OCCAY

Online Career Counselling Academy

PR1 - OCCAY Self-assessment grid and needs analysis of digital skills

Data Analysis

Erasmus+: KA2 - Cooperation Partnerships | VET

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Table of contents

The project 5
What about PR1? 7
Focus groups 8
Profiles involved 8
Results from focus groups 8
Obstacles and Challenges 9
Needs and skills 10
Lessons learnt and experiences 11
Learning styles 12
Summary of focus groups 13
Self-assessment grid: introduction and main results 15
What is the self-assessment grid? 15
How has the self-assessment grid been developed? 16
Analysis of the results 22
General results: data of the participants 22
National Results 24
Overall results 26
Information and data literacy 27
Communication and collaboration 28
Digital content creation 29
Safety 30
Problem solving 31
General average score 32
Conclusion 36
References 37
Annex 1 38

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The project

The COVID-19 pandemic and its measures to prevent further spreading of the virus had and have a massive impact on counselling in career guidance, on the respective institutions as well as on counsellors and counselees across Europe. They have been forced to convert their mostly face-to-face services to a digital setting quasi overnight. Unfortunately, online career guidance was not integrated as a natural part in the range of services before the crisis. After being more than a year in emergency procedures, the necessity of its application has considerably changed. Standard tools made their way into the counselling but missing an integrated and demand-orientated career counselling profile.

Nonetheless, institutions and individuals collected some positive experiences in mostly unstructured and unguided circumstances through a more flexible service design in distance career guidance. Now, institutions and individuals look for guidance, appropriate tools and structured vocational education and providing transparency and transferability in application for a hybrid career counselling concept. It is the time to structurally integrate last year's experiences and take career guidance to the next level: an umbrella strategy to upskill digital skills on processes and tools is needed. Facing the variety of challenges, OCCAY attempts therefore to be an inclusive and modular offer at the same time:

(A) It serves VET institutions providing a tailor-made benchmark system to assess the digital literacy of their counsellors and integrating the digital literacy enhancement strategically within the quality management by a guideline recommendation for a local, regional, national, or even European harmonization.

(B) It serves the individual counsellor by offering with the OCCAY Hybrid Course a demand-orientated tool based on ECVET for European transferability and knowledge transfer and with the OCCAY Platform for Online Career Guidance an innovative all-in-one counselling tool.

(C) All this is encircled with a policy recommendation targeting decision-makers in institutions/organization, public administration, and politics dealing with career guidance to support dissemination, openness, and integration of OCCAY.

The OCCAY's goals coincide with the Digital Education Action Plan of the European Commission, as OCCAY will be (1) an inclusive and modular instrument with its learnings from the Covid-19 pandemic and (2) make one education and training fit for the digital age.

In order to do so, OCCAY will develop the following results:

- **PR1 - OCCAY Self-assessment grid and needs analysis of digital skills:** A self-assessment grid on digital skills able to provide an extensive needs analysis to determine the status quo of digital skills in order to develop effective training materials and online consulting tools for career counsellors.
- **PR2 - OCCAY Hybrid Flexi Course for career counsellors:** a modular system based on the digital competence framework (DigComp 2.0) with 72 units in sum.
- **PR3 - OCCAY Platform for online career guidance:** an online platform which puts together 4 areas related to Online Counselling: 1. communication, 2. information, 3. work tools and 4. counselling tools.

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- **PR4 - OCCAY Strategy handbook for vocational and educational institutions:** A 30-pages handbook consisted of two parts: The development of a benchmarking procedures framework and a strategy handbook, thus stimulating the organizations to deal with unusual or even uncomfortable themes in their daily work (related always to the online working environment).
- **PR5 - OCCAY Policy recommendation for hybrid career counselling on the decision-maker level:** A 10-pages structured recommendation supporting the holistic vocational education and training curricula for virtual consultancy by encouraging national financers and decision-makers international level (IAVEG), at EU (in Brussels) and EU agency level (e.g. CEDEFOP) to adopt OCCAY approach.

With its multi-level approach, OCCAY will involve different target groups in its project activities:

- 300 career counsellors testing the self-assessment grid (R1).
- 120 career counsellors participating in the OCCAY Hybrid Flexi Course (R2).
- 20 career counsellors using the potentialities and services of the OCCAY Platform for Online Career Guidance (R3)
- 96 managers and directors of vocational and educational institutions will participate to discuss the strategy handbook and the framework (R4)
- At least 12 European and national politicians as well as at least 12 policy makers will be involved in the development of the recommendations to decision-makers (R5)

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What about PR1?

OCCAY Self-assessment grid and needs analysis of digital skills is the first result foreseen in OCCAY project and it sets the beginning of the path of the partnership in exploring both the needs and the gaps of the target, thus allowing to create the following results. The activities at the basis of PR1 are aimed at providing a needs analysis to determine the status quo of digital skills in the countries involved by the project in order to develop effective training materials and online consulting tools for career counsellors.

Thus, under this result, in order to have a clear understanding of the status quo of the digital skills and of target needs, OCCAY developed:

1. **A self-assessment grid** according to DigComp 2.0, allowing to understand the level of digital skills of career counsellors on the 5 areas of DigComp, with the objective of reaching 375 people of the target. The tool overcome its expectations, achieving **440 career counsellors** in all the implementing countries.

2. **Two focus groups of 6 persons each** (involving career counsellors, managers of VET institutions, clients and other relevant stakeholders) in order to include several perspectives in the needs assessment. Also in this case, instead of reaching 24 people, partners successfully involved **39 people**, allowing to gather both contents and perspectives from the different profiles taken into consideration by the project bid.

The results of the implementation of both activities are a key component of this report which will be a crucial milestone for the next steps of the project, defining those needed skills and competences on which the other results will be built.

In the first part of this document, the main results from the focus groups implemented at national level will be presented; then, a more extensive introduction of the national results of the self-assessment grid will be included, providing a clear overview of the main needs of our target in all the countries involved by the project.

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Focus groups

In order to involve all the profiles taking part in the process of the counselling, several focus groups were implemented by the project partners – on average, 2 per country - both online or face to face. The implementation of these focus groups was held from the 14th of May to the 21st of June 2022.

Profiles involved

The following profile of participants were involved in the focus groups:

	Profile	Needs and topics discussed within focus groups
1	**Career Counsellors**	Approach to improve their learning of digital competences; needs on profile building, curriculum evaluation, understand the clients' problems and provide them with the best solution in the post-pandemic context.
2	**Managers of VET institutions**	Needs on staff's training, diversification of services, capacity of studying clients' needs in the new online context.
3	**Clients**	Needs on searching the right job offers, performing well during job interviews, improving curriculum, finding appropriate training (in the online setting)
4	**Other stakeholders (such as HR managers)**	Needs on requested digital job skills by companies and public sector

More specifically, the four countries involved a total of 39 people, divided per country according to the following profiles:

- **Germany:** 3 career counsellors in a VET public institution;
- **Italy:** 3 HR staff, 1 career counsellors, 1 director of a VET institution, 4 clients;
- **Bulgaria:** 10 career counsellors and trainers; 2 policy experts;
- **Austria:** 1 trainer in a VET institution, 3 managers in a VET institution, 1 manager in a non-profit organization, 1 career counsellor, 2 project managers, 1 coordinator of a career guidance project funded by the public employment service, 1 coordinator in a VET institution, 1 deputy executive, 4 clients.

Results from focus groups

The discussion held in the focus groups included 10 questions (with additional sub-questions). Even if the questions were pretty similar, partners organized focus groups separated between professionals and their clients, ensuring a higher involvement in the discussion for each group. The main topics discussed during the focus groups were the following ones: a) *obstacles and challenges*; b) *needs and skills*; c) *lessons learnt*; d) *experiences and learning style*.

Specifically:

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The first topic – *Obstacles and challenges* - aimed at understanding counsellors' obstacles related to their job in the transition to the online context during the pandemic and clients' main challenge in receiving services to look for a job during the same period.

The second topic – *Needs and skills* - aimed at collecting the counsellors' needs during the pandemic as well as the types of digital skills they felt they were missing, those they managed to improve and those they were not able to acquire. Regarding the clients, the questions tried to get a picture of what they missed and what they would have needed from their career counsellors during the received online service.

The third topic – *Lesson learnt* - gathered the lessons learnt from the pandemic to be used for the future and specific experiences regarding online support by a career counsellor.

Lastly, regarding personal experience and learning process, participants shared hints and examples about the favourite learning styles such as gamification, lectures, practical approach, etc.

In the following section, for each topic a summary of the findings across all participants will be provided.

Obstacles and Challenges

> *"After covid it was necessary to intensify the internal meetings to understand how the online work has changed their way of counselling"*

Regarding Virtual counselling, the main obstacles identified were the following:

- Communication is now multi-layered and involves more time, as **all channels must be served by the consultants** to stay in good contact with the clients.
- **The amount of work** to protect clients' personal data **has doubled** because it is an issue analogue and digital at the same time.
- Online counselling is more challenging because of **language barriers, technical problems, and surrounding interruptions**.
- **Supervising of client's progress** and exchange with colleagues on client related themes is online more **difficult**.
- Some clients could perfectly live with the new approach others not.
- Understanding and support from the management regarding deadlines, flexibility and setting professional boundaries (lack of availability for 24/7).

> *"Online counselling lacks non-verbal communication"*

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Regarding technical issues, the main identified obstacles and challenges were the following ones:

- **Supporting counselling tools** are available and quite sophisticated but they **need intense and profound training** to reach the target audience comprehensively.
- Successful **online counselling requires a technical set-up that goes beyond internet connection and a laptop**.
- **Technical issues occur on both sides**. Knowledge on using tools and software is mixed.
- Available tools are only explained from technical point of view

> *"We could only use Microsoft tools.*
>
> *Data security was a big issue"*

To summarize, the **counsellors felt quite alone and challenged by implementing a comprehensive online service out of nowhere**. Their supervisors and institutions concentrated on providing a technical basis, but they did not offer trainings and forums for exchange. The clients covered all possibilities between digital experts and amateurs. However, the responsibility to adapt the session appropriately lays on the counsellors' shoulders.

> *"Where does the office desk end and the dining room table begin?"*

Needs and skills

> *"Now we know why lifelong learning is needed"*

The main requests or raised needs were the following:

- How **to combine traditional (face-to-face) with online guidance** – good practices and cases?
- How to **organize webinars / group trainings with clients** – for example on career planning, job application, etc.?
- How to **organize an online campaign and promote yourself to clients** (this is also a skill that counsellors will help clients improve in their turn)?
- How to **upskill clients' digital literacy** and meet their language in virtual contexts
- How to take care of themselves – more physical activity; resilience/ stress management, mental health care and burnout prevention.
- How to network for sharing cases and peer supervision – related to online counselling.

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Regarding *Online skills* and the necessary competences, it was emphasized how important it is that consultants also allow themselves to make mistakes, since it is precisely this culture that helps them to learn new things.

The main competences or skills – and in some case knowledge – seen as crucial for online counselling and highlighted during the focus groups were:

- Learning which **platforms are used by the audience** (e.g., young vs. elderly people) which are most effective for promotion and relevant for job-searching purposes etc.
- **Netiquette** – how to effectively communicate and present yourself in the digital environment – to clients, to colleagues, to employers, etc.
- Skills related to **legislation** of online services provision, ethical standards, online payment of services, data security requirements and data protection of clients.
- Better online **presentation skills**, holding the attention of the audience online and establishing trustworthy relationship with the clients in the virtual environment.
- Adequately **assessing clients' needs** in the counselling process.
- Having a repository of online training and assessment tools and interactive exercises for career planning, gamification (e.g., sim city) etc.
- Training on **digital skills** - video creation, videos, video presentations, creating online career guidance instruments and tools; mind maps, infographics, etc.
- **Skills related to using Zoom, MS office and Teams** for online group sessions and events – e.g., inviting users, administrating the event, creating breakout rooms, using interactive tools for collecting feedback and input from participants, etc.

> *"It is an illusion that everyone can do everything after 2 years"*

Regarding online needs, it can be summarised that the COVID-19 emergency made clear more than ever their urgency: there was a common view that there is no way back to the old counselling scheme. The future is hybrid counselling whereas the public institutions are slower in adapting. Complete virtual counselling will only occur during another lockdown. However, it needs more training and further education on communication and cooperative software tools.

Lessons learnt and experiences

> *"Further education has to focus on applying digital tools in counselling"*

It was emphasized that the culture in the company also plays a crucial role, especially how digital skills are executed at management levels because there is growing pressure for an institutional framework by new employees and young clients.

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Therefore, it needs now a gathering of lessons learnt by further education related to digitalization for this field. The counsellors earned more flexibility in their work through the hybrid mode but there are not enough offers to reflect and professionalize these experiences. Often, further education is misinterpreted as an introduction of the technical application.

> *"We need more cooperation between us"*

Among the lesson learnt highlighted during the focus groups, here below the most relevant ones are introduced:

- A group of clients becomes a team.
- **Self-esteem rises when something works**. This has led to learning successes.
- Guidance services are flexible when analogue & digital methods are available.
- When recruiting new staff, additional attention is paid to digital competences.
- Before starting something new, it is necessary to go through a testing phase.
- Appropriate IT equipment must be given.
- Problems can be solved with **collective intelligence**.
- Online meetings guarantee easier participation and more flexibility.
- New strategies are needed to **avoid isolation of staff**.
- Balance is needed to **avoid the risk of alienation**.
- Clients are motivated to take online trainings because of no need to commute.
- Online one-to-one meetings guarantee more privacy and intimacy.

> *"We and the clients have learned going digital during the pandemic without planning it consciously"*

To summarize: if digital fears and inhibitions on the part of clients and counsellors can be overcome, there will also be more openness to try out new things. Therefore, a clear institutional framework for online settings – covering among others working conditions in the home office, data protection guidelines etc. – is needed.

Learning styles

> *"A close theory-practice relation is central to reach a high application of digital skills in counselling"*

> *"And if it is just hangman to memorize technical terms, we have to open up our learning behavior to a playful mode"*

Among the learning styles highlighted, here below the more relevant are introduced:

- **Learning by doing:** Practice-related cases, interactive exercises and methods, peer to peer learning/ support/ supervision, case studies

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- **Presentation of content:** Visualization over bulky texts; Content to be served in "small snacks" not in huge modules and presentations, which require a lot of time – so that counsellors can visit the platform and learn in their free time
- **Flexible learning design:** Address the different needs and learning preferences of counsellors, allow flexibility and choice by having a "menu" from which to choose what you need to learn
- **Teach by example:** integrate more attractive and diverse digital tools; game-based approaches (quizzes, escape room approaches, etc.)

> *"Podcast, videos etc., there are so many tools to learn from home conveniently"*

- **Additional resources** – pool of creative, innovative online tools and resources, quizzes, games, videos, podcasts, live questions etc.

> *"Life always serves us first the lesson and then the instructions to it"*

It can be concluded that it needs a more playful learning approach regarding the online setting that teach openness to try out new possibilities without having to do everything right. However, this requires that the technical infrastructure is in place. In addition, the framework conditions, especially time resources, must be in place.

Summary of focus groups

From all the gathered feedbacks coming from all the partner countries, it is clear that the implementation of a full online service out of the blue due to the pandemic left the counselors feeling quite alone and challenged. Their managers and institutions focused on offering a technical foundation but did not provide trainings or platforms for discussion. The customers covered all bases, from amateurs to digital experts. There was a widespread belief that there was no going back to the previous counseling program. While public institutions are slower to adapt, **blended counseling is the way of the future**. Complete virtual therapy requires additional instruction and training in communication and collaborative software tools.

It was highlighted how crucial it is for consultants to be able to make mistakes in order to develop the necessary competences because it is precisely this culture that enables them to pick up new skills. The key idea here is that there will be greater willingness to attempt new things if digital concerns and inhibitions on the part of customers and counselors can be overcome. Therefore, **a distinct institutional structure for online settings is required**, addressing topics such as home office working conditions, data protection policies, etc. In order to achieve this, it was underlined that the **corporate culture also plays a significant role**, particularly how management levels apply digital skills in light of the mounting pressure from new hires and young customers.

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Therefore, it is now necessary to **compile a kind of collection of lessons learned from further education related to digitalization**. The hybrid approach gave counselors more flexibility in their jobs, but there aren't enough jobs available to adequately represent and professionalize these experiences. The introduction of the technical application is sometimes mistaken for more education. Regarding the online environment, it needs a more dynamic learning method that teaches openness to trying out new possibilities without having to accomplish everything perfectly. However, for this to happen, the necessary technical setup must exist. Additionally, the framework requirements, particularly the time resources, must be met.

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Self-assessment grid: introduction and main results

What is the self-assessment grid?

Within the project context, the partnership has developed a self- assessment grid in order to determine the status quo of digital skills of career counsellors in order to develop effective training materials and online consulting tools for them. The grid has been developed taking into consideration as reference **Digital Competence Framework for Citizens (DigComp)**[1]:

The Digital Competence Framework for Citizens, also known as DigComp, provides a common language to ***identify and describe the key areas of digital competence****, which are the following ones: 1. Information and data literacy; 2. Communication and collaboration; 3. Digital Content Creation; 4. Safety; 5. Problem Solving. It is an EU-wide tool to improve citizens' digital competence, help policy-makers formulate policies that support digital competence building, and plan education and training initiatives to improve the digital competence of specific target groups.*

The grid's elements were designed in a playful way - through real case scenarios, quizzes and visual aids. Furthermore, the content of the elements included in the grid was exactly tailored to career counsellors job, experience and their educational background, using several scenarios in order to allow them to think about their awareness on the fields covered by the DigComp. Specifically, it was aimed at taking into consideration their personal attitude towards digitalization, the frequency and type of digital media used in their daily work, training courses already attended in this field and possible obstacles of using virtual technical applications for counselling services. Furthermore, problem-solving within certain scenarios has been included, allowing career counsellors to think about their choices and knowledge when it comes to online counselling.

The finalized self-assessment grid is hosted on the project website and it can be found by visiting this link: https://occay.eu/self-assessment-grid-test/. It is available in English, German, Italian and Bulgarian. It offers a simple and uncomplicated way for career counsellors to self-evaluate their digital competences, which are relevant for their everyday professional life in guidance. The results show them their strengths, but also their development potential in the area of digitalisation. The grid helped the consortium to develop exactly the training content that is needed, gathering information to develop effective online consulting tools for career counsellors as well. The questions show different situations related to the application of digital skills into the practice in career counsellors' working environment.

[1] Version 2.2 of the Digital Competence Framework for Citizens has been taken into consideration as basis to develop the self-assessment grid. It consists of an update of the examples of knowledge, skills and attitudes. It provides more than 250 new examples of knowledge, skills and attitudes that help citizens engage confidently, critically and safely with digital technologies, and new and emerging ones such as systems driven by artificial intelligence (AI). The framework can be found through this link: https://publications.jrc.ec.europa.eu/repository/handle/JRC128415

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The grid put together both different type of questions:

- ❑ real life scenarios through text, single questions with multiple scenarios describing different situations, where the problem-solving approach and level of awareness of the respondent is involved.
- ❑ Self-perception and practical problem-solving questions
- ❑ Scaling questions
- ❑ Ranking questions
- ❑ Rating
- ❑ Conditional paths, in which questions change according to the given answers
- ❑ Writing of short text, more related to the personal information.

They are divided into 5 sections, following the division of the DigComp Framework:

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

If you want to know what kind of competences and skills are included under each sections, please, check Annex 1 of this document.

How has the self-assessment grid been developed?

The development of the self-assessment grid has been achieved gradually, adding different layers of analysis to reach the final result. Specifically, the partnership developed the self-assessment grid by following specific steps:

1. **Identification of DigComp competences areas**, the specific competences and its adaptation to the professional counselling sector. The following pictures show the table created to combine all the mentioned elements. Once defined the DigComp area and its related competences, a general description of the specific competences has been provided (see below an example relating to the first area of competences):

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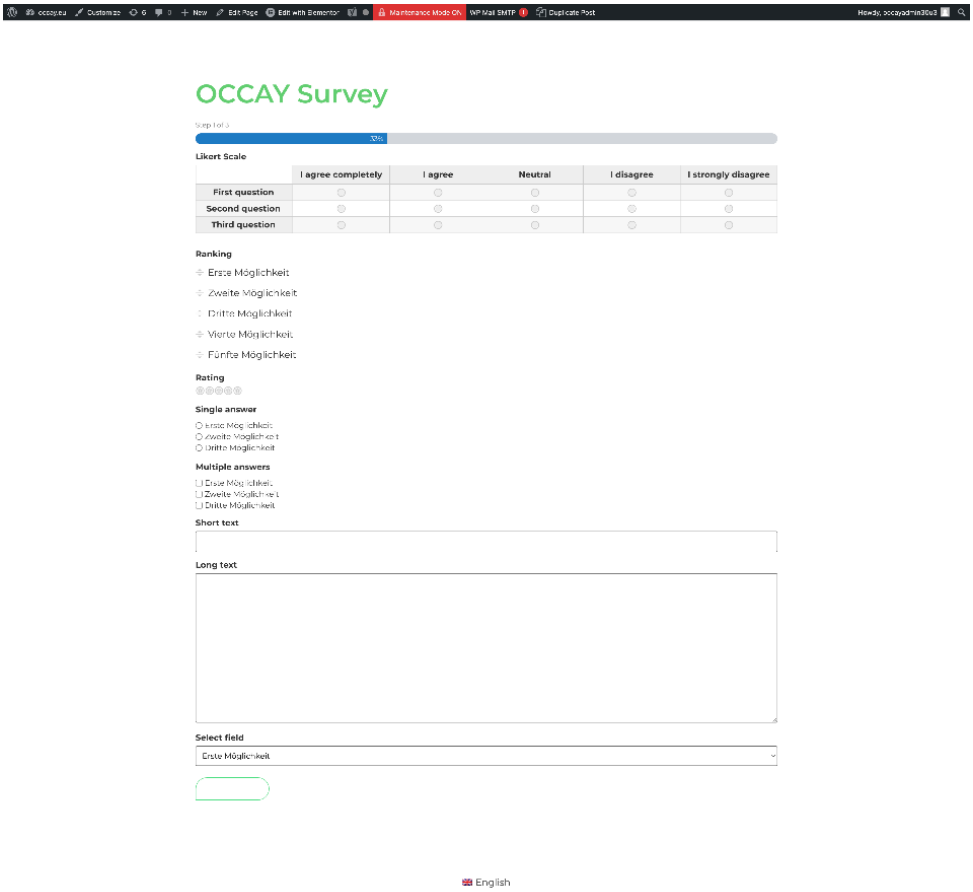
DigComp sections	Specific DigComp competences	Summary of section
Information and Data literacy	1.1. Browsing, searching and filtering data, information and digital content 1.2. Evaluating data, information and digital content 1.3. Managing data, information and digital content	To articulate information needs, to locate and retrieve digital data, information and content. To judge the relevance of the source and its content. To store, manage, and organise digital data, information and content.

2. **Exploring potentialities of the interactive questionnaires:** together with the project's technical partner – bFlow -, different features and types of questions were analysed and the most appropriate ones for the grid were selected, thus ensuring to make potential respondents think and be conscious about their level of awareness. The following pictures show the examples of questions provided by the partner.



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3. **Contribution from partners experienced in career counselling on competences/contents to be included and evaluated within the questionnaire and with reference the DigComp.** The inputs provided by partners were analysed and common traits were extrapolated from them, taking into consideration the DigComp competences of reference. The following picture show the inputs from the partners relating the first area, *Information and Data literacy*:

a) Information and data literacy

Definition: To articulate information needs, to locate and retrieve digital data, information and content. To judge the relevance of the source and its content. To store, manage, and organise digital data, information and content.

Need of career counsellors:

Information:
Consultants should be able to research the current state of application processes and implement them in their work. How do HR departments want application documents today? What are the new formats for applications? (e.g. application video). What is important to know when consulting someone? How can I find relevant valid content for this? Which platforms, networks, magazines, etc. are helpful?

Digital data:
Consultants should have high skills in password management and digital data management. Client data is personal and sensitive data, what is important to know about data security? How can I e.g. make a pdf data secure? How to deal with digital signatures? What would be important to pass on to clients in terms of password management? How can different digital data be processed and converted (e.g. word doc into a pdf)? What storage options are there to store data? Especially online storage options (cloud, drive, dropbox,...) and what is important to know when using them? Data security, sharing data (e.g. resumes), adding and removing other people), what of these can be helpful for clients and what is important to know when doing so.

4. **Identification of competences/skills/knowledge career counsellors should have on the areas identified in the framework of DigComp 2.2 on their daily job:** the competences indicated by the partners were integrated with the ones from the DigComp. The result included several competences, for each DigComp section, tailored to career counsellors. In addition to that, transversal soft skills were identified as generally needed within career counselling. The following picture show part of the summary table developed by CSC Danilo Dolci to combine the above-mentioned elements.

Career counselling competences	Career counselling soft skills
1.1. It´s about to identify in relation to a given problem, to recognise the need for information, procure information 1.1. How can I find relevant valid content for job applications? Which platforms, magazines, etc. are helpful? 1.1. basic knowledge about different IT end devices, browsers, settings, etc. 1.2 know how to find and assess credible sources of information, how to deal with fake news and phishing; authentication and data protection (GDPR, managing clients' data). 1.2 Knowing and explaining which data/information is suitable for a particular purpose 1.2 Interpreting data visualisations, such as texts, graphs and charts	Open mind inquisitiveness Curiosity Learning autonomy Self-efficacy (I don't know anything about it, so I don't even try to solve it or IT does that, I don't have to worry about that) Positive self-esteem Self-management (How can I manage my time in my work as a counsellor in such a way that I consciously schedule time to learn new things (e.g., 20% of working time per week)? Provide success stories, cases, examples, peer support groups

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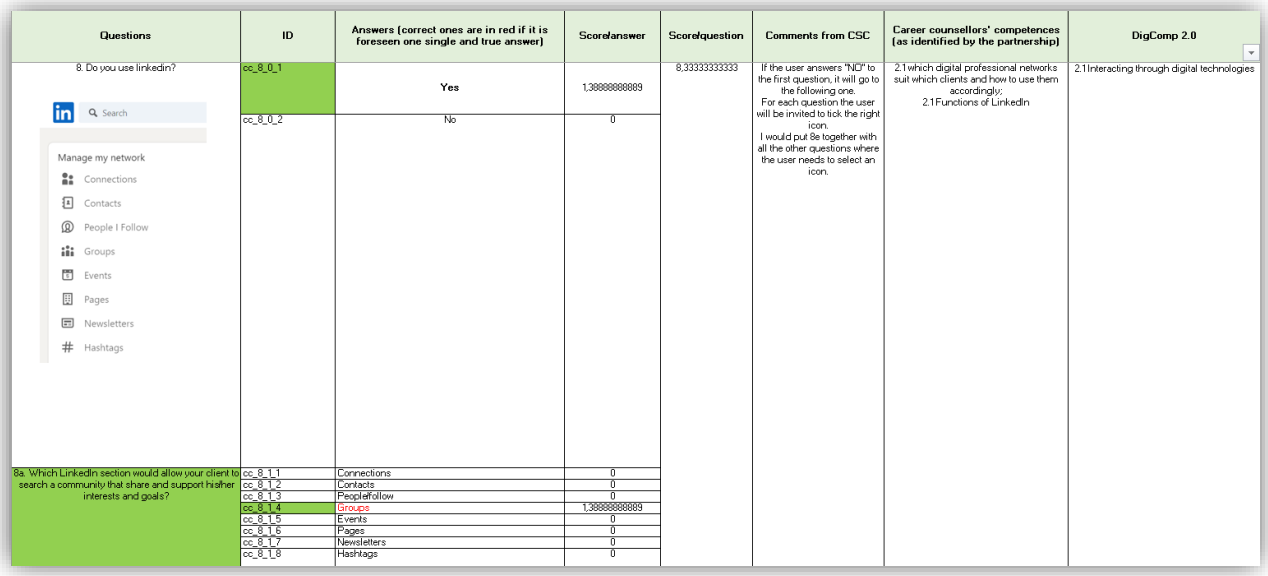
5. **Development of the draft of the Grid and assigning scores to each question:** for each identified competence, the most suitable type of question and answer (multiple choice, scenario, scaling question, etc.) was identified and inserted within an Excel file. Partners were given the possibility to comment the choice. Their inputs were integrated and used to finalize the draft. Before the technical partner transferred the file online, scores were assigned to each question (the same weight was given to each of the 5 DigComp competences area, for a total score of 500 – this would have be useful to determine the profile of the grid user at the end of their self-assessment questionnaire). The following picture show an example of the excel file developed, containing the draft of the grid, the calculation of the score, the explanation of the question and/or suggestion to the technician how to put the question online, as well as the career counsellor competences and the DigComp competence and reference area.



Questions	ID	Answers (correct ones are in red if it is foreseen one single and true answer)	Scoreanswer	Scorequestion	Comments from CSC	Career counsellors' competences (as identified by the partnership)	DigComp 2.0
8. Do you use linkedin?	cc_8_0_1	Yes	1,38888888889	8,33333333333	If the user answers "NO" to the first question, it will go to the following one. For each question the user will be invited to tick the right icon. I would put Be together with all the other questions where the user needs to select an icon.	2.1 which digital professional networks suit which clients and how to use them accordingly; 2.1 Functions of LinkedIn	2.1 Interacting through digital technologies
	cc_8_0_2	No	0				
8a. Which LinkedIn section would allow your client to search a community that share and support his/her interests and goals?	cc_8_1_1	Connections	0				
	cc_8_1_2	Contacts	0				
	cc_8_1_3	PeopleFollow	0				
	cc_8_1_4	Groups	1,38888888889				
	cc_8_1_5	Events	0				
	cc_8_1_6	Pages	0				
	cc_8_1_7	Newsletters	0				
	cc_8_1_8	Hashtags	0				

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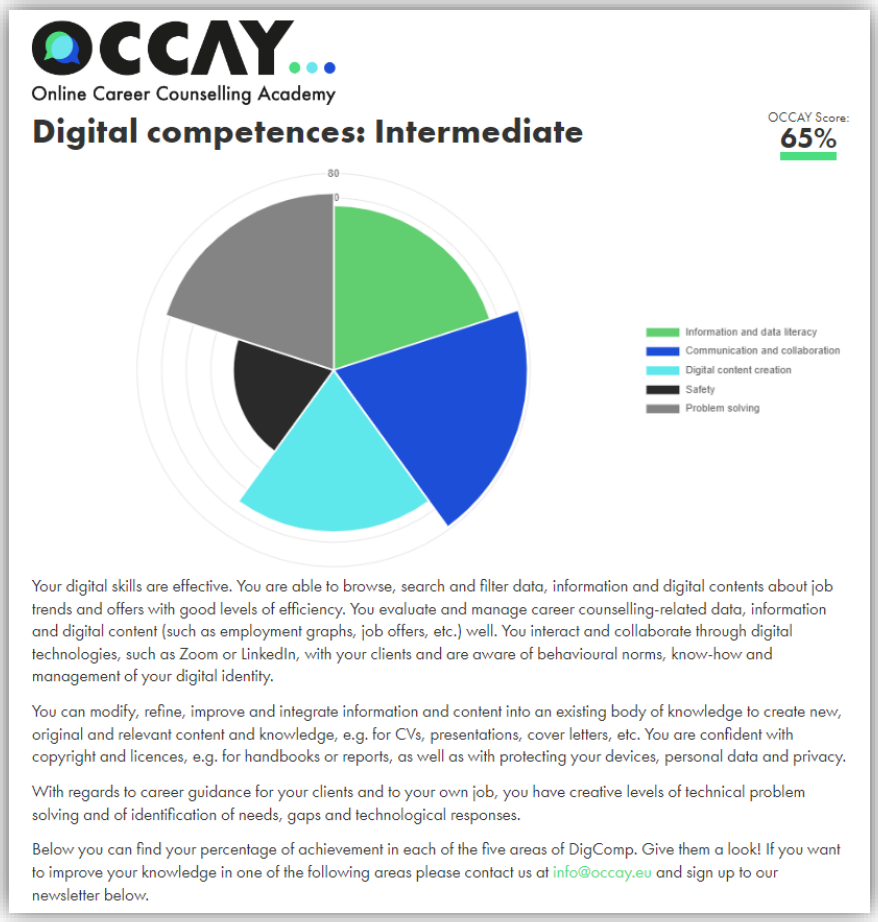
This structure allowed to create a tool to make the user understand their level and to be aware on which area they should improve their compenteces. In fact, once the users go through the questionnaire and answer to the different questions, the self-assessment grid calculates the score per area and provide at the end of it both a result for each DigComp area and for the level of the users, providing 3 profiles: **Excellent**, **Intermediate** and **Beginner** (more information on the profile definition is given below). The following screenshot shows what the users' result looks like at the end of the questionnaire, specifying both the profile of the user based on its answers on all the questionnaire as well as the percentage of each area.



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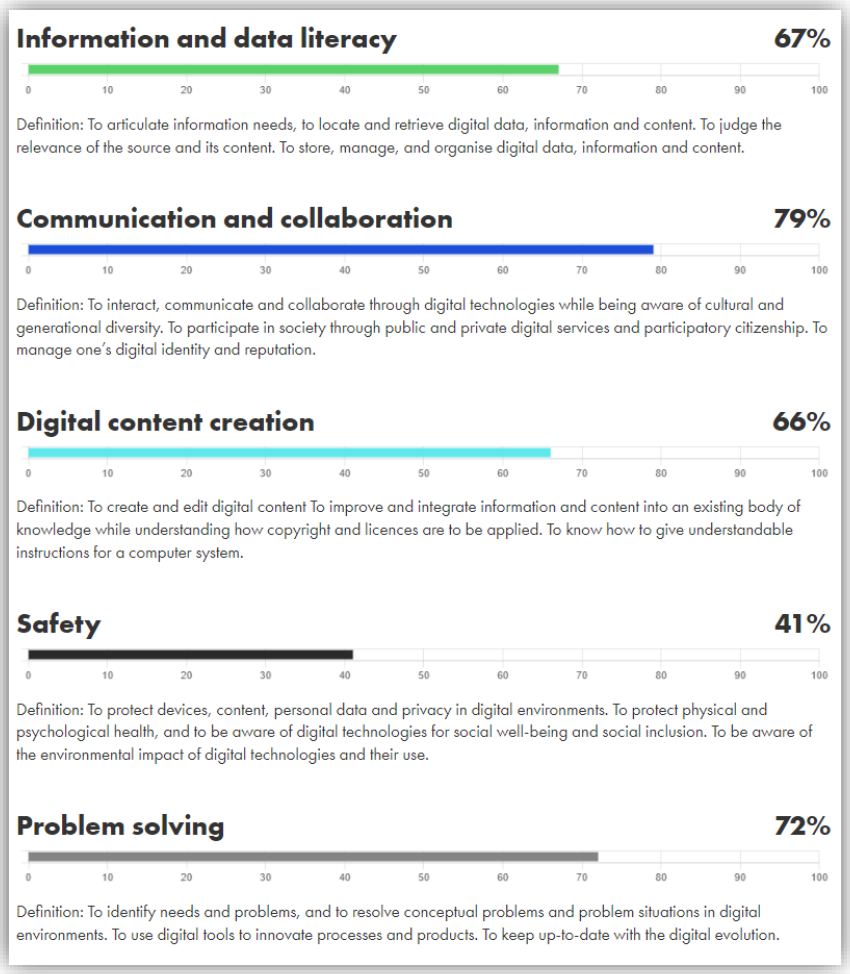

Moreover, the user has the chance to share the results with their colleagues as well as download the result as reminder to improve the area in which they are less aware. The all process facilitates the users to focus on the area where they need improvements or to strengthen the competences they still need to enforce.

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Analysis of the results

The following pages are focused on the analysis of the data gathered during the administration of the questionnaire in all 4 implementation countries. In the first part, data on the participants to the self-assessment grid are introduced. Then, in order to facilitate the analysis of the results – given the great amount of data collected - a national perspective per competence area has been adopted, taking as criteria of analysis the division on level – Excellent, Intermediate and Beginner – used as final result in the questionnaire. This has been done both among all results at national level, at international level and for each area of the DigComp. In this way, an overview on the level of participants has been provided, allowing to understand the area of competences career counsellors need to strengthen both at national and international level.

General results: data of the participants

440 career counsellors from Austria, Bulgaria, Italy and Germany self-assessed their digital skills at work during a period of 6 months (between April and October 2022). According to the data gathered, the majority of them were **women** (322); regarding education, the majority of them are holding an advanced degree (264) and regarding the year of experience in job counselling they had less than 4 years of experience (264). As shown by the results below, Italian answers cover almost half of the answers: that's one of the reasons of the analysis taken at national level, thus allowing to identify for each country the specific need of skills or competences which could have been hidden by so many answers by respondents from one country. The complete grid's results are available upon request.

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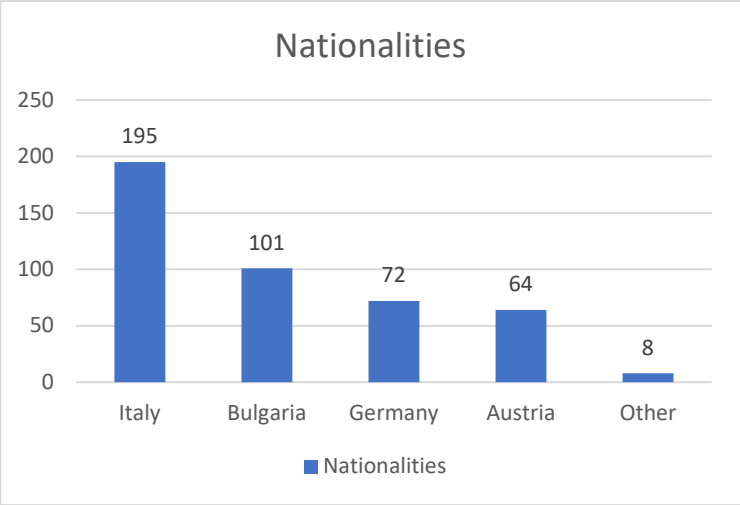

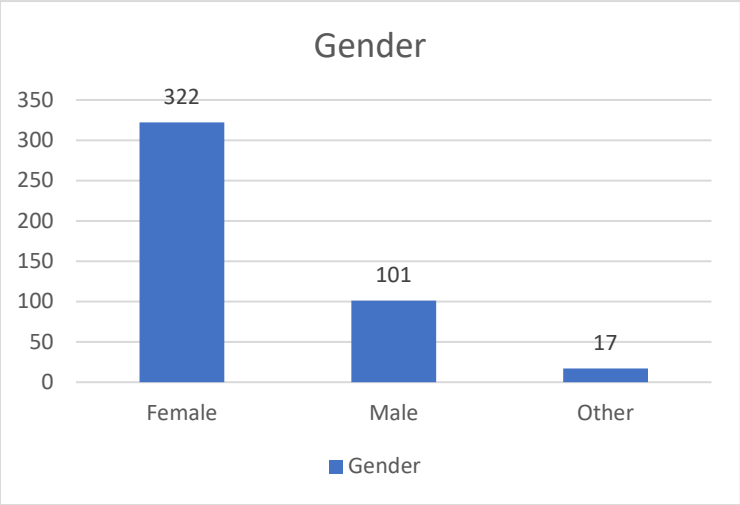

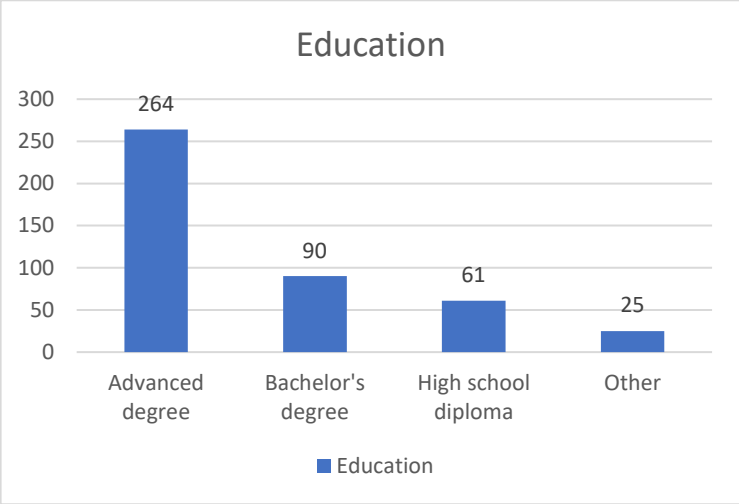

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Before introducing the results relating to the competences, it is important to define the different levels of awareness on the areas of competences of the DigComp the partnership has assigned to the final results of the users. According to the scores, participants could be identified as excellent (if their final scores was between 75 and 100), intermediate (50-74) and beginner (0-49). The following are the profiles shown at the end of the questionnaire:

Excellent

On their working field, their digital skills are highly effective. They evaluate and manage career counselling-related data, information and digital content (such as employment graphs, job offers, etc.) very well. They easily interact and collaborate through digital technologies such as Zoom or LinkedIn with their clients and are fully aware of behavioural norms, know-how and management of their digital identity.

They can productively modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge, e.g., for CVs, presentations, cover letters, etc. They are very confident with copyright and licences to produce their own material, as well as protecting your devices, personal data and privacy.

With regards to career guidance for their clients and to their own job, they have very creative levels of technical problem solving, identification of needs, gaps and technological responses.

Intermediate

Their digital skills are effective. They are able to browse, search and filter data, information and digital contents about job trends and offers with good levels of efficiency. They evaluate and manage career counselling-related data, information and digital content (such as employment graphs, job offers, etc.) well. They interact and collaborate through digital technologies, such as Zoom or LinkedIn, with their clients and are aware of behavioural norms, know-how and management of their digital identity.

They can modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge, e.g. for CVs, presentations, cover letters, etc. They are confident with copyright and licences, e.g. for handbooks or reports, as well as with protecting your devices, personal data and privacy.

With regards to career guidance for their clients and to their own job, they have creative levels of technical problem solving and of identification of needs, gaps and technological responses.

Beginner

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They are sometimes able to browse, search and filter data, information and digital contents about job trends and offers. They are beginning to be able to evaluate and manage career counselling-related data, information and digital content (such as employment graphs, job offers, etc.). They sometimes interact and collaborate through digital technologies, such as Zoom or LinkedIn, with their clients and are beginning to be aware of behavioural norms, know-how and management of their digital identity.

They can sometimes modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge, e.g. for CVs, presentations, cover letters, etc. They are beginning to be confident with copyright and licences, e.g. for handbooks or reports, as well as with protecting their devices, personal data and privacy.

With regards to career guidance for their clients and to their own job, they have basic levels of technical problem solving and of identification of needs, gaps and technological responses.

On the next pages, these will be the lens through which the competences of the users will be analyzed, from a general result to each specific area of competences.

The analysis is based on the following number:

Country	Number of respondents
Austria	64
Bulgaria	101
Germany	72
Italy	195
Other	8
Total	**440**

In the graphs, the number of the respondents fitting one of the level of awareness explained above is indicated. In order to make a comparison, a box containing a comment on the results will use percentages (the basis of the percentage per country has as basis the total of the respondents for that country), thus facilitating the interpretation of the results.

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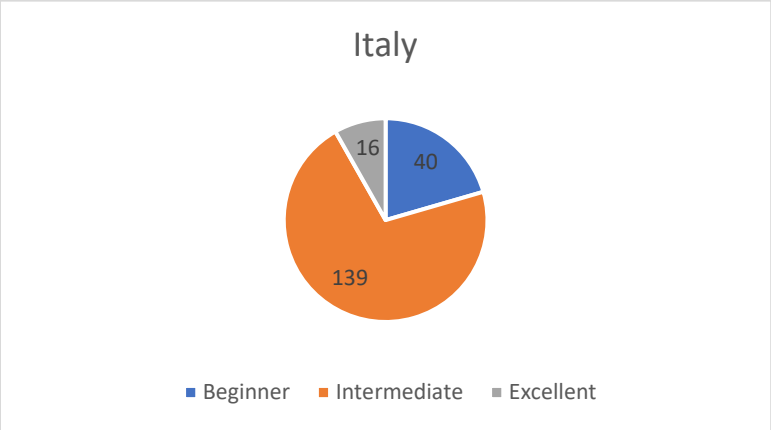
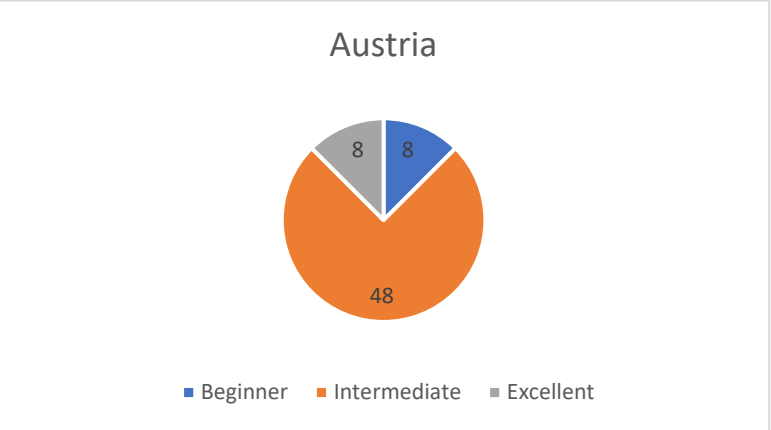
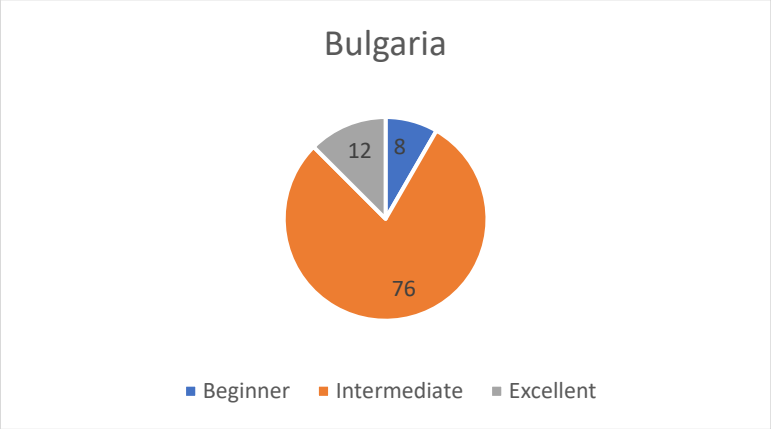
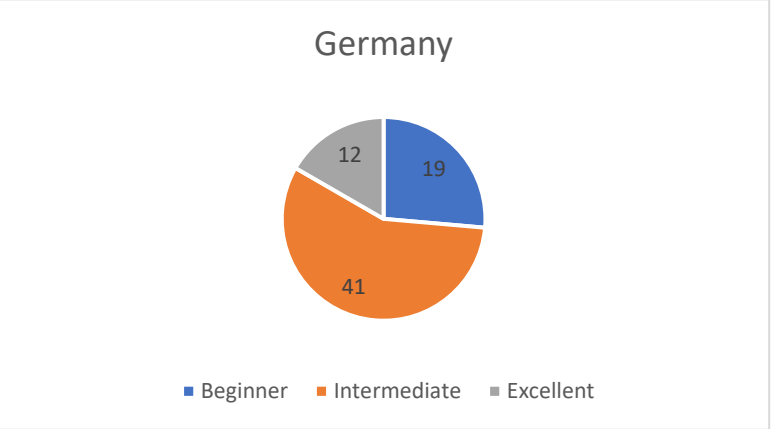
Overall results









As it is shown by these graphs, the Intermediate level is the one which is an average the most common result of the analysis, going from a minimum of 57% of the German respondents to the 79% of the Bulgarian ones. At the same time, the largest percentage of Beginner level has been identified in Germany, with the 26% of the respondents, whilst the minimum percentage has been in Bulgaria (8%). The largest percentage of "Excellent" is in Germany, with 13% of the respondents with this final result.

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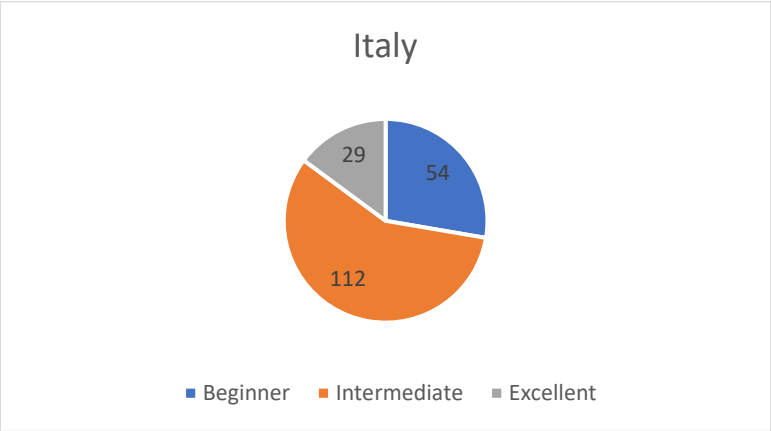
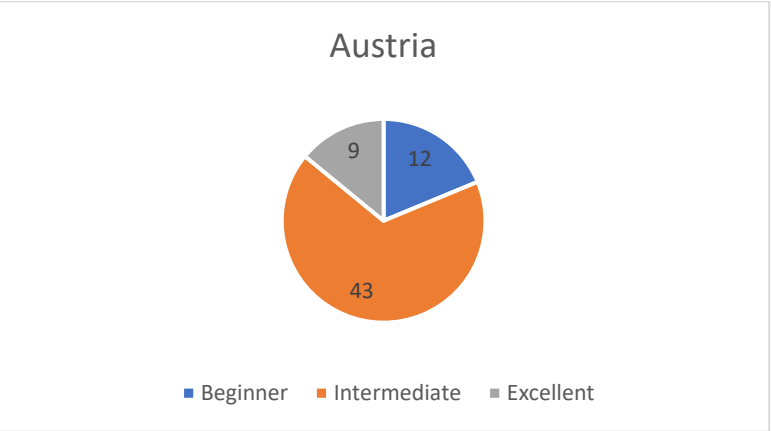
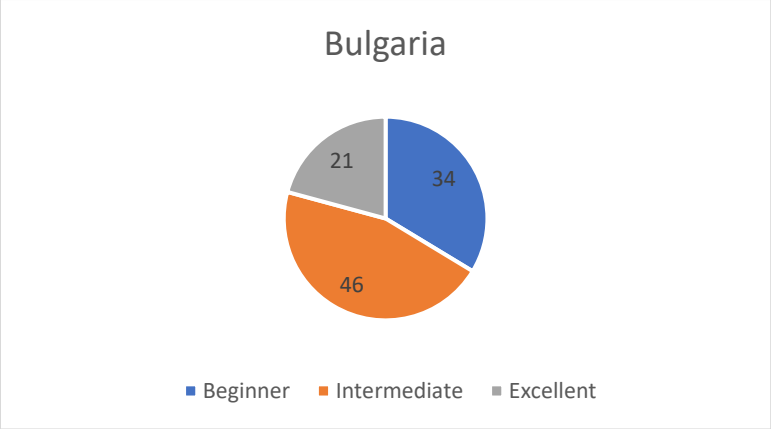
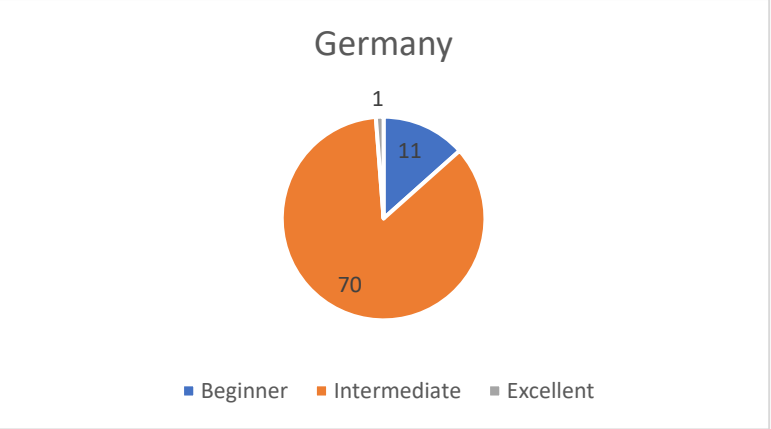
Information and data literacy









On the area of **Information and Data Literacy**, the main results to be highlighted are the following: Bulgaria has both the largest percentages both for Beginner level (34%) and Excellent level (21%). The largest percentage of respondents with Intermediate level is in Germany, with 85%. Finally, both Italy and Austria are in a similar area regarding the distribution of their target on this area of competences, but Italy compared to Austria has a largest percentage regarding Beginner level (28%).

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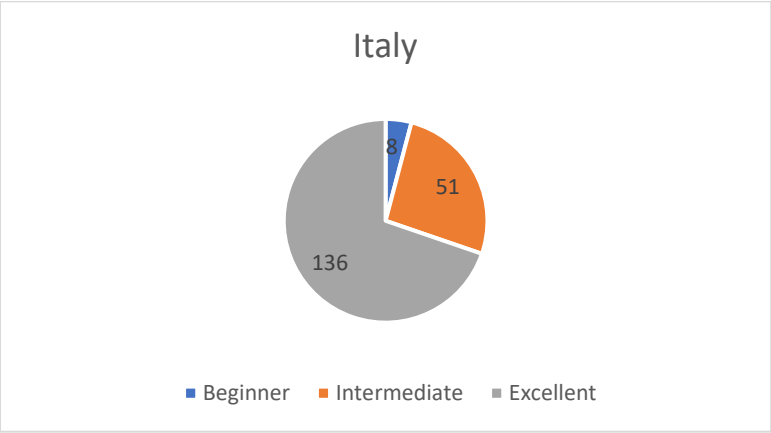
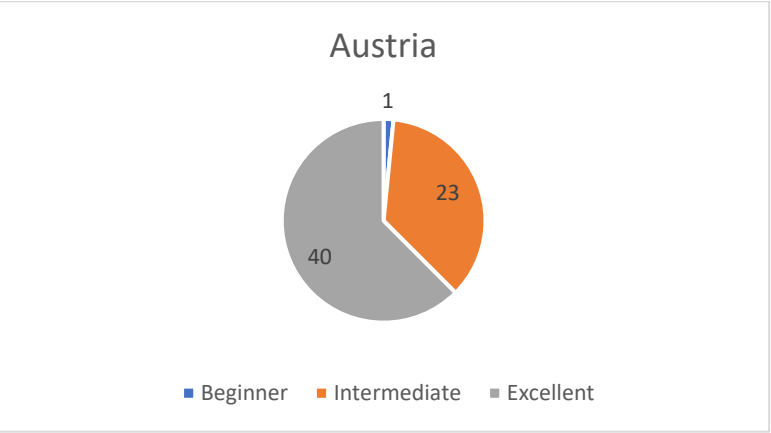
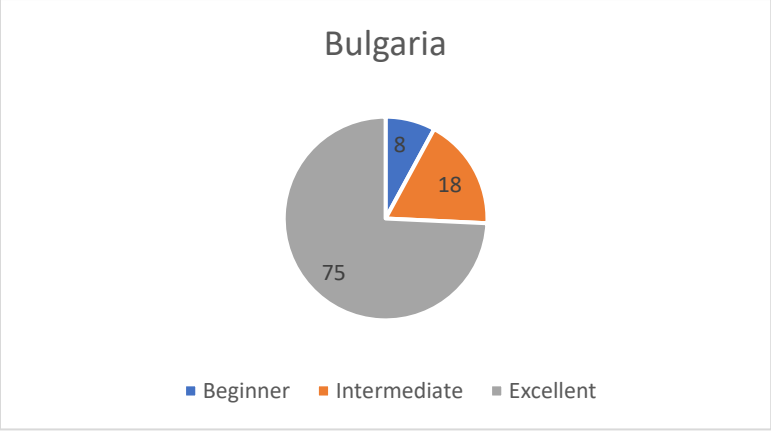
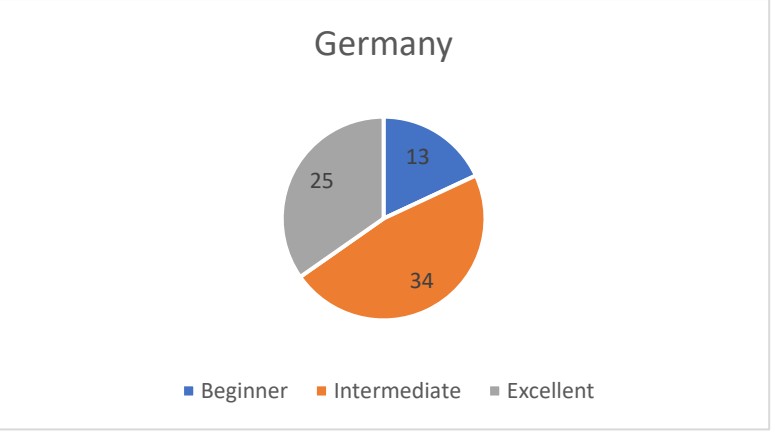
Communication and collaboration









The area of **Communication and collaboration** seems to be the one with the highest level of awareness, since at least 3 countries have a percentage of respondents on this area of competence of more than 60% corresponding to the **Excellent level** (Austria: 63%; **Bulgaria: 74%;** Italy: 70%). Germany has the largest percentage as regards the **Intermediate level** (47%), but also for the **Beginner level** (18%). The spreading of the usage of collaborative tools and social media during the last lockdown has surely exposed career counsellors to the usage of these tools, improving their awareness on the field in all the countries taken into consideration.

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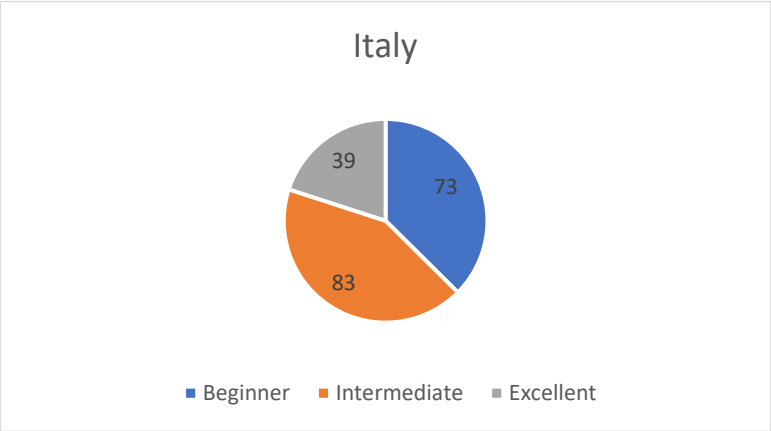
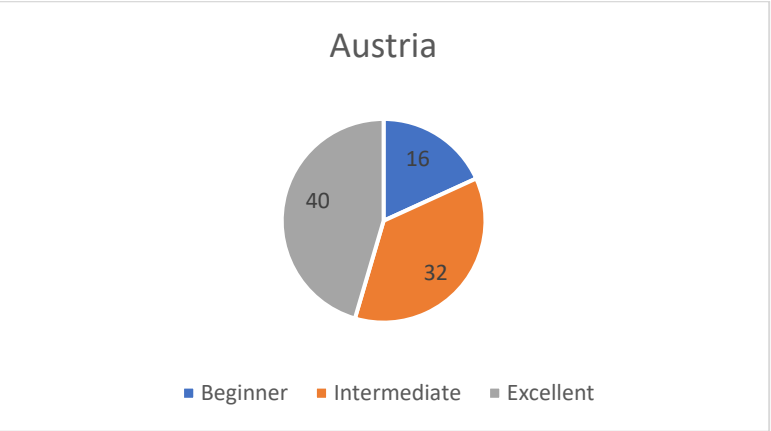
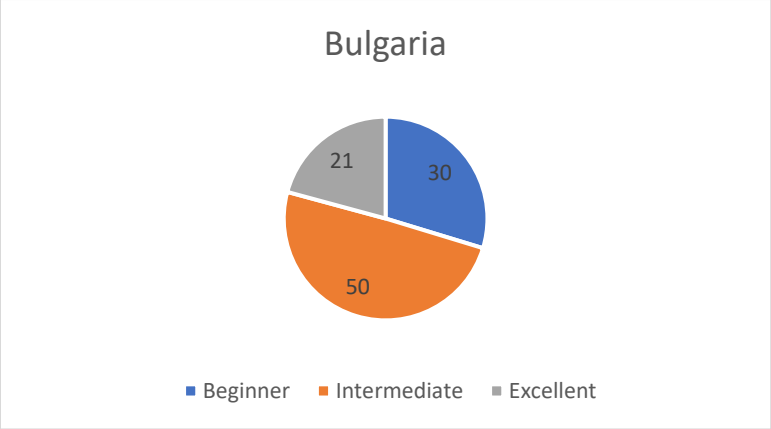
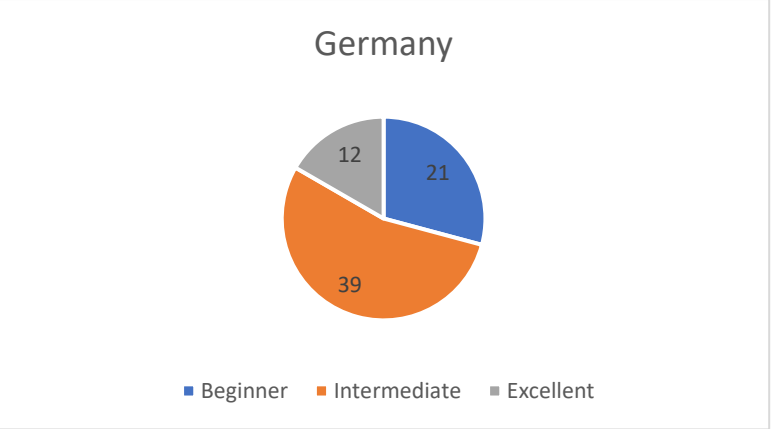
Digital content creation









Regarding the area of **Digital Content Creation**, in at least 3 countries the **majority of the career counsellors were on the Intermediate Level** (Bulgaria: 50%; Germany: 54%; Italy: 43%), whilst it is noteworthy the percentage of career counsellors who got the Excellent level in Austria (45%) compared to the other ones. At the same time, 37% of the Italian respondents are Beginner level in this area, whilst Austria is the one with less respondents falling into this level.

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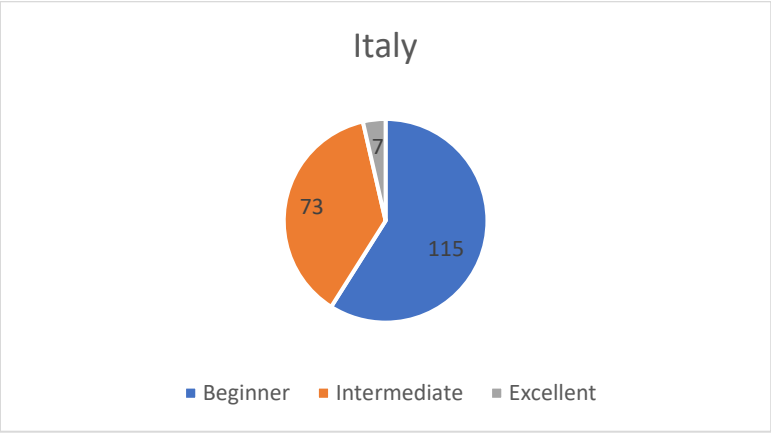
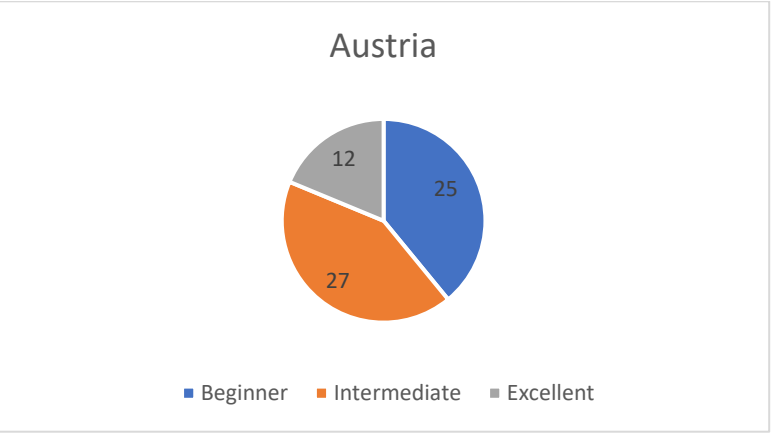
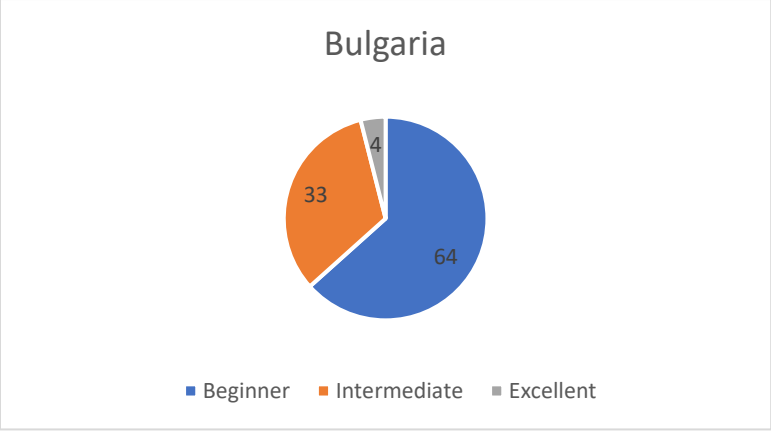
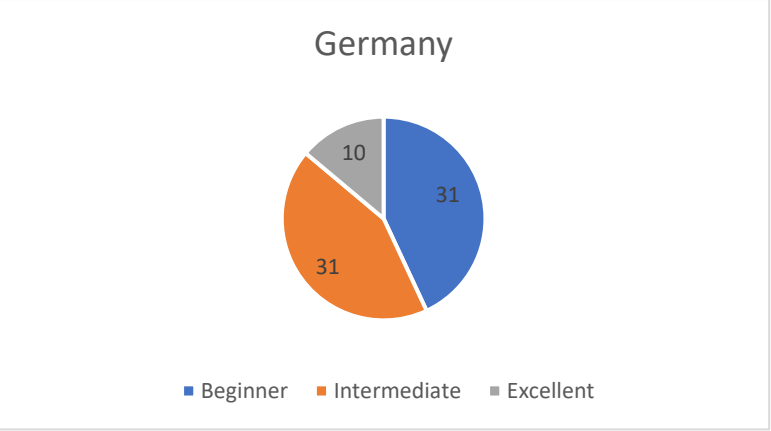
Safety









Compared to the other areas of competence, the area of **Safety** seems to be the one where in Italy and Bulgaria the majority of respondents are on **Beginner level** (**Italy: 59%; Bulgaria: 63%).** 43% of German respondents are also on the Beginner level as much as the ones on the Intermediate level (largest percentage in this level among all countries considered). Finally, Austria has the largest percentage of respondents among all the countries of the survey on **Excellent level** (19%).

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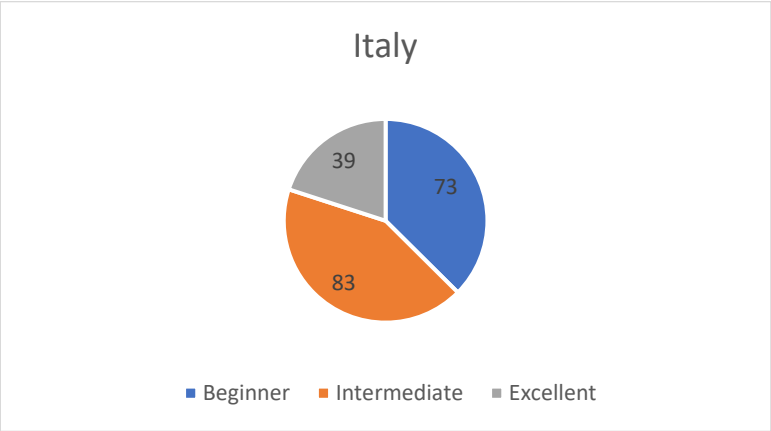
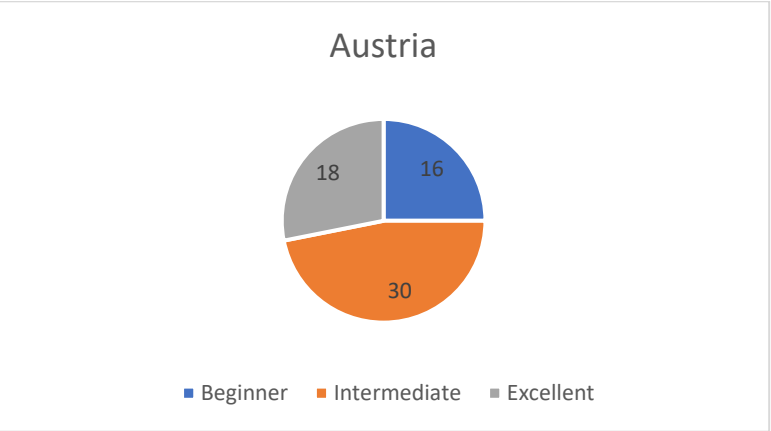
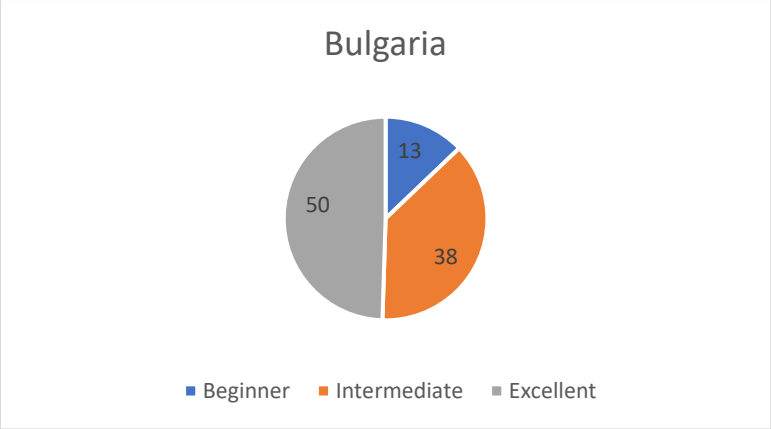
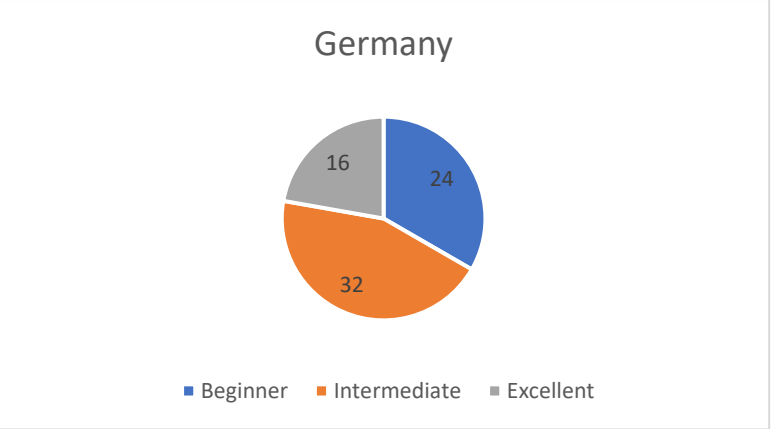
Problem solving









On the area of **Problem Solving**, 50% of the Bulgarian respondents are on the Excellent level, the largest percentage compared to the other percentage related to this level on the other countries. On the other hand, 37% of Italian respondents are on the Beginner level, whilst the largest percentage on the Intermediate level is in Austria (47%). Germany is in between all of these figures, keeping average results in all levels (Beginner: 33%; Intermediate: 44%; Excellent: 22%).

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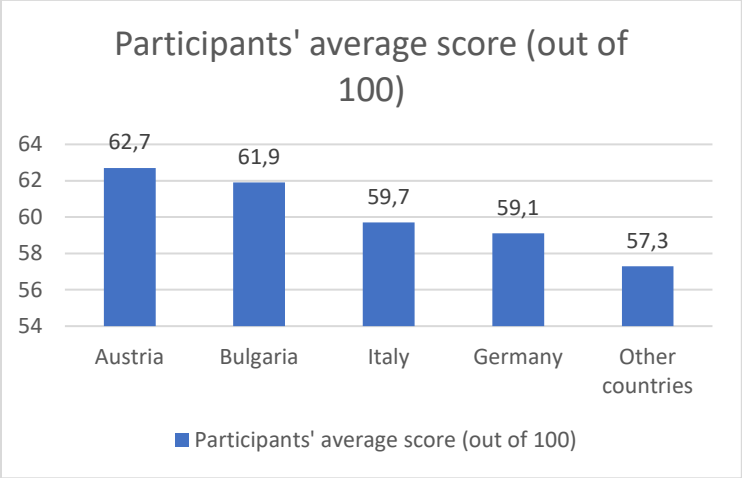
General average score

Looking at the overall score from all the respondents, participants' average score taking into consideration all the countries was of **60.5** out of 100 (that is **Intermediate Level**):



Looking at the average score in details, it can be seen as the lowest average of results has been achieved in Germany, whilst Austria has a higher average among all the countries taken into consideration, followed by Bulgaria. The results of Austria can be explained given the largest percentage reached by the Austrian respondents in the area of Digital Content Creation and Communication and Collaboration as well as a good average around the 30% and 40% in the Intermediate level in almost all the other areas of competences. Regarding Germany, the lowest average can be explained by the percentage of the respondents in the area of Beginner level regarding both Safety and Problem Solving.

In the next pages, for each area of competences the average score per country will be shown:

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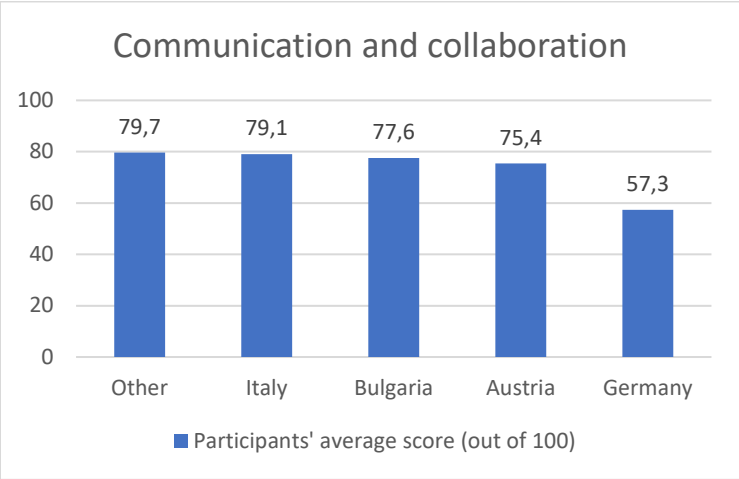

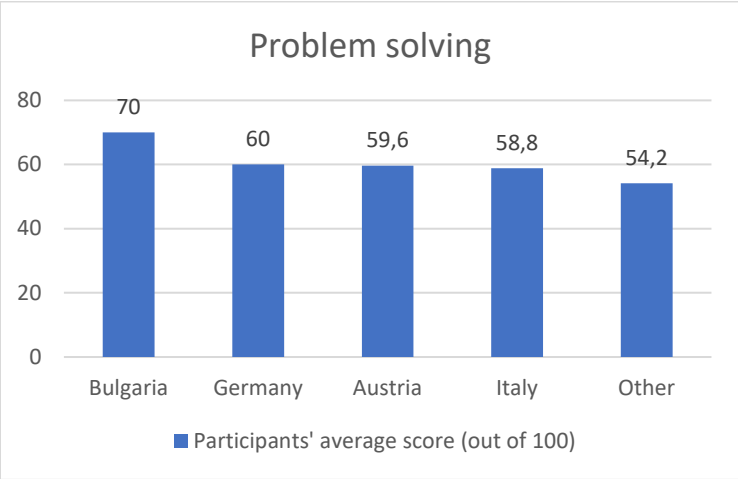

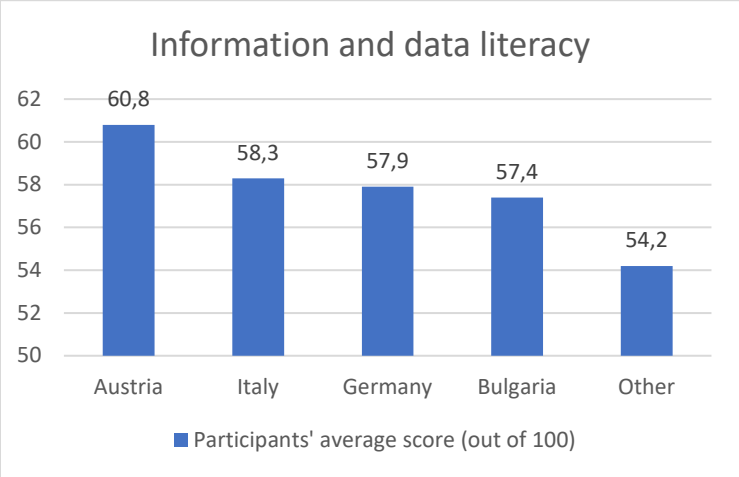

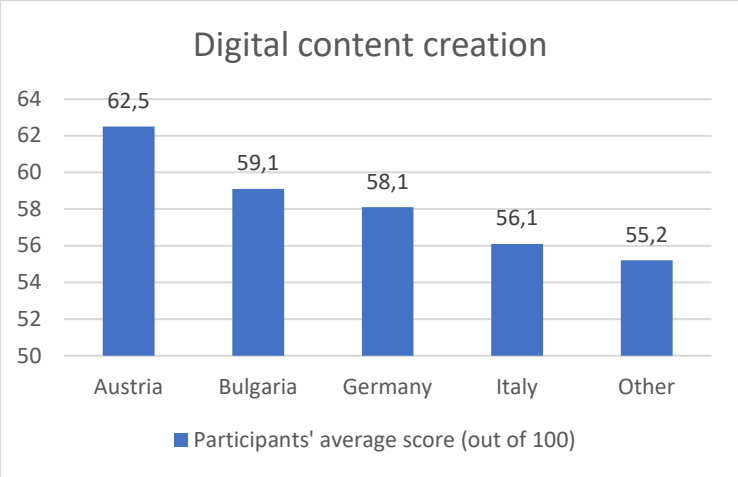

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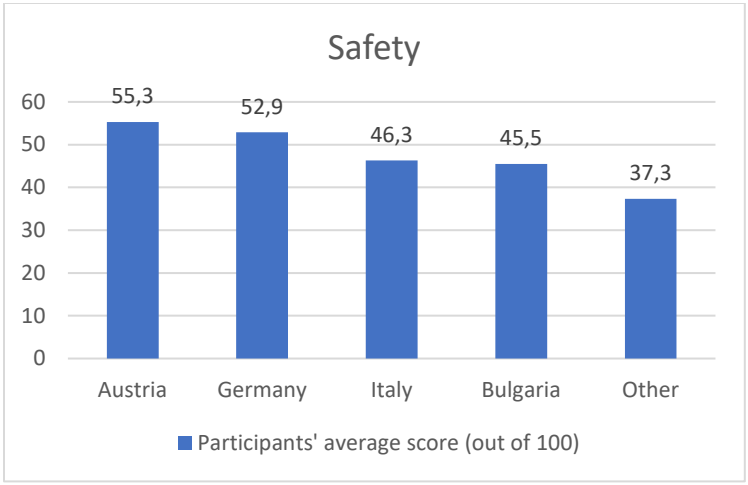

Here below, the table summarizes for each area of competences the country with the highest and lowest average score:

Area of competences	Country with highest average score	Country with the lowest average score
Information and Data Literacy	*Austria*	*Bulgaria*
Communication and Collaboration	*Italy*	*Germany*
Digital Content Creation	*Austria*	*Italy*
Safety	*Austria*	*Bulgaria*
Problem Solving	*Bulgaria*	*Italy*

This can be a crucial suggestion for the national implementation for some countries, thus deepening some topics compared to others given the lack of skills and/or awareness on certain areas of the DigComp at national level.

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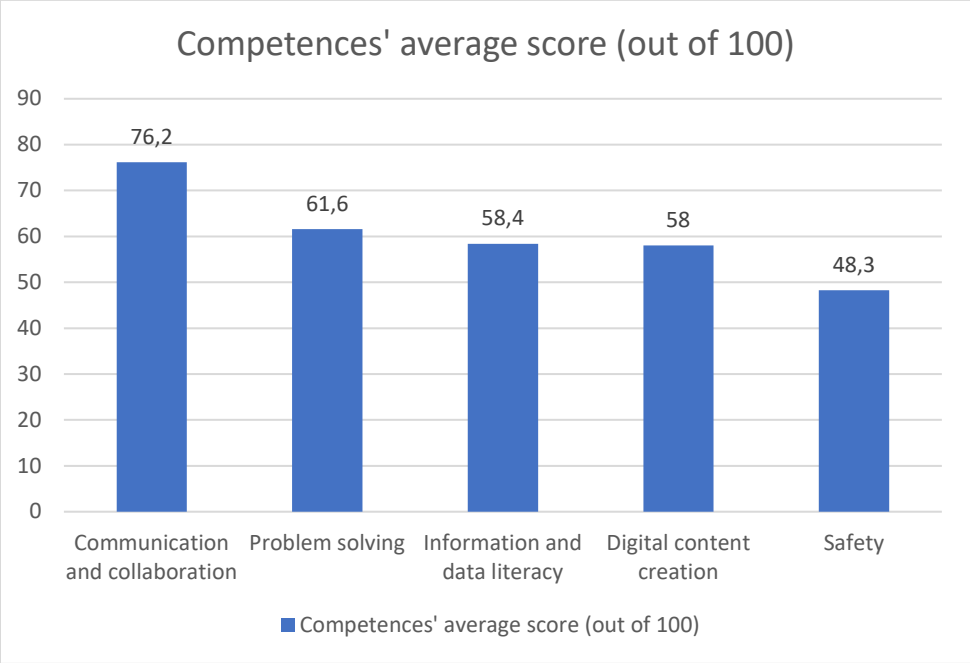
Lastly, if we were to rank the five area of competences from the least to the most mastered by the 440 participants, **"Communication and Collaboration**" would be on top while "**Safety**" would be placed at the bottom.



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Conclusion

According to the grid's results, 304 out of 440 Italian, Bulgarian, Austrian and German career counsellors self-**assessed themselves as intermediate** with regards to their digital skills at work. 75 rated themselves as beginners while 48 only as excellent. The **average score was in fact of 60 out of 100** (and the "intermediate" range was between 50 and 75), with Austrians scoring the highest score (62), followed by Bulgarians (61), Italians and Germans (59).

On average the participating career counsellors considered their digital ***Communication and Collaboration*** **skills as excellent** (76 out of 100). While they assessed themselves as intermediate with regards to their digital skills in ***Problem solving*** (61), ***Information and data literacy*** and ***Digital content creation*** (58). Lastly, they assessed their knowledge of digital ***Safety*** as *beginners* (48).

These findings reflect the observations registered during the focus groups held in Austria, Italy, Bulgaria and Germany with 31 professionals and 8 clients. Participants in the focus groups considered online supervision of clients' progress as difficult. They expressed the desire to learn how to upskill clients' digital literacy, and learn which platforms are used by their audience.

Focus groups revealed knowledge gaps within the grid's categories that scored intermediate and beginner scores (**Safety**, **Digital content creation** and ***Information and data literacy***): counsellors feel behind with netiquette, data security requirements, online presentation skills and assessment of clients' needs. They also shared their willingness to improve their knowledge of data storage, interactive exercises for career planning, gamification and content creation (video presentations, mind maps, infographics, etc.)

These results are necessary for shaping and setting priorities for the Project Result 2 - *OCCAY Hybrid Flexi Course for career counsellors*. Data from focus groups and the self-assessment grid in fact represent the basis for a practical and interactive Hybrid Flexi Course. As participants themselves have stated, an efficient course for career counsellors should include practice-related cases, interactive exercises and methods and peer-to-peer learning/support/ supervision. It should allow flexibility and integrate more attractive and diverse digital tools as well as game-based approaches. In other terms it has to be a pool of creative and innovative online tools and resources.

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Carretero Gomez, S., Vuorikari, R. and Punie, Y., DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use, EUR 28558 EN, Publications Office of the European Union, Luxembourg, 2017, ISBN 978-92-79-68006-9 (pdf),978-92-79-68005-2 (print),978-92-79-74173-9 (ePub), doi:10.2760/38842 (online),10.2760/836968 (print),10.2760/00963 (ePub), JRC106281.

Vuorikari, R., Kluzer, S. and Punie, Y., DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes, EUR 31006 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-48883-5, doi:10.2760/490274, JRC128415.

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Annex 1

The main source of the following text is taken from: https://joint-research-centre.ec.europa.eu/digcomp/digcomp-framework_en . Please, check the reference of the documents to see the 2 main documents of reference which have been crucial for the development of the self-assessment grid.

The DigComp framework identifies the key components of digital competence in 5 areas (Dimension 1). The areas are summarised below:

1. **Information and data literacy**: To articulate information needs, to locate and retrieve digital data, information and content. To judge the relevance of the source and its content. To store, manage, and organise digital data, information and content.
2. **Communication and collaboration**: To interact, communicate and collaborate through digital technologies while being aware of cultural and generational diversity. To participate in society through public and private digital services and participatory citizenship. To manage one's digital presence, identity and reputation.
3. **Digital content creation**: To create and edit digital content To improve and integrate information and content into an existing body of knowledge while understanding how copyright and licences are to be applied. To know how to give understandable instructions for a computer system.
4. **Safety**: To protect devices, content, personal data and privacy in digital environments. To protect physical and psychological health, and to be aware of digital technologies for social well-being and social inclusion. To be aware of the environmental impact of digital technologies and their use.
5. **Problem solving**: To identify needs and problems, and to resolve conceptual problems and problem situations in digital environments. To use digital tools to innovate processes and products. To keep up-to-date with the digital evolution.

There are **21 competences** that are pertinent to these areas, their titles and descriptors are outlined in Dimension 2. Taken together, **Dimension 1 and 2 form the conceptual reference model**.

The competences are the following ones:

1. Information and data literacy

1.1 Browsing, searching and filtering data, information and digital content

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

1.2 Evaluating data, information and digital content

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

1.3 Managing data, information and digital content

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

2. Communication and Collaboration

2.1 Interacting through digital technologies

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

2.2 Sharing through digital technologies

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

2.3 Engaging in citizenship through digital technologies

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

2.4 Collaborating through digital technologies

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

2.5 Netiquette

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

2.6 Managing digital identity

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

3. Digital Content Creation

3.1 Developing digital content

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

3.2 Integrating and re-elaborating digital content

To modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge.

3.3 Copyright and licences

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To understand how copyright and licences apply to data, information and digital content.

3.4 Programming

To plan and develop a sequence of understandable instructions for a computing system to solve a given problem or perform a specific task.

4. Safety

4.1 Protecting devices

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 due regard to reliability and privacy.

4.2 Protecting personal data and privacy

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.

4.3 Protecting health and well-being

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.

4.4 Protecting the environment

To be aware of the environmental impact of digital technologies and their use.

5. Problem Solving

5.1 Solving technical problems

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

5.2 Identifying needs and technological responses

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

5.3 Creatively using digital technologies

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

5.4 Identifying digital competence gaps

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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.

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