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# Assessment modules design

## *PATHWAYSFOREMPLOY*



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## Introduction

The aim of this document is to describe the design and development of the assessment modules for the profiles based on DIGCOMP framework: Entrepreneur and 'virtual office worker'. These modules have been implemented and integrated in the assessment tool of the Pathways for Employ platform.

## Implementation

The assessment modules have been designed based on the previous results obtained in the phase of the design of both competences profiles. For the definition of the profiles we focused on real context situations, so for the implementation of the assessment items we followed the same approach. We started with a selection of common scenarios that these profiles use to manage frequently. The for each scenario, we identified the digital competences required to carried out the implicit tasks and taking into account the levels required in the definition of the competence profiles.

For the definition of entrepreneurial assessment module we analyzed the various initiatives that the European Commission is taking place in entrepreneurship and subsequently contrasted the assessment modules developed with the knowledge and experience contributed by the partners in the definition of the competence profile and the network of experts established. For the definition of 'virtual office worker' profile we contrasted the assessment modules developed with the knowledge and experience contributed by all the partners in the definition of the competence profile and the network of experts established.

Results obtained after the evaluation of a user in the assessment modules integrated on the e-assessment platform, have been integrated with the recognition pathways feeding them with the results obtained and issuing the corresponding Open Badges if the criteria is met.

The e-assessment platform has been designed implementing the assessment modules aligned with the 5 areas and 21 competences of the DIGCOMP framework. It assesses the three key elements of the digital competence: knowledge, ability and attitude.

The platform presents different digital challenges to the users to assess their levels in the 21 competences according to the DIGCOMP framework. For each competence profile, the assessment modules have been presented according to the 5 competence areas defined in DIGCOMP:

- Information and data literacy
- Communication and collaboration
- Digital content creation
- Safety
- Problem solving

In the implementation of the assessment modules, different types of assessment items have been selected in order to present to the users a richer and more attractive test, and moreover trying to assess all the components of the digital competence (knowledge, skills and attitude) implementing authentic assessment items which simulate real situations. For example, Multiple choice, True/false and yes/no, Multiple selection or multiple response, Matching, Sequencing/ordering, Hotspot, Short answer, practical exercises, Performance-based questions, simulations and digital challenges,

questions of interaction amongst different services and Likert scale-based questions, etc.

The assessment modules have been implemented and developed in java (J2EE) using different libraries like POI, etc. in order to present digital challenges in the 5 areas where users will be required to develop product outcomes according to the instructions given. We had to automatize the assessment of the digital products and the interactions produced by the users during the tests.

During the test, the marks automatically are presented to the users and the "user history" and "accreditation pathways" are fed with the results automatically. Open Badges have been integrated with the test and are issued automatically and linked to the platform.

5 Assessment modules have been developed for both competence profiles containing at least 3 questions per competence and their levels. The assessment modules have been translated and are available in the partner's languages too.

Furthermore we have designed the concept of the assessment modules in terms of storytelling and real context situations, aligned with the accreditation pathway. That's the reason why we paid special attention to the selection of scenarios that these profiles use to manage in their daily routines. Storytelling has the power to make knowledge (ideas, research and education) more accessible by reaching multiple audiences and we have seen in previous projects that incorporating the storytelling concept in the design increase people interest and improves the engagement. We have focused on employment according to the fifth dimension of the digital competences in the first version of the DIGCOMP framework. Designing the assessment items in storytelling terms will facilitate the contextualization of the digital challenges according to the competence profiles.

Finally, the assessment modules have been developed using images, videos and libraries using open licenses (Creative commons licenses) facilitating the reutilization of the material developed and reducing the costs of the implementation.

According to DIGCOMP 2.1 these are the main keywords that feature the proficiency levels:

Levels in DigComp 1.0	Levels in DigComp 2.1	Complexity of tasks	Autonomy	Cognitive domain
Foundation	1	Simple tasks	With guidance	Remembering
	2	Simple tasks	Autonomy and with guidance where needed	Remembering
Intermediate	3	Well-defined and routine tasks, and straightforward problems	On my own	Understanding
	4	Tasks, and well-defined and non-routine problems	Independent and according to my needs	Understanding
Advanced	5	Different tasks and problems	Guiding others	Applying
	6	Most appropriate tasks	Able to adapt to others in a complex context	Evaluating
Highly specialised	7	Resolve complex problems with limited solutions	Integrate to contribute to the professional practice and to guide others	Creating
	8	Resolve complex problems with many interacting factors	Propose new ideas and processes to the field	Creating












**Figure 2** Main keywords that feature the proficiency level



## Entrepreneur assessment modules

### *Digital competence profile*

Based on the competence profile defined in a previous step in the project in which all the competences and levels required were identified:

Relevance	Area	Competence	Level
Essential		Information and data literacy	1.1. Browsing, searching and filtering data, information and digital content. 7
			1.2. Evaluating data, information and digital content. 6
			1.3. Managing data, information and digital content. 6
		Communication and collaboration	2.2. Sharing through digital technologies 6
			2.6. Managing digital identity 7
		Safety	4.2. Protecting personal data and privacy 6
		Problem Solving	5.2. Identifying needs and technological responses 6
Transversal		Communication and collaboration	2.1. Interacting through digital technologies 6
			2.4. Collaborating through digital technologies 6
			2.5. Netiquette 6
		Digital content creation	3.1. Developing digital content 6
			3.3. Copyright and licenses 5
		Problem Solving	5.3. Creatively using digital technologies 5
			5.4. Identifying digital competence gaps 5
Complementary		Safety	4.1. Protecting devices 5
		Communication and collaboration	2.3. Engaging in citizenship through digital technologies 5
		Digital content creation	3.2. Integrating and re-elaborating digital content 5
		Problem Solving	4.3. Protecting health and well-being 5
			4.4. Protecting the environment 4
			5.1. Solving Technical Problems 4

**Figure 1** Entrepreneur competence profile

## Scenarios

This is the list of scenarios identified based on the desktop research carried out in the competence profile design, the expertise of the partners and experts consulted and during the workshop held in Dublin during the transnational partners meeting:

Competences	Scenarios
<b>1.1. Browsing, searching and filtering data, information and digital content (Essential)</b> <b>2.2. Sharing through digital technologies (Essential)</b> <b>2.6. Managing digital identity (Essential)</b> <b>5.2. Identifying needs and technological responses (Essential)</b>	<b>Scenario1:</b> As an initial activity, you must apply for registration in public administration agencies, such as Public Finance (register as autonomous) and Social Security (quote). To do this, you must first enable a digital ID (electronic ID / key card,...), which will enable access, consultation and completion of procedures. Afterwards, you will have to access to the official websites and download the available public tools (e.g. BILA-hacienda tool), with which you will complete the necessary forms and send them through the Web.
<b>2.2. Sharing through digital technologies (Essential)</b> <b>2.6. Managing digital identity (Essential)</b>	<b>Scenario2:</b> Periodically you carry out the necessary procedures with the public finances to report your activity, such as, declare taxes on a quarterly basis (eg VAT, IRPF or Corporate Tax), annual income tax return and economic transactions register (invoice registration , etc.).
<b>1.1. Browsing, searching and filtering data, information and digital content (Essential)</b> <b>1.2. Evaluating data, information and digital content (Essential)</b> <b>2.4. Collaborating through digital technologies (Transversal)</b> <b>5.2. Identifying needs and technological responses (Essential)</b>	<b>Scenario3:</b> To carry out the accounting of your company, you need to look for a computer program adapted to your needs. You must search a tool via Web or a supplier (hiring external services). Finally, after the analysis of alternatives, you decide to make a subscription via Web for accounting management in the cloud.
<b>1.1. Browsing, searching and filtering data, information and digital content (Essential)</b> <b>1.3. Managing data, information and digital content (Essential)</b> <b>5.2. Identifying needs and technological responses (Essential)</b>	<b>Scenario4:</b> The goal of keeping you up to date on legislative and technical information concerns, it requires, on one hand, to be up to date on tax and legislative obligations, for which you make the subscription to the periodical bulletin of legislative information (royal decrees, BOE, applicable regulations to your business, etc.) and, on the other hand, you must look for applications or technical databases available on the web that have useful information for your profession.
<b>1.1. Browsing, searching and filtering data, information and digital content (Essential)</b> <b>1.2. Evaluating data, information and digital content (Essential)</b> <b>2.2. Sharing through digital technologies (Essential)</b> <b>3.3. Copyright and licenses (Transversal)</b> <b>5.2. Identifying needs and technological responses (Essential)</b>	<b>Scenario5:</b> All the information and external documentation that you need along with the one you generate with your business (technical documents, reports, invoices, plans, etc.) you must manage it through a document management tool that helps you with change and version management . You must pay license for it and you must download it and install it by yourself.

<p>1.2. Evaluating data, information and digital content (<i>Essential</i>)</p> <p>2.2. Sharing through digital technologies (<i>Essential</i>)</p> <p>2.4. Collaborating through digital technologies (<i>Transversal</i>)</p> <p>4.2. Protecting personal data and privacy (<i>Essential</i>)</p>	<p><b>Scenario6:</b> You communicate with your customers using one or more tools that allow you to interact in the day to day as well as sharing information, documents and news about your business. To do this, you use two free software applications (Whatsapp, Skype, Telegram, Youtube channels, ...) accessible both in mobility (Smartphone) and from fixed job in your offices. And you give private access to your document management tool by sharing folders with your clients.</p>
<p>2.3. Engaging in citizenship through digital technologies (<i>Complementary</i>)</p> <p>2.4. Collaborating through digital technologies (<i>Transversal</i>)</p> <p>3.1. Developing digital content (<i>Transversal</i>)</p> <p>3.3. Copyright and licenses (<i>Transversal</i>)</p> <p>5.2. Identifying needs and technological responses (<i>Essential</i>)</p> <p>5.3. Creatively using digital technologies (<i>Transversal</i>)</p>	<p><b>Scenario7:</b> When it's time to advertise your activity, you decide to initially use three media. On one hand, you create an advertising poster including the main products or services offered by your business, which you design yourself with an office tool (eg MSOffice-Power Point, ...).</p> <p>Furthermore, you register your profile in a social network for professional use (ex: Linkedin, ...). Finally, you use a public domain, where you place your own web site (Google Sites ...) programmed using a tool with a design utility (Adobe InDesign, GHtml, ...).</p>
<p>5.2. Identifying needs and technological responses (<i>Essential</i>)</p>	<p><b>Scenario8:</b> When your website is running, you want to know more about the visits, where are they from? Which search terms did they use to find my website? Where did they try to find me? (Google, Twitter, Facebook, etc.) Which digital devices did they use? Etc. If I try to find my website in Google, in which position does it appear? This information could help you in order to adjust your marketing strategy.</p>
<p>5.2. Identifying needs and technological responses (<i>Essential</i>)</p>	<p><b>Scenario9:</b> You want to advertise your activity and you want to pay special attention to online advertisements. It's cheaper and it fits very well with your international strategy.</p>

## ***Assessment modules***

### **Module Area Information and data literacy**

#### **ENTREPRENEUR ASSESSMENT MODULE – AREA INFORMATION AND DATA LITERACY (required levels for the area marked in yellow)**

##### **Examples of items evaluated in the module:**

- Knowledge:
  - Understands how information is generated, managed and made available, and can be found in different devices and media.
  - Is aware of different search engines and understands which search engines or databases best answer to his/her own information needs.
  - Understands how feeds mechanism works and indexing principles.
- Skills:
  - Adjusts searches according to specific needs (using filters, agents, etc.)
  - Can follow information presented in hyper-linked and non-linear form
  - Can refine information searches and selects controlled vocabulary specific to the search tool
  - Has strategic information skills for goal oriented activities
  - Can modify information searches according to how algorithms are built
  - Is able to adapt search strategies to a specific search engine, application or device
- Attitude:
  - Has a proactive attitude towards looking for information
  - Values the positive aspects of technologies for information retrieval
  - Is motivated to seek information for different aspects in his/her life
  - Is curious about information systems and their functioning

##### **Examples of situations presented in the module:**

- 1.1: You search through Google different available software tools / applications and services (You search recommendations/successful business cases in the Web: free VS private tools, which factors you have into account, workers and/or suppliers, distinguish value opinions from invalid/fake opinions, etc.)
- 1.1: The entrepreneur try to decide what is the better tool and system to share documents.
- 1.1: Always it's necessary to share invoices and legal documents with others suppliers like the accountant.
- 1.1: Identify different legal types of companies & the required process. Also, the positive & negatives. (Law for eg: NGO's, search different registers, etc.)
- 1.1. Register your Company online
- 1.2: You have found out a review of the tool that you have selected from a Technical magazine, personal blog, etc. (Analyze and rate other customer opinions about the product/service, Analyze the product distribution in your country or the functional support, etc.)
- 1.2: Evaluate information needs in tools such as Google Docs, Dropbox, Office 365, OneDrive, free accounting systems, Next Cloud, CRM, MIS, etc. or Inside Company communication, example Slack, MS Team, etc.
- 1.2: You want to compare your company's services against the market competitors- how do you stand in offering of products and pricing. For that you need to search available online sources, including other companies' website, digital social media and online sales places.
- 1.3: Searching and localization of confidence sources with relevant and updated information about terms and procedures that your business must follow. In Spain filtering, finding and subscribing relevant information from [www.agenciatributaria.es](http://www.agenciatributaria.es)
- 1.3: Searching and filtering financial data about the company market through public entities like Eurostat database. Finding useful data and manage different formats files to make decisions.
- You want to share your company services and offers to a targeted and selected set of potential customers – for example hotels that mostly accommodate business travelers. For that purpose you need to find reliable sources of data bases where to identify these companies (hotels) and to choose the right channels how to reach them online.
- You want to compare your company services against the market competitors- how do you stand in offering of products and pricing. For that you need to search available online sources, including other companies' websites, digital social media and online sales places.
- You want to know the main sources where you can find reliable online data of companies operating in particular sector – e.g. catering

**Examples of tools and services that you can find in the module:**

- Google, searches in Twitter and similar searchers
- Google tools and similar tools such as Dropbox, etc.
- Specific websites for finding detailed information about some topics (funding, laws, statistics, providers, etc.)

#### Ranges of levels:

- [0,22%] Initial
- [23,35%] Foundation
- [36,75%] Intermediate
- [76,100%] Advance

	FOUNDATION	INTERMEDIATE	ADVANCED
<b>1.1 Browsing, searching and filtering data, information and digital content:</b>  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	At basic level and with autonomy (and appropriate guidance where needed), I can: <ul style="list-style-type: none"> <li>• identify my information needs,</li> <li>• find data, information and content through a simple search in digital environments,</li> <li>• find how to access these data, information and content and</li> </ul>	Independently, according to my own needs, and solving well-defined and non-routine problems, I can: <ul style="list-style-type: none"> <li>• illustrate information needs,</li> <li>• organise the searches of data, information and content in digital environments,</li> <li>• describe how to access to these data, information and content, and</li> </ul>	At advanced level, according to my own needs and those of others, and in complex contexts, I can: <ul style="list-style-type: none"> <li>• assess information needs,</li> <li>• adapt my searching strategy to find the most appropriate data, information and content in digital environments,</li> <li>• explain how to access to these most appropriate data,</li> </ul>

	<p>navigate between them.</p> <ul style="list-style-type: none"> <li>• identify simple personal search strategies.</li> </ul>	<p>navigate between them.</p> <ul style="list-style-type: none"> <li>• organise personal search strategies.</li> </ul>	<p>information and content and navigate among them.</p> <ul style="list-style-type: none"> <li>• vary personal search strategies.</li> </ul>
<p><b>1.2 Evaluating data, information and digital content</b></p> <p>To analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content.</p>	<p>At basic level and with autonomy (and appropriate guidance where needed), I can:</p> <ul style="list-style-type: none"> <li>• identify my information needs,</li> <li>• find data, information and content through a simple search in digital environments,</li> <li>• find how to access these data, information and content and navigate between them.</li> <li>• identify simple personal search strategies.</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• illustrate information needs,</li> <li>• organise the searches of data, information and content in digital environments,</li> <li>• describe how to access to these data, information and content, and navigate between them.</li> <li>• organise personal search strategies.</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• assess information needs,</li> <li>• adapt my searching strategy to find the most appropriate data, information and content in digital environments,</li> <li>• explain how to access to these most appropriate data, information and content and navigate among them.</li> <li>• vary personal search strategies.</li> </ul>
<p><b>1.3 Managing data, information and digital content</b></p> <p>To organise, store and retrieve data, information, and content in digital environments. To organise and process them in a structured environment.</p>	<p>At basic level and with autonomy (and appropriate guidance where needed), I can:</p> <ul style="list-style-type: none"> <li>• identify my information needs,</li> <li>• find data, information and</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• illustrate information needs,</li> <li>• organise the searches of data,</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• assess information needs,</li> <li>• adapt my searching strategy to</li> </ul>

	<p>content through a simple search in digital environments,</p> <ul style="list-style-type: none"> <li>• find how to access these data, information and content and navigate between them.</li> <li>• identify simple personal search strategies.</li> </ul>	<p>information and content in digital environments,</p> <ul style="list-style-type: none"> <li>• describe how to access to these data, information and content, and navigate between them.</li> <li>• organise personal search strategies.</li> </ul>	<p>find the most appropriate data, information and content in digital environments,</p> <ul style="list-style-type: none"> <li>• explain how to access to these most appropriate data, information and content and navigate among them.</li> <li>• vary personal search strategies.</li> </ul>
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**1.1 Browsing, searching and filtering data, information and digital content**

**1.2 Evaluating data, information and digital content**

**1.3 Managing data, information and digital content**

(Note: Evaluation items in V1\_AREA1.docx)

## **Module Area Communication and collaboration**

### **ENTREPRENEUR ASSESSMENT MODULE – AREA COMMUNICATION AND COLLABORATION (required levels for t**

#### **Examples of items evaluated in the module:**

- **Knowledge:**
  - Is aware of different digital communication means (e.g. email, chat, VoIP, video-conference, SMS)
  - Knows how messages and emails are stored and displayed
  - Knows the functionality of several communication software packages
  - Knows the benefits and limits of different means of communications and distinguishes the most appropriate ones to the context
- **Skills:**
  - Is able to send an email, write a blog post, an SMS Is able to find and contact peers
  - Is able to edit information in order to communicate it through several means (from sending an email to making a presentation in slides)
  - Evaluates his/her audience and can tailor communication according to audience
  - Is able to filter the communication he/she receives (for instance, sorting out emails, deciding whom to follow on micro-blogging social sites, etc)
- **Attitude:**
  - Is confident and comfortable in communicating and expressing through digital media
  - Is aware of the code of conduct appropriate to the context
  - Is aware of the risks linked with online communication with unknown people
  - Is actively engaged in online communication
  - Is willing to select the most appropriate communication means according to the purpose
- **Examples of situations presented in the module:**
- 2.2 You have to create channels with limited access to share your products with selected customers, partners and colleagues. The channels should be available both via computers as well as mobile devices. You have selected for that purpose Dropbox

and Skype.

- 2.2 In order to share your companies' services with customers you have created public online spaces – like YouTube, Facebook and Twitter channels of your company.
- 2.3 You want to create a regular communication on your online media with your customers and partners. For that you run a series of online engagement activities, like online surveys, customer reviews and CSR activities.
- 2.3 You want to create a regular communication on your online media with your customers and partners. For that you run a series of online engagement activities, like online surveys, customer reviews and CSR activities.
- 2.4 For presenting your new product to customers you have to organize a webinar (online presentation). For that you need to create meeting invitation and invite your customers, be able to have audio and video presentations and share files and screens.
- 2.4. You have to organize monthly online meetings with your partners abroad to discuss company business. For that you have to schedule the meetings, invite partners, manage and record the meetings.

#### Examples of tools and services that you can find in the module:

- Search in Google and similar Internet search engines
- Google tools and similar tools such as Dropbox, etc.
- Communication tools such as Skype.
- Social networks: Google plus, Facebook, Twitter, etc.
- Internet web browsers
- Forums

#### Ranges of levels:

- [0,22%] Initial
- [23,35%] Foundation
- [36,75%] Intermediate
- [76,100%] Advance

	FOUNDATION	INTERMEDIATE	ADVANCED
<b>2.1 Interacting through digital technologies:</b>  To interact through a variety of digital technologies and to understand appropriate digital communication means for a given context.	At basic level and with autonomy and appropriate guidance where needed, I can: <ul style="list-style-type: none"> <li>• select simple digital technologies to interact, and</li> </ul>	Independently, according to my own needs, and solving well-defined and non-routine problems, I can: <ul style="list-style-type: none"> <li>• select a variety of digital technologies</li> </ul>	At advanced level, according to my own needs and those of others, and in complex contexts, I can: <ul style="list-style-type: none"> <li>• adapt a variety of digital technologies for the most</li> </ul>

	<ul style="list-style-type: none"> <li>• identify appropriate simple communication means for a given context.</li> </ul>	<p>to interact, and</p> <ul style="list-style-type: none"> <li>• select a variety of appropriate digital communication means for a given context.</li> </ul>	<p>appropriate interaction, and</p> <ul style="list-style-type: none"> <li>• adapt the most appropriate communication means for a given context.</li> </ul>
<p><b>2.2 Sharing through digital technologies</b></p> <p>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.</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• recognise simple appropriate digital technologies to share data, information and digital content.</li> <li>• identify simple referencing and attribution practices.</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• manipulate appropriate digital technologies to share data, information and digital content.</li> <li>• explain how to act as an intermediary for sharing information and content through digital technologies,</li> <li>• illustrate referencing and attribution practices.</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• assess the most appropriate digital technologies to share information and content.</li> <li>• adapt my intermediation role,</li> <li>• vary the use of the more appropriate referencing and attribution practices.</li> </ul>
<p><b>2.3 Engaging in citizenship through digital technologies</b></p> <p>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.</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• identify simple digital services in order to participate in society.</li> <li>• recognise simple appropriate digital technologies to empower myself and to participate in</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• select digital services in order to participate in society.</li> <li>• discuss appropriate digital technologies to empower myself and</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• vary the use of the most appropriate digital services in order to participate in society.</li> <li>• vary the use of the most appropriate digital technologies</li> </ul>

	society as a citizen.	to participate in society as a citizen.	to empower myself and to participate in society as a citizen.
<b>2.4 Collaborating through digital technologies</b>  To use digital tools and technologies for collaborative processes, and for co-construction and co-creation of data, resources and knowledge.	At basic level and with autonomy and appropriate guidance where needed, I can: <ul style="list-style-type: none"> <li>• choose simple digital tools and technologies for collaborative processes.</li> </ul>	Independently, according to my own needs, and solving well-defined and non-routine problems, I can: <ul style="list-style-type: none"> <li>• select digital tools and technologies for collaborative processes.</li> </ul>	At advanced level, according to my own needs and those of others, and in complex contexts, I can: <ul style="list-style-type: none"> <li>• vary the use of the most appropriate digital tools and technologies for collaborative processes.</li> <li>• choose the most appropriate digital tools and technologies for co-constructing and co-creating data, resources and knowledge.</li> </ul>
<b>2.5 Netiquette</b>  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.	At basic level and with autonomy and appropriate guidance where needed, I can: <ul style="list-style-type: none"> <li>• differentiate simple behavioural norms and know-how while using digital technologies and interacting in digital environments.</li> <li>• choose simple communication modes and strategies adapted to an audience and</li> <li>• differentiate simple cultural and</li> </ul>	Independently, according to my own needs, and solving well-defined and non-routine problems, I can: <ul style="list-style-type: none"> <li>• discuss behavioural norms and know-how while using digital technologies and interacting in digital environments.</li> <li>• discuss communication strategies adapted to an audience and</li> <li>• discuss cultural and generational diversity aspects to</li> </ul>	At advanced level, according to my own needs and those of others, and in complex contexts, I can: <ul style="list-style-type: none"> <li>• adapt the most appropriate behavioural norms and know-how while using digital technologies and interacting in digital environments.</li> <li>• adapt the most appropriate communication strategies in digital environments to an audience and</li> </ul>

	generational diversity aspects to consider in digital environments.	consider in digital environments.	<ul style="list-style-type: none"> <li>• apply different cultural and generational diversity aspects in digital environments.</li> </ul>
<b>2.6 Managing digital identity</b>  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.	At basic level and with autonomy and appropriate guidance where needed, I can: <ul style="list-style-type: none"> <li>• identify a digital identity,</li> <li>• describe simple ways to protect my reputation online,</li> <li>• recognise simple data I produce through digital tools, environments or services.</li> </ul>	Independently, according to my own needs, and solving well-defined and non-routine problems, I can: <ul style="list-style-type: none"> <li>• display a variety of specific digital identities,</li> <li>• discuss specific ways to protect my reputation online,</li> <li>• manipulate data I produce through digital tools, environments or services.</li> </ul>	At advanced level, according to my own needs and those of others, and in complex contexts, I can: <ul style="list-style-type: none"> <li>• discriminate multiple digital identities,</li> <li>• explain the more appropriate ways to protect one's own reputation,</li> <li>• change the data produced through several tools, environments and services.</li> </ul>

For developing more questions:

- **(Advanced)** Simulate Creation of your organizations FB page and upload here profile picture and companies logo (have to be prepared files and name of the Facebook page – for example Path4Employ test Nr x )
- **(Intermediate)** You are preparing a slide presentation in which you are using many images. Your presentation weight now more than 50 Mg, and you cannot send it to your customers by email. List some of the following digital technologies that you should use to send it to your customers? (Dropbox, WeTransfer, Google Drive are all OK)
- **(Foundation)** - You would like to use text from several blogs for posting on your companies' website. Do you think that you should cite them? (Yes, I should always cite the authors and the source of information)
- **(Advanced)** Simulate managing a Skype for business meeting. Create meeting invitation, invite participants, share files and screens (Can be performed on alternative online platform as well)
- **(Intermediate)** Do you know the minimum technical requirements for organizing an online video meeting from your computer (can be multiple choice answer, the correct answer would be internet = WIFI connection + microphone and speaker and video camera built in or additional to your computer)

- (Foundation) List the platforms you know that allow you to organize online meetings (Skype, Webex, Goto Meeting etc.)
- (Advanced) Simulate running a Skype for business meeting which is prepared before. Simulate the following activities: share your screen, stop sharing, share files, record the meeting. (The meeting link has to be prepared before. Alternatively, can do it in Webex)
- (Intermediate) Create a regular monthly online meeting invitation. Share it with Outlook calendar (Google calendar) with colleagues that has to be invited on a monthly base.
- (Foundation) – Create a Doodle pool to select best meeting time with your colleagues. Share the Doodle link.? (Time and name of the Meeting should be prepared so that the person doesn't have problems about that. Also e-mails of colleagues that he has to share).
- (Advanced) You are using Facebook posts to promote different activities on your companies FB page. Which statistics of citizen reach can you analyze by the built in INSIGHTS tool (Fixed answers, the correct one: Page like, views and reach)
- (Intermediate) What is a "Call to Action "on your webpage or social media pages? (A "Call to Action" is a request from your site visitors to act, usually represented by buttons and links. Your site's Call to Action depends on its purpose. You might want people to buy/ download/ register/ subscribe/ view/ share/ follow)
- (Foundation) Do you know tools to create an online customer satisfaction survey, list some of them
- (Advanced) Simulate creating LinkedIn page with a certain name (Name can be Path4EMPLOY testX. Have to perform the following :1) Click the Work icon in the top right corner of your LinkedIn homepage 2) Click Create a Company Page 3) Enter your Company Name and choose a URL. 4) Check the verification box to confirm you have the right to act on behalf of that company in the creation of the page.)
- (Intermediate) What is needed to link your companies web page with some of the social networks? (You have to have an account at the particular social network)
- (Foundation) – Is it possible to create a LinkedIn page for organization/business?

## 2.1 Interacting through digital technologies

## 2.2 Sharing through digital technologies

## 2.3 Engaging in citizenship through digital technologies

## 2.4 Collaborating through digital technologies

## 2.5 Netiquette

## 2.6 Managing digital identity

(Note: Evaluation items in V1\_AREA1.docx)

## **Module Area Digital content creation**

### **ENTREPRENEUR ASSESSMENT MODULE – AREA DIGITAL CONTENT CREATION (required levels for the area mark)**

#### **Examples of items evaluated in the module:**

- **Knowledge:**
  - Knows that digital content can be produced in a variety of forms
  - Knows which software/application fits better the kind of content s/he wants to create
  - Understands how meaning is produced through multimedia (text, images, audio, video)
- **Skills:**
  - Is able to use basic packages to create content in different forms (text, audio, numeric, images)
  - Is able to create knowledge representations (e.g. mind maps, diagrams) using digital media.
  - Is able to use a variety of media to express him/herself creatively (text, images, audio, and movie).
  - Is able to edit the content in order to enhance the final output
- **Attitude:**
  - Is not content with commonly used forms of content creation but explores new ways and formats
  - Sees the potential of technologies and media for self-expression and knowledge creation
  - Values the added value of new media for cognitive and creative processes
  - Is critical about knowledge production and consumption with media and technologies
  - Creates with confidence media content and expressions
  - Engages with creative content
- **Examples of situations presented in the module:**
  - 3.1: You want to create your company online presentation in different formats: PPT, infographics, online brochure, photos. For that you need to produce different digital format of marketing materials.
  - 3.1: You want to develop, maintain and edit different online media of your company online presence. You have selected to have 3 of them: website, Facebook and Twitter.
  - 3.3: For your online media (Facebook) you want to use different photos and images that are relevant to your business and posts. For that you need to be sure that you are using only the resources that are legal and don't violate copyrights or personal data protection law.
  - 3.3: You have created a customer satisfaction research report that is related to your business and that you would like to share online. You need to know the laws of

personal data protection as well as the conditions on which the online report can be used by other persons.

**Examples of tools and services that you can find in the module:**

- Office packages
- Google tools.
- HTML editors
- Etc.

**Ranges of levels:**

- [0,22%] Initial
- [23,35%] Foundation
- [36,75%] Intermediate
- [76,100%] Advance

	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>3.1 Developing content:</b></p> <p>To create and edit digital content in different formats, to express oneself through digital means.</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• identify ways to create and edit simple content in simple formats,</li> <li>• choose how I express myself through the creation of simple digital means.</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• indicate ways to create and edit content in different formats,</li> <li>• express myself through the creation of digital means.</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• change content using the most appropriate formats,</li> <li>• adapt the expression of myself through the creation of the most appropriate digital means.</li> </ul>
<p><b>3.2 Integrating and re-elaborating digital content</b></p> <p>To modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• select ways to modify, refine,</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• discuss ways to</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• assess the most</li> </ul>



and knowledge.	improve and integrate simple items of new content and information to create new and original ones	modify, refine, improve and integrate new content and information to create new and original ones.	appropriate ways to modify, refine, improve and integrate specific new items of content and information to create new and original ones.
<b>3.3 Copyright and licenses</b>  To understand how copyright and licenses apply to data, digital information and content.	At basic level and with autonomy and appropriate guidance where needed, I can: <ul style="list-style-type: none"> <li>• identify simple rules of copyright and licenses that apply to data, digital information and content.</li> </ul>	Independently, according to my own needs, and solving well-defined and non-routine problems, I can: <ul style="list-style-type: none"> <li>• discuss rules of copyright and licenses that apply to digital information and content.</li> </ul>	At advanced level, according to my own needs and those of others, and in complex contexts, I can: <ul style="list-style-type: none"> <li>• choose the most appropriate rules that apply copyright and licences to data, digital information and content.</li> </ul>
<b>3.4 Programming</b>  To plan and develop a sequence of understandable instructions for a computing system to solve a given problem or perform a specific task.	At basic level and with autonomy and appropriate guidance where needed, I can: <ul style="list-style-type: none"> <li>• list simple instructions for a computing system to solve a simple problem or perform a simple task.</li> </ul>	Independently, according to my own needs, and solving well-defined and non-routine problems, I can: <ul style="list-style-type: none"> <li>• list instructions for a computing system to solve a given problem or perform a specific task.</li> </ul>	At advanced level, according to my own needs and those of others, and in complex contexts, I can: <ul style="list-style-type: none"> <li>• determine the most appropriate instructions for a computing system to solve a given problem and perform specific tasks.</li> </ul>

**For creating more questions:**

- (Advanced) Simulate the following tasks with given PPT slides: insert a picture, insert a Hyperlink to given website, apply animation and save in PPT and PDF formats (Slides, pictures and website address have to be prepared)
- (Intermediate) You need to upload some of your PPT slides to Facebook. In which format you need to save them to be able to use on FB? (Right answer- JPG)

- (Foundation) Could you list some online resources/platforms/applications that allow you to edit and resize photos ->resize a photo with specific dimensions.
- (Advanced) Simulate linking content on your different digital media platforms: website, Facebook, Twitter (for that demo accounts should be created)
- (Intermediate) How can you ensure that all your companies digital media are found by online search according to some topics which are important for your organizations (You can add Hashtag -a word or phrase preceded by a hash sign (#), used on social media websites and applications, especially Twitter, to identify messages on a specific topic)
- (Foundation) Do you know procedures how and where to register your companies' website address? (Check if given domain is available: for example Path4EMPLOY.eu)
- (Advance) Register a business hand guide or other document in safecreative.org and include the meta data license to evidence that
- (Intermediate) Show three tweet or post in Facebook with technical information protect under copyright. Select which one not breach the copyright rules.
- (Foundation) Do you need protect your digital documents through copyright?
  - No, it's impossible protect digital documents in the digital era.
  - Yes, like others good in the digital world we have the same protection
  - The copyright for digital goods exist but it's more difficult to apply than with others physical goods.
- (Advance) You want include in your web a CC. You want that people share de information but only in no commercial use.
  - Select the correct license through <https://creativecommons.org/choose/> and include the html code in a simulated web.
- (Intermediate) Show an image with three different creative commons licenses and select the most adequate
- (Foundation) true or false: Freeware "free software" means that does not have copyright.
  - True. Due to I don't pay the software doesn't have copyright.
  - False. Have a copyright but I don't have to pay for use the tool.

### 3.1 Developing digital content

### 3.2 Integrating and re-elaborating digital content

### 3.3 Copyright and licenses

### 3.4 Programming (Note: This competence is not for this profile)

(Note: Evaluation items in V1\_AREA3.docx)

## Module Area Safety

### ENTREPRENEUR ASSESSMENT MODULE – AREA SAFETY (required levels for the area marked in yellow)

Examples of items evaluated in the module:

- Knowledge:

- Knows that there are several risks associated with the use of technologies
- Understands the terms of use of online services (i.e. the fact that service providers may use personal data that they collect about users) and can act prudently in this knowledge
- Knows the effect of prolonged use of technologies
- Can determine if appropriate and safe digital means are available, that are efficient and cost-effective in comparison with other means
- Skills:
  - Is able to install an anti-virus
  - Is able to monitor his/her digital identity and footprints
  - Is able to manage the distracting aspects of working/living digitally
  - Is able to use digital services without being completely dependent on them (or: helpless without)
- Attitude:
  - Has a positive but realistic attitude towards the benefits and risks associated with online technologies
  - Is aware of online privacy principles of self and of others
  - Has a balanced attitude towards technological use
  - Has a positive but realistic attitude towards the benefits and risks associated with information technologies

#### Examples of situations presented in the module:

- 4.1: You need to connect to the WI FI network at the cyber café to check your e-mail. You have to make sure that the network is secure.
- 4.1: You want to control your online fingerprint
- 4.1: Install antivirus software onto your phone and laptop.
- 4.1: Backing-up of information!
- 4.2: Some examples
  - Running customer satisfaction survey's
  - E-Invoice's
  - Sending & Receiving payments
  - Share documents with your clients via email and other online file sharing platforms eg: files.com, wetransfer.
  - Sharing information via mobile devices
  - Data protection.
  - Set-up online meeting with clients
- 4.2: More examples:
  - You are out of work and need to respond an urgent email:
  - Connecting to a secure WiFi through different devices
  - An Open WiFi (secure or not secure)
  - Share your personal data through your mobile device
  - You do not have your own device and you have to connect to internet with a

<p>public device</p> <ul style="list-style-type: none"> <li>○ A Cibercoffee, a hotel, telecenter, etc.</li> <li>○ The USB contains several important documents and personal data, how do you protect these data?</li> <li>○ Do you know how to encrypt your data?</li> <li>○ You are in the pub and the form has several fields with personal information</li> <li>○ Protecting personal data and privacy between different devices.</li> <li>○ Device Monitoring with security tools.</li> <li>○ Backing-up private data.</li> </ul> <ul style="list-style-type: none"> <li>• 4.3: Look for the most suitable place to perform the work, taking into account aspects such as wifi security. Identify whether the network available at the pub/café is open or secured.</li> <li>• 4.3: When connected to an open Wi-Fi network and having to send and receive information, you use only secure encryption tools such as https protocol, ssl web certificates, digital signature, ZIP files' protection with password, etc. to avoid your data being stolen by hackers.</li> </ul>			
<p><b>Examples of tools and services that you can find in the module:</b></p> <ul style="list-style-type: none"> <li>• Office packages</li> <li>• Google tools</li> <li>• HTML editors</li> <li>• Cloud services</li> <li>• Different operating systems and specific functionalities</li> <li>• Web browsers.</li> <li>• Etc.</li> </ul>			
<p><b>Ranges of levels:</b></p> <ul style="list-style-type: none"> <li>• [0,22%] Initial</li> <li>• [23,35%] Foundation</li> <li>• [36,75%] Intermediate</li> <li>• [76,100%] Advance</li> </ul>			
	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>4.1 Protecting devices:</b></p> <p>To protect devices and digital content, and to understand risks and threats in digital environments. To know about safety and security measures and to have a due regard to reliability and</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• identify simple ways to protect my</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• organise ways to</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• choose the most</li> </ul>

privacy.	<p>devices and digital content, and</p> <ul style="list-style-type: none"> <li>• differentiate simple risks and threats in digital environments,</li> <li>• follow simple safety and security measures.</li> <li>• identify simple ways to have due regard to reliability and privacy</li> </ul>	<p>protect my devices and digital content, and</p> <ul style="list-style-type: none"> <li>• differentiate risks and threats in digital environments,</li> <li>• select safety and security measures.</li> <li>• explain ways to have due regard to reliability and privacy</li> </ul>	<p>appropriate protection for devices and digital content, and</p> <ul style="list-style-type: none"> <li>• discriminate risks and threats in digital environments,</li> <li>• choose the most appropriate safety and security measures.</li> <li>• assess the most appropriate ways to have due regard to</li> </ul>
<p><b>4.2 Protecting personal data and privacy</b></p> <p>To protect personal data and privacy in digital environments. To understand how to use and share personally identifiable information while being able to protect oneself and others from damages. To understand that digital services use a "Privacy policy" to inform how personal data is used.</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• select simple ways to protect my personal data and privacy in digital environments, and</li> <li>• identify simple ways to use and share personally identifiable information while protecting myself and others from damages.</li> <li>• identify simple privacy policy statements of how personal data is used in digital services.</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• discuss ways to protect my personal data and privacy in digital environments, and</li> <li>• discuss ways to use and share personally identifiable information while protecting myself and others from damages.</li> <li>• indicate privacy policy statements of how personal data is used in digital services.</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• choose the more appropriate ways to protect personal data and privacy in digital environments, and</li> <li>• evaluate the most appropriate ways of using and sharing personally identifiable information while protecting myself and others from damages.</li> <li>• evaluate the appropriateness of privacy policy statements on how personal data are used.</li> </ul>
<b>4.3 Protecting health</b>	At basic level and	Independently,	At advanced level,

<p><b>and well-being</b></p> <p>To be able to avoid health-risks and threats to physical and psychological well-being while using digital technologies. To be able to protect oneself and others from possible dangers in digital environments (e.g. cyber bullying). To be aware of digital technologies for social well-being and social inclusion.</p>	<p>with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• differentiate simple ways to avoid health -risks and threats to physical and psychological well-being while using digital technologies.</li> <li>• select simple ways to protect myself from possible dangers in digital environments.</li> <li>• identify simple digital technologies for social well-being and social inclusion.</li> </ul>	<p>according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• explain ways to how to avoid threats to my physical and psychological health related with the use of technology.</li> <li>• select ways to protect self and others from dangers in digital environments.</li> <li>• discuss on digital technologies for social well-being and inclusion.</li> </ul>	<p>according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• discriminate the most appropriate ways to avoid health -risks and threats to physical and psychological well-being while using digital technologies.</li> <li>• adapt the most appropriate ways to protect myself and others from dangers in digital environments.</li> <li>• vary the use of digital technologies for social well-being and social inclusion.</li> </ul>
<p><b>4.4 Protecting the environment</b></p> <p>To be aware of the environmental impact of digital technologies and their use.</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• recognise simple environmental impacts of digital technologies and their use.</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• discuss ways to protect the environment from the impact of digital technologies and their use.</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• choose the most appropriate solutions to protect the environment from the impact of digital technologies and their use.</li> </ul>

**For creating more questions:**

- (Advance) Go through the different steps of setting a VPN.
- (Intermediate) Which are the ways to secure your device in order to protect your health and well-being, e.g. never click a pop-up window which comes up immediately after you connect to an unsecure network and asks you to install an update to a popular software on your device, as this is one way of hackers to put a malware to your device. Only update your device through a secured network – preferably your home network.

- (Foundation) Do you know how an unsecured network can endanger your health and well-being (e.g. a hacker can steal your bank account login details or can plant a malware and destroy your data)?
- (Foundation) Do you know the difference between an open and secured network?
- (Advance) Go through the different steps of setting a VPN.
- (Intermediate) Enable the "Always Use HTTPS" option on websites that you visit frequently, or that require you to enter some kind of credentials.
- (Intermediate) Turn off File sharing from the System Preferences or Control Panel, depending on your OS, or let Windows turn it off for you by choosing the "Public" option the first time you connect to a new, unsecured network.
- (Foundation) Put a password to a zip file that you are about to share through an unsecured network
  - Yes, like others good in the digital world we have the same protection
  - The copyright for digital goods exist but it's more difficult to apply than with others physical goods.
- (Advance) You want include in your web a CC. You want that people share de information but only in no commercial use.
  - Select the correct license through <https://creativecommons.org/choose/> and include the html code in a simulated web.
- (Intermediate) Show an image with three different creative commons licenses and select the most adequate
- (Foundation) true or false: Freeware "free software" means that does not have copyright.
  - True. Due to I don't pay the software doesn't have copyright.
  - False. Have a copyright but I don't have to pay for use the tool.
- (Advanced) Set a VPN. First, you can check with your employer if you have not already a VPN set. If not, you can select through the available free or paid VPN services which one you need according to the connection speed needed, which tools you are going to use –only for e-mail or video conferences), etc.
- (Intermediate) When connecting to the selected network, if you are using Windows, you are aware that you should turn off you file sharing and set the connection as Public Connection (instead of Home connection). You know where to find these settings (Control Panel > Network and Sharing Center > Change Advanced Sharing Settings. for Windows and System Preferences > Sharing and Security and Privacy for turning on firewall in iOS). The question in the test can be a task to enable the firewall and add a certain list of software to it. Or choosing between a number of tools the ones which use SSL (like google mail app, skype, Basecamp, etc).
- (Foundation) When you choose the network to which to connect you know that you should ask the staff at the café which is the correct network, because not all networks which your devices detect are safe.
- (Advanced) You know what is browser fingerprinting (a good explanation in this article: <http://akademie.dw.de/digitalsafety/your-browsers-fingerprints-and-how-to-reduce-them/>) and how to limit it, for example by disabling Java script on your browser. But you are also aware that measures to limit your browser fingerprint can result in limitations of your online experience and you adapt your measures to your needs.
- (Intermediate) You can clear your cookies regularly, and especially after using an unsecured wifi connection.
- (Foundation) You are aware that when you are surfing online, you leave an online fingerprint (a way to identify you according to your online behaviors). You are able to

give examples of ways to record your online behavior such as cookies and browser fingerprinting.

- 4.1: Examples:

- (Advance) Use a strong password to protect your phone and a different one for updates to the device.
- (Intermediate) Installing antivirus software, you must use the recommended and free software with the iPhone, this is compatible with apps for the iPhone. The same applies for an android phone.
- (Foundation) If you have an iPhone, antivirus is free, therefore your iPhone must be kept up to date when notifications come in. If you have an android phone, you can get free antivirus or you can pay for it. Usually, the free antivirus is enough.
- (Advance) Use a strong password to protect your phone and a different one for updates to the device.
- (Intermediate) Installing antivirus software, you must use the recommended and free software with the iPhone, this is compatible with apps for the iPhone. The same applies for an android phone. Identify risks by being cautious opening phishing texts or emails on your device from an unknown source.
- (Foundation) If you have an iPhone, antivirus is free, therefore your iPhone must be kept up to date when notifications come in. If you have an android phone, you can get free antivirus or you can pay for it. Usually, the free antivirus is enough.
- (Advance) Use a strong password to protect your laptop and a different one for updates to the device.
- (Intermediate) Installing antivirus software: Mac comes with its' own ios security and updates, which is free. PC/other laptops, need an external antivirus. Some are free and others have a fee. It is best to research and access your needs as a virtual worker. It is best to find out how much storage antivirus will take up on your PC/laptop, as this can slow down your computer. However, ensure you have an up to date antivirus at all times!
- (Foundation) Keep your antivirus up to date. If you have an android phone, you can get free antivirus or you can pay for it. Usually, the free antivirus is enough.
- (Advance) Protect your accounts and information by using different methods of storage/back-up. You need several methods (e.g. Google Drive, Dropbox, IOS Cloud, FolderShare, Huddle, Sharepoint, USB, HardDrive (internal & external), send the information to yourself via email, local server, etc.).
- (Advance) Turn on your privacy settings, manage only give permission to the team that are working with you. Do not give access to any unknown sources.
- (Foundation) Identify simple ways of protecting your Cloud data/content, with strong passwords and limiting who has access to the Cloud.
- (Foundation) Beware of; malicious malware, virus and spam mail/texts etc.

- 4.2: Various examples:

- Create customer satisfaction survey, eg: Google, Survey Monkey, EU Survey
- Foundation: Online Banking question;
- Intermediate: Sharing documents for example wetransfer
- Viber, WhatsApp: Which mobile application allow you to share for example: photo's & video's.
- What kind of online meeting system, you use. Recording the meeting, sharing the screen.



- 4.2: More examples:
  - (Advance) Select a the correct WiFi network in a list with different kind of secure issues
  - (Intermediate) Design a very difficult password to be corrupted
  - (Intermediate) A simulation where a video shows different forms
  - (Intermediate) Password politics
  - Not using the same password for different forms
  - (Foundation) Do you know the difference between http and https?
  - (Foundation) Do you know the difference between password securities?
  - (Advance) Back-up private data on a secured network, such as a cloud. Thus, ensuring data will not be lost in the event of an interruption between devices e.g. laptop/computer and phone.
  - (Intermediate) Uploading information from e.g. your phone to your laptop. Doing this through a secure home network, will ensure data protection.
  - (Foundation) Create two strong passwords for each device, thus limiting access.
  - (Advance) Control access and recent logins to devices. Make-sure there is a timer for devices to 'time-out', when not in use for a period of time.
  - (Intermediate) Use antivirus protection for your devices. Pay if necessary as it is cheaper in the long run.
  - (Foundation) Notifications will appear to update devices. Update immediately and do not allow your device to be 'out of date', you could lose your data and would be open to security treats.
  - (Advance) Save data to the Cloud, Google Drive, Shared local Cloud etc.
  - (Intermediate) Save data to a harddrive, USB, local network.
  - (Foundation) Save data to your desktop. This is not the most secure way. Backing up by email is a little better.
  -

#### 4.1 Protecting devices

#### 4.2 Protecting personal data and privacy

#### 4.3 Protecting health and well-being

#### 4.4 Protecting the environment

(Note: Evaluation items in V1\_AREA4.docx)

### Module Area Problem solving

#### ENTREPRENEUR ASSESSMENT MODULE – AREA PROBLEM SOLVING (required levels for the area marked in yellow)

##### Examples of items evaluated in the module:

- Knowledge:
  - Knows how a computer or digital device is built
  - Understands the potential and limitations of digital devices and resources
  - Uses a widely diverse and well-balanced mix of digital and non-digital

- technologies for different problems and will dynamically change options over time
  - Understands the wider context of digital tools in a 'digital age' characterised by globalisation and networks.
- Skills:
  - Uses a widely diverse and well-balanced mix of digital and non-digital technologies for different problems and will dynamically change options over time
  - Is able to make informed decisions (with human or technological assistance where appropriate) about whether and how to use technologies to pursue personally relevant goals.
  - Knows how to explore the web, the market, or his/her online network when searching for solutions
  - Possesses the skills to update knowledge about the availability of digital tools.
- Attitude:
  - Take an active approach to solving problems
  - Awareness of the value of traditional tools in conjunction with networked media.
  - Is willing to explore alternative solutions that are offered by technologies.
  - Has a general level of confidence, meaning that s/he is willing to experiment with new technologies, but also to reject inappropriate technologies.

#### Examples of situations presented in the module:

- 5.1: Take into account wifi signal quality, when you look for the most suitable place to perform the work. To do this, you need to be aware of ways to assess and compare signal quality from different networks.
- 5.1. You have a new internet provider and you have to configure your router to enable your internet connection.
- 5.1. You have your e-mail account configured on one of those programmes already, but all of a sudden, when you use it with your new internet provider, you cannot send out e-mails. You have to check that your e-mail server is allowed by your internet provider's firewall settings.
- 5.1. The virtual office worker not only needs to organize the meeting but also needs to share his desktop, use earphones and a wireless microphone.
- 5.1. The virtual office worker also needs to store the project details in a shared location, the cloud in this case.
- 5.1. (External Device) Use Google Maps(on your phone), (GPS System) Tom Tom Sat Nav.
- 5.1. (Internal Device) Or your in-car navigation system.
- 5.2 examples:
  - You need a digital certificate to work with Public Administration
  - Types of digital certificates? Which are the functions of each digital certificate?
  - Where can you get the digital certificate?

<ul style="list-style-type: none"> <li>○ Can you use it in several browsers and devices? How?</li> <li>○ Understanding of its functionality</li> <li>○ Identifying security requirements.</li> <li>○ Core technical skills</li> </ul> <ul style="list-style-type: none"> <li>• 5.2. Skype and Linx (internal company software, you can use from home). Extremely useful and essential tools to host an online meeting, whilst giving the best and interactive meeting experience.</li> <li>• 5.2. FaceTime can provide the same as the above for Mac, iPhone and iPad users only.</li> <li>• 5.2. Have to select different tools and technological responses to have update information about important issues about your company</li> <li>• 5.2. Entrepreneurs and small companies have to remember a lot of important dates about mandatory procedures in the public administration</li> <li>• 5.2 The entrepreneur need have always available documents out of the office for visit clients: vouchers, price documents, estimate cost templates, procedures, marketing presentations, product portfolio...</li> <li>• 5.2. Some workers in the company always are out of the office. Need always have available the last version documents in differents devices.</li> </ul>			
<b>Examples of tools and services that you can find in the module:</b> <ul style="list-style-type: none"> <li>• Office packages</li> <li>• Google tools</li> <li>• HTML editors</li> <li>• Cloud services</li> <li>• Different operating systems and specific functionalities</li> <li>• Web browsers.</li> <li>• Etc.</li> </ul>			
<b>Ranges of levels:</b> <ul style="list-style-type: none"> <li>• [0,22%] Initial</li> <li>• [23,35%] Foundation</li> <li>• [36,75%] Intermediate</li> <li>• [76,100%] Advance</li> </ul>			
	FOUNDATION	INTERMEDIATE	ADVANCED
<b>5.1 Solving technical problems:</b>  To identify technical problems when operating devices and using digital	At basic level and with autonomy and appropriate guidance where	Independently, according to my own needs, and solving well-defined and non-routine	At advanced level, according to my own needs and those of others, and in complex contexts,

environments, and to solve them (from trouble-shooting to solving more complex problems).	<p>needed, I can:</p> <ul style="list-style-type: none"> <li>• identify simple technical problems when operating devices and using digital environments, and</li> <li>• identify simple solutions to solve them.</li> </ul>	<p>problems, I can:</p> <ul style="list-style-type: none"> <li>• differentiate technical problems when operating devices and using digital environments, and</li> <li>• select solutions to them.</li> </ul>	<p>I can:</p> <ul style="list-style-type: none"> <li>• appraise technical problems when operating devices and using digital environments, and</li> <li>• resolve them with the most appropriate solutions</li> </ul>
<p><b>5.2 Identifying needs and technological responses</b></p> <p>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).</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• identify needs, and</li> <li>• recognise simple digital tools and possible technological responses to solve those needs.</li> <li>• choose simple ways to adjust and customise digital environments to personal needs.</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• explain needs, and</li> <li>• select digital tools and possible technological responses to solve those needs.</li> <li>• select ways to adjust and customise digital environments to personal needs.</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• assess needs,</li> <li>• choose the most appropriate digital tools and possible technological responses to solve those needs.</li> <li>• decide the most appropriate ways to adjust and customise digital environments to personal needs</li> </ul>
<p><b>5.3 Creatively using digital technology</b></p> <p>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.</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• identify simple digital tools and technologies that can be used to create knowledge and to innovate processes and</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• differentiate digital tools and technologies that can be used to create knowledge and to innovate processes and</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• adapt the most appropriate digital tools and technologies to create knowledge and to innovate processes and</li> </ul>

	<p>products</p> <ul style="list-style-type: none"> <li>• follow individually and collectively simple cognitive processing to understand and resolve simple conceptual problems and problem situations in digital environments.</li> </ul>	<p>products.</p> <ul style="list-style-type: none"> <li>• engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments.</li> </ul>	<p>products.</p> <ul style="list-style-type: none"> <li>• resolve individually and collectively conceptual problems and problem situations in digital environments.</li> </ul>
<p><b>5.4 Identifying digital competence gaps</b></p> <p>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.</p>	<p>At basic level and with autonomy and appropriate guidance where needed, I can:</p> <ul style="list-style-type: none"> <li>• recognise where my own digital competence needs to be improved or updated,</li> <li>• identify where to seek opportunities for self-developments and to keep up-to-date with the digital evolution.</li> </ul>	<p>Independently, according to my own needs, and solving well-defined and non-routine problems, I can:</p> <ul style="list-style-type: none"> <li>• discuss on where my digital competence needs to be improved or updated,</li> <li>• indicate how to support of others to develop their digital competence.</li> <li>• indicate where to seek opportunities for self-developments and to keep up-to-date with the digital evolution.</li> </ul>	<p>At advanced level, according to my own needs and those of others, and in complex contexts, I can:</p> <ul style="list-style-type: none"> <li>• decide which are the most appropriate ways to improve or update one's own digital competence needs,</li> <li>• assess the development of others' digital competence.</li> <li>• choose the most appropriate opportunities for self-development and to keep up-to date with new developments.</li> </ul>

**For creating more questions:**

- 5.1 examples:

- (Advanced) Use a Wi-Fi locator device to scan radio frequencies in the local area and detect signal strength of nearby wireless access points. Wi-Fi locators exist in the form of small hardware gadgets designed to fit on a keychain.
- (Intermediate) Download and use a free app like [Wifi Analyzer](#) (for Android), which shows the Wi-Fi strength visually compared to other nearby networks. Similar options are available for iOS. Another option is to use your wireless adapter's own Utility Program. Some manufacturers of wireless

network hardware or notebook computers provide their own software applications that also monitor wireless signal strength.

- (Foundation) Determine the quality of the WI-FI network signal by locating the icon showing the strength of the signal on your device desktop. E.g., in Windows computer it is usually on the bottom right hand-side next to the clock and it looks like five lines of gradually increasing height next to each other. At foundation level you should be aware that if all five are filled in, the connection is the strongest.
- (Advance) Use the link provided by your service provide to manage the settings of your connection, or use the app, if available.
- (Intermediate) Check the WI FI network settings on your computer.
- (Foundation) Follow the instructions on your router user guide. Do not try to guess how to connect your router. Usually, the instructions are very visual. If the instructions are not in a language that you understand (e.g. if you have just moved to a new country where you don't speak the local language), Check in all the lights on the router are on as written in the router user manual/instructions. If what you see on your router is not the same as what is described in the instructions, identify where is the problem. Restart the router. Restart your computer.
- (Advance) Use the link provided by your service provide to manage the settings of your connection, check the firewall, and check if your e-mail server is not blocked by the firewall.
- (Intermediate) Remove your mail account from the mail programme and configure it again, by checking all the details you enter are correct.
- (Foundation) Check if the outgoing server is correct, re-enter your username and password and try again. Restart your mail software and your computer and try again.
- (Advance) Installation of software to link up your laptop to a TV or larger screen with voice input/output.
- (Intermediate) Troubleshoot any issues a day before the meeting and call in early in order for any technical issues to be resolved with any other members of the meeting.
- (Foundation) how to use the wireless microphone and earphones, trial them before the meeting.
- (Foundation) Identify my needs for the meeting to take place: wireless microphone, earphones etc.
- (Advance) Setting up a shared environment (Cloud) to store the project and where updates will take immediate effect when a member of the team is working on it. While also notifying the other team members when another member is working on it.
- (Intermediate) Sharing the document and location of the document/data stored in the cloud.
- (Foundation) Logging into the cloud and accessing the information.
- (Advance) Restart your phone, pull into a nearby service station (like below), etc. And take screen shots of the step by step route to your destination on Google Maps. You can also save a destination on your phone by going to settings. It will not be a 'live map', with traffic updates but it will work.
- (Intermediate) You have no coverage on your phone, pull into a nearby service station, hotel, shop, restaurant etc. and use there wifi network. Be careful, as these are usually 'open' networks (& free to use) and other people may see

- your information. You maybe able to write down directions from there as you will lose the signal as soon as you drive away.
- (Foundation) You have no coverage on your phone and your maps aren't working. Print out a physical map before leaving your office, just in case!
  - (Advance) If you have not saved your destination to the Tom Tom you can get live updates by connecting your Tom Tom to your phone. This is called, hotspotting off your phone. If your car has it's own internet you can hotspot off this too.
  - (Intermediate) Update your Tom Tom,(Sat nav) before you leave for a meeting by connecting to your computer and updating your Tom Tom,(Sat nav). You can also save your destination to the Tom Tom, to avoid delays.
  - (Foundation) With the Tom Tom,(Sat nav) your coverage is high, at times it may fail. Again, print out a physical map before leaving your office, just in case!
  - (Advance) In car navigation system: this depends on the manufacturer. Your in car navigation may solely depend on your cars sim card (gives internet connection) and/or (you may have both, depending on the manufacturer) a satellite connection, via the tracker on your car. This will give you options and complete coverage. You can also save your destinations in advance of your trip. You can import via email, text etc.
  - (Intermediate) You can save your destination prior to travel and use this in the event that you are unable to input coordinates or forget the address. Remember you can access your email via your in car office if you have in built sat nav and internet. You will know this as you will have paid a lot of money for the extra's on your car!!
- 5.2 examples:
    - (Advance) You must show how to install / export your digital certificate
    - (Intermediate) How do you export your digital certificate between several devices?
    - (Intermediate) What do you have to do if the digital certificate has expired?
    - (Foundation) What is a digital certificate?
    - (Foundation) What is the difference between a personal certificate and a company certificate?
    - (Foundation) How and where do you get a digital certificate?
    - Foundation: Google Maps, iMaps, Maps Me,
    - Foundation: How to get directions: Mode of Transport
    - Intermediate: Saving meeting places
    - (Advance) Sharing documents and your screen during a live meeting.
    - (Intermediate) Connecting to everyone who will virtually attend your meeting.
    - (Foundation) Downloading the Skype application, registering your information. Inputting the names and details of attendees and sending an invite for the meeting, via email to attendees calendars. It is important to note that Skype can be used on any android or ios device.
    - (Advance) Hosting the meeting via your laptop or iPhone/iPad! Best to use a laptop! Sharing your screen and sending documents in parallel is an essential core skill.
    - (Intermediate) Connecting with the group, (calling them).
    - (Foundation) To note, unlike Skype you do not have to download an application, this is already on your ios device. You then need to create a group on FaceTime. It is important to note that FaceTime can only be use on an ios device.



- (Advance) Downloading and choosing security for both devices (phones, laptop etc.).
- (Intermediate) Find out how to securely send information and what information should be sent or given permission to access.
- (Foundation) Strong Passwords, don't use your date of birth, childrens names, pet names etc.
- (Advance) Create your own secure mobile network. With most business internet deals, this allows your laptop, mobile, tablet etc. to pick up safe secure networks that are aligned with your internet deal.
- (Intermediate) Log on to a secure network or own home network. Look for a closed network as open networks are not secure and others may see your work.
- (Foundation) Being able to work on own initiative, while using a secure network.
- (Advance) In a simulate page shows some tools to monitoring information, one of them show updated information in a list with a summary. The others tools show no updated information, not include synonyms and include some post that they don't have quality. Ask about what tool must select.
- (Intermediate) Create a Google alert trough <https://www.google.es/alerts> for every about personal data protection law with the followings features: frequency one a week, all sources, English language
- (Foundation) True or false, only can I add RSS through feeds tools. Answer: A) True, only can I do in this way. B) False, I have other different possibilities as add the RSS in the source that I have interest. C) False, I have at least three ways to do. (desktop aggregators, plug in...)
- (Advance) Simulated a government web that have the possibility to export the legal dates in a file. Download the file and simulated a google calendar to import the file and share with the accountant
- (Intermediate) schedule a reminder email for other college remembering the procedure date trimestral
- (Foundation) which of the followings technological responses is the most useful to keep in mind the important legal and administrative dates in your business?
  - Answer: could we show tree different kind to have the dates:
  - A) a text document with every dates. In the answer could we write. In this way the data is in my laptop in a secure way
  - B) a outlook file. In this way I have the data in my hard disk and I could export easily the data.
  - C) Google Calendar. With this tool I have the data in the cloud computing and can I share the dates with others colleges or stakeholders.
  - D) All the responses are incorrect because is better read daily the public administration web.
- (Advance) Make a decision to buy a cloud computing tool to have all the business documents always available, match 3 kinds of companies attending the size with the cloud computing tool in property way. In this case not only must select the tool with technical criteria, we have to add efficiency criteria like price or choose a proportionate tool.
- Answer: Show an Entrepreneur, small company and medium size company. Offer other tool list with dropbox, an ERP tool or an not secure free tool like wetransfer



- (Intermediate) The entrepreneur has to decide how is the better option for:  
You need to share the update price list with your clients. Select the better option:
  - A) Send an email to the clients with a procedure to ask prices.
  - B) Share with the customers a price list in Google docs (spreadsheets.)  
(Only price and references).
  - C) Share an online presentation with price, description, references and  
features that every product or service.
- (Foundation) You have to work with your team in a text word, each colleague  
needs to add a part in the document in the same time Select the appropriate  
option:
  - A) Google docs.
  - B) Dropbox.
  - C) Word Writer
- (Advance) Simulate sharing a Dropbox or drive environment and decide the  
attribution for some different kind of permission with different users: only  
view, edit ....
- (Intermediate) Show two tools to share documents. In the first only have the  
option to share de document in view mode for all the users. The other offer  
the possibility that share in edit, view mode and attribute different modes to  
different users
- (Foundation) I have the Dropbox desktop application but during the last 2 days  
I had traveled and I had not Internet connection, select the correct answer:
  - A) I have all my documents update in my laptop.
  - B) I have the documents in my laptop but I can't know if they are the  
last version
  - C) Need a Wifi connection to download the last document version.

#### 5.1 Solving technical problems

#### 5.2 Identifying needs and technological responses

#### 5.3 Creatively using digital technologies

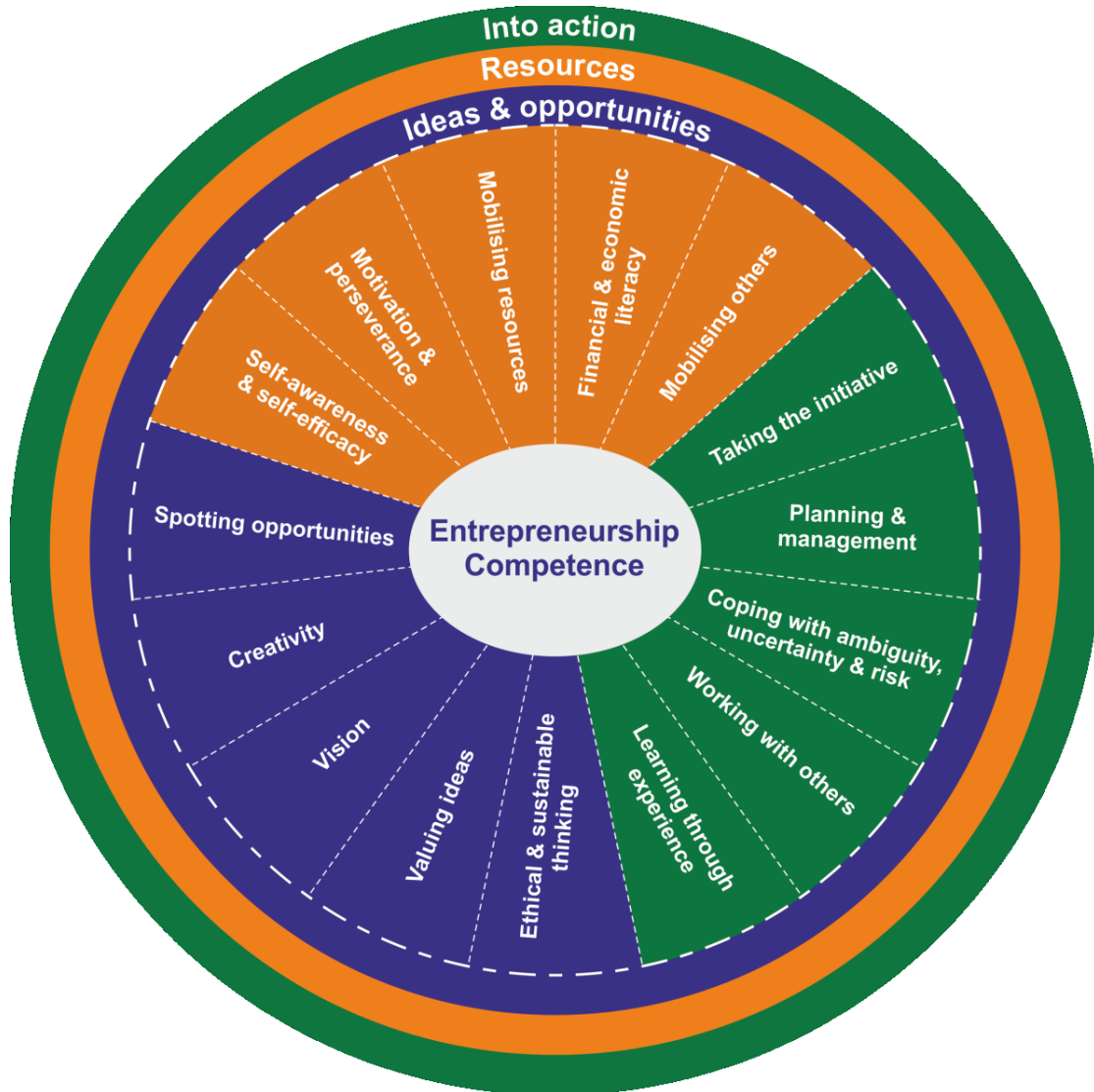
#### 5.4 Identifying digital competence gaps

(Note: Evaluation items in V1\_AREA5.docx)

### **EntreComp mapping**

In the following figure from the EntreComp framework<sup>1</sup> are depicted the EntreComp competences as slices of a pie chart. Each slice has a different colour: blue for the competences in the 'Ideas and opportunities' area, orange for those in the 'Resources' area and green for the competences in the 'Into action' area. The slices are surrounded by the three competence rings, which embrace all the 15 competences. This representation underlines that the coupling between competence areas and competences does not have taxonomic rigour. For example, creativity is presented as one of the competences in the 'Ideas and opportunities' area, even though the creative process entails both the use of resources and the capacity to act upon ideas to mould their value.

<sup>1</sup> Available here: <https://ec.europa.eu/jrc/en/entrecomp>  
PATHWAYS FOR EMPLOY: Assessment modules design



**Figure 3** Entrepreneur competence profile

We have mapped the scenarios and the digital competences involved in them with the elements of the EntreComp framework in order to check which of the 15 competences of Entrecomp we are covering.

Competences	Hints	Descriptors	Scenarios and/or digital competences
<b>1. Ideas and opportunities</b>			
<b>1.1 Spotting opportunities</b>	Use your imagination and abilities to identify opportunities for creating value	<ul style="list-style-type: none"> <li>Identify and seize opportunities to create value by exploring the social, cultural and economic land-scape</li> <li>Identify needs and challenges that need to be met</li> <li>Establish new connections and bring together scattered elements of the landscape to create opportunities to create value</li> </ul>	
<b>1.2 Creativity</b>	Develop creative and purposeful ideas	<ul style="list-style-type: none"> <li>Develop several ideas and opportunities to create value, including better solutions to existing and new challenges</li> <li>Explore and experiment with innovative approaches</li> <li>Combine knowledge and resources to achieve valuable effects</li> </ul>	
<b>1.3. Vision</b>	Work towards your vision of the future	<ul style="list-style-type: none"> <li>Imagine the future</li> <li>Develop a vision to turn ideas into action</li> <li>Visualise future scenarios to help guide effort and action</li> </ul>	

<b>1.4 Valuing ideas</b>	Make the most of ideas and opportunities	<ul style="list-style-type: none"> <li>• Judge what value is in social, cultural and economic terms</li> <li>• Recognise the potential an idea has for creating value and identify suitable ways of making the most out of it</li> </ul>	
<b>1.5 Ethical and sustainable thinking</b>	Assess the consequences and impact of ideas, opportunities and actions	<ul style="list-style-type: none"> <li>• Assess the consequences of ideas that bring value and the effect of entrepreneurial action on the target community, the market, society and the environment</li> <li>• Reflect on how sustainable long-term social, cultural and economic goals are, and the course of action chosen</li> <li>• Act responsibly</li> </ul>	
<b>2. Resources</b>			
<b>2.1 Self-awareness and self-efficacy</b>	Believe in your-self and keep developing	<ul style="list-style-type: none"> <li>• Reflect on your needs, aspirations and wants in the short, medium and long term</li> <li>• Identify and assess your individual and group strengths and weaknesses</li> <li>• Believe in your ability to influence the course of events, despite uncertainty, setbacks and temporary failures</li> </ul>	
<b>2.2 Motivation and perseverance</b>	Stay focused and don't give up	<ul style="list-style-type: none"> <li>• Be determined to turn ideas into action and satisfy your need to achieve</li> </ul>	

		<ul style="list-style-type: none"> <li>• Be prepared to be patient and keep trying to achieve your long-term individual or group aims</li> <li>• Be resilient under pressure, adversity, and temporary failure</li> </ul>	
<b>2.3 Mobilizing resources</b>	Gather and manage the resources you need	<ul style="list-style-type: none"> <li>• Get and manage the material, non-material and digital resources needed to turn ideas into action</li> <li>• Make the most of limited resources</li> <li>• Get and manage the competences needed at any stage, including technical, legal, tax and digital competences</li> </ul>	
<b>2.4 Financial and economic literacy</b>	Develop financial and economic know how	<ul style="list-style-type: none"> <li>• Estimate the cost of turning an idea into a value-creating activity</li> <li>• Plan, put in place and evaluate financial decisions over time</li> <li>• Manage financing to make sure my value-creating activity can last over the long term</li> </ul>	
<b>2.5. Mobilizing others</b>	Inspire, enthuse and get others on board	<ul style="list-style-type: none"> <li>• Inspire and enthuse relevant stakeholders</li> <li>• Get the support needed to achieve valuable out-comes</li> <li>• Demonstrate effective communication, persuasion, negotiation and leadership</li> </ul>	

3. Into action			
<b>3.1 Taking the initiative</b>	Go for it	<ul style="list-style-type: none"> <li>• Initiate processes that create value</li> <li>• Take up challenges</li> <li>• Act and work independently to achieve goals, stick to intentions and carry out planned tasks</li> </ul>	
<b>3.2 Planning and management</b>	Prioritize, organize and follow-up	<ul style="list-style-type: none"> <li>• Set long-, medium- and short-term goals</li> <li>• Define priorities and action plans</li> <li>• Adapt to unforeseen changes</li> </ul>	
<b>3.3 Coping with uncertainty, ambiguity and risk</b>	Make decisions dealing with uncertainty, ambiguity and risk	<ul style="list-style-type: none"> <li>• Make decisions when the result of that decision is uncertain, when the information available is partial or ambiguous, or when there is a risk of unintended outcomes</li> <li>• Within the value-creating process, include structured ways of testing ideas and prototypes from the early stages, to reduce risks of failing</li> <li>• Handle fast-moving situations promptly and flexibly</li> </ul>	
<b>3.4 Working with others</b>	Team up, collaborate and net-work	<ul style="list-style-type: none"> <li>• Work together and co-operate with others to develop ideas and turn them into action</li> <li>• Network</li> <li>• Solve conflicts and face up to</li> </ul>	

		competition positively when necessary	
<b>3.5. Learning through experience</b>	Learn by doing	<ul style="list-style-type: none"> <li>• Use any initiative for value creation as a learning opportunity</li> <li>• Learn with others, including peers and mentors</li> <li>• Reflect and learn from both success and failure (your own and other people's)</li> </ul>	

## Mobile office worker assessment modules

### *Digital competence profile*

Based on the competence profile defined in a previous step in the project in which all the competences and levels required were identified:









Relevance	Area	Competence	Level
Essential		Information and data literacy	1.1. Browsing, searching and filtering data, information and digital content. 6 1.2. Evaluating data, information and digital content. 6 1.3. Managing data, information and digital content. 6
		Communication and collaboration	2.1. Interacting through digital technologies 6 2.2. Sharing through digital technologies 6 2.4. Collaborating through digital technologies 6
		Safety	4.2. Protecting personal data and privacy 6
		Communication and collaboration	2.5. Netiquette 5 2.6. Managing digital identity 6
		Digital content creation	3.1. Developing digital content 6 3.2. Integrating and re-elaborating digital content 5
		Safety	4.1. Protecting devices 6
Transversal		Problem solving	5.2. Identifying needs and technological responses 5
		Digital content creation	3.3. Copyright and licenses 4
		Safety	4.3. Protecting health and well-being 4
		Problem solving	5.1. Solving technical problems 5 5.3. Creatively using digital technologies 4 5.4. Identifying digital competence gaps 4
		Safety	
		Problem solving	
Complementary		Digital content creation	
		Safety	
		Problem solving	
		Problem solving	

Figure 4 Mobile office worker competence profile



## Scenarios

This is the list of scenarios identified based on the desktop research carried out in the competence profile design, the expertise of the partners and experts consulted and during the workshop held in Dublin during the transnational partners meeting:

Competences	Scenarios
<b>1.1. Browsing, searching and filtering data, information and digital content (Essential)</b> <b>2.2. Sharing through digital technologies (Essential)</b> <b>4.1. Protecting devices (Transversal)</b> <b>4.2. Protecting personal data and privacy (Essential)</b> <b>4.3. Protecting health and well-being (Complementary)</b>	<b>Scenario1:</b> To be able to do the work, you access to a pub with wifi, as you will be for a long period, you are looking for the most suitable place to perform the work, taking into account aspects such as ergonomics and signal quality. When connected to an open Wi-Fi network and having to send and receive information, you use only those secure encryption tools.
<b>2.1. Interacting through digital technologies (Essential)</b> <b>2.4. Collaborating through digital technologies (Essential)</b> <b>4.1. Protecting devices (Transversal)</b> <b>4.2. Protecting personal data and privacy (Essential)</b>	<b>Scenario2:</b> You go to a cybercafé since you have to use a computer to check the status of various tasks. As you are a member of an external team, it must be taken into account that the security measures applied are unknown and our fingerprint must be also protected.
<b>1.3. Managing data, information and digital content (Essential)</b> <b>4.1. Protecting devices (Transversal)</b> <b>4.2. Protecting personal data and privacy (Essential)</b> <b>5.2. Identifying needs and technological responses (Transversal)</b>	<b>Scenario3:</b> You will work in a location where you do not know if they provide wifi connection and, as a precaution, you have a usb modem with 4G technology to have a connection, as you do not know if you will have the chance to make use of the power supply, you apply the appropriate measures of energy saving. In case of making the connection with 4G technology, you identify the priority documentation based on the size of the files, since the 4G card has data limitation.
<b>2.2. Sharing through digital technologies (Essential)</b> <b>2.4. Collaborating through digital technologies (Essential)</b> <b>4.1. Protecting devices (Transversal)</b> <b>5.2. Identifying needs and technological responses (Transversal)</b>	<b>Scenario4:</b> Being at home, you organize via email a meeting with several people who are located in different places. For communication, you will make use of tools such as video call and that allow you share the desktop, in addition, in your case you have to make use of earphones with wireless microphone. The meeting will decide how to organize the project, the different phases, who is responsible for the tasks to be done ..., all the information will be located in a cloud storage service that keeps the information synchronized.

**1.3. Managing data, information and digital content  
(Essential)**

**4.1. Protecting devices (Transversal)**

**4.2. Protecting personal data and privacy (Essential)**

**5.2. Identifying needs and technological responses  
(Transversal)**

**Scenario5:** As there is no office and centralized information between a laptop and a Smartphone, it is necessary to implement the appropriate security measures. Firstly, the devices and information access has to be limited; the connections to and from the computer have to be monitored; devices need to have security tools that address existing threats and, finally, information must be backed up in several devices / locations that can be accessed with and without connection to potential loss of information.

**1.1. Browsing, searching and filtering data, information and  
digital content (Essential)**

**5.2. Identifying needs and technological responses  
(Transversal)**

**5.1. Solving technical problems  
(Complementary)**

**Scenario6:** You have to make a visit to the offices of a client where you are going to show some presentations and videos that you have published, but you do not know the location of the offices. Once the address is found, you have to use a map or GPS application to get to the destination.

## ***Assessment modules***

All the assessment modules can be found in the following annexes:

- P4E\_O5\_AREA1.pdf
- P4E\_O5\_AREA2.pdf
- P4E\_O5\_AREA3.pdf
- P4E\_O5\_AREA4.pdf
- P4E\_O5\_AREA5.pdf