple cultural and generational diversity aspects to consider in digital environments. 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> • differentiate simple behavioural norms and know-how while using digital technologies and interacting in digital environments. • choose simple communication modes and strategies adapted to an audience and • differentiate simple cultural and generational diversity aspects to consider in digital environments. 	<input type="checkbox"/>
Level 3	<p><i>I can:</i></p>	<input type="checkbox"/>



	<ul style="list-style-type: none"> clarify well-defined and routine behavioural norms and know-how while using digital technologies and interacting in digital environments. express well-defined and routine communication strategies adapted to an audience and describe well-defined and routine cultural and generational diversity aspects to consider in digital environments. 	
Level 4	<p>I can:</p> <ul style="list-style-type: none"> discuss behavioural norms and know-how while using digital technologies and interacting in digital environments. discuss communication strategies adapted to an audience and discuss cultural and generational diversity aspects to consider in digital environments. 	<input type="checkbox"/>
Level 5	<p>I can:</p> <ul style="list-style-type: none"> apply different behavioural norms and know-how while using digital technologies and interacting in digital environments. apply different communication strategies in digital environments adapted to an audience and apply different cultural and generational diversity aspects to consider in digital environments. 	<input type="checkbox"/>
Level 6	<p>I can:</p> <ul style="list-style-type: none"> adapt the most appropriate behavioural norms and know-how while using digital technologies and interacting in digital environments. adapt the most appropriate communication strategies in digital environments to an audience and apply different cultural and generational diversity aspects in digital environments. 	<input type="checkbox"/>
Level 7	<p>I can:</p> <ul style="list-style-type: none"> create solutions to complex problems with limited definition that are related to digital etiquettes respectful to different audiences and cultural and generational diversity. integrate my knowledge to contribute to professional practice and knowledge and guide others in digital etiquette. 	<input type="checkbox"/>
Level 8	<p>I can:</p> <ul style="list-style-type: none"> create solutions to solve complex problems with many interacting factors that are related to digital etiquettes respectful to different audiences and cultural and generational diversity. propose new ideas and processes to the field. 	<input type="checkbox"/>

2.6	COMMUNICATION AND COLLABORATION	Level of possession
	Managing digital identity	
Level 1	<p>With guidance, I can:</p> <ul style="list-style-type: none"> identify a digital identity, describe simple ways to protect my reputation online, recognise simple data I produce through digital tools, environments or services. 	<input type="checkbox"/>
Level 2	<p>With autonomy and appropriate guidance where needed I can:</p> <ul style="list-style-type: none"> identify a digital identity, describe simple ways to protect my reputation online, recognise simple data I produce through digital tools, environments or services. 	<input type="checkbox"/>
Level 3	<p>I can:</p> <ul style="list-style-type: none"> discriminate a range of well-defined and routine digital identities, explain well-defined and routine ways to protect my reputation online, describe well-defined data I routinely produce through digital tools, environments or services. 	<input type="checkbox"/>
Level 4	<p>I can:</p> <ul style="list-style-type: none"> display a variety of specific digital identities, discuss specific ways to protect my reputation online, manipulate data I produce through digital tools, environments or services. 	<input type="checkbox"/>
Level 5	<p>I can:</p> <ul style="list-style-type: none"> use a variety of digital identities, apply different ways to protect my reputation online, use data I produce through several digital tools, environment and services. 	<input type="checkbox"/>



Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> discriminate multiple digital identities, explain the more appropriate ways to protect one's own reputation, change the data produced through several tools, environments and services. 	
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> create solutions to complex problems with limited definition that are related to managing digital identities and protection of people's online reputation. integrate my knowledge to contribute to professional practice and knowledge and guide others in managing digital identity. 	
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> create solutions to solve complex problems with many interacting factors that are related to managing digital identities and protection of people's online reputation. propose new ideas and processes to the field. 	<input type="checkbox"/>

3.1	DIGITAL CONTENT CREATION	Level of possession
	Developing digital content	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> identify ways to create and edit simple content in simple formats, choose how I express myself through the creation of simple digital means. 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> identify ways to create and edit simple content in simple formats, choose how I express myself through the creation of simple digital means. 	<input type="checkbox"/>
Level 3	<p><i>I can:</i></p> <ul style="list-style-type: none"> indicate ways to create and edit well-defined and routine content in well-defined and routine formats, express myself through the creation of well-defined and routine digital means. 	<input type="checkbox"/>
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> indicate ways to create and edit content in different formats, express myself through the creation of digital means. 	<input type="checkbox"/>
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> apply ways to create and edit content in different formats, show ways to express myself through the creation of digital means. 	<input type="checkbox"/>
Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> change content using the most appropriate formats, adapt the expression of myself through the creation of the most appropriate digital means. 	<input type="checkbox"/>
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> create solutions to complex problems with limited definition that are related to content creation and edition in different formats, and self-expression through digital means. integrate my knowledge to contribute to professional practice and knowledge and guide others in developing content. 	<input type="checkbox"/>
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> create solutions to solve complex problems with many interacting factors that are related to content creation and edition in different formats, and self-expression through digital means. propose new ideas and processes to the field. 	<input type="checkbox"/>

3.2	DIGITAL CONTENT CREATION	Level of possession
	Integrating and re-elaborating digital content	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> select ways to modify, refine, improve and integrate simple items of new content and information to create new and original ones. 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> select ways to modify, refine, improve and integrate simple items of new content and information to create new and original ones 	<input type="checkbox"/>
Level 3	<p><i>I can:</i></p>	<input type="checkbox"/>



	<ul style="list-style-type: none"> explain ways to modify, refine, improve and integrate well-defined items of new content and information to create new and original ones. 	
Level 4	<p>I can:</p> <ul style="list-style-type: none"> discuss ways to modify, refine, improve and integrate new content and information to create new and original ones. 	<input type="checkbox"/>
Level 5	<p>I can:</p> <ul style="list-style-type: none"> operate with new different items of content and information, modifying, refining, improving and integrating them in order to create new and original ones. 	<input type="checkbox"/>
Level 6	<p>I can:</p> <ul style="list-style-type: none"> assess the most appropriate ways to modify, refine, improve and integrate specific new items of content and information to create new and original ones. 	<input type="checkbox"/>
Level 7	<p>I can:</p> <ul style="list-style-type: none"> create solutions to complex problems with limited definitions that are related to modifying, refining, improving and integrating new content and information into existing knowledge to create new and original ones. integrate my knowledge to contribute to professional practice and knowledge and guide others integrating and re-elaborating content 	<input type="checkbox"/>
Level 8	<p>I can:</p> <ul style="list-style-type: none"> create solutions to solve complex problems with many interacting factors that are related to modifying, refining, improving and integrating new content and information into existing knowledge to create new and original ones. propose new ideas and processes to the field. 	<input type="checkbox"/>

5.1	PROBLEM SOLVING		Level of possession
	Solving technical problems		
Level 1	<p>With guidance, I can:</p> <ul style="list-style-type: none"> identify simple technical problems when operating devices and using digital environments, and identify simple solutions to solve them. 	<input type="checkbox"/>	
Level 2	<p>With autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> identify simple technical problems when operating devices and using digital environments, and identify simple solutions to solve them. 	<input type="checkbox"/>	
Level 3	<p>I can:</p> <ul style="list-style-type: none"> indicate well-defined and routine technical problems when operating devices and using digital environments, and select well-defined and routine solutions to them. 	<input type="checkbox"/>	
Level 4	<p>I can:</p> <ul style="list-style-type: none"> differentiate technical problems when operating devices and using digital environments, and select solutions to them. 	<input type="checkbox"/>	
Level 5	<p>I can:</p> <ul style="list-style-type: none"> assess technical problems when using digital environments and operating digital devices, and apply different solutions to them. 	<input type="checkbox"/>	
Level 6	<p>I can:</p> <ul style="list-style-type: none"> appraise technical problems when operating devices and using digital environments, and resolve them with the most appropriate solutions 	<input type="checkbox"/>	
Level 7	<p>I can:</p> <ul style="list-style-type: none"> create solutions to complex problems with limited definition that are related to technical problems when operating devices and using digital environments. integrate my knowledge to contribute to professional practice and knowledge and to guide others in solving technical problems. 	<input type="checkbox"/>	
Level 8	<p>I can:</p> <ul style="list-style-type: none"> create solutions to solve complex problems with many interacting factors that are related to technical problems when operating devices and using digital environments. propose new ideas and processes to the field. 	<input type="checkbox"/>	



5.2	PROBLEM SOLVING		Level of possession
	Identifying needs and technological responses		
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> • identify needs, and • recognise simple digital tools and possible technological responses to solve those needs. • choose simple ways to adjust and customise digital environments to personal needs. 	<input type="checkbox"/>	
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> • identify needs, and • recognise simple digital tools and possible technological responses to solve those needs. • choose simple ways to adjust and customise digital environments to personal needs. 	<input type="checkbox"/>	
Level 3	<p><i>I can:</i></p> <ul style="list-style-type: none"> • indicate well-defined and routine needs, and • select well-defined and routine digital tools and possible technological responses to solve those needs. • select well-defined and routine ways to adjust and customise digital environments to personal needs. 	<input type="checkbox"/>	
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> • explain needs, and • select digital tools and possible technological responses to solve those needs. • select ways to adjust and customise digital environments to personal needs. 	<input type="checkbox"/>	
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> • assess needs, • apply different digital tools and possible technological responses to solve those needs. • use different ways to adjust and customise digital environments to personal needs. 	<input type="checkbox"/>	
Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> • assess needs, • choose the most appropriate digital tools and possible technological responses to solve those needs. • decide the most appropriate ways to adjust and customise digital environments to personal needs 	<input type="checkbox"/>	
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to complex problems with limited definition using digital tools and possible technological responses, and to adapt and customise digital environments to personal needs. • integrate my knowledge to contribute to professional practice and knowledge and guide others in identifying needs and technological responses. 	<input type="checkbox"/>	
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> • create solutions to solve complex problems with many interacting factors using digital tools and possible technological responses, and to adapt and customise digital environments to personal needs. • I can propose new ideas and processes to the field. 	<input type="checkbox"/>	

5.3	PROBLEM SOLVING		Level of possession
	Creatively using digital technology		
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> • identify simple digital tools and technologies that can be used to create knowledge and to innovate processes and products. • show interest individually and collectively in simple cognitive processing to understand and resolve simple conceptual problems and problem situations in digital environments. 	<input type="checkbox"/>	
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> • identify simple digital tools and technologies that can be used to create knowledge and to innovate processes and products • follow individually and collectively simple cognitive processing to understand and resolve simple conceptual problems and problem situations in digital environments. 	<input type="checkbox"/>	
Level 3	<p><i>I can:</i></p>	<input type="checkbox"/>	



	<ul style="list-style-type: none"> • <i>select digital tools and technologies that can be used to create well-defined knowledge and well-defined innovative processes and products.</i> • <i>engage individually and collectively in some cognitive processing to understand and resolve well-defined and routine conceptual problems and problem situations in digital environments</i> 	
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>differentiate digital tools and technologies that can be used to create knowledge and to innovate processes and products.</i> • <i>engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments.</i> 	<input type="checkbox"/>
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>apply different digital tools and technologies to create knowledge and innovative processes and products.</i> • <i>apply individually and collectively cognitive processing to resolve different conceptual problems and problem situations in digital environments</i> 	<input type="checkbox"/>
Level 6	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>adapt the most appropriate digital tools and technologies to create knowledge and to innovate processes and products.</i> • <i>resolve individually and collectively conceptual problems and problem situations in digital environments</i> 	<input type="checkbox"/>
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>create solutions to complex problems with limited definition using digital tools and technologies.</i> • <i>integrate my knowledge to contribute to professional practice and knowledge and guide others in creatively using digital technologies.</i> 	<input type="checkbox"/>
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>create solutions to solve complex problems with many interacting factors using digital tools and technologies.</i> • <i>propose new ideas and processes to the field.</i> 	<input type="checkbox"/>

5.4	PROBLEM SOLVING	Level of possession
	Identifying digital competence gaps	
Level 1	<p><i>With guidance, I can:</i></p> <ul style="list-style-type: none"> • <i>recognise where my own digital competence needs to be improved or updated.</i> • <i>identify where to seek opportunities for self-developments and to keep up-to-date with the digital evolution.</i> 	<input type="checkbox"/>
Level 2	<p><i>With autonomy and appropriate guidance where needed, I can:</i></p> <ul style="list-style-type: none"> • <i>recognise where my own digital competence needs to be improved or updated,</i> • <i>identify where to seek opportunities for self-developments and to keep up-to-date with the digital evolution.</i> 	<input type="checkbox"/>
Level 3	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>explain where my digital competence needs to be improved or updated,</i> • <i>indicate where to seek well-defined opportunities for self-developments and to keep up-to-date with the digital evolution.</i> 	<input type="checkbox"/>
Level 4	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>discuss on where my digital competence needs to be improved or updated,</i> • <i>indicate how to support others to develop their digital competence.</i> • <i>indicate where to seek opportunities for self-developments and to keep up-to-date with the digital evolution.</i> 	<input type="checkbox"/>
Level 5	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>demonstrate where my own digital competence needs to be improved or updated,</i> • <i>illustrate different ways to support others in the development of their digital competence.</i> • <i>propose different opportunities found for self-development and to keep up-to-date with the digital evolution.</i> 	<input type="checkbox"/>
Level 6	<p><i>I can:</i></p>	<input type="checkbox"/>



	<ul style="list-style-type: none"> • <i>decide which are the most appropriate ways to improve or update one's own digital competence needs,</i> • <i>assess the development of others' digital competence.</i> • <i>choose the most appropriate opportunities for self-development and to keep up-to date with new developments.</i> 	
Level 7	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>create solutions to complex problems with limited definition that are related to improving digital competence, and to find opportunities for self-development and to keep up-to-date with new developments.</i> • <i>integrate my knowledge to contribute to professional practice and knowledge and to guide others in identifying digital competence gaps.</i> 	<input type="checkbox"/>
Level 8	<p><i>I can:</i></p> <ul style="list-style-type: none"> • <i>create solutions to solve complex problems with many interacting factors that are related to improving digital competence, and to find opportunities for self-development and to keep up-to-date with the digital evolution.</i> • <i>propose new ideas and processes to the field.</i> 	<input type="checkbox"/>

