



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

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Short Description:

The main objective of the Output O2 “Initial assessment: the Greatest Common Denominator Skills Matrix” is

“to develop knowing in deep the different targets (direct and indirect users) needs in the different Countries involved. The main goal of this output is to collect and analyze data in order to produce the ‘Greatest Common denominator skills matrix’. The matrix will set skills standards among target groups and Countries. It will allow to reshape and rethink entrepreneurial training in order to produce an educational package to be used in all European Countries by all project's target Groups”.

The following deliverable provides the key input to the development of the business game on “innovation / entrepreneurship competences”, as well as methodological considerations for the initial assessment study. The deliverable contains the outputs of the sub-activities O2-1 (assessment design), O2-2 (survey delivery), O2-3 (focus groups) and O2-4 (data analysis).

List of Recipients:

Teachers, trainers, mentors and anybody involved in learning processes.





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1. Introduction

The key input to education and training is the specification of competences / learning outcomes for specific target groups. In this deliverable, we provide empirical input to this perspective based on a comprehensive study across stakeholders in Europe.

The main objective of the Output O2 “Initial assessment: the Greatest Common Denominator Skills Matrix” is

“to develop knowing in deep the different targets (direct and indirect users) needs in the different Countries involved. The main goal of this output is to collect and analyze data in order to produce the ‘Greatest Common denominator skills matrix’. The matrix will set skills standards among target groups and Countries. It will allow to reshape and rethink entrepreneurial training in order to produce an educational package to be used in all European Countries by all project’s target Groups”.

The following deliverable provides the key input to the development of the business game on “innovation / entrepreneurship competences”, as well as methodological considerations for the initial assessment study. The deliverable contains the outputs of the sub-activities O2-1 (assessment design), O2-2 (survey delivery), O2-3 (focus groups) and O2-4 (data analysis).

We firstly define the key concepts such as competences and provide a short review of the literature related to innovation and entrepreneurship competences. Based on this review, we show the methodology and describe our empirical work. The main section describes the results of the study, followed by recommendations for the design of the business game. We close this deliverable with an outlook to potential future activities in the area.

1.1 Background

In the following, we briefly describe the context of this deliverable, i.e., how this deliverable is anchored within the overall project objectives and activities: The project PLAY4GUIDANCE helps develop basic entrepreneurial and transversal skills; after taking part in P4G, we expect participants to be aware of business reality’s complexity. They will understand what carrying on a business means and what kind of skills are needed. In particular, taking part in P4G, participants will develop:





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- Basic business economics skills: for example, they will learn how to manage a warehouse, workers, supplies, production, sales, and resources in order to pay salaries and provide training for workers, as to invest in technologies
- Basic mathematical skills: participants will have to practice and improve basics maths (work on low level skills) to support management thinking
- Problem solving skills: P4G works importantly on high level skills, like data analysis and critical thinking
- Leadership skills: as a consequence of, but not limited to, team working, participants will understand and be more aware of what is like working and taking group decisions under stress given by the simulated competition (on the market, in the game itself) and the “direct” competition between teams. Team working will help participants to work on leadership skills like listening and considering everyone’s opinion, being assertive, persuading and motivating, mind flexibility, learning from failure and accepting responsibilities for mistakes and wrong decisions.

These initial skills need to be refined for specific target groups (e.g. students, unemployed) and adapted to the needs and requirements of users in the different target countries (cf. Pawlowski & Holtkamp, 2012). For this purpose, we have planned and executed an empirical study to explore competences in the domain and to refine the above described competences.





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2. Background

In this chapter, we provide a brief definition of the key concepts used in this deliverable. We also describe the key results of the literature review (O1-1).

There are three contributing component domains to the project in general: Education about business, Competences and Dispositions, Learning through (computer) games and simulations. Each of these areas has a rich collection of research literature. In this deliverable, we focus on competence-related aspects, other areas will be included in the corresponding output.

2.1 Competences

Competences are discussed in different domains from different perspectives. Correspondingly, there are different definitions in use so that there is no common understanding of the concept “competences”. To clarify our view, we define the key characteristics of competences and the consequences for the project design.

As a basic definition, we define competences as a “collection of skills, abilities, and attitudes to solve a problem in a given context” (cf. Pawlowski & Holtkamp, 2012). This definition indicates that competences are dependent on the context which can consist of different aspects such as

- Cultural context contains aspects such as country- or regional characteristics
- Organizational context contains aspects such as different branches, sectors or organizational characteristics
- Professional context contains aspects such as different qualification / competence levels (e.g. Higher Education, Professional Education).

This context dependence means that for each competence, three aspects need to be specified:

1. Which skills, abilities, and attitudes constitute the competence?
2. Which problems should be solved?
3. For which context (cultural, organizational, professional) a competence is valid?

Additionally, it is necessary to:

1. Develop a common vocabulary to describe competences, problems and contexts
2. To define proficiency levels for each competence.





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As a starting point for a common vocabulary, we recommend the use of the following description scheme (Paquette, 2007).

Generic Skills Classes			Active meta-knowledge (Pitrat)	Generic problems (KADS)	Cognitive objectives (Bloom)	Skills cycle (Romiszowski)
1	2	3				
Receive	1. Acknowledge					Attention
	2. Integrate	2.1 Identify 2.2 Memorize			Memorize	Perceptual acuteness and discrimination
Reproduce	3. Instantiate / Specify	3.1 Illustrate 3.2 Discriminate 3.3 Explain	Knowledge Search and Storage		Understand	Interpretation
	4. Transpose / Translate					Procedure Recall
	5. Apply	5.1 Use 5.2 Simulate	Knowledge Use and Expression		Apply	Schema Recall
Produce / Create	6. Analyze	6.1 Deduce 6.2 Classify 6.3 Predict 6.4 Diagnose	Knowledge Discovery	Prediction, Supervision, Classification, Diagnosis	Analyze	Analysis
	7. Repair			Repair		Synthesis
	8. Synthesize	8.1 Induce 8.2 Plan 8.3 Model / Construct		Planning, Design, Modeling	Synthesize	
Self-manage	9. Evaluate		Knowledge Acquisition			Evaluation
	10. Self-control	10.1 Initiate / Influence 10.2 Adapt / control				Initiation, Continuation, Control

Figure 1: Competence Descriptions (Paquette, 2007)

Based on these initial considerations, it becomes essential for the project P4G and the empirical exploration of the “Greatest Common Denominator Skills Matrix” to:

- Develop a set of Generic Competences for Entrepreneurship for all countries and contexts
- Explore specific competence needs for each country and target group (Competence Profiles).



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These considerations are the central assumptions for the design of the assessment study in the project. We will explore generic competences and analyse how competences differ for various contexts.

2.2 Entrepreneurship Competences

A variety of studies have explored the field and also proposed competence descriptions for the fields of entrepreneurship. A variety of different concepts relates to the tasks (?) to be a successful entrepreneur. One issue, which is closely related, is the field of innovation, i.e., an entrepreneur needs to be able to create innovations including accessing markets (Morris et al. 2013). Thus, our literature review contains both, entrepreneurship and innovation competences.

In the following, we present exemplary approaches which were chosen based on clear selection criteria for inclusion in the deliverable:

- Clarity: The paper is clearly described and provides a clear definition of each competence.
- Understandability: Competences are described in an understandable and assessable way
- Empirical basis: The competences are derived in empirical studies and / or validated
- Comprehensiveness: The specification covers the full range of competences, not just one specific detailed competences area (e.g. communication)
- Context similarity: The context of the competence specification is close to the context of P4G, i.e. for start-ups, students and / or unemployed.

As a first result, we can state that no commonly accepted standard has been developed. Therefore, we present selected approaches which have been analyzed in the literature review. We present exemplary approaches to show the variety of competence descriptions regarding their scope, methodology and level of detail / abstraction.

A starting point is the literature review by Mitchelmore & Rowley (2010). It provides a comprehensive study on possible competences synthesized from previous research and publications.





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Entrepreneurial competencies	Identification and definition of a viable market niche Development of products of services appropriate to the firms chosen market niche/product innovation Idea generation Environmental scanning Recognising and envisioning taking advantage of opportunities Formulating strategies for taking advantage of opportunities
Business and management Competencies	Development of the management system necessary for the long term functioning of the organisation Acquisition and development of resources required to operate the firm Business operational skills Previous involvement with start-ups Managerial experience Familiarity with industry Financial and budgeting skills Previous experience Management style Marketing skills Technical skills Industry skills The ability to implement strategy (development programmes, budgets, procedures, evaluate performance) Familiarity with the market Business plan preparation Goal setting skills Management skills



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Human relations competencies	Development of the organisational culture management feel is necessary to guide the firm Delegation skills The ability to motivate others individual and in groups Hiring skills Human relations skills Leadership skills
Conceptual and relationship competencies	Conceptual competencies Organisational skills Interpersonal skills The ability to manage customers Mental ability to coordinate activities Written communication skills Oral communication skills Analytical skills Logical thinking skills Deal making skills Commitment competencies

Figure 2: Entrepreneurial Competences (Mitchelmore & Rowley, 2010)

This competence description covers core entrepreneurial competences as well as related competences. However, it is based on a synthesis of previous papers and does not provide prioritizations. Additionally, no competence levels are provided. As the authors mention themselves, it is necessary to understand which competences are useful in which context.

As a second comprehensive approach, Morris et al (2013) specify detailed competence descriptions for business as well as personal / social competences:

“1. Opportunity Recognition: the capacity to perceive changed conditions or overlooked possibilities in the environment that represent potential sources of profit or return to a venture





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2. Opportunity Assessment: ability to evaluate the content structure of opportunities to accurately determine their relative attractiveness
3. Risk Management/Mitigation: the taking of actions that reduce the probability of a risk occurring or reduce the potential impact if the risk were to occur
4. Conveying a Compelling Vision: the ability to conceive an image of a future organizational state and to articulate that image in a manner that empowers followers to enact it
5. Tenacity/Perseverance: ability to sustain goal-directed action and energy when confronting difficulties and obstacles that impede goal achievement
6. Creative Problem Solving/Imaginativeness: the ability to relate previously unrelated objects or variables to produce novel and appropriate or useful outcomes
7. Resource Leveraging: skills at accessing resources one does not necessarily own or control to accomplish personal ends
8. Guerrilla Skills: the capacity to take advantage of one's surroundings, employ unconventional, low-cost tactics not recognized by others, and do more with less
9. Value Creation: capabilities of developing new products, services, and/or business models that generate revenues exceeding their costs and produce sufficient user benefits to bring about a fair return
10. Maintain Focus yet Adapt: ability to balance an emphasis on goal achievement and the strategic direction of the organization while addressing the need to identify and pursue actions to improve the fit between an organization and developments in the external environment
11. Resilience: ability to cope with stresses and disturbances such that one remains well, recovers, or even thrives in the face of adversity
12. Self-Efficacy: ability to maintain a sense of self-confidence regarding one's ability to accomplish a particular task or attain a level of performance
13. Building and Using Networks: social interaction skills that enable an individual to establish, develop and maintain sets of relationships with others who assist them in advancing their work or career."

This framework is rather comprehensive but merges different competences so that these are complex to assess. Also, domain specific competences such as communication are not included which are frequently discussed in other sources.





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A further meta-analysis has been done by Jain (2011) focusing on entrepreneurship motives and characteristics which can be seen as competences:

- “Achievement Motivation (Need for Achievement)
- Need for Independence/Autonomy/Personal Control
- Need for Personal Growth and Development
- Need for Social Recognition and Respect
- Need for Social Security and Greater Comfort for the Self and Family
- Need for Money/Wealth
- Need for Enjoying Creative, Innovative and Path-breaking Work, etc.
- Innovativeness
- Creativity
- Proactivity
- Risk-taking Propensity
- Internal Locus of Control
- Self-efficacy
- Tolerance for Ambiguity
- Social Intelligence
- Extraversion
- Miscellaneous Competencies
- Personal and Family Background”, Jain (2011)

While this analysis is comprehensive, it does not describe the specific competences in detail and is thus not usable without interpretation bias.

Also, very practical advice exists. As an example, Cooney (2012) connects competence descriptions with guidance for application when starting a business, including the following categories:

- Technical Skills - which are those skills necessary to produce the business's product or service;
- Managerial Skills, which are essential to the day-to-day management and administration of the company;
- Entrepreneurial Skills - which involve recognizing economic opportunities and acting effectively on them;
- Personal Maturity Skills - which include self-awareness, accountability, and emotional skills.

This kind of research is not methodologically sound, however, the practice orientation can help to design scenarios for our business game.

Further models are considered by industry consortia such as the Consortium for Entrepreneurship Education (2014). These models aim at providing guidance for education and are usually based on experts and – methodologically – good practices.



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Also, different empirical approaches have been conducted. As an example, Izquierdo & Deschoolmeester (2010) have derived the following competences:

- “Decision making
- Innovative thinking
- Identifying and solving problems
- Having a different view of the market
- Communication
- Deal making and negotiation
- Identifying business opportunities
- Evaluating business opportunities
- Networking
- Team work
- Team building
- Intuitive thinking
- Coping with uncertainties
- Coping with stress
- Taking calculated risk”

While the analysis is also rather comprehensive, this study is related to undergraduate students and might not be transferable to other contexts and target groups.

As a final study, Wu (2009) has conducted expert interviews to determine important entrepreneurial competences:

“1. Analytical Thinking: the ability to analyze problems systematically.

2. Business Acumen: the ability to discover opportunities and transform resources into performance.

3. Client Service Orientation: the ability to meet the needs of both internal and external customers.

4. Commitment to Learning: the ability to actively pursue learning and develop competitiveness.

5. Communication: the ability to effectively receive and express information or feelings.

6. Conceptual Thinking: the ability to recognize patterns or trends in a problem.

7. Order and Quality: the ability to reduce uncertainty and to control quality.

8. Developing Others: the ability to help others make progress.

9. Empathy: the ability to understand and respond to the concerns of others.

10. Expertise: the ability to perform professional jobs.





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11. Flexibility: the ability to effectively adapt to a variety of situations.
12. Influence: the ability to influence thoughts and actions of others.
13. Information Seeking: the ability to capture enough information to increase knowledge or find solutions.
14. Initiative: the ability to be a self-starter and to meet the challenge of higher level objectives.
15. Innovation: the ability to make something new and to improve performance.
16. Organizational Awareness: the ability to recognize the power relationships in organizations.
17. Personal Motivation: the will to succeed and offer service.
18. Relationship Building: the ability to build and maintain personal networks.
19. Results Orientation: the ability to set performance objectives and measures.
20. Self-Confidence: the ability to express oneself in a hostile situation.
21. Self-Control: the ability to manage one's emotions under pressure or temptation.
22. Team Leadership: the ability to create a favorable environment and mobilize people to succeed.
23. Verbal and Written Communication: the ability to speak and write satisfactorily."

This study has an appropriate level of detail and abstraction and is very comprehensive and well described. As only few studies are based on empirical work, are not suitable for our context, or are poorly understandable, we have chosen this approach as the basis for our further work. This choice does not limit us to the competences proposed by Wu (2009) – the categories are mainly a starting point for further exploration, prioritization and validation.

2.3 Relating competences to gaming

One main aspect of the project is to transform / map competences needed to the business game. For this purpose, we show how competences relate to issues and achievements in serious games. The competences of P4G are derived by Michelmores & Rowley (2010) and Wu (2009). The second list is based on Mark Prensky's (2003) interpretation of James Paul Gee's (2003) "What we learn from Computer Games". The third list is representative of those who are promoting a competence based approach to learning, which is exemplified by Guy Claxton's (2002) work in "Building Learning Power". There are other approaches, including the work of the Epistemic Games Group working at University of Wisconsin with David W Shaffer. There is a short discussion of this work below the table.





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Play 4 Guidance Survey Competences	“What we learn from Computer Games”, JP Gee	“Building Learning Power”, Guy Claxton
Analytical Thinking: The ability to analyze problems systematically.	Watching their own behaviour Mastering game language Doing, thinking and strategizing	Reflectiveness, Questioning, Imagining, Planning, Revising, Making links, Reasoning, Distilling
Business Acumen: The ability to discover opportunities and transform resources into performance.	Doing and reflecting Doing, thinking and strategizing Mastering upfront things needed later	Resourcefulness, Absorption, Noticing, questioning, making links, imagining,
Client Service Orientation: The ability to meet the needs of both internal and external customers.		Reciprocity, interdependence, collaboration, empathy and listening, capitalising, imitation
Commitment to Learning: The ability to actively pursue learning and develop competitiveness.	Getting more out than what they put in Having to master new skills at each level Thinking about the game and how they learn	reflectiveness, absorption, managing distractions, questioning, reasoning, revising
Communication: The ability to effectively receive and express information or feelings.		Empathy and Listening
Conceptual Thinking: The ability to recognize patterns or trends in a problem.	Appreciating good design Seeing interrelationships Relating the game world to other worlds Discovering meaning Understanding how knowledge is stored Applying learning from problems to later ones	Resourcefulness, questioning, making links, imagining, reasoning, capitalising, distilling
Order and Quality: The ability to reduce uncertainty and to control quality.	Taking risks with reduced consequences Experiencing tasks being neither too easy nor too hard.	Imagining, reasoning, planning, revising
Developing Others: The ability to help others make progress.	Sharing with other players Helping others and modifying games, in addition to just playin	Reciprocity, interdependence, collaboration, empathy and listening, capitalising, imitation



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Play 4 Guidance Survey Competences	“What we learn from Computer Games”, JP Gee	“Building Learning Power”, Guy Claxton
Empathy: The ability to understand and respond to the concerns of others.	Relating the game world to other worlds	Reciprocity, interdependence, collaboration, empathy and listening, imitation, noticing
Expertise: The ability to perform professional jobs.	Mastering game language	Reflectiveness, Questioning, Imagining, Revising, Making links, Reasoning, Distilling
Flexibility: The ability to effectively adapt to a variety of situations.	Thinking Intuitively Being encouraged to practice Repeating until you get better	planning, revising, reflectiveness, perseverance,
Influence: The ability to influence thoughts and actions of others.	Being Part of the gaming world	Reciprocity, interdependence, collaboration, empathy and listening, capitalising, imitation, making links
Information Seeking: The ability to capture enough information to increase knowledge or find solutions.	Mastering game language Reading in context Relating Information Meshing information from multiple media Receiving information when needed	Resourcefulness, Absorption, Noticing, questioning, making links, imagining,
Initiative: The ability to be a self-starter and to meet the challenge of higher level objectives.	Taking risks with reduced consequences Having to master new skills at each level	Resilience, absorption, managing distractions, imitation, perseverance
Innovation: The ability to make something new and to improve performance.	Trying rather than following instructions	questioning, making links, imagining, capitalizing
Organizational Awareness: The ability to recognize the power relationships in organizations.	Seeing interrelationships Reading in context Doing, thinking, strategising	Noticing, distilling, making links
Personal Motivation: The will to succeed and offer service.	mastering game language Putting in effort because they care Watching their own behaviour Being reward for achievement	Absoption, resilience, perseverance



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Play 4 Guidance Survey Competences	“What we learn from Computer Games”, JP Gee	“Building Learning Power”, Guy Claxton
Relationship Building: The ability to build and maintain personal networks.	Sharing with other players Helping others and modifying games, in addition to just playing Being part of the game world	Reciprocity, interdependence, collaboration, empathy and listening, imitation
Results Orientation: The ability to set performance objectives and measures.	Being encouraged to practice	Planning, collaborating, capitalizing
Self-Confidence: The ability to express oneself in a hostile situation.		Resilience, resourcefulness, reflectiveness
Self-Control: The ability to manage one's emotions under pressure or temptation.		Absorption, managing distractions, perseverance, meta learning
Team Leadership: The ability to create a favorable environment and mobilize people to succeed.	Combining multiple identities Helping others and modifying games, in addition to just playing	reciprocity, interdependence, collaboration, empathy and listening, capitalising, imitation
Verbal and Written Communication: The ability to speak and write satisfactorily.		
	Practice in a simplified setting	
	Repeating until you get better	
	Being lead from easy problems to harder ones	
	Thinking about Games and their culture	

The table shows some general relations between competences and gaming characteristics. In the game-related outputs, the competences found in this study should thus be mapped to gaming characteristics and situations to derive requirements and gaming situations.

The main findings from the literature suggest that there are many competences, which can be developed through gaming, such as motivation, confidence, perseverance, risk-taking and





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problem-solving (Gee, 2007a; Prensky, 2003; Eseryal et al. 2014). Relationship building is also an important feature in game-based learning, as players relate to one another and as members of an online community (Gee, 2007a). In order for competences to be realized however it is important that players are challenged at the right level to scaffold motivation and engagement (Prensky, 2003; Eseryal et al. 2014). Player motivation and engagement are essential for developing complex problem solving competences (Eseryal et al. 2014).

The P4G project itself is a computer-based simulation in which 'A computer model attempts to reflect the basic dimensions of a business environment, and the students vie either against each other or against a set of computer competitors to achieve success in the simulated marketplace' (Anderson and Lawton, 2009, p.194). A situated problem-solving environment is particularly effective in game-based learning (Gee, 2007b) and various competences can be developed through cognitive processing and complex problem solving. Problem solving however is also dependent on the problem solver's motivation (Eseryal et al. 2014). The study by Eseryal et al. (2014) further suggests that an environment should be provided whereby learners have various opportunities to make autonomous choices, as well as providing various feedback mechanisms within the game for developing the player's sense of competence (Eseryal et al. 2014). Therefore three specific interactions are recommended for supporting competences during the design of educational games:

- 1) Interface interactivity, which refers to the direct interaction between players and game systems;
- 2) Narrative interactivity, which refers to the interaction between the players and the storyline;
- 3) Social interactivity, which refers to the communication and collaboration between human players (Eseryal et al. 2014, p. 50)

Research carried out by Professor David W. Schaffer and the Epistemic Games group in the University of Wisconsin shows how an evidence-centered design can address the challenge of assessment in digital learning environments (Shaffer et al. 2009). Such an approach involves players acting out roles in professions with a visible epistemic structure e.g. businessman, town planner etc. through computer mediated scenarios. Thus, these games encourage the player to 'behave' in role within the epistemic frames of those roles. At the highest level of abstraction these assessments focus on making the right decisions based on the evidence gathered. Thus gathering and judging evidence and then solving a problem based on the evidence is their way forward. An approach, which tries to detail behavior of 'professionals', as in P4G, can benefit from addressing some of the ideas followed by the Epistemic Games group. It is however difficult to combine this approach with a list of competences.





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2.4 Summary

Our analysis has shown that there is a variety of competence descriptions of which none has reached a level of maturity that it can serve as a competence standard. Therefore, it is still necessary to analyze 1) which competences are necessary for entrepreneurs (extending / ranking existing schemes) and 2) which competences are important for certain contexts (e.g. specific target groups or markets / countries). This finding has guided our project methodology which is described in the following chapter.





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3. Methodology

As shown in the previous chapter, our research question is still in an explorative stage, i.e., there is no theory or standard set of competences to assess in the domain. Therefore, we have applied as it is necessary to further explore the domain. We apply a mixed method approach (Johnson & Onwuegbuzie, 2004; Venkatesh et al, 2013) consisting of a qualitative (explorative) and quantitative (prioritization) methods. The method to develop the Common Denominator Skills Matrix consists thus of three steps 1) Initial Literature review, 2) survey, and 3) focus groups. In detail, the phases are conceptualized as following:

3.1 Stages of the assessment

Literature Review

The review builds the initial base for the focus group and survey assessment. It is based on common principles of literature reviews (cf. Fink, 2005). Therefore the core aims of the review were to:

- 1) Identify key competences for entrepreneurship and
- 2) Harmonize current findings towards an initial version of the skills matrix.

As part of the literature review, we identified competence categories and an initial competence scheme as a basis for the survey and the related prioritization. Methodologically, it serves also as a basis to define variables which are used in the quantitative survey (Pinsonneault & Kraemer, 1993).

Focus Groups

The focus group (Kitzinger, 1995) builds upon the findings of the literature review. In this regard the results should

- 1) Validate the competence scheme developed in the literature review and
- 2) Develop competence profiles for each target group and country
- 3) Ensure engagement and commitment of participants for the forthcoming project P4G.

From the project description, it was defined that 3 focus groups will be carried out in each project country. The focus groups will be divided according to the target group:

- 1 FG for high schools and university students (direct target groups)
- 1 FG for unemployed (direct target groups)
- 1 FG for Teachers, staff of companies, employment centers and/or centers for guidance (indirect target groups)

Though the questions may vary among each target group, a common structure was used:





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1. Introduce the project, goals and the method of focus groups
 - This includes outlining which topics will be addressed, intended time the meeting this day will take)
2. Conduct a task so participants can get to know each other
 - Particularly important in the case that the participants are unknown to each other. The task can be related to introduce themselves and their perspective on the topic (“entrepreneurship and games” like in our kick off meeting)
3. Start discussing the question sets
 - Topic A: Competences in the knowledge domain of entrepreneurs
 - Topic B: Interventions to reach entrepreneurial competences (the topic B may include specific questions as to how a game can lead to acquire these competences)
4. Thank participants and outline the next steps.
 - For P4G this means prepare to participants/or ask, if they are ok to distribute the forthcoming survey. Also ask if they expect to receive the results of the workshop analysis, or if they have open questions

Apart from a coherent structure, the focus group moderators in each country documented the results in a common manner. Firstly, a transcription of the focus group sessions was made. Secondly, the analysis of the focus groups shall was synthesized.

Survey

The survey (Pinsonneault & Kraemer, 1993) was the assessment methodology following the focus groups and literature review respectively. Accordingly, the aims were to

- 1) Validate and enable to prioritize the competences for each target group to identify priorities for the business game and
- 2) Identify missing competences and
- 3) Provide suggestions towards the games development and implementation.

With regard to these goals, the paradigm of the survey follows both, a confirmatory and exploratory approach. The survey was realized in all partner countries and thus translated based on a common questionnaire.

Summarizing our approach, we combine three methods to be able to 1) capture the state of the art, 2) explore (emerging) competences in the domain, 3) prioritize competences and 4) create recommendations for the business game development.

3.2 Data Analysis

Following the methodology outline of the last section it becomes clear that a coherent analytical (reporting) structure will unequivocally lay the ground for the data analysis in P4G. In this vein, it





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was essential that each partner provided results in a common format including an English translation in particular for open questions.

The first step was the analysis of the qualitative focus group data. Besides, the survey data was formatted and analyzed in detail: Based on the raw data, we synthesized the data (translated back to English as well as coded). The analysis was done using SPSS focusing on a descriptive perspective.





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4. Results Focus Groups

In the following, we present and discuss the results of our empirical phases. This leads to recommendations for the business game development.

The main idea of the focus groups was to explore which competences are relevant/important for different target groups in each country. In the following we describe the key results and issues emerging from the focus groups.

For each country three focus groups were run for 1) Unemployed, 2) Students, 3) Teachers, representing our key target groups. The focus groups' schedules had a homogenous structure. However, due to the explorative nature of the workshop and the different individuals and organizations represented, we allowed the flexibility to focus on certain issues of relevance for the participants.

We cluster and discuss the results using the overall classification of Cooney (2012) distinguishing 1) technical, 2) managerial, 3) entrepreneurial and 4) personal skills/competences.

In the following, we describe the key outcomes and additions to the competence scheme. We will first summarize the results and key findings (4.2.1). In order to support the local adaptation and represent local needs, we also describe the results by country in more detail (4.2.2ff). As a specific case, we have decided to describe the Greek case (NKUA) in more detail to show the specific needs and requirements which are given on the country level.

4.1 Summary

The focus groups allowed us to validate our initial proposal of competences which were chosen as an analysis scheme. As a first finding, we can state that all of the 23 competences were mentioned and discussed by the participants. Based on the empirical study, we extended the initial competence scheme by 1) adding competences which were focused by the participants and 2) adding an initial proficiency level specification. The extended scheme is the basis for further development of the P4G skills matrix which merges the different aspects addressed in the project.

Competences

Even though there was a different level of detail in the discussions of the different focus groups, we can state that several competences were found in all discussions. They might differ in the importance slightly but can be seen as very important for entrepreneurs:





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- Business acumen
- Innovation
- Professional competences
- Communication
- Team leadership
- Leadership

Beyond those competences, it can be stated that for each group different profiles could be found. Those are later discussed in the survey data.

As a second outcome, proficiency levels were outlined in the focus groups which can serve as a basis for further development. Usually, three levels (e.g. novice – average – expert) were described, also differing slightly between countries. Therefore, we have included those in the country reports.

Additional competences

One key goal of the focus group was to validate the initial competence scheme and to explore further possible competences. Here a variety of competences was mentioned. Several competence areas were discussed in more detail leading to interesting findings for the game development:

Personal / entrepreneurial competences: This category was discussed often in detail with new competences coming up on a more detailed level such as optimism, respect, honesty, or openness. One finding was that the affective dimension plays a very important role. One group emphasized the importance of “dreaming”. This shows that not only personal motivation but moreover attitudes play a very important role.

Managerial competences: This category was discussed in more detail than the initial description. Typical managerial skills were discussed and ranked highly amongst them: decision making, financial competences, or planning and forecasting. Thus, the business game should also include (or refer to) detailed management concepts.

Technical / thematic competences: This area is probably the broadest area. The discussions were showing that competences are needed depending on the sector / theme of innovation / business development. This includes market knowledge but also very specific knowledge on the domain of innovation. This might lead to difficulties when developing a generic training. It might be considered to develop different scenarios: first, in key sectors of innovation such as ICT but later also for specific sectors. The game should be adaptable for such thematic / sector-oriented extensions.





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Intermediate Conclusions

Summarizing the results, it can be stated that the above competences should be included in all scenarios of the business game to be developed. It seems important that different focuses are set regarding target groups (unemployed, students, and teachers) and countries as the results differ between those rather strongly. One focus of the game should be on affective skills such as optimism or even “dreaming”. This dimension has been neglected in previous research on entrepreneurial skills and corresponding training concepts. As a further recommendation, it might be advisable to create the game in an adaptable way, so that it can be extended regarding thematic/sector-oriented scenarios.

4.2 Greece (NKUA)

In the following, we present the results of Greece for the different target groups. To showcase the discussions and findings of the country reports, we have decided to illustrate one country report in detail. Three focus groups were conducted for all three target groups (n1=8, n2=3, n3=8).

Target group Unemployed

In the analysis, the data used derived from the worksheets that were filled in by the participants at the workshop as well as the collectively formulated competence table during the group discussion at the end of each activity/question elaboration. During the workshop all the attributes/knowledge aspects suggested by the participants were agreed to be included in the final table. However, during the clustering activity it was decided that some of them should be embedded into a more general competence in the form of the competence descriptive qualities. Overall there were ten competences suggested and agreed upon to structure the final competence table.

1. Managerial
2. Personal attributes
3. Financial dexterity
4. Creativity
5. Communicative
6. Knowledge/ Expertise
7. Work/act methodically
8. Taking risks
9. Innovation/Inventiveness
10. Observation



The first competence 'Managerial' was suggested by all participants (8/8) and was defined as the competence that an entrepreneur should possess in order to handle the management of business operations and the efficient organization of people. The embedded qualities attributed to this competency are the following: 1) business administration, 2) leadership, 3) team work, 4) organization and 5) cooperation. According to a participant the managerial competence is 'very important and involves knowledge on issues concerning the efficient operation of the business as well as hiring competent personnel'. In addition the descriptive examples that were provided by some participants for the particular competency are: In terms of bad performance the entrepreneur shows no organizational attitude; for average performance the entrepreneur has efficient organization in some sections but not all; and in terms of good performance the entrepreneur seems able to motivate, inspire others while guiding them. According to the 5-Likert scale used to rank the competences, the particular competence was overall ranked as very important (4) by 6 out of 8 participants, with only 2 out of 8 participants ranking it as absolutely essential (5). A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: 'An entrepreneur must know everything and be well informed on what happens in the business from the smallest detail to most important things' and 'His attitude and performance should be exemplary and also inspire the rest'.

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- The second competence 'Personal attributes' was again suggested by all participants (8/8) and was defined as the competence that refers to a number of qualities and attributes that an entrepreneur needs to possess: 1) willingness for self-improvement, 2) insight, 3) empathy, 4) patience, 5) persistence, 5) powerfulness, 6) flexibility, 7) decisiveness, 8) co operational. It was stressed by the participants that such attributes will enable the entrepreneur to make predictions about tendencies in the market not only for the near future but on the long run and stick to his decisions and try to make them work. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur ignores the problems the business is facing and cannot measure future discrepancies; for average performance, the entrepreneur seems unable to make ground future plans or accurate predictions concerning the market; and finally in terms of good performance an entrepreneur is competent in addressing difficulties and measure the pros and cons of a situation in order to follow subsequent strategies. The particular competence was overall ranked as very important (4) by 6 out of 8 participants, with only 1 participant ranking it as important (3) and another one ranking it as absolutely essential (5). A characteristic example denoting the significance of this competence is a participant's comment that '...an entrepreneur must be able to foresee market ups and downs and meet the customers' needs'.
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- The third competence 'Financial dexterity' was suggested by 6 out of 8 participants and was defined as the ability to recognize economic opportunities and act effectively on them and apply efficiently financial knowledge. It was expressed by the participants the importance of this competence in helping the entrepreneur to perceive changes in the market and take advantage of opportunities. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur seems to take no

measures to face incurred losses; for average performance, the entrepreneur shows no willingness to increase the business profit; and for good performance he is efficient in implementing strategies that will pay off. The 'Financial dexterity' competence was overall ranked as absolutely essential (5) by 5 out of 8 participants, with 3 participants ranking it as very important (4). A characteristic example denoting the significance of this competence is a participant's comment that 'It is essential for an entrepreneur to be successful. He must not only handle efficiently the business finances but he must also be able to recognize opportunities'.

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- The fourth competence 'Creativity' was suggested by 6 out of 8 participants and was defined as the competence that involves the tendency for continuous improvement of the products as well as the services offered by a business. In addition, the participants expressed the notion that creativity is a very important competence in terms of attracting and maintaining clients who are fond of the idea of renewal. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur seems to lack innovative ideas, and has no wish to apply creative ways for the promotion of products or services; for average performance he just tries to keep up with the rest of the market tendencies, and in terms of good performance he is engaged in continuous renewal of products and presents fresh marketing ideas. The 'Creativity' competence was overall ranked as very important (4) by 5 out of 8 participants, with 2 participants ranking it as important (3) and only 1 ranking it as absolutely essential (5). Its importance was characteristically stressed by a participant who argued that 'Creativity is the most important element for business success and bears the possibility to bring great benefits to a company'.
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- The fifth competence 'Communicative' was suggested by 6 out of 8 participants and was defined as the ability that an entrepreneur should possess to effectively communicate his messages both to customers and personnel. The embedded qualities attributed to this competency are the following: 1) eloquence, 2) clarity and accuracy in communication, 3) being able to elaborate in detail but also concisely and 4) presenting the right arguments, 5) organizing and listing advantages and disadvantages and 6) willingness to cooperate. Furthermore, the participants expressed the notion that a good communicator can be persuasive and reliable due to his rational and organized stream of thought. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur will be indifferent to customers' and employer's needs; for average performance he is perceived to be quite introverted and not to efficiently communicate with others, and in terms of good performance an entrepreneur perceives communication as one of his priorities and basic strategy in handling problems. The 'Communicative' competence was overall ranked as very important (4) by 5 out of 8 participants, with 3 participants ranking it as absolutely essential (5). A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: 'It is necessary that an entrepreneur be on a constant dialogue with the customers and employees and convey clarity in his messages and instill confidence'.
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- The sixth competence 'Knowledge/Expertise' was suggested by all participants (8/8) and was defined as the competence that refers to sufficient training and knowledge on

bureaucracy issues (start-ups), current financial state of the country and market trends and macro-economic analysis. It was expressed by the participants the importance of knowledge and expertise even for the sustainability of the business. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur has no experience or knowledge on establishing or running a business; for average performance the entrepreneur seems to be interested in acquiring knowledge only when a problem occurs, and in terms of good performance an entrepreneur shows willingness for constant updating and acquiring more skills. 'Knowledge/Expertise' was overall ranked as absolutely essential (5) by 7 out of 8 participants, with only 1 participant ranking it as very important (4). A characteristic example denoting the significance of this competence is a participant's comment that 'I can't imagine a successful entrepreneur that has no adequate knowledge and experience of running a business or is unwilling to be constantly informed on new market trends or financial issues governing the market'.

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- The seventh competence 'Work/act methodically' was suggested by all participants (8/8) and was defined as the ability to stick to business objectives, follow strategies, take gradual steps in terms of setting up a business, working out the operability of the business, moving forward to its expansion and achieve both short-term and long-term goals. The descriptive examples that were provided by some participants for the particular competency are: In terms of bad performance the entrepreneur has no planning for next steps or preparation for handling future difficulties, for average performance the entrepreneur sets goals and designs strategies but fails to deliver them, and for good performance he carefully and rationally plans the strategies to accomplish target achievements. The particular competence was overall ranked as absolutely essential (5) by 4 out of 8 participants, with 2 participants ranking it as very important (4) and other 2 as important (3). A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: 'Acting methodically ensures efficient handling of difficulties and safeguarding the business'
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The eighth competence 'Taking risks' was suggested by 6 out of 8 participants and was perceived as a hot point and controversial issue during the workshop. The majority of the participants (6/8) believed that taking risks is a skill that an entrepreneur must absolutely have in order to succeed and supported that taking risks may lead to business prosperity. On the other hand only 2 participants out of 8 supported that taking risks is dangerous and if someone is risky then the business will fail or result to bankruptcy. In addition, those in favor of taking risks supported its contribution to business growth and those against strongly supported that it conveys the issue of insecurity. Regarding the descriptive examples provided by the participants who supported the idea for an entrepreneur to take risks: In terms of bad performance the entrepreneur seems unwilling to take risks; for average performance he seems reserved in seizing opportunities, and for good performance he is able to distinguish opportunities and risk for a higher goal. Regarding the descriptive examples provided by the participants who were against the idea for an entrepreneur to take risks: In terms of bad performance the entrepreneur takes risks and jeopardizes the

company's sustainability; for average performance he evaluates the risk exposure and acts accordingly, and for good performance he avoids risks and acts only in a safe environment. The 'Taking risks' competence was overall ranked as important (3) by 4 out of 8 participants, with 2 participants ranking it as very important (4) and another 2 ranking it as desirable but not essential (1). Characteristic examples, which denote the controversial issue of risk taking, are the following: 'P7: I believe that an entrepreneur should not take risks that could cause loss of money and he should always have alternative plans if taking a risk. An entrepreneur should always think about the worst turn of his risk', 'P1: I disagree with that. I believe that he should think positive when taking a risk. Perhaps, he would become a millionaire', 'P2: I believe that it is a risk opening an enterprise in the first place, and that an entrepreneur should allow for a time period in order to consider whether his risk was worthwhile and whether his enterprise is successful', 'P7: I agree with that, but I believe this is related with the enterprise's product and its target group. If a businessman has a successful enterprise, for example, for ten continuous years, he could take a small risk, because in case he loses money it will not harm his business'.

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- The ninth competence 'Innovation/inventiveness' was suggested by all participants (8/8) and was defined as involving attributes such as creative thinking and adopting an initiative approach to various tasks and the ability to deal resourcefully with unusual problems (in terms of business organization, product promotion, attracting customers and aesthetic issues of the business establishment and the presentation of the product). It was expressed by the participants the importance of innovation for attracting customers and business sustainability. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur has no wish for any kind of change; for average performance although the entrepreneur has good ideas he seems unable to realize them, and for good performance the entrepreneur is engaged towards the development of some concepts for new business opportunities, thinks of value propositions and is resourceful in making his new ideas concrete. 'Innovation/inventiveness' was overall ranked as very important (4) by 6 out of 8 participants, with 2 participants ranking it as important (3). A characteristic example denoting the significance of this competence is a participant's comment that 'Innovation is creating new needs and expectations for customers in the market by providing them with something new'.
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- The tenth competence 'Observation' was suggested by 6 out of 8 participants and was defined as the as the competence that refers to an entrepreneur's competence to track and closely observe customers' needs as well as observe and be aware of opportunities for promotion. It was expressed by the participants the importance for an entrepreneur to possess this competence which enables him to be informed and observe the community limits as well as opportunities offered in terms of market possibilities. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur seems to have no interest in tracking market trends or customers' needs; for average performance an entrepreneur observes the new trends but is unable to make correlations with the customers' needs and implement new strategies, and for good performance he is able to observe market changes and efficiently act accordingly. The



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'Observation' competence was overall ranked as very important (4) by 4 out of 8 participants, with 2 participants ranking it as absolutely essential (5) and other 2 as important (3). Characteristic examples denoting the significance of this competence are the following comments made by the participants: 'No matter how much experienced or knowledgeable an entrepreneur is he must possess observation skills because the market is a living thing and therefore in constant move and change' and 'I believe that an entrepreneur should be able to observe his customers' needs in order to implement innovative ideas to attract more customers. For example, a café serves free breakfast until 9:00 o'clock when you buy a coffee. The result is that the entrepreneur attracts more clients'.

- In conclusion, given the analysis of the data we observe several focal points. First of all, the competences provided were suggested and agreed to be included in the final competence table by all members of the focus group. In addition the definitions provided for each competence is the result of collective thinking and discussion. There was perceived a general consensus regarding the competences that an entrepreneur has to possess, their definition and experimental dimension as was illustrated by the provided descriptive examples which ranged from an entrepreneur's bad and average performance to good performance. There was only one case, concerning the 'issue of taking risks' attribute that appeared divergence in the opinion and perception among the participants. Finally, given the rating (according to the 5-Likert scale) that participants attributed to the contributed competences (only 3 though once, 4 and 5 rating was registered - as a collective outcome and not individually) it is established the notion that during the workshop the participants suggested only the competences that perceive as important qualities for an entrepreneur and did not suggest any attributes that they perceive to be of a less or minnow importance for an efficient entrepreneur.

The following table summarizes the results.

Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
Managerial	Management of business operations and efficient organization of people: 1) business administration, 2) leadership, 3) team work, 4) organization, 5) cooperation	For unemployed it is very important and involves knowledge on issues concerning the efficient operation of the business as well as hiring competent personnel. 1. (bad) no organization, 2. (average) efficient organization in some	4





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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
		sections but not all, 3. (good) able to motivate, inspire others while guiding them.	
Personal attributes	Personal competences refer to a number of qualities and attributes that an entrepreneur needs to possess: 1) willingness for self-improvement, 2) insight, 3) empathy, 4) patience, 5) persistence, 5) powerfulness, 6) flexibility, 7) decisiveness, 8) co operational	Such attributes will enable the entrepreneur to make predictions about tendencies in the market not only for the near future but on the long run and stick to his decisions and try to make them work. 1. (bad) He ignores the problems the business is facing and cannot measure future discrepancies, 2. (average) unable to make ground future plans or accurate predictions concerning the market, 3. (good) competent in addressing difficulties and measure the pros and cons of a situation to follow strategies.	4
Financial dexterity	The ability to recognize economic opportunities and act effectively on them and the implementation of financial knowledge.	This competency helps the entrepreneur to perceive changes in the market and take advantage of opportunities. 1. (bad) taking no measures to face incurred losses, 2. (average) no willingness to increase the business profit, 3. (good) implementing strategies that will pay off.	5



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
Creativity	It involves the tendency for continuous improvement of the products as well as the services offered by a business.	It is a very important competence in terms of attracting and maintaining clients who are fond of the idea of renewal. 1. (bad) no innovative ideas, no wish to apply creative ways for the promotion of products or services 2. (average) tries to keep up with the rest of the market tendencies, 3. (good) engaged in continuous renewal of products and presents fresh marketing ideas.	4
Communicative	The ability to effectively communicate his messages both to customers and personnel. It involves qualities such as: 1) eloquence, 2) clarity and accuracy in communication, 3) being able to elaborate in detail but also concisely and 4) presenting the right arguments, 5) organising and listing advantages and disadvantages and 6) willingness to cooperate.	A good communicator can be persuasive and reliable due to his rational and organised stream of thought. 1. (bad) indifferent to customers' and employers needs, 2. (average) quite introverted and does not efficiently communicate with others, 3. (good) communication is one of his priorities and basic strategy in handling problems	4



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
Knowledge/ Expertise	It refers to sufficient training and knowledge on bureaucracy issues (start-ups), current financial state of the country and market trends and macro-economic analysis.	It is essential since the sustainability of the business depends on it.1. (bad) has no experience or knowledge on establishing or running a business, 2. (average) interested in acquiring knowledge only when a problem occurs, 3. (good) shows willingness for constant updating and acquiring more skills.	5
Work/act methodically	The ability to stick to business objectives, follow strategies, take gradual steps in terms of setting up a business, working out the operability of the business, moving forward to its expansion, achieve both short-term and long-term goals.	It is a core point for the good operation of the business. 1. (bad) no planning for next steps or preparation for handling future difficulties, 2. (average) he sets goals and designs strategies but fails to deliver them, 3. (good) he carefully and rationally plans the strategies to accomplish target achievements.	5
Issue of taking risks	Defined as a controversial issue. The tendency to take risks may lead to business prosperity but it can also result to bankruptcy.	Those in favour of taking risks support its contribution to business growth and those against strongly support that it conveys the issue of insecurity. In favour of taking risks:1. (bad) unwilling to take risks, 2. (average) reserved in seizing opportunities, 3. (good) able to distinguish opportunities and risk for a	3



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
		higher goal. ≠ Against taking risks: 1. (bad) taking risks and jeopardizing the company's sustainability, 2. (average) evaluate the risk exposure and act accordingly, 3. (good) avoid risk and act only in a safe environment.	
Innovation/ inventiveness	It involves attributes such as creative thinking and adopting an initiative approach to various tasks and the ability to deal resourcefully with unusual problems (in terms of business organisation, product promotion, attracting customers and aesthetic issues of the business establishment and the presentation of the product).	It is an important competency and closely related to attracting customers and business sustainability. 1. (bad) no wish for change, 2. (average) having good ideas but unable to realise them 3. (good) development of some concepts for new business opportunities, think of value propositions and being resourceful in making their new ideas concrete.	4
Observation	It refers to an entrepreneur's competence to track and closely observe customers' needs as well as observe and be aware of opportunities for promotion.	It is important to be informed and observe the community limits as well as opportunities offered in terms of market possibilities. 1. (bad) no interest in tracking market trends or customers' needs, 2. (average) observes the new trends but is unable to make correlations with the customers' needs and implement new strategies, 3.	4



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
		(good) observes market changes and efficiently acts accordingly.	

Table 1: Competences for Unemployed

Target group Students

In the analysis, the data used derived from the worksheets that were filled in by the participants at the workshop as well as the collectively formulated competence table during the group discussion at the end of each activity/question elaboration. During the workshop all the attributes/knowledge aspects suggested by the participants were agreed to be included in the final table. However, during the clustering activity it was decided that some of them should be embedded into a more general competence as its descriptive qualities. Overall there were thirteen competences suggested and agreed upon to structure the final competence table.

1. Managerial
2. Determination
3. Diplomacy
4. Insightfulness
5. Cooperativeness
6. Industriousness
7. Honesty
8. Reliability
9. Formality
10. Communication
11. Knowledge/Expertise
12. Ambition
13. Competitiveness
14. Respect of company policy

The first competence “Managerial” was suggested by all the participants (3/3) and was defined as the competence that an entrepreneur should possess in order to manage the business operations and efficient organization of the people. The embedded qualities attributed to this





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competency are the following: 1) business administration, 2) leadership, 3) organization, 4) staff training, 5) staff evaluation and rewarding. According to a participant the managerial competence is "very important to know how to manage their personnel and to organize the company's tasks. These skills will secure in a great level the efficient operation of the business." Regarding the descriptive examples provided by the participants: In terms of bad performance, the entrepreneur shows no organization attitude and no interest in training the staff or evaluating and rewarding it; for average performance the entrepreneur seems able to organize some of the company's tasks; and in terms of good performance the entrepreneur seems able to motivate and inspire others while guiding them. According to the 5- Likert scale used to rank the competences, the particular competence was overall ranked as very important (4) by all participants. A characteristic example denoting the significance of this competence is a participant's comment: "An entrepreneur must know everything that happens in his company. He must treat fairly the personnel, evaluate them and reward the employees who work harder."

The second competence "Determination" was suggested by one participant (1/3) and defined as the competence an entrepreneur should have in order to take accurate decisions when he faces problems. It was stressed by the participants that such attributes are important for entrepreneurs in order to be able to solve problems which emerge in a company. Entrepreneurs must possess skills that will enable them to take the right decision in order to solve emerging problems. In addition, the descriptive examples that were provided by the participant for the particular competency are: In terms of bad performance the entrepreneur ignores the problems that the company is facing or he takes wrong decisions; for average performance the entrepreneur takes a good decision but not the best one; and in terms of good performance the entrepreneur takes the best decision at the right time. The particular competence was overall ranked as important (3) by 2 out of 3 participants, with only 1 participant ranking it as very important (4). A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: "The ability of an entrepreneur to take the right decisions at the right time can change the future of the company."

The third competence, 'Diplomacy' was suggested by 2 out of 3 participants and was defined as the ability of an entrepreneur to manage skillfully the other people in order to achieve his purpose. According to a participant, diplomacy is very important because it is a skill which helps you when you come in contact with other people. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur shows bad diplomacy skills when he has bad relations with his partners and employees; for average performance the entrepreneur has typical relations with his partners; and in terms of good performance the entrepreneur maintains good relations with his partners and employees.

The fourth competence 'Insightfulness' was suggested by all participants (3/3) and was defined as the ability of an entrepreneur to predict the trends of the market in order to increase his profit or





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avoid a forthcoming destruction. In addition, the participants expressed the notion that insightfulness is a very important competence for an entrepreneur because it helps him to increase his profits and to survive within the labor market. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur can't predict the trends of the market; for average performance sometimes he can predict future needs and requirements of the market, and in terms of good performance he predicts new trends of the market. The 'Insightfulness' competence was overall ranked as very important (4) by 2 out of 3 participants, with the other participant ranking it as less important (2). Its importance was characteristically stressed by a participant who argued that "An entrepreneur must be able to predict the future needs of the market to avoid bankruptcy".

The fifth competence 'Cooperativeness' was suggested by 2 out of 3 participants and was defined as the ability to work effectively with other people in order to solve problems or to carry through with tasks. Furthermore, the participants expressed the notion that an entrepreneur, who has the skill of cooperation, can be customized in many different working environments. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur competes his partners and highlights their weaknesses; for average performance he maintains formal relations with his partners and he doesn't care to communicate with them, and in terms of good performance he helps his partners to overcome their weaknesses and he works with them in order to complete a task. The competence of 'Cooperation' was overall ranked as very important (4) by 2 out of 3 participants, with 1 participant ranking it as absolutely essential (5). A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: "It is very important for an entrepreneur to be able to collaborate with his partners/employees because in this way the company becomes stronger and tasks are completed with greater ease".

The sixth competence 'Industriousness' was suggested by 2 out of 3 participants and was defined as the competence of an entrepreneur to work hard in order to achieve his aims. In addition, the participants expressed the notion that industriousness is important for an entrepreneur because the competitiveness in the market is very intensive, so he should work harder in order to become better than other entrepreneurs. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur is a bad example for his partner/employees because he is bored of working; for average performance the entrepreneur executes his tasks but he is sometimes bored, and in terms of good performance an entrepreneur is willing to show the correct way to complete a task and generally he is working hard. 'Industriousness' was overall ranked as important (3) by all participants. A characteristic example denoting the significance of this competence is a participant's comment that 'I cannot imagine a successful entrepreneur who does not love his job and working very hard'.





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The seventh competence 'Honesty' was suggested by 2 out of 3 participants and it refers to the character of entrepreneur and how he treats personnel and the customers. The embedded qualities attributed to this competency are the following: 1) sincerity, 2) morality 3) respect for the employee. The descriptive examples that were provided by some participants for the particular competency are: In terms of bad performance the entrepreneur doesn't respect customers and workers' rights, for average performance the entrepreneur respects workers' rights and customers but not every time, and for good performance he respects the working hours of the employees, their licenses, their rights and he is honest with employees and customers. The particular competence was overall ranked as very important (4) by all participants. A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: "It is very important to respect and be honest with your employees because they will appreciate this attitude and they will be more efficient in their work".

The eighth competence 'Reliability' was suggested by 1 out of 3 participants and was defined as the attribute that makes entrepreneur trustworthy for an important task/job. It was expressed by the participants that "...to be reliable is an important competence for an entrepreneur in order to be liked by his boss but also to be more attractive to his customers". Regarding the descriptive examples provided by the participants: In terms of bad performance boss/partners/customers feel they cannot rely on the entrepreneur; for average performance the entrepreneur is unreliable sometimes, and for good performance partners and customers prefer the reliable entrepreneur to cooperate with him because they know that he is able to complete tasks. 'Reliable' was overall ranked as important (3) by 2 out of 3 participants, with 1 participant ranking it as very important (4). A characteristic example denoting the significance of this competence is a participant's comment that "Everyone wants to work with a reliable person. You feel safe working with him"

The ninth competence 'Formality' was suggested by all participants and was perceived as a hot point and controversial issue during the workshop. The majority of the participants (2/3) believed that formality (do the standards) is an important competence for an entrepreneur in order to execute tasks. In addition, if the employer meets typical standards, it is enough for employees to be happy. On the other hand, the other participant argued that the "formality" is a skill that makes an entrepreneur just mediocre. Regarding the descriptive examples provided, both sides agree about the description of good/bad and average "formality" but they argue about its importance. In terms of bad performance the entrepreneur never does what is needed in order to complete his tasks; for average performance the entrepreneur sometimes does what is needed in order to complete his tasks, and for good performance the entrepreneur is very typical and he always "meets the standards", in other words, he does exactly what is required. The 'Formality' competence was overall ranked as very important (4) by 2 out of 3 participants, with 1 participant ranking it as less important (2). Characteristic examples, which denote the controversial issue of formality, are the following: P1: "Being typical is very important because at least with formality





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work is done as it should be." P2: "I disagree with that. I believe that "formality"/"meeting the standards" is something negative because it limits you and you can't make the difference simply by being typical"

The tenth competence "Communication" was suggested by 2 out of 3 participants and was defined as the ability to communicate effectively with customers, personnel and partners. It was expressed by the participants that it is important for an entrepreneur to be liked and pleasant to his customers in order for them to choose his products, if he is for example a trader. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur is aggressive with his customers/partners/employees; for average performance an entrepreneur communicates with the others but only in a typical way, and for good performance he is very sociable and pleasant with his customers/boss/partners/employees. The "Communication" competence was overall ranked as important (3) by all participants. Characteristic examples denoting the significance of this competence are the following comments made by the participants: 'I like when I go to a shop to buy products people to be polite to me'.

The eleventh competence 'Knowledge/Expertise' was suggested by 2 out of 3 participants and was defined as the sufficient training and knowledge of the entrepreneur for his job. It was expressed by the participants that one very important thing that an entrepreneur should know is how to do his job. Without this attribute no entrepreneur can maintain a company. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur doesn't have the knowledge required for his job; for average performance the entrepreneur has the knowledge required for the job but he has no experience, and in terms of good performance an entrepreneur has both knowledge and experience. 'Knowledge/Expertise' was overall ranked as very important (4) by 2 out of 3 participants, with only 1 participant ranking it as important (3).

The twelfth competence "Ambition" was also suggested by one participant (1/3) and defined as the big desire for some type of achievement. It was stressed by the participants that for entrepreneurs it is important to be ambitious in order to achieve their aims. In addition the descriptive examples that were provided by the participant for the particular competence are: In terms of bad performance the entrepreneur is unenthusiastic for his future career; for average performance the entrepreneur is restrained about his future career; and in terms of good performance the entrepreneur raises high but achievable goals and tries to achieve them. The particular competence was overall ranked as important (3) by 2 out of 3 participants, with only 1 participant ranking it as less important (2). A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: "Entrepreneurs must be ambitious, but also to set reachable goals. Ambition gives them strength to continue working"





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The thirteen competence 'Competitiveness' was suggested by 2 out of 3 participants and was defined as the ability of an entrepreneur to strive in the market with rivals. According to a participant, competitiveness is very important because it is a skill which helps you survive in the labor market. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur does not try to do his best and he does nothing to improve his relations with his colleagues or the entrepreneur who undermines his colleagues in order to show his proficiency; for average performance the entrepreneur who is trying to do better than his colleagues; and in terms of good performance the entrepreneur who is trying to be the best in his field, using moral means. The particular competence was overall ranked as less important (2) by 2 out of 3 participants, with only 1 participant ranking it as important (3). A characteristic example that stresses the attributed importance on the part of the focus group towards this competence is the following remark by a participant: "Competitiveness helps entrepreneurs highlight themselves and have better career development but sometimes it can be an obstacle to cooperation between two colleagues."

The fourteenth competence of "Respect of company policy" was suggested by 2 out of 3 participants and was defined as the competence an entrepreneur should have in order to adjust his business plans to the company's policy. Regarding the descriptive examples provided by the participants: In terms of bad performance the entrepreneur does not follow the company's policy and does whatever he wants; for average performance the entrepreneur sometimes follows the company's policy; and in terms of good performance the entrepreneur respects the company's policy and whatever changes he wants to do he asks for the company director/owner's opinion. The particular competence was overall ranked as very important (4) by 2 out of 3 participants, with only 1 participant ranking it as important (3). Characteristic examples, which denote the participants' comprehension of the issue, are the following: P1: "a ship must have only one captain". However, another participant said that P2 "sometimes an entrepreneur must change the main policy of the company and adjust his franchise to the local market", P1 "Yes, but then this branch will not be the same with the main company and there will be doubt about its authenticity", P2 "I believe that a policy which is efficient in one place, will also be efficient in another place". There was a hot point between the partners. Finally, they decided that franchisee should adjust to the local market needs, but the 'franchisor' must be informed and the adjustment should be kept at a small rate in order for the company authenticity to be conserved.

In conclusion given the analysis of the data we observe several focal points. First of all the competences provided were suggested and agreed to be included in the final competence table by all members of the focus group. In addition the definitions provided for each competence is the result of collective thinking and discussion. There was perceived a general consensus regarding the competences that an entrepreneur has to possess, their definition and experimental dimension as was illustrated by the provided descriptive examples which ranged from an entrepreneur's bad





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and average performance to good performance. There was only one case, concerning the competence of “formality” that appeared divergence in the opinion and perception among the participants. Finally, given the rating (according to the 5-Likert scale) that participants attributed to the contributed competences (ranged between 2 – 5) it is established the notion that during the workshop the participants suggested only the competences that perceive as important qualities for an entrepreneur and did not suggest any attributes that they perceive to be of minor importance for an efficient entrepreneur.

The following table summarizes the results

Table 2: Competences for Students

Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
Managerial	Management of business operations and efficient organization of people: 1) business administration, 2) leadership 4, 3) organization 4) staff training 4, 5) staff evaluation and rewarding 4-3	For entrepreneurs it is very important to know how to manage their personnel and to organize the company's tasks. These skill will secure in a great level the efficient operation of the business. 1. (bad) no organization, no staff training and evaluation/rewarding 2. (average) efficient organization in some sections but not at all, 3. (good) able to motivate, inspire others while guiding them.	4
Determination	What decisions an entrepreneur takes when he faces problems.	An entrepreneur has to solve lots of problems which emerge in a company, so he must have the ability to take the right decision in order to solve this problems. 1. (bad) He ignores the problems the business is facing or he takes bad decisions. 2. (average) He takes a good decision but not the best	3



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
		one. 3. (good) He takes the best decision at the right time.	
Diplomacy	The ability of an entrepreneur to manage skillful the other people in order to achieve his purpose.	Diplomacy is a skill which helps you when you come in contact with other people. 1. (bad) he has bad relations with his partners/employees, 2. (average) he has typical relations with his partners, 3. (good) he maintains good relations with his partners/employees.	4
Insightfulness	The ability of an entrepreneur to predict the trends of the market in order increase his profit or to avoid a forthcoming destruction.	It is a very important skill for an entrepreneur because it helps him to increase his profits and to survive within the labor market.. 1. (bad) he can't predict the trends of the market, 2. (average) he sometimes predict future needs and requirements of the market, 3. (good) to predict future needs and requirements of the market.	4
Cooperativeness	The ability to work effectively with other people in order to solve problems or to carry through with tasks.	An entrepreneur, who has the skill of cooperation, can be customized in many different working environment. 1. (bad) I compete my partners and highlight their weaknesses, 2. (average) I maintain formal relations with my partners and I don't care to communicate with them, 3. (good) I help my partner to overcome their	4



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
		weaknesses and I work with them in order to complete a task.	
Industriousness	It refers to the skill of an entrepreneur to work hard in order to achieve his aims.	It is important for an entrepreneur because the competitiveness in the market is very intensive, so he should work harder in order to become better than other entrepreneurs . (bad) he is a bad example for his partner because he bored working, 2. (average) he executes his tasks but sometimes bored, 3. (good) he is willing to show the correct way to complete a task and generally he is working hard.	3
Honesty	It refers to the character of entrepreneur and how he treat personnel and the customers. Some characteristics are 1)sincerity, 2)morality, 3)respect for the employee	It is very important to respect and be honest with your employees because they appreciate this attitude and be more efficient in their work. It is important to respect and be honest with your employees because they will appreciate this attitude and they will be more efficient in their work. 1.(bad) he doesn't respect both customers and workers' rights, 2. (average) he respects workers' rights and customers but not every time, 3. (good) He respects the working hours of the employees, their licenses, their rights and he is honest with employees and customers.	4



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
Reliable	Reliable entrepreneur is the one to whom you can trust an important job and you know that he will perform it correctly.	It is an important competency for an entrepreneur in order to keep him the employer in work but also to be preferred by his customers. 1. (bad) no one prefer him(boss/partners/customers), 2. (average) they prefer him sometimes, 3. (good) his partners/boss prefer to cooperate with him because they know that he is able to complete tasks.	3
Formality	It refers to an entrepreneur's competence to be legitimate, and to carry out the tasks as required.	It is an important competency in order to execute tasks. If the employer is typical, it is enough for employees to be happy. ≠ It is a skill which makes just mediocre businessman 1. (bad)I never do what is needed in order to complete my tasks, 2. (average) Sometimes I do what is needed in order to complete my tasks 3. (good) I do what is needed in order to complete my tasks.	2
Communication	The ability to communicate effectively with customers, personnel and partners.	It is important for an entrepreneur to be well liked and pleasant to his customers in order they choose his products, if he is for example a trader. 1. (bad) he is aggressive with his customers/partners/employees 2. (average) he communicates with the other but he keeps cold relations, 3. (good) he is very sociable and pleasant with his customers/boss/partners/employees.	3



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
Knowledge/experience	It refers to sufficient training and knowledge on his job.	One very important thing that an entrepreneur should know is how to do his job. Without this attribute no entrepreneur can maintain a company. 1. (bad) he doesn't have the knowledge required for the job. 2. (average) he has the knowledge required for the job but he hasn't experience. 3.(good) he has both knowledge and experience	4
Ambition	A big desire for some type of achievement.	For entrepreneurs it is important to be ambitious in order to achieve their aims. 1. (bad) to be unenthusiastic for his future career. 2. (average) to be restrained 3.(good) to raises high but achievable goals and tries to achieve them.	3
Competitiveness	The ability of an entrepreneur to strive in the market with rivals.	It is very important to survive in the labor market. 1. (bad) The entrepreneur who does not try to be as good as he can. However he does nothing to improve himself in relation to his colleagues or the entrepreneur who is trying to be better than his colleagues by undermining his colleagues. 2. (average) The entrepreneur who is trying to be better than his several colleagues 3.(good) to raises high but achievable goals and tries to achieve them.	2



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant -5 most important)
Respect of company policy	The competence an entrepreneur should have in order to adjust his business plans to the company's policy	1. (bad) entrepreneur does not follow the company's policy and do whatever he want. 2. (average) the entrepreneur sometimes follow the company's policy. 3. (good) the entrepreneur respect company's policy and whatever change he want to do he asks the opinion of the company's boss	4

Target group Teachers

In the analysis, the data used derived from the worksheets that were filled in by the participants at the workshop as well as the collectively formulated competence table during the group discussion at the end of each activity/question elaboration. During the workshop all the attributes/knowledge aspects suggested by the participants were agreed to be included in the final table. However, during the clustering activity it was decided that some of them should be embedded into a more general competence as its descriptive qualities. Overall there were six competences suggested and agreed upon to structure the final competence table.

1. Leadership
2. Administration
3. Flexibility
4. Optimism
5. Innovation
6. Cooperation

The first competence "Leadership" was suggested by all the participants (8/8) and was defined as the competence an entrepreneur should possess in order to manage the business operations and the organization of people and to expand the company in order to have more incomes. Moreover, it is the competence that helps him/her to be able to manage a crisis and make decisions, to know how to organize the issues that concern the company, to be able to adjust to the work environment and give feedback in order to improve. In addition, he has the skills to know how to handle the relationships with his/her employees and to be "a fellow traveller" with his/her employees. As a result, the embedded qualities attributed to this competence are the following: 1) guidance, 2) vision, 3) inspiration, 4) managerial skills and 5) persuasion. At that point, the



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participants stated a difference between a leader and an administrator, since 3 of the participants were economists and had further knowledge on this subject. They mentioned that the leader inspires, has a vision and ideas and, he is communicative. The manager administrates the company only. Then all the participants agreed that there is indeed a difference.

They mentioned and agreed that the good leader is able to make his /her employees follow him because he/she inspires them. He/she has a vision, inspiration, guidance, he/she sets the example to the employees, he/she makes decisions and manages a crisis which can be an internal or external and gives a motivation to his/her employees. He reads other people's minds, he is a clear-sighted and has the passion to expand the company.

They also mentioned that an entrepreneur should also be genius, intelligent, clear-sighted, perceptive and perspicacious because he/she thinks smartly when the other people see things in a simple way. If he/she is not perspicacious, he cannot perceive the opportunity and if he/she lacks in perspicacity, his/her thoughts are out of the market.

The good entrepreneur has also managerial skills, he/she has no tiredness and is an excellent instructor. In terms of bad performance, a leader makes his/her employees follow him because they are obliged to, and an entrepreneur who has not this competence makes his/her employees follow him due to fear of getting fired and losing their jobs. According to the 5-Likert scale used to rank the competences, the particular competence was overall ranked as absolutely important (5) by 8 out of 8 participants.

The second competence "Administration" was also suggested by all the participants (8/8) and defined as the competence an entrepreneur should have in order to be able to manage the affairs of the company and organize it on the level of issues which involve the company and on the level of issues which involve the relationships with his her employees. As a result, after the agreement of all participants, the embedded qualities attributed to this competence are the following: 1) organization, 2) programming, 3) audity and 4) readapting (meaning that the entrepreneur should be able to have feedback and make new adjustments to the needs which come up).

For average performance an entrepreneur plans and organizes only at an initial level and in terms of bad performance an entrepreneur is not able to plan and program effectively.

According to the 5-Likert scale, the particular competence was overall ranked as absolutely important (5) by 8 out of 8 participants.

The third competence, 'Flexibility' was suggested by 4 out of 8 participants and was defined as the competence an entrepreneur should have in order to be able to deal with the problems and difficulties he/she faces in the company and find solutions to the problems which come up daily. The embedded quality attributed to this competence is the interchangeability. The participants mentioned that flexibility is important because things change rapidly and bureaucracy is always a problem. A good entrepreneur should have the ability to see and manage the internal affairs and the external ones and to face competition and his/her competitors. There was an argument among





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the participants because one participant suggested that an entrepreneur should be competitive but some others claimed that there is a difference between flexibility and competitiveness. The participants who were economists claimed that if an entrepreneur is very competitive, the market will put him/her away and “punish” him/her, so he/she should be flexible.

Furthermore, the participant who was an economist mentioned that bureaucracy prevents an entrepreneur from setting up business fast and there are still some projects, such as The Atlantis Hills, which has not been put on the market because of bureaucracy. He explained that it is a preventing factor because when you know that an idea is not able to survive in such an environment, looking for new ideas to fulfill is a waste of time. As a result an entrepreneur should be flexible and not competitive. All the participants agreed that an entrepreneur who is a little flexible performs moderately and when he/she has no flexibility, he/she cannot move and solve any problems. According to the 5-Likert scale, the particular competence was overall ranked as absolutely important (5) by 8 out of 8 participants.

The fourth competence, ‘Optimism’ was suggested by 5 out of 8 participants and was defined as the competence an entrepreneur should have in order to be able to face the issues and the problems in a positive way. The embedded qualities attributed to this competency are the following: 1) ambition, 2) patience, 3) persistence, 4) perspicacity and 5) intelligence. An optimistic entrepreneur encourages his/her employees he/she feels sure that he will succeed. He expects the best results. An entrepreneur who is a little optimistic expects better results but he /she is not sure for the outcomes and he/she gets disappointed at times. If he/she is not optimistic, he gets disappointed very easily and he does not expect anything good. He/she abandons the things when he has the first difficulties. The participants who were economists mentioned that the optimistic entrepreneur sees the evolutions further, has visions and can see beyond the current things because when a business is set up, the owner should not be short-sighted and he/she should see the company not only for the next 3 or four years to come but when the company is expanded in the long run. When he/she is pessimistic, he/she cannot see anything good. Pessimism functions as a brake. Moreover, one of the participants who was an economist mentioned that the optimistic entrepreneur believes in what he has as a vision and he mentioned that maybe the entrepreneur “did not reach the Moon but he/she travelled to the stars”. Then he mentioned that if an entrepreneur is not an optimistic person, he/she had better closed down the business. At that point, a participant referred to the ambitions and patience that are important but the other participants claim that “the ambitious is always optimistic while the optimistic person is not always ambitious”. As a result, there was a little argument about these attributions.

Furthermore, according to the participants, patience is also important since the patient entrepreneur does not abandon things and he has strength and endurance when he has difficulties. If he/she lacks in patience, he/she gets irritated easily and is affected by difficulties. One participant mentioned that the patient people know how to listen while the impatient ones get tired when listening to people and some of them listened to nobody.





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The competency of persistence was also mentioned as very important. The persistent entrepreneur keeps on going despite the odds and always makes an attempt to possess what he/she wants. According to the 5-Likert scale, the particular competence was overall ranked as very important (4) by 8 out of 8 participants.

The fifth competence 'Innovation' was suggested by 7 out of 8 participants and was defined as the competence an entrepreneur should have in order to have new ideas, to catch the idea, organize it and try new practices. The embedded qualities attributed to this competency are the following: 1) inventiveness and 2) creativity. According to the participants, creativity is important. The participants also agreed that the entrepreneur should have a "Plan B" when he/she has difficulties in fulfilling his/her ideas. An innovative entrepreneur follows what happens in the market currently, he/she has the ability to assimilate things and not copy them, he/she watches the evolutions worldwide and keeps pace with the evolutions. The inventiveness offers him the ability to see beyond the things using his logic. They also mentioned that Digital Marketing is a kind of innovation and entrepreneurs who use only "Facebook" are not innovative enough. One of the participants who was an economist referred to the packaging of the product as an example and she mentioned that an innovative entrepreneur tries to find the most innovative packaging with bright colours in order to be a pioneer and promote the product. The entrepreneur who is not innovative is not creative and he/she cannot fulfill his/her ideas. When he/she is not innovative or inventive, he is afraid of risking and he does not try new things.

The participants who were economists referred to the main 3 factors of production: innovation, entrepreneurship and fulfilling the idea and going further. They also added a new factor which very important nowadays: technology. They said that nowadays specialists and well-educated scientists on technology are needed as employees and not only employees with limited knowledge. At that point, all the participants agreed that knowledge on the subject is very significant and further education is needed in order the new innovative ideas to be fulfilled, because if there is no knowledge on the subject, there is also no knowledge on the product or the services. As a result, the possibility of fulfilling is reduced. Some participants mentioned that having alternatives is also important but the participants who were economist claimed that having alternatives has to do with flexibility. According to the 5-Likert scale, the particular competence was ranked as very important (4) by 6 out of 8 participants and as important (3) by 2 out of 8 participants.

The sixth competence 'Cooperation' was suggested by 6 out of 8 participants and was defined as the competence an entrepreneur should have in order to communicate and cooperate with his/her employees and make all the staff function as unity. The cooperative entrepreneur organizes meetings and events frequently. He/she encourages actions so that he/she promotes the good relationships. In that way, he/she shows his/her character. He/she also should not be introvert, but extrovert. As a result, the embedded qualities attributed to this competency are 1) Communication and 2) "human".





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When an entrepreneur is a little cooperative, he/she is “screaming” and is “rude”. If he/she lacks in cooperation, he/she is limited in his work environment.

The entrepreneur should also be “human” not only with his/her employees, but also with the customers, and people in general, because service is important for the clients. The participants who were economists mentioned that Human Marketing has taken its place on the market. They gave the example of donations and charities and the percentage of the incomes coming from the sale of the products which is given to organizations having to do with charities. According to the 5-Likert scale, the particular competence was overall ranked as absolutely essential (5) by 8 out of 8 participants.

Franchising

In terms of Franchising, all the participants agreed that the good entrepreneur should additionally have these two competences:

1. Diplomacy
2. Cleverness

The competence of “Diplomacy” was defined as the competence an entrepreneur should have in order to be good in public relationships. They mentioned that he/ he should be diplomatic in order to have good relationships with the owner of the franchise and the customers. Moreover, this attribute helps him/her to solve problems which concern financial affairs and promotions of the employees. Four of the participants gave 4 points and the other four gave 5 points. Two of the participants who were economists and one who was a sociologist mentioned that diplomacy is important because a lot of people want to take his/her position in the company except the owner of the franchise company. In this point, obedience was also referred as an attribute because the entrepreneur should be obedient to his/her boss, the owner of the franchise company.

The competence of “Cleverness” was defined as the competence an entrepreneur should have in order to know how to run the company and to face the daily problems. Four of the participants gave 4 points while the other four gave 5 points.

The two participants who were economists and the participant who was a sociologist mentioned that an entrepreneur who works in a franchise company does not need to be optimistic or ambitious because the people who work in a franchise usually leave their jobs and go to other companies in order to have a better career with a bigger percentage of the incomes as a salary. They also added that although there are bonuses and perks, having a percentage of the franchise company is important because this percentage will prevent the entrepreneur from leaving this position and looking for other positions in other companies.





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Opinion about the game

The participants were asked where they could find or imagine that kind of game. The participant who was an economist and the participant who was a sociologist mentioned that they could imagine it as a game of assimilation on the computer in order to develop skills which encourage the promotion of products and the fulfilling of ideas. They added that the game could be for an individual or for a group of players. They all gave 5 points.

The two participants who were economists and the participant who was a sociologist mentioned that such a kind of game could be used as a part of the interview which the applicants give when they apply for a job. The interviewer could find out if the applicants have the skills to manage problems, face dilemmas and break companies and sell them as a broker. In addition, they mentioned that the game could be filmed and could show the body language and the icon the applicant has and also the applicant's assimilation to the work environment. These participants gave 4 points. The other 5 participants gave 3 points. Furthermore, the participant who was an economist and supported the suggestion of the body language and the icon, gave as an example an advertisement in which the applicant shaved his head because the owner of the company he applied for was bold. He mentioned that the applicant did so because of assimilation to the icon which the owner of the company had. So they agreed that such a kind of game could be used as a scenario when applying for a job. One of the participants who was an economist mentioned that there are already such scenarios and some companies use it as a part of the interview to find out if the interviewee has the appropriate skills to run a company. The same participant also mentioned that such kind of game could be used as a part of the same interview for the company to find out the character and the morality of the person who applies for the job. He referred to the Morality of Management and he gave the example of the quality of products which help the business to survive in the long run.

There was an argument on that point because one participant who was an economist and one who was a sociologist argued that morality is not important and they explained that when an entrepreneur is moral he/she cannot expand the company and survive.

In conclusion given the analysis of the data we observe several focal points. First of all the competences provided were suggested and agreed to be included in the final competence table by all members of the focus group. In addition the definitions provided for each competence is the result of collective thinking and discussion. There was perceived a general consensus regarding the competences that an entrepreneur has to possess, their definition and experimental dimension as was illustrated by the provided descriptive examples which ranged from an entrepreneur's bad and average performance to good performance. Finally, given the rating (according to the 5-Likert scale) that participants attributed to the contributed competences (only 3 though once, 4 and 5 rating was registered - as a collective outcome and not individually) it is established the notion that during the workshop the participants suggested only the competences that perceive as important





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qualities for an entrepreneur and did not suggest any attributes that they perceive to be of a less or minnow importance for an efficient entrepreneur.

Table 3: Competences Teachers Greece

Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant - 5 most important)
Leadership	Management of business operations and organization of people : 1) guidance, 2) vision, 3) inspiration, 4) managerial skills, 5) persuasion and rewarding 5.	For entrepreneurs leadership helps in managing a crisis and making the appropriate decisions, in organising the company issues and in the adjustment to the work environment and giving feedback and in perspicacity in order to see the opportunities. 1 . (bad) leadership means no perspicacity and thoughts out of the market. 2 . (average) means no perception of the opportunities. 3 . (good) means thinking smartly, setting the example, inspiring the employees, having managerial skills and being a good instructor.	5
Administration	Management of the company affairs and organization of the company on the issues involved the company and the relationships with the employees : 1) organization, 2) programming, 3) auditing, 4) readaption-giving feedback and making new	For entrepreneurs administration it is of great importance to know how to manage the affairs of the company because they organize the company on the level of the issues that involve the company and on the level that involves the relationships with the employees. 1. (bad) administration means no effective planning and programming. 2. (average) means planning and organizing at an initial	5



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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant - 5 most important)
	adjustments to the needs coming up. 5.	level only. 3. (good) means excellent planning and programming.	
Flexibility	Efficiency in dealing with problems and difficulties and finding the best solutions : 1) interchangeability.	For entrepreneurs flexibility is a very important competence because it helps in finding solutions to the problems which come up daily. It is significant as the things change rapidly and bureaucracy is always a problem. 1 . (bad) flexibility means that the entrepreneur cannot move and solve any problems. 2 . (average) means that the entrepreneur has a difficulty in solving problems and performs moderately. 3 . (good) means that the entrepreneur is able to manage the internal affairs and the external ones and he / she is able to face competition and his / her competitors. He /she has an alternative way when having difficulties. He / she is also able to deal with bureaucracy.	5





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Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant - 5 most important)
Optimism	Optimimism is the competence of facing the issues in a positive way. 1) ambition, 2) patience, 3) persistence, 4) perspicacity, 5) intelligence.	For entrepreneurs optimism is very important because the optimistic entrepreneur sees the evolutions further, has visions and is able to see beyond the current things. When setting up a business, the entrepreneur should not be short-sighted but he / she should see the company for the the next three or four years when the company is expanded in the long run. Patience is also important because it prevents the entrepreneur from abandoning things and offers him / her strength and patience when trere are difficulties. Persistence is also significant because it helps in going on and acquiring things despite the obstacles that appear. 1 . (bad) - pessimism means that the entrepreneur gets disappointed very easily, he / she expects nothing and abandons things when facing the first difficulties. He / she lacks in patience, gets irritated very easily and is affected by difficulties. 2 . (average) having a little optimism means that the entrepreneur expects better results but he / she is not sure for the outcomes, so he / she gets disappointed at times. 3. (good) being optimistic means that the entrepreneur encourages his / her employees, feels sure of his / her	4





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant - 5 most important)
		success and expects the best results. He / she believes in his vision, has the patience to listen to people and has the persistence to keep on going when he / she has odds.	
Innovation	Innovation is the competence of being able to have new ideas, catch the ideas, organize it and try new practices. 1) inventiveness, 2) creativity.	The competence of innovation is very important because the entrepreneur should have a second plan to implement when having difficulties. He / she should have the ability to assimilate things and not copy them, watch the evolutions worldwide and keep pace with them. Inventiveness also helps in seeing beyond the things using logic. Creativeness also helps in fulfilling his / her ideas. 1. (bad) Lack in innovation means that the entrepreneur is not creative or inventive, he / she is afraid of risking, so he /she does not try new things and cannot fulfill his / her ideas. 2. (average) The entrepreneur who has a little innovation uses only Facebook for promoting his / her products and and he does not use Digital Marketing. 3 . (good) The innovative entrepreneur uses Digital Marketing and exploits the Social Media. He / she has the ability to be a pioneer and knows the best promotion of his / her	3,75



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant - 5 most important)
		products. Knowledge on the subject is very important and further education is also needed for the new innovative ideas to be fulfilled.	
Cooperation	Cooperation is the competence of having excellent communication and very good relationships with people as customers and make them feel at ease or as employees in order to make the staff function as a unity. 1) Communication, 2) "humanity".	The competence of cooperation is essential and of great significance because it helps in communicating and getting on well with the employees and in making the staff function as a unity. 1 . (bad) lack in cooperation means that the entrepreneur is limited in his work environment. 2 . (average) the entrepreneur who is a little cooperative, he / she is 'screaming' and is rude or introvert and he cannot cooperate or communicate with other people. 3 . (good) the cooperative entrepreneur has the ability to communicate with staff and customers and he /she is aware of dealing with people in general because good service and relationships are important for the customers. He / she is also aware of Human Marketing and knows how being 'human' contributes to the increase of sales through donations and charities, especially nowadays due to the financial crisis and the need for being environmentally	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Competence category	Competence	Profile (at least 1 per target group per country) / Proficiency level	Rank (1 very unimportant - 5 most important)
		friendly. The cooperative entrepreneur is extrovert and gets on well with his / her staff. He / she organises meetings and promotes the good relationships in his company.	

4.3 Turkey (MEM)

Three focus groups were conducted for all three target groups (n1=20, n2=9, n3=9). In the discussions, several generic competences have been identified as important:

- Innovation
- Empathy
- Communication
- Team leadership;
- Leadership

In addition to the generic innovation competence scheme, a focus was on management as well as personal skills. It was emphasized that “hard skills” like economics and mathematics need to be part of the entrepreneurship competence.

The following table shows the key results for unemployed:



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
A	Attributes	Character	S/he has good leadership skills, inspirational. Can motivate others and is very focused and driven	Tries a few times but gives up easily.	S/he is not reluctant and gives up at the first big obstacle.	5
A	Attributes	Innovation	He/she is able to adapt concepts and knowledge to new situations and contexts to develop new creative ideas.	He/she tries to understand the innovations or innovative ideas when he/she comes up with.	He/she lacks self-esteem to improve on ideas.	4
A	Attributes	Creativity	S/he is able to use his/her imagination or original ideas to create a method, approach etc.	S/he is not able to improve an existing idea without encouragement or praise.	She lacks confidence to try new ideas, to explore new strategies without supervision.	5
A	Attributes	Communication	He/she listens attentively and has constant contact with partners, etc.	He/she contacts staff, partners and customers but not effectively. Usually by the secretary.	Unable to communicate. Don't listen very well and doesn't understand people.	5
B	Attributes	Risk management	He/she is aware of the risks before, prepared for the possible unforeseen events and	He/she is able to manage the risks but not prepared for the probable cases.	He/she panics when s/he faces a problem or a risk. Can't manage the	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
			don't panic while solving the problems.		process safely. Is unable to take control of a situation.	
B	Attributes	Social (towards /with people)	He/she can develop empathy towards others .Generous towards people,not selfish .He/she has good impression on people.	Sufficient in his/her social contacts.	lacks confidence and social graces to interact with others.	4
A	Competences	Organisational skills / commercial skills	Understanding the needs of market and people .Managing time and work efficiently. Searching cheap but qualified raw materials,etc.	Implementing that market need	Ignore the underlying power balance between the partners, etc.	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
A	Competences	Communication skills	He/she is able to communicate effectively . S/he is able to create networks.S/he can speak appropriately with a wide variety of people whilst maintaining good eye contact, demonstrate a varied vocabulary and tailor his/her language to the audience, listen effectively, present his ideas appropriately, write clearly and concisely and work well in a group .	S/he is sufficient in communication.	Go in with a negative attitude.S/he doesn't spend some time for preparing what s/he wants to say and what to achieve by saying it.	5
A	Competences	Staff Management skills	Motivating her/his team to consistently perform while instilling a desire to improve, as well as cultivate	Manages his staff,partners,company according to some determined rules.He/she is able to	Is unable to understand the rules need to implement positivity, quick tempered,not	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
			employee loyalty to colleagues, him/herself and, ideally, the company with the right attitude and priorities. Praise and reward the staff.	understand staff potentiality and to engage them in motivating tasks	speaking at the correct time. There is no particular attention to human resources.	
B	Competences	Innovation & Creativity	He/she is able to use effectively and confidently ICT as a tool to improve his/her work.	S/he either has ICT skills or can build a reliable staff to manage that kind of things	S/he has no ability to use ICT skills efficiently and is not eager to learn.	5
B	Competences	Economy math & finance	S/he improves the business performance and competes in the global market.	He/she follows the stream of the economy and trend of the market.	very risky investments, bad accounting and judgement.	5
B	Competences	Risk assessment & management	Taking into consideration the risk assessment and tolerance of the organisation. Identify, evaluate and exploit the right risk value comparing with its profit/benefit.	Taking minimized risks whenever possible.	Never taking risks, lacks the ability to assess the risk of the current situation.	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

The next result was developed for students – a similar result was developed with slightly different rankings. Also here, the basic skills for businesses regarding management and underlying disciplines were discussed in detail.

Gro up	Category	Skill	Good	Average	Poor /Bad	Importanc e (Rank 1 to 5)
A	Attributes	Character	S/he has the right characteristics for being an entrepreneur.S/h e is patient,good tempered,modest ,honest,respectful l ,ambitious.	Good tempered,easy going person.	Accepts everthing without evaluating	5
A	Attributes	Innovation	He/she is following all the innovations related to his work and open for new ideas.	He/she tries to understand the innovations or innovative ideas when he/she comes up with.	He/she is closed for new ideas and innovations.	4
A	Attributes	Creativity	S/he is able to use his/her imagination or original ideas to create a method,approach etc.	S/he is not capable to create new ideas or approaches but appreciate his/her staff about their creativity.	No creative ideas .Thinking ordinary.	5
A	Attributes	Communica tion	He/she listens and in good contact with the	He/she contacts staff ,partners and	Unable to communicate.D on't listen ver	5





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
			staff ,partners and customers.	customers but not effective.Usually by the secretary .	vell and doesn't understand people.	
A	Attributes	Risk management	He/she is aware of the risks before,prepared for the possible unforeseen events and don't panic while solving the problems.	He/she is able to manage the risks but not prepared for the probable cases.	He/she panics when s/he faces a problem or a risk.Can't manage the process safely.	5
A	Attributes	Social (towards / with people)	He/she can develop empathy towards others .Generous towards people,not selfish .He/she has good impression on people.	Sufficient in his/her social contacts.	Self-centered,behaving only for his/her own favour.	4
B	Competences	Organisational skills/commercial skills	Understanding the needs of market and people .Managing time and work efficiently. Searching cheap but qualified raw materials,etc.		Ignore the underlying power balance between the partners, etc.	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
B	Competences	Communication skills	He/she is able to communicate effectively . S/he is able to create networks.S/he can speak appropriately with a wide variety of people whilst maintaining good eye contact, demonstrate a varied vocabulary and tailor his/her language to the audience, listen effectively, present his ideas appropriately, write clearly and concisely and work well in a group .	S/he is sufficient in communication.	Go in with a combative attitude.S/he doesn't spend some time for preparing what s/he wants to say and what to achieve by saying it.	5
B	Competences	Staff Management skills	Motivating her/his team to consistently perform while instilling a desire to improve, as well as cultivate employee loyalty to colleagues, him/herself and, ideally, the company with the	Manages his staff,partners, company according to some determined rules.He/she is able to understand staff potentiality and to engage	quick tempered,not speaking in he right time.There is no particular attention to human resources.	5





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
			right attitude and priorities. Praise and reward the staff.	them in motivating tasks		
B	Competences	Innovation & Creativity	He/she is able to use ICT as a tool to improve his/her work.	S/he either has ICT skills or can build a reliable staff to manage that kind of things	S/he is far away to ICT skills and not eager to learn.	5
B	Competences	Economy, math & finance	S/he improves the business performance and compete in global market.	He/she follows the stream of the economy and trend of market.	very risky investments, bad accounting.	5
B	Competences	Risk assessment & management	Taking into consideration the risk appetite and tolerance of the organisation. Identify, evaluate and exploit the right risk value comparing with its profit/benefit.	Taking minimized risks whenever possible.	Never taking risks or taking risks without evaluation of the current situation.	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

The last category describes the results for the teacher level:

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
A	Attributes	Character	S/he has the right characteristics for being an entrepreneur. S/he is patient, hardworking, modest, determined, resistant, ambitious. Doesn't give up easily, go to the end to achieve.	Tries a few ways to achieve but not insist to achieve.	S/he is not resistant and give up at the first big obstacle.	5
A	Attributes	Innovation	He/she is following all the innovations related to his work and open for new ideas.	He/she tries to understand the innovations or innovative ideas when he/she comes up with.	He/she is closed for new ideas and innovations.	4
A	Attributes	Creativity	S/he is able to use his/her imagination or original ideas to create a method, approach etc.	S/he is not capable to create new ideas or approaches but appreciate his/her staff about their creativity.	No creative ideas. Thinking ordinary.	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
A	Attributes	Communication	He/she listens and in good contact with the staff ,partners and customers.	He/she contacts staff ,partners and customers but not effective.Usually by the secretary .	Unable to communicate.Don't listen very well and doesn't understand people.	5
B	Attributes	Risk management	He/she is aware of the risks before,prepared for the possible unforeseen events and don't panic while solving the problems.	He/she is able to manage the risks but not prepared for the probable cases.	He/she panics when s/he faces a problem or a risk.Can't manage the process safely.	5
B	Attributes	Social (towards/ with people)	He/she can develop empathy towards others .Generous towards people,not selfish .He/she has good impression on people.	Sufficient in his/her social contacts.	Self-centered,behaving only for his/her own favour.	4
A	Competences	Organisational skills/ commercial skills	Understanding the needs of market and people .Managing time and work efficiently. Searching cheap		Ignore the underlying power balance between the partners, etc.	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
			but qualified raw materials,etc.			
A	Competences	Communication skills	He/she is able to communicate effectively . S/he is able to create networks.S/he can speak appropriately with a wide variety of people whilst maintaining good eye contact, demonstrate a varied vocabulary and tailor his/her language to the audience, listen effectively, present his ideas appropriately, write clearly and concisely and work well in a group .	S/he is sufficient in communication .	Go in with a combative attitude.S/he doesn't spend some time for preparing what s/he wants to say and what to achieve by saying it.	5
A	Competences	Staff Management skills	Motivating her/his team to consistently perform while instilling a desire to improve, as well as cultivate	Manages his staff,partners,company according to some determined rules.He/she is	quick tempered,not speaking in he right time.There is no particular attention to	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Gro up	Category	Skill	Good	Average	Poor / Bad	Import ance (Rank 1 to 5)
			employee loyalty to colleagues, him/herself and, ideally, the company with the right attitude and priorities. Praise and reward the staff.	able to understand staff potentiality and to engage them in motivating tasks	human resources.	
B	Competences	Innovation & Creativity	He/she is able to use ICT as a tool to improve his/her work .	S/he either has ICT skills or can build a reliable staff to manage that kind of things	S/he is far away to ICT skills and not eager to learn.	5
B	Competences	Economy, math & finance	S/he improves the business performance and compete in global market.	He/she follows the stream of the economy and trend of market.	very risky investments, bad accounting.	5
B	Competences	Risk assessment & management	Taking into consideration the risk appetite and tolerance of the organisation. Identify, evaluate and exploit the right risk value comparing with its profit/benefit.	Taking minimized risks whenever possible.	Never taking risks or taking risks without evaluation of the current situation.	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

As a summary, the initial competences were validated and discussed. The result from the group has emphasized further competences with a focus on managerial and technical / “hard” skills.

4.4 Italy

Three focus groups were conducted for all three target groups (n1=20, n2=9, n3=9)

In the discussions, several generic competences have been identified as important:

- Communication
- Business Acumen
- Team leadership;
- Order and quality
- Innovation
- Leadership

Interestingly, the groups focused also on basic underlying skills (economics, mathematics, law, and politics). An additional part of the discussion focused on personal attributes, in particular regarding the affective dimension. The following attributes were found:

Attitude				
				Resilience
				Self control
			Coping	Professionality
			Forward-looking	Determination - resolution
	Modest	Active	Self-confident	Confidence
	Fair play	Dynamic		Charismatic
	Politically correct	Sincere	Ability to share and transfer knowledge	Leadership
	Democratic	Honest	Education and values	Responsible
Cheerful	Pleasant/nice	Respect	Reliable	Optimistic

This can serve as a starting point for the game development regarding personal skills beyond personal motivation.

The following tables show the detailed results of the discussions by target group including initial proficiency levels.



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Table 4: Competences Unemployed Italy

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
A	Competence	Task management	When solving problems, he/she is able to establish a good chain of command but he/she is also positive and cheerful	Tasks reduction	Lack of democracy	
A	Competence	Ability to understand people needs	Mutual respect, Problem sharing	Introverted/s hy	Mobbing	
A	Competence	ICT	High level advertising	Having a website	Having only a facebook page	
B	Competence	Reliable	You do not have doubts about his/her actions	It is not clear what he/she will do	He/she will disappoint you	
B	Competence	Collaborative	It is possible to build a relationship of trust and respect among colleagues	There are some difficulties to work in group	He/she is not able to work in group	
B	Competence	Public relation	There is good communication	There are some misunderstanding	There is no accord at all	
C	Competence	Public relation	He/she is able to strongly collaborate with others			



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
C	Competence	Task management		He/she is not able to respect deadlines		
C	Competence	Reliable			Colleagues do not trust him/her	
A	Attitude	Professionalism	He/she is up-to-date	He/she feels of as it is	Indifference (apathy) towards the work	
A	Attitude	Charismatic	Good participation (involvement)	Ineffective enthusiasm	Lack of synergy/understanding	
A	Attitude	Respect	People feel free to express their ideas	Apathy	Bad relationships	
B	Attitude	Resolution	He/she tries hard to reach the goal despite all difficulties	Difficulties affect his/her work	He/she abandons the goal due to the experienced difficulties	
B	Attitude	Cheerful	He/she is able to hold back his/her problems	He/she is not able to hold back his/her problems but keeps smiling	He/she is not able to overcome his/her problems	
B	Attitude	Charismatic	He/she is able to instill all his/her passion	He/she is able to share just some of	He/she is not able to encourage	



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
				his/her passion	his/her colleagues	
C	Attitude	Leadership	He/she is able to promote a strong collaboration between others			
C	Attitude	Responsible		He/she is not so focused on the objectives		
C	Attitude	Forward-looking				

Table 5: Competences Students

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
A	Attitude	Ability to deal with people	I understand the character of my colleague and I take it in consideration in my decisions	He/she is able to say in a good way to a staff member that he is wrong	He/she takes advantage of someone else in order to meet his/her own objectives	2
A	Attitude	Open mind	He/she is able to take a good decision thanks also to other people suggestions and point of view	In a discussion, he/she understands to be mistaken and changes his/her mind	Nothing changes after listening to other people ideas	4



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
A	Attitude	Creativity	He/she is able to find a different solution if the one in place is not effective	He/she has more than 1 idea	Things do not go as expected and he/she panics	3
A	Attitude	Persuasive/determined	He/she is able to convince other people and pass on his/her enthusiasm	He/she presents a project but people do not fully understand it	He/she is not able to complete his/her projects because they are too difficult	5
B	Attitude	Critical thinking	He/she is able to give up on an idea that is not working	He/she is able to re-adapt its own idea if it is not going well	He/she goes on even if his/her idea is not working	5
B	Attitude	Leadership	He/she is a good example for his/her colleagues and they perceive him/her in this way	He/she is not dedicated	He/she is not influential	5
B	Attitude	Public relation				3
B	Attitude	Determination				5
B	Attitude	Intuitive				4
B	Attitude	Creativity	He/she has innovative ideas	He/she has very few ideas	He/she has no ideas	4



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
				and do not believe in them		
A	Competence	Broad minded	He/she understand the overall situation and at the same time percieve the sigle aspects		He/she analyse the single aspects but is not abel to have a broad understanding of what is going on	5
A	Competence	Ability to make oneself clear	Everyone understand what he/she is presenting and is wishing to pass on them		He/she is not able to provide explanations	3
A	Competence	Decision making	He/she is able to understand what is the best decision	He/she is able to percive the main decisions	He/she is not able to analyse the possible solutions and take a good decision	4
A	Competence	Present ations and speakin g Skills	He/she is able to present and all listeners understand well	He/she has a good vocabulary but doesn't feel confidents	He/she panics when is supposed to speak in public	4
A	Competence	Mathe matics - Economi cs	He/she is able to do all major operations to have a broad understaning of what is going on	He/she takes timeto do all major operations and acquire a broad understaning	He/she needs assistance in carrng out major economic and	3



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
				of what is going on	mathematic operations	
A	Competence	Ability to analyse and evaluate the situation	He/she is aware of pros and cons of his/her decisions	He/she is not aware of the details	He/she decides only according to the final objective	4
B	Competence	ICT skills	He/she is able to install and personalize a program	Guided set up of a program	He/she is not able to set up a program	4
B	Competence	Language skills	He/she speak 3 or more languages	He/she speak at least english	He/she knows only his/her mother tongue	5
B	Competence	Management	Management of working groups	He/she works with partners	He/she needs external experts	3
B	Competence	Economics	He/she is able to produce a balance sheet	He/she is able to read and understand a balance sheet	He/she is unable to read and understand a balance sheet	3
B	Competence	How things goes	He/she keeps himself/herself update and feels interested in what is happening worldwide	He/she is passively informed	He/she is not interested in what is going on	4



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
B	Competence	Sector specific skills	He/she keeps attending sector specific training	He/she works with the acquired knowledge	He/she feels to be up to date	5

Table 6: Competences Teachers and stakeholders Italy

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
A	Attributes	Motivation	Awareness. He/she overcomes possible obstacles with energy	<-- Intermediate --> Awareness without energy or vice versa	It is satisfied with what he/she gets	5
A	Attributes	Creativity / flexibility	He/she is able of taking the risk and also the responsibilities that it carries	He/she stops in front of the current situation (reality - what is going on)	He/she performs without thinking	4
A	Attributes	Communication / Listening	Understanding and interest in others. Ability to fully express and share its own ideas	<-- Intermediate -->	Lack of interest. Poor communication with low attention no feedback	4
A	Attributes	Leadership	He/she is able to take on responsibilities	Looks at others first and afterwards take in	Unable to take on responsibilities	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
				consideration his/her self		
B	Attributes	Leadership	He/she acts like a mode and is able to drive others easily (inspire, motivate)	He/she is a hard worker but finds difficult to lead, to drive others	He/she is not charismatic	5
B	Attributes	Listening	He/she is able to listen to and consider both internal and external inputs	Listening to internal and external inputs is not well balanced	Self-referential	4
B	Attributes	Management of unforeseen events	Flexible (he/she is not anxious)	Too much analytical thinking. Problem solving is therefore slowed down	He/she panics easily	5
B	Attributes	Selling skill	Persuasive, convincing	Is not able to pick up the needs of the client	He/she does not understand the importance of promotion and selling	4
A	Competences	ICT skill	He/she understands risks and opportunities (resources). He/she is able to	He/she is a good user	He/she believes that ICT skills are all	5





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
			use ICT as a tool to improve his/her work and not as the objective of the work			
A	Competences	Economy & Law	He/she is able to understand how prepared and skilled is the consultant	He/she has few knowledge of law/economics and is aware of it	He/she knows nothing of law/economics and/or thinks to know enough	5
A	Competences	Organisational skill	Time awareness. The work has to be based on results rather than time needed to complete it.	He/she believes that is enough to participate	He/she wait for instructions He/she is not able to plan and manage He/she doesn't feel planning and management as a priority	5
B	Competences	Communication/Listening	He/she is able to communicate effectively and clearly his/her ideas and goals. Ability to create networks	Unclear communication of the objectives	He/she is not able to expose his/her idea	5
B	Competences	Organisational skill	Effective management of time, processes	He/she is aware of the importance of	He/she is unable to identify and	4



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
			and methodologies	resource but no main changes have yet occurred	improve procedures	
B	Competences	Human resources	He/she is able to understand staff potentiality and to engage them in motivating tasks	Human resources are managed according to needs	There is no particular attention to human resources	4
B	Competences	Innovation	Strategic view	He/she follows the trend of the market	He/she is able to contribute	5

As a summary, different profiles were created for each target group. The surprising result was the focus on personal attributes / skills which can guide the affective dimension of the game development.

4.5 Ireland (DCU)

Three focus groups were conducted for all three target groups (n1=10, n2=8, n3=4)

As shown below, the discussions also focused partly on personal attributes which are more detailed than the general competence scheme. The following tables show the detailed results of the discussions by target group including initial proficiency levels.





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Table 7: Competences Unemployed Ireland

Group	Category	Skill	Good	Average	Poor/Bad	Importance (Rank 1 to 5)
B	Attributes	Start up new businesses	Comes up with ideas for business that are different from others	Comes up with the same ideas as others - but locates the company in a different location	No money - company fails	3
B	Attributes	Money	Lots of money	Enough	None	5
B	Attributes	Risk-taking	Good achievement	Average achievement	Poor achievement	5
B	Attributes	Generating ideas	visionary, innovative, keeping up with the technological age	short term vision	not committed e.g. to local community	4
B	Attributes	Motivated	Someone who knows what they are doing	Someone now too sure about what they are doing	Someone who hasn't a clue what they are doing	4
B	Attributes	Clever	Business works and they make a lot of money. Billionaire	Millionaire	Make less money than on unemployment benefit. Bankrupt.	5
B	Attributes	Ideas	Creates money	Saturation	Uninspiring ideas	5
B	Attributes	Think outside the box	Lateral thinker	Linear thinker	someone who doesn't think at all	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
B	Attributes	Never worry about failure	Richard Branson	Jet 2	Concorde	3
B	Attributes	Investment	ability to identify a market niche	ability to see a market but not sustain it	no commitment to local market	4
B	Attributes	Initiative	Paradigm shift	No manufacturing process	Implementing initiatives - too expensive	5
B	Attributes	Risk-taker	willing to take risks	taking too many uncalculated risks	Wreckless	5
B	Attributes	Self-motivated	High confidence	Loss of interest (in projects)	Not show up (at work)	5
B	Attributes	Start up companies or take over other companies	Expanding businesses - new diverse ideas	Businesses world-wide but no diverse ideas	New start up companies not working out	3
B	Attributes	Enterprising	Well researched ideas	Moderately researched ideas	Poor research - ideas	4
B	Competences	Leadership	Making up your mind and being decisive	Can't make up your own mind and listen to other people	Influenced by negative comments	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
B	Competences	Be creative	Lots of ideas	Copies ideas	No ideas	5
B	Competences	Driven	Someone who knows what they are doing	Can be distracted	Demotivated	5
B	Competences	Ruthless	Doesn't let anyone stand in their way	Takes people into account (before taking action)	Likes people (which influences his/her decision making)	5
B	Competences	Sociable	Good to community	Unaware of real social programmes i.e. out of touch	Social engineering	5
B	Competences	Decisive	Aware of talent and opportunity	Unable to see real progress	Poor time keeping and time management	5
B	Competences	Focused	Doesn't get distracted	Can be distracted	Very easily distracted	5
B	Competences	Self-motivated	Wants to succeed	Loss of heart when things do not work out	Gives up	5
B	Competences	Creative	Lots of ideas	Uses someone else's ideas	No ideas to take the business forward	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Table 8: Competences Students Ireland

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
C	Attributes	Leadership	Being able to take charge, helping staff, encouraging staff training.	Being able to run most of the business but not seeing the value of upskilling staff but telling others what to do.	Not able to run a business or the point in upskilling staff. Not setting an example.	5
c	Attributes	Teamwork	Very good team member.	Working okay with others.	Unable to work effectively with others.	2
c	Attributes	Motivation	Not easily discouraged.	Rarely discouraged.	Easily discouraged.	4
c	Attributes	Risk taker	S/he is able to take risks.	S/he is willing to take some risks.	Unable to take risks.	3
c	Attributes	Innovative	Able to think of new ideas and new ways to succeed.	Has some ideas.	Does not have ideas.	5
c	Attributes	Marketing	Able to explain their markets and sell their products.	Able to sell their products.	Unable to sell their products.	4
c	Attributes	Hard working	Does the necessary work and more to	Does some work but not fully committed	Puts in a limited amount of time	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
			make business a success			
c	Attributes	Adaptability	able to think of new ideas and adapt.	Has new ideas but slow to implement	Not good with new ideas.	3
c	Competences	Marketing	Good knowledge of target market.	Reasonable knowledge of target markets.	Neglecting to advertise.	4
c	Competences	Knows how to run a business	Good knowledge.	Some knowledge.	No knowledge.	5
c	Competences	Knows competition	Knowing all competition and prices.	Some knowledge of competitors and prices.	Unaware of market.	4
c	Competences	Knows market	Knows how to manipulate the market to use for advantage.	Knows the market well enough to see openings.	No real knowledge of market.	5
c	Competences	Knows how to sell and promote product	Extensive knowledge of product, able to describe their product well. Passionate about product, persuasive selling techniques	Average knowledge of product. Interested in product but average selling techniques	Poor knowledge of product and selling techniques. Does not inspire, describes product hesitantly	5



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
c	Competences	Networking	Has a lot of contacts, have knowledge of manufacturers and suppliers, knows competitors and their set price	Some contacts, average knowledge of manufacturers and suppliers	Limited or no contacts in the business, limited or zero knowledge of manufacturers and suppliers	5

Table 9: Competences stakeholders Ireland

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
A	Attributes	Psychology	Resilient, tough, persistent and follows through	Reasonably tough, but exits early without persistency	Tries it once or twice and leaves	5
A	Attributes	Finance	Able to calculate value and adjust based on facts	Able to work out value	Works out value once or twice but does not change	4
A	Attributes	Negotiation and influence	Able to convince all sorts of people to help: bankers, customers, family & friends	Able to convince people at some level but not others e.g. bankers but not family	Able to convince limited people like family but unconvincing otherwise	4



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
A	Attributes	Leadership	Leading by example, leading from the front	Managing bad, not leading	Being driven by outside factors	5
A	Attributes	Strategic thinking	What if, seeing the big picture	Reacting to change too late	Not considering the outcomes	4
A	Attributes	Teamwork	Finding and leading the right team	There is no average teamwork	Micromanagement - choosing the wrong team members	4
A	Attributes	Business acumen	Know exactly where they want to go i.e. 5 year plan	Have a good idea but haven't thought further than 1-2 years	No plan in place	4
A	Attributes	Competitive knowledge/ research	Need to understand other competitors doing same/similar thing as to your idea	Some research done	No research done	5
A	Competences	Tenacity	Persistent in selling idea	Not following up	Not following up	5
A	Competences	Creativeness	Coming up with new ways to present	Keeping same format	No original thought	4



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Group	Category	Skill	Good	Average	Poor / Bad	Importance (Rank 1 to 5)
A	Competences	Flexibility	Ready for anything	Not being flexible	Rigid/fixed	4
A	Competences	Market knowledge	Knowing trends, finding chances, acting instead of reacting	Going with the flow	Reacting to trends too late	5
A	Competences	Financial basics	Understand economics and run healthy company	Short-term financial planning	Not seeing financial risks	4
A	Competences	Passion	Loves what they do and it shows	Cares a bit	Keeps changing their mind	3
A	Competences	Strategy	Anticipates market changes	Reacts to market changes	Does not react to market	4
A	Competences	Tactics	Regularly creates new tactics	Sometimes creates new tactics	Rarely creates new tactics	4
A	Competences	Sales	Can sell consistently	Sometimes sells	Fails to sell	5
A	Competences	People skills	Great communicator: visually, virtually, face to face, presenting, 1:1, 1:N	Good communicator but stops communicating when under pressure	Poor communicator	4



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

4.6 Bulgaria (BIA)

In the following, we describe the results of the focus groups in Bulgaria – the documentation was slightly different leading to a slightly different reporting in the following.

Three focus groups were conducted for all three target groups (n1=7, n2=12, n3=15)

The following participants' structure was given

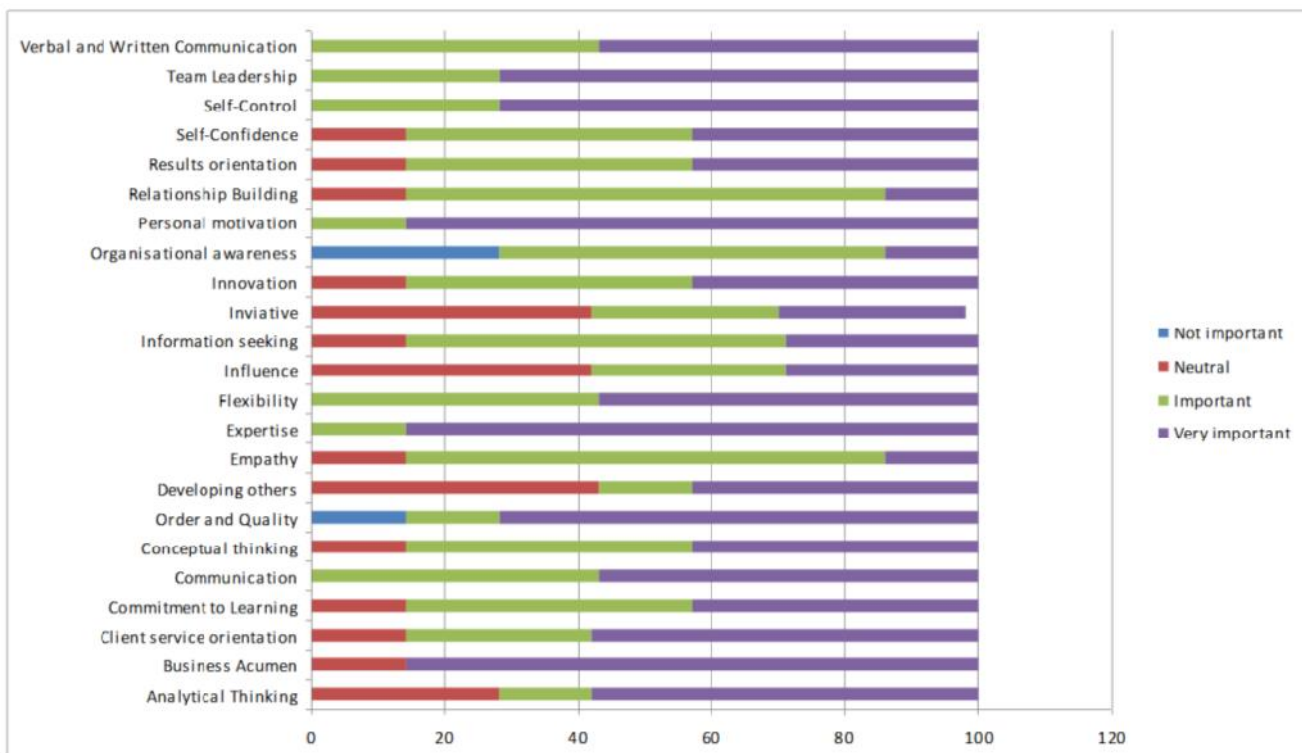
Focus group /type of participants/	Total No.	Education					Age (years)					
		High Master	High Bachelor	Vocational Bachelor	Secondary	Primary	18 - 25	26 - 35	36 - 45	46 - 55	56 - 65	Over 65
Unemployed	7	3		1	3		1	1	1	1	3	
Students	12		1		11		11	1				
Teachers, company staff, labour exchange	15	6	9						4	4	7	

The focus groups discussed according to the pre-defined competences. In the following, we briefly show the results for the different target groups.

Target group Unemployed

Table 10: Competences Unemployed Bulgaria

•



In the context of abilities associated with entrepreneurship, the TOP 7 competences being a major priority for unemployed people are as follows:

•

1. Business Acumen
2. Expertise;
3. Personal motivation;
4. Team leadership;
5. Self-control;
6. Order and quality;
7. Flexibility.

•

The least important degree according to unemployed people have the competences:

•

1. Organisational awareness;
2. Initiative;
3. Influence;



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

4. Developing others.

•

Additional abilities and competences, which can be included in the entrepreneur's profile according to the unemployed people:

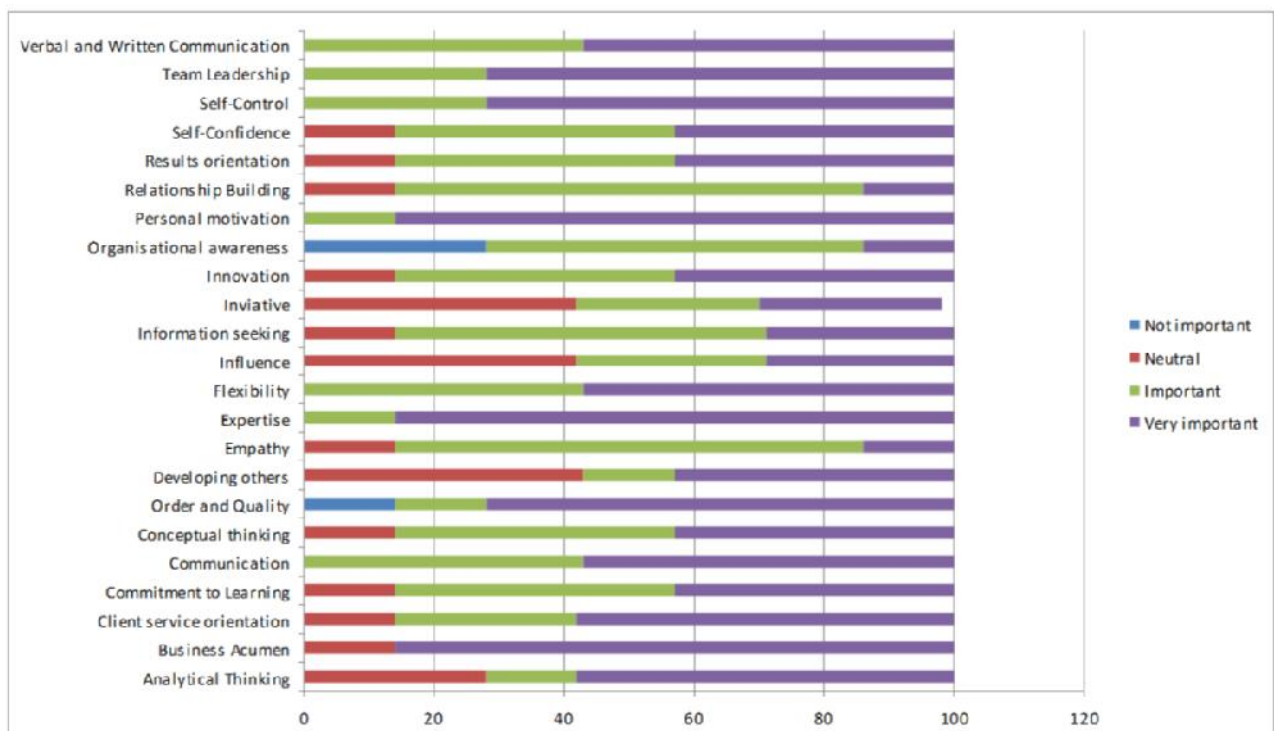
•

- Respect and taking into consideration the labour rights and dignity of people with whom we work;
- Honesty and openness;
- Ability to evaluate job performance and contribution of employees;
- Ensuring safe and healthy conditions of work;
- Decision making and problem solving;
- Monitoring and control of performance;
- Planning and forecasting;

Target group Students

The second focus group included students. Again, the discussion was done around the key competences. The following table visualizes the results.

Table 11: Competences Students Bulgaria



•



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

In the context of abilities of the young entrepreneur, the TOP 7 competences being a major priority for students are as follows:

1. Innovation;
2. Self-confidence;
3. Initiative;
4. Information seeking;
5. Flexibility;
6. Expertise;
7. Order and quality.

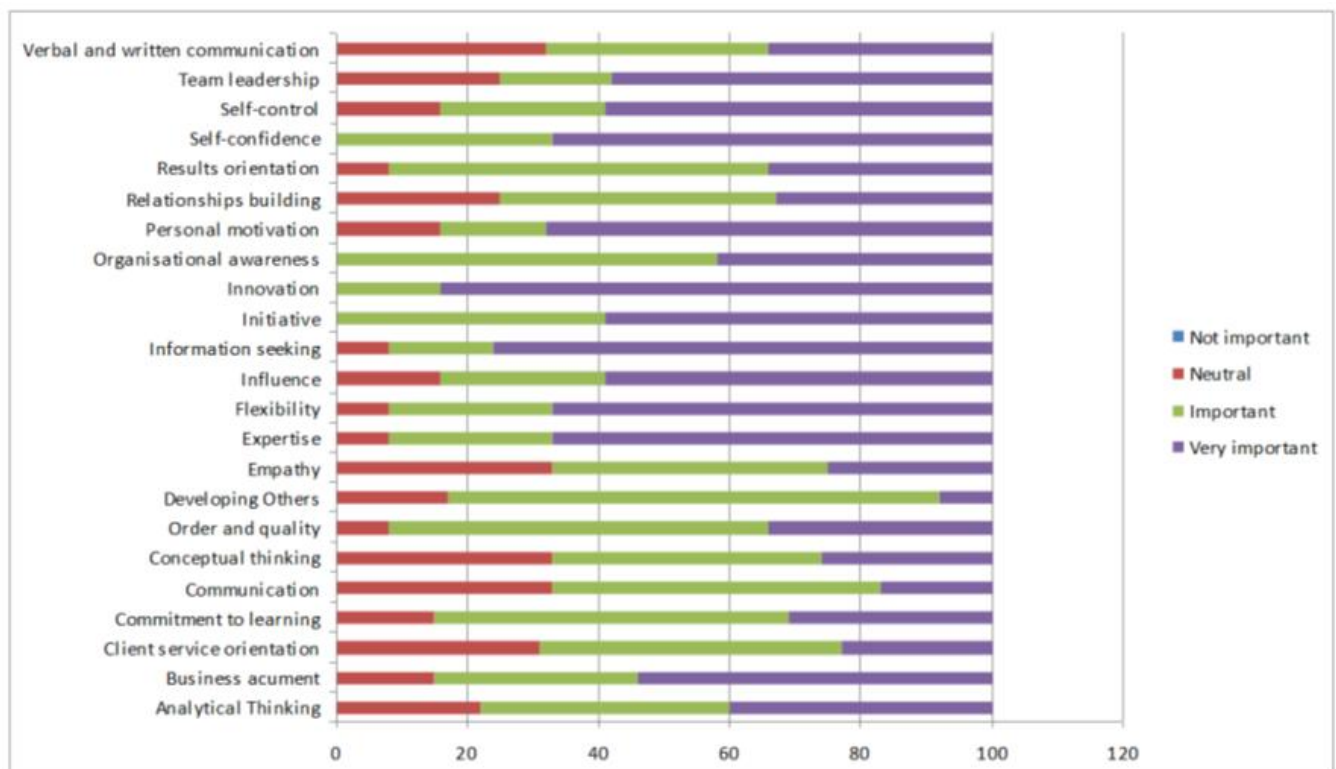
The least important degree according to school and university students have the competences:

1. Empathy;
2. Verbal and written communication;
3. Communication;
4. Client service orientation.

Target group Teachers

The last target group included teachers and professionals. The results are visualized in the following table.

Table 12: Competences Teachers Bulgaria





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Competences of highest degree of importance:

1. Business acumen
2. Initiative
3. Analytical thinking
4. Expertise
5. Self-confidence
6. Relationships building
7. Developing others

Competences of lowest degree of importance:

1. Organisational awareness
2. Order and quality
3. Conceptual thinking

Summarizing the results, the following table shows the overall competences and their importance. The main competences are highlighted in grey.

No	Competence	Very unimportant	Not important	Neutral	Important	Very Important	Total
01	Analytical Thinking	0	5.8	14.7%	11.76%	67.62	100%
		0	2	5	4	23	34
02	Business Acumen	0		8.82%	11.76	79.42%	100%
		0		3	4	27	34
03	Client Service Orientation	0		26.8%	32.39%	41.17%	100%
		0		9	11	14	34
04	Commitment to Learning	0		23.52%	44.13%	32.35	100%
		0		8	15	11	34
05	Communication	0		14.7	44.13%	41.17%	100%
		0		5	15	14	34
06	Conceptual Thinking	0		20.63%	41.17	38.2%	100%
		0		7	14	13	34





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Nº	Competence	Very unimportant	Not important	Neutral	Important	Very Important	Total
07	Order and Quality	0	2.9%	8.85%	52.96%	35.29	100%
		0	1	3	18	12	34
08	Developing Others	0		14.7%	29.42	55.88%	100%
		0		5	10	19	34
09	Empathy	0		20.6%	38.23%	41.17%	100%
		0		7	13	14	34
10	Expertise	0		2.94%	11.77%	85.29%	100%
		0		1	4	29	34
11	Flexibility	0		2.94%	26.48%	70.58%	100%
		0		1	9	24	34
12	Influence	0		20.6%	23.52	55.88%	100%
		0		7	8	19	34
13	Information Seeking	0		8.83%	20.59%	70.58%	100%
		0		3	7	24	34
14	Initiative	0		8.83	20.59%	70.58%	100%
		0		3	7	24	34
15	Innovation	0		2.94%	20.59	76.47	100%
		0		1	7	26	34
16	Organizational Awareness	0		8.83%	35.29%	55.88%	100%
		0		3	12	19	34
17	Personal Motivation	0		2.94%	11.77%	85.29	100%
		0		1	4	29	34
18	Relationship Building	0		11.77%	29.41%	58.82	100%
		0		4	10	20	34



O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Nº	Competence	Very unimportant	Not important	Neutral	Important	Very Important	Total
19	Results Orientation	0		11.76	29.41%	58.82%	100%
		0		4	10	20	34
20	Self-Confidence	0		2.94%	20.59%	76.47%	100%
		0		1	7	26	34
21	Self-Control	0		5.89%	20.59%	73.52%	100%
		0		2	7	25	34
22	Team Leadership	0		8.83%	23.53%	67.64%	100%
		0		3	8	23	34
23	Verbal and Written Communication	0		14.71%	35.29%	50%	100%
		0		5	12	17	34





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

5. Results: Survey

In the following, we describe the results of the survey. We show briefly the outline of the study followed by the detailed results by target groups. In the study, we have two main approaches: self-assessments of the participants in which they rate their own competence level ("competence self-assessment"). This helps us to better understand competence gaps which should be filled by the business game. Secondly, we ask for the (general) importance of competences for entrepreneurs ("desired competences"). This helps us to further develop a competence scheme for this domain. We show both, aggregated results as well as specific results by target groups and countries to illustrate differences (and thus adaptation needs for the business game).

5.1 Results: Demographic Data

In the following, we briefly describe the demographic data of the participants.

Table 13: Demographic data

Age Bands	Overall P4G sample	Country					
		Greece	Turkey	Italy 2nd	Italy 1st	Bulgary	Ireland
< 18	33,3	1	57,5	55,6	4,6	10	18,8
18 to 25	22,2	57,8	3,1	41,9	37,1	14,3	15,8
26 to 35	15,8	20,6	16,6	0	15,2	37,1	13,5
36 to 45	15,7	15,7	16,3	0	13,3	15,7	30,8
46 to 55	8,7	2,94	6,2	2,6	17,2	8,6	15,8
56 to 65	3,7	1	0,3	0	12,6	11,4	3,8
66 or older	0,5	1	0	0	0	2,9	1,5

Overall, about a third of participants is younger than 18 years. The second largest group of participants is about 18 to 25 years old. In similar terms participants are about 26 to 45 years old. While about 8 % are 46 to 55 years old, only a low number of participants are between 56- and 65 years. Not at last, only about five people are above 66 years or older. Overall, the P4G sample has thus a skew towards young participants.





O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

Compared to the balanced distribution across age bands, the representation within country samples diverges more strongly. In Greece, for example, half of all participants are between 18 and 25 years old. In Turkey, more than half of all participants are below 18 years. The first sample in Italy has about 90% participants who are below 25 years, however, the second sample represents only 41,7% participants who are below 25 years old. Bulgaria and Ireland have a more balanced distribution across participants; the majority represents participants who are between 19 and 55 years old. Given the diverging distribution of age bands between countries, it may be more considerate to refer to the overall sample when competences are assessed.

Table 14: Gender Distribution

Age Bands	Overall P4G sample	Country					
		Greece	Turkey	Italy 2nd	Italy 1st	Bulgary	Ireland
Female	53	66	48	44	56	59	55
Male	47	34	52	56	44	41	45

While the distribution of age bands is varied, the representation of gender is quite balanced. Overall about 53% females and 47% of males have taken part in the survey. Apart from Greece where only 34% male were involved, the balance ranges between 41 to 59 % (Bulgaria) and 4:5 distribution of participants (Italy, Ireland, Turkey).

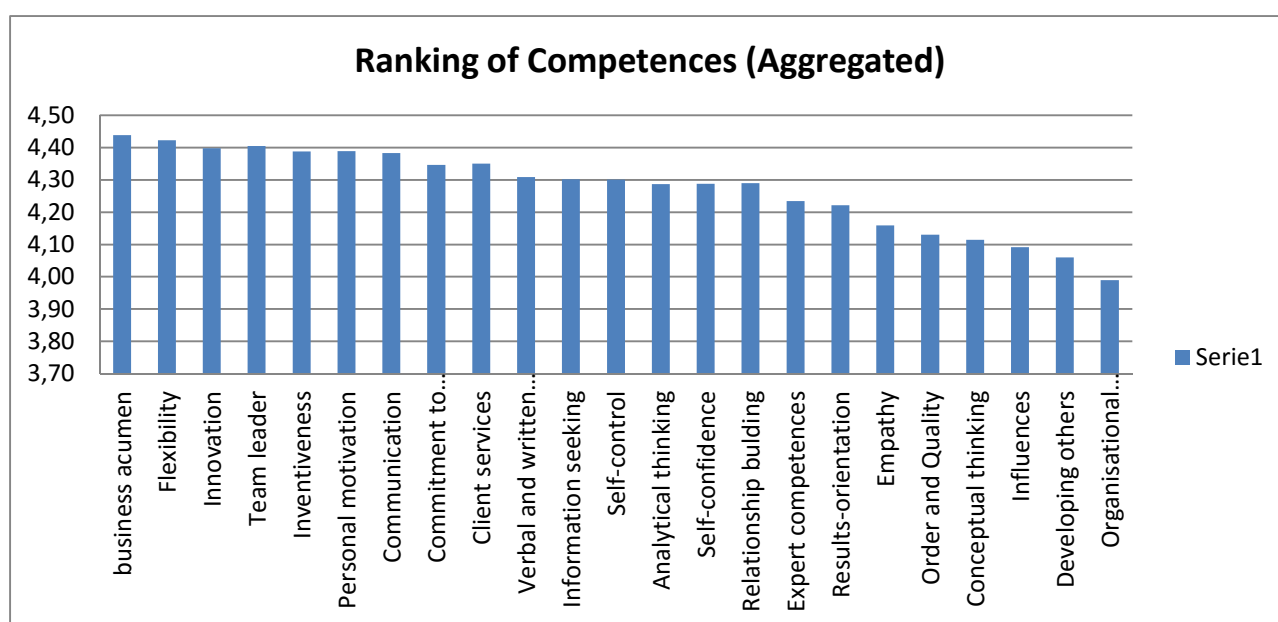
5.2 Results: Competences (Aggregated)

In the following, we briefly describe the aggregated results of our study regarding desired competences for entrepreneurs and competence gaps. It must be noted that this aggregation can only provide an initial overview of the results. However, as the results differ strongly by target group and by country, the interpretations and recommendations should not be solely based on the aggregated results.

5.2.1 Desired Competences for young entrepreneurs (Aggregated)

Participants were asked to rate a set of competences for young entrepreneurs by a 5-point Likert scale (unimportant / not important/ neutral / important / very important) in an uncompetitive basis. The following report will provide the simple average mean (in brackets) for the overall data set.

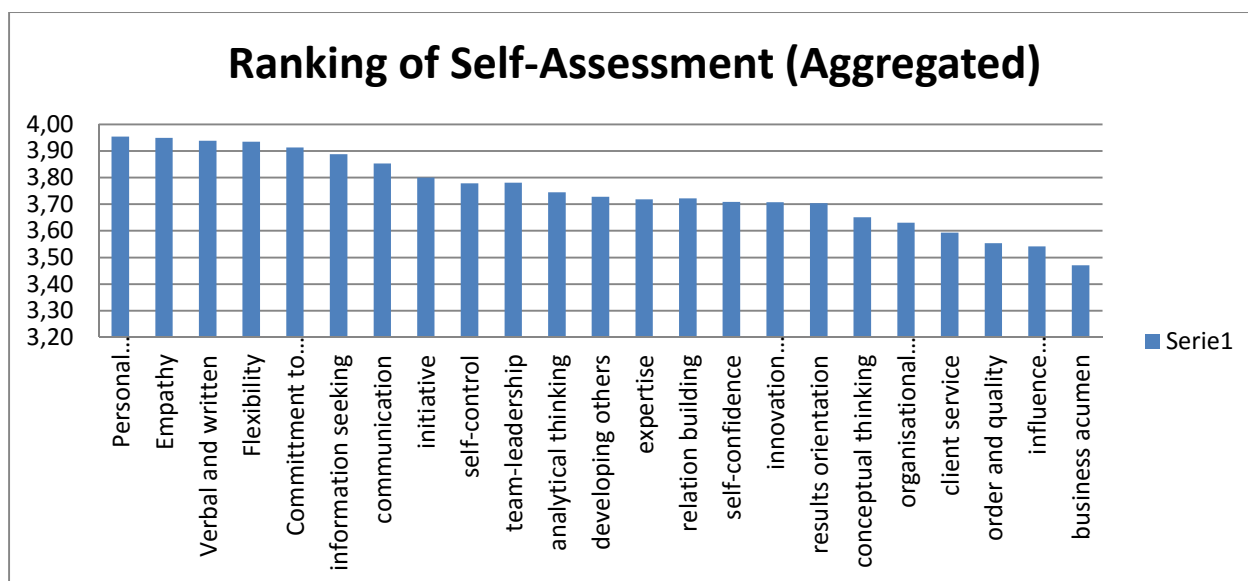
The first most important competence across participants is business acumen (4,44), which was defined as: The ability to discover opportunities and transform resources into performance. This competence is closely followed by the competence flexibility (4,42), defined as: The ability to effectively adapt to a variety of situations. On the third rank, the competences innovation (4,0) and team leadership (4,0) were chosen, defined as : The ability to make something new and to improve performance; as well as: The ability to create a favorable environment and mobilize people to succeed. The ranking of other competences is shown in the following figure.



5.2.2 Competences Self-Assessment (Aggregated)

Participants were asked to rate / assess their current state of competences by a 5-point Likert scale (inexperienced, introductory, intermediate, advanced, expert) in an uncompetitive basis. The following report will provide the simple average mean (in brackets) for the overall data set.

The overall ranking of self-competences indicates that personal strengths are assumed regarding personal motivation and empathy (3,95) as well as verbal and written competences (3,94). In contrast, a major deficit in competences is seen in business acumen competences (3,47) and influencing others (3,54). The ranking of other competences can be traced in the figures below.



5.3 Results: Competences by Country

To understand the needs and requirements of participants, we asked for a self-assessment regarding different competences. This allows us to understand which competence gaps are likely in each target group.

Our study has shown strong differences between countries. Therefore, we show the differing results which might lead to different approaches in the business game to be designed.

5.3.1 Desired Competences for young entrepreneurs per country

Across countries, the ranking of important competences for young entrepreneurs varied. Participants in Bulgaria, for example rank flexibility (4,58), personal motivation (4,55) and self-control (4,53) as the most important competences for young entrepreneurs. In Greece, participants ranked business acumen (4,44), flexibility, (4,49) and self-control (4,39) as the most important competences). In Ireland, the competence personal motivation (4,65), initiative (4,52) and relationship building (4,53) are ranked highest. In comparison to this the general sample in Italy ranked flexibility (4,54), team leadership (4,52) and business acumen (4,51) as the most important competences. The second sample in Italy, in contrast, ranked business acumen (4,57), team leadership (4,54) and innovation (4,49) plus client services (4,49) as the most important competences. Finally, Turkey ranked communication competences (4,48), commitment to learning (4,42) and empathy (4,41) as the most important competence.

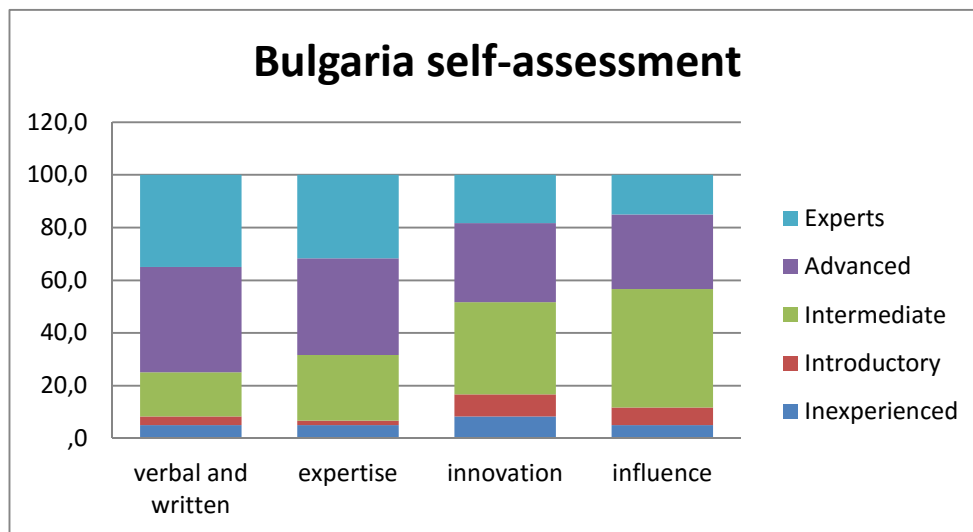


O2 Initial Assessment. The Greatest Common Denominator Skills Matrix

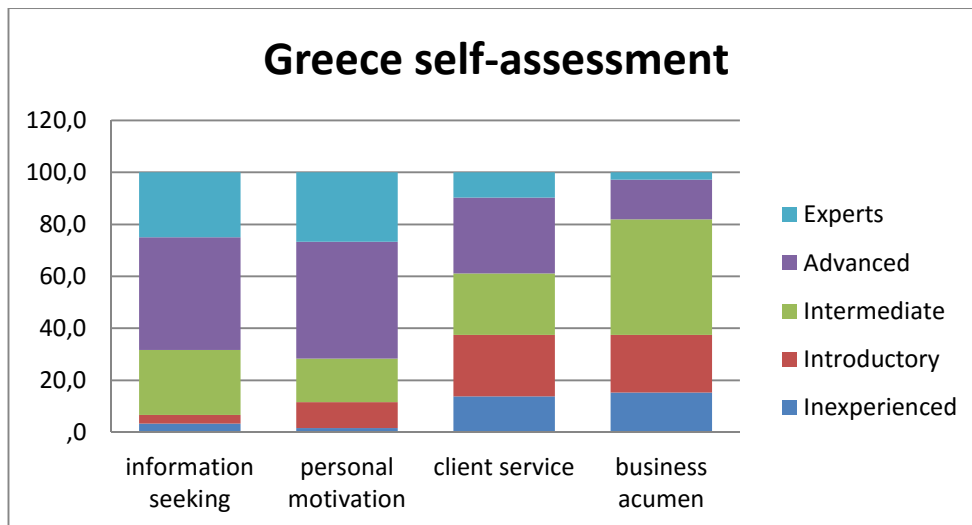
5.3.2 Competence Self-Assessment for young entrepreneurs per country

Also in terms of reporting self-assessments, the responses varied across countries. In the following, the major strengths are shown on the left side while deficit competences are shown on the left side.

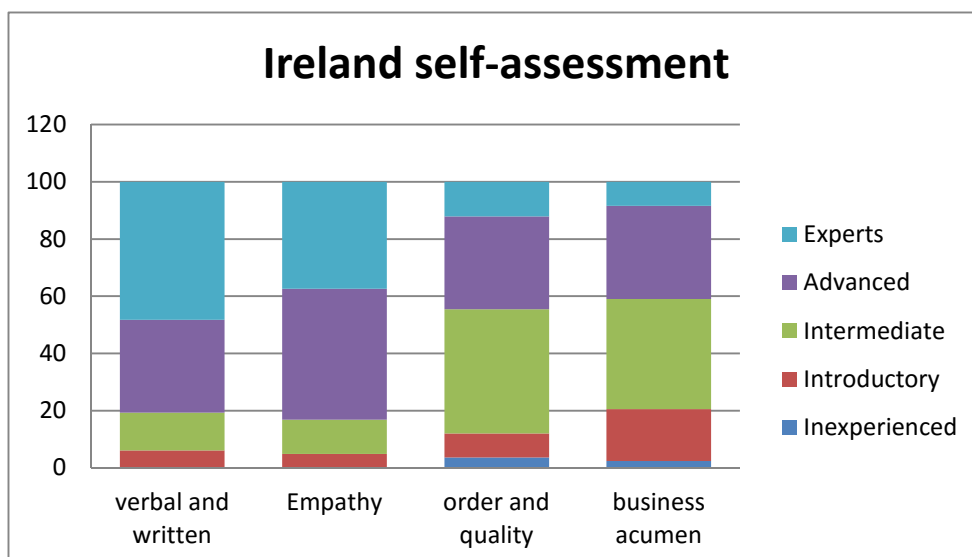
In Bulgaria, participants see verbal and written competences (3,97) as their major strength, followed by expertise (3,88). On the other hand, the two most least competences lay in innovation (3,42) as well as influencing others (3,42).



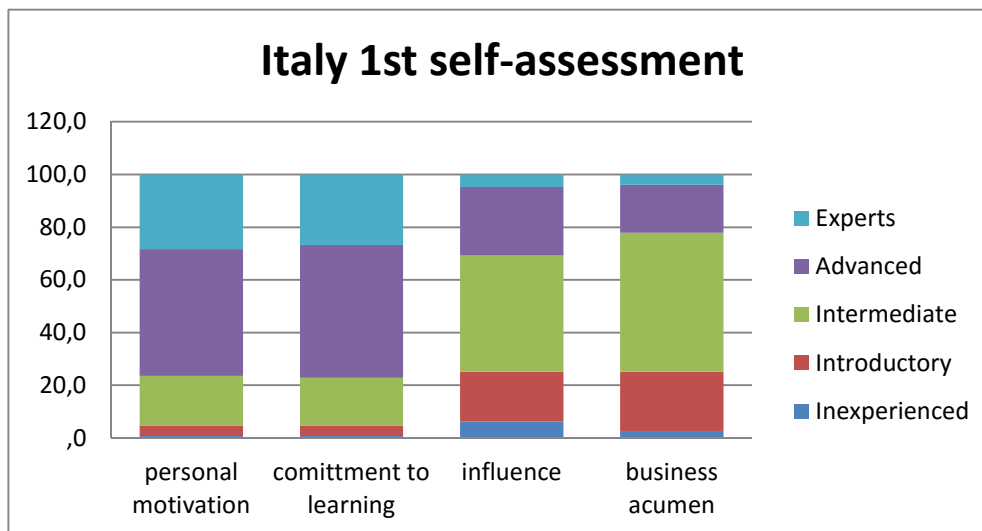
Coming to Greece, participants judge their information seeking competences (3,9) as advanced including personal motivation competences (3,85). In contrast, the second least competence is client service (2,97) and the less developed competence is developed regarding business acumen (2,68).



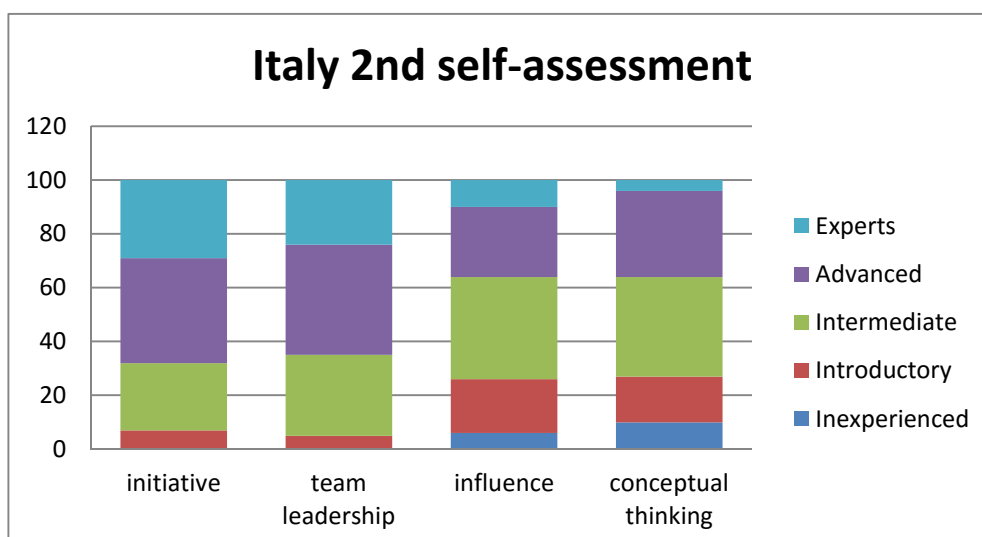
In Ireland, participants consider their verbal and written competences (4,23) as well as empathy (4,16) as the advanced competences. In contrast, competences regarding order and quality (3,41) as well as business acumen (3,27) are the least rated competences.



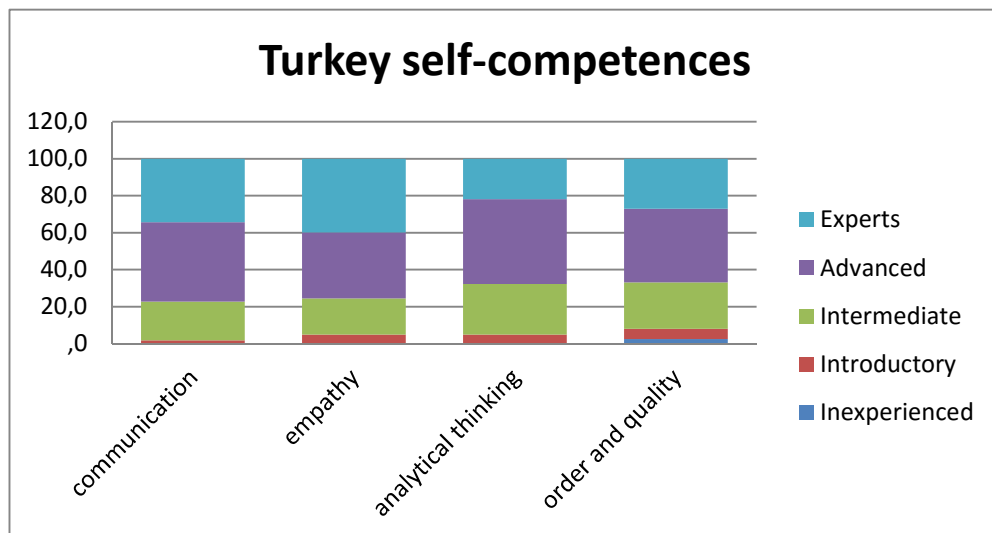
Coming to the first sample in Italy, the highest ranked own competences are personal motivation (3,99) and the commitment to learning (3,98). Self-competences which are not as advanced lay in influencing others (3,04) and business acumen (2,98).



The second sample in Italy is quite different to the first. The ability to be a self-starter and to meet the challenge of higher level objectives (initiative 3,9) is rated as highest personal self-competence followed by leadership (3,84). The least developed competences regard influencing others (3,14) followed by conceptual thinking (3,03).



Participants in Turkey rate personal communication competences as well as empathy (4,1) as equally advanced. In contrast, analytical thinking (3,84) as well as order and quality (3,83) are rated as the least developed competences.



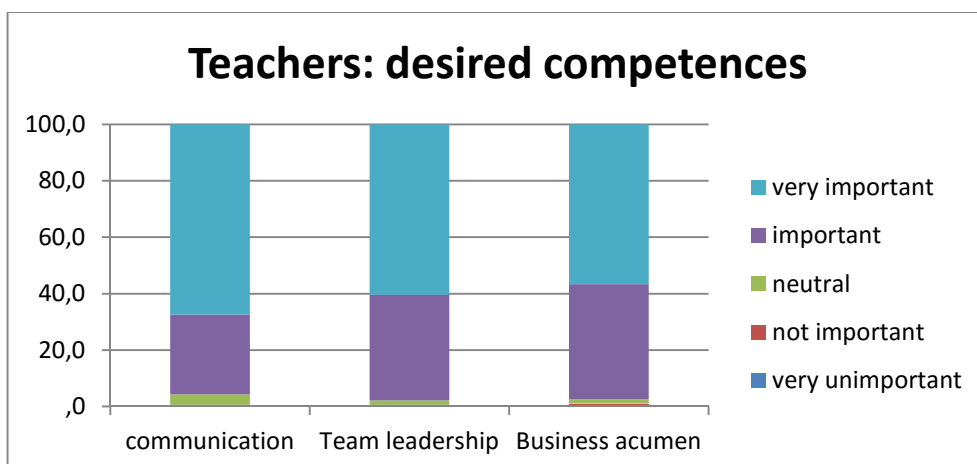
5.4 Results: Desired Competences by target group

The following part shows the results regarding desired competences, i.e., competences which are needed for potentially successful entrepreneurs.

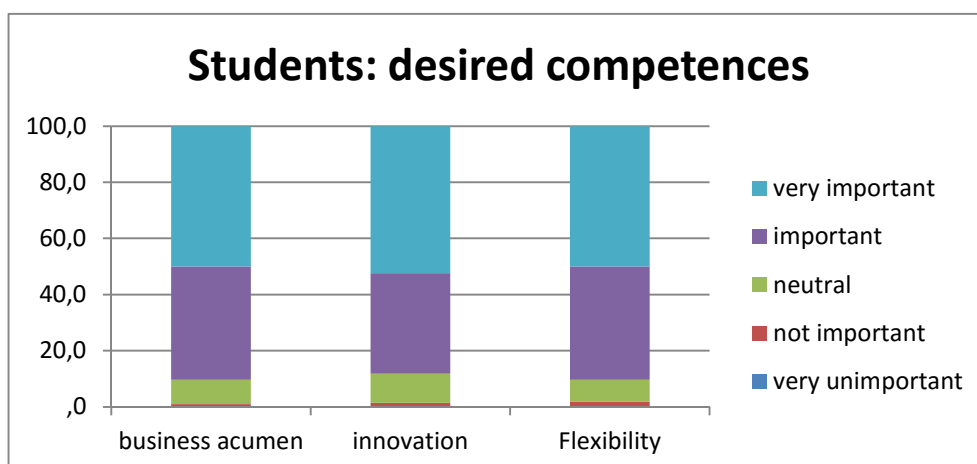
Overall, 23% teachers, 52,3% students, 2,6 entrepreneurs, 0,5% researcher, 11,4% employees, 4,8 unemployed, 0,5volunteers and 1,4 interns and 3,4 others participated.

5.4.1 Desired Competences for young entrepreneurs per target group

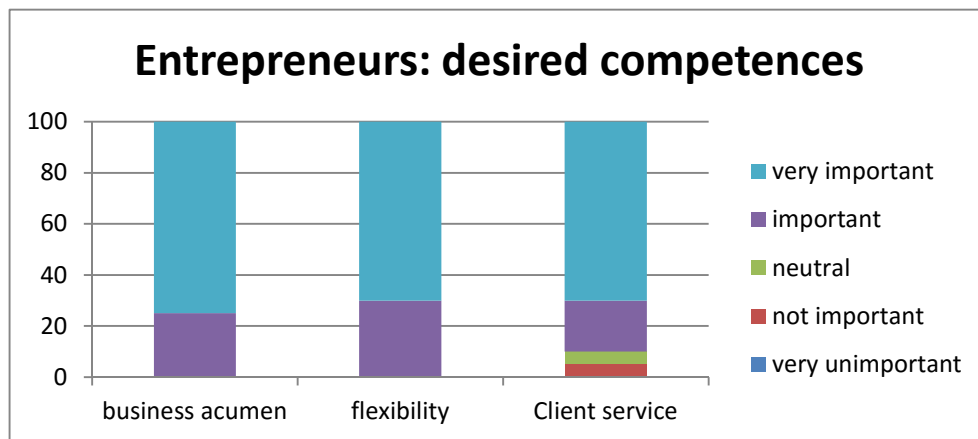
Teachers: rank the competences for communication (4,62), team leadership (4,57) and business acumen (4,52) the highest. Compared to the overall ranking, the emphasis on communication competences represents a difference.



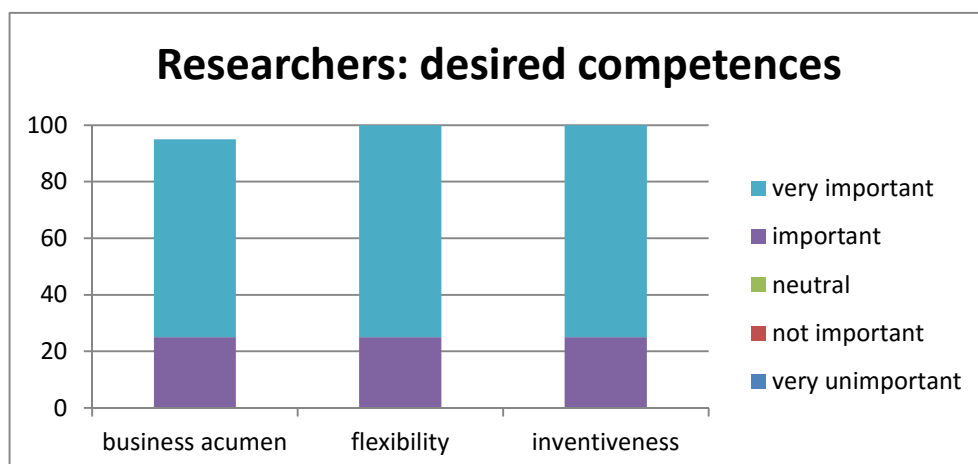
Student: Students rank business acumen (4,39), innovation (4,39) and flexibility (4,38) as the most important competences. Compared to the overall ranking, their emphasis on competences is represented.



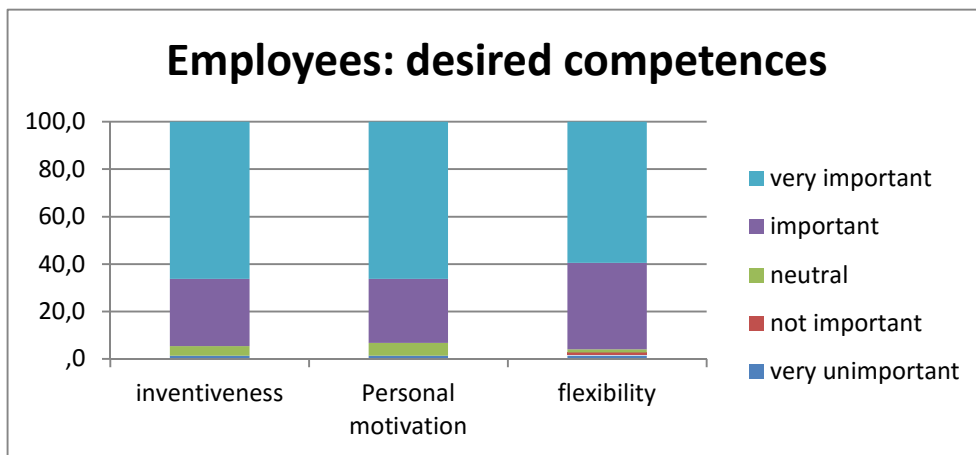
Entrepreneur: Entrepreneurs rank business acumen competences (4,75) as well as flexibility (4,7) and client services (4,55) as the most important for young entrepreneurs. This largely corresponds with the overall ranking of competences.



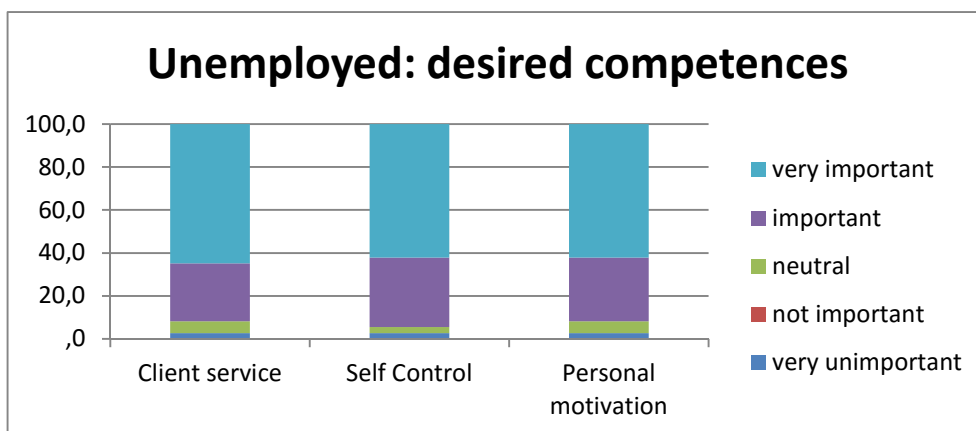
Researcher: Researchers rank business acumen (4,75), flexibility (4,25) and inventiveness (4,25) as the most important competences.



Employee: Employees rank inventiveness (4,58), personal motivation (4,57) and flexibility (4,51) as the most important competences for young entrepreneurs.



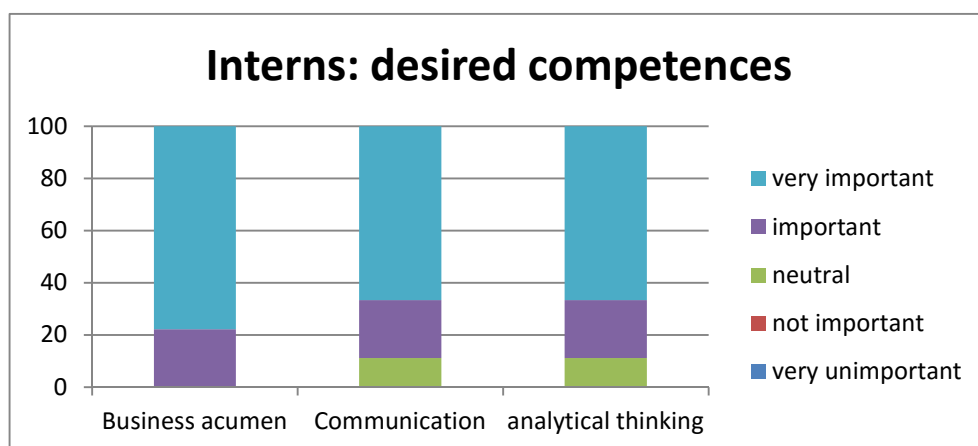
Unemployed: For unemployed, the most important competences for young entrepreneurs are initiative (4,58), personal motivation (4,57) and flexibility (4,51).



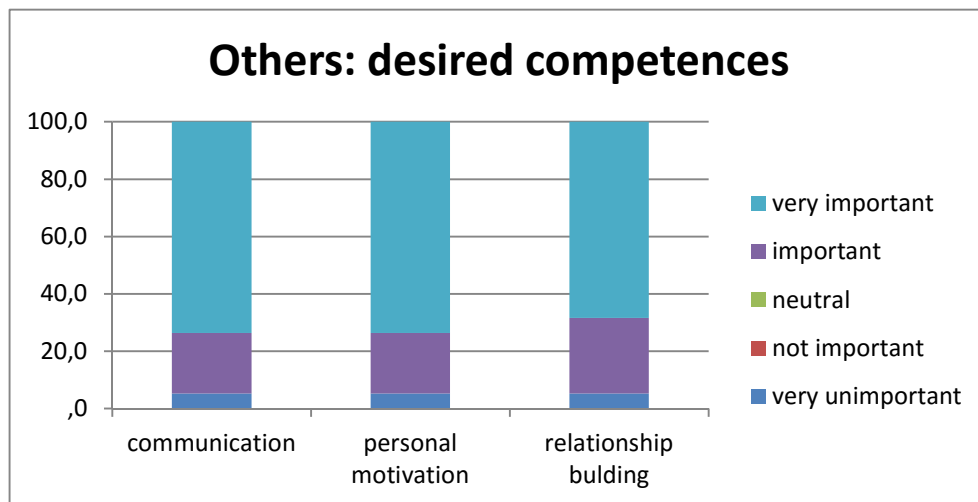
Volunteer. Volunteers differ from others quite significantly in the judgment of overall importance of competences for entrepreneurs. Not only is the level of judgment higher, also the kind of preference is different: For volunteers, empathy (3,25), client service (3,0) and order and quality (3,0) are the most important competences for young entrepreneurs.



Intern: For interns, most important competences are business acumen (4,78), communication (4,56) and analytical thinking (4,56) including personal motivation).



Others: Participants who specified their employment in other terms as the categories above, communication (4,58) and personal motivation (4,58) on equal terms as well as relationship building are most important competences for young entrepreneurs.

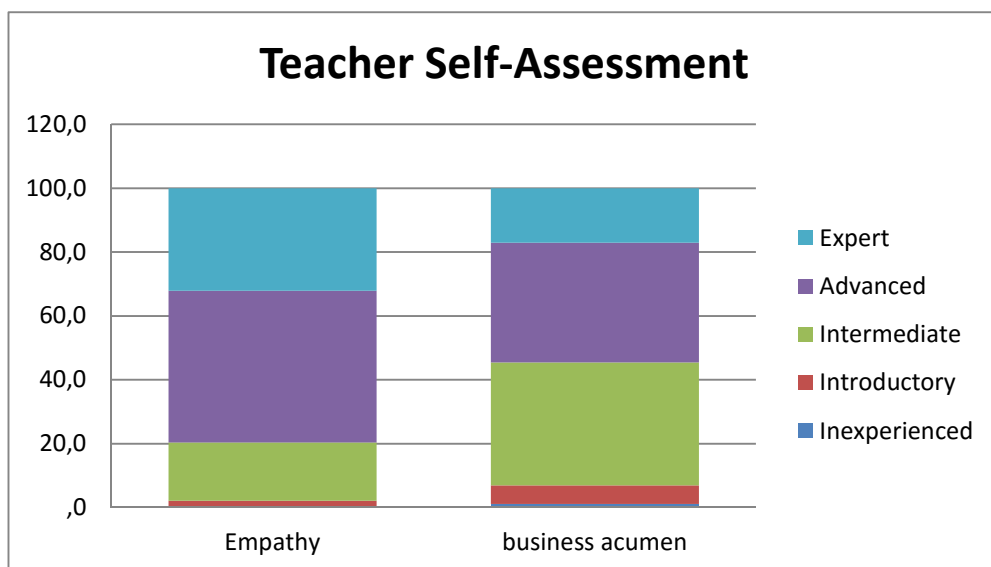


Summarizing the rating of competences according to the current professions, business acumen, personal motivation and flexibility find the most important highest rankings. The comparison is provided in the following.

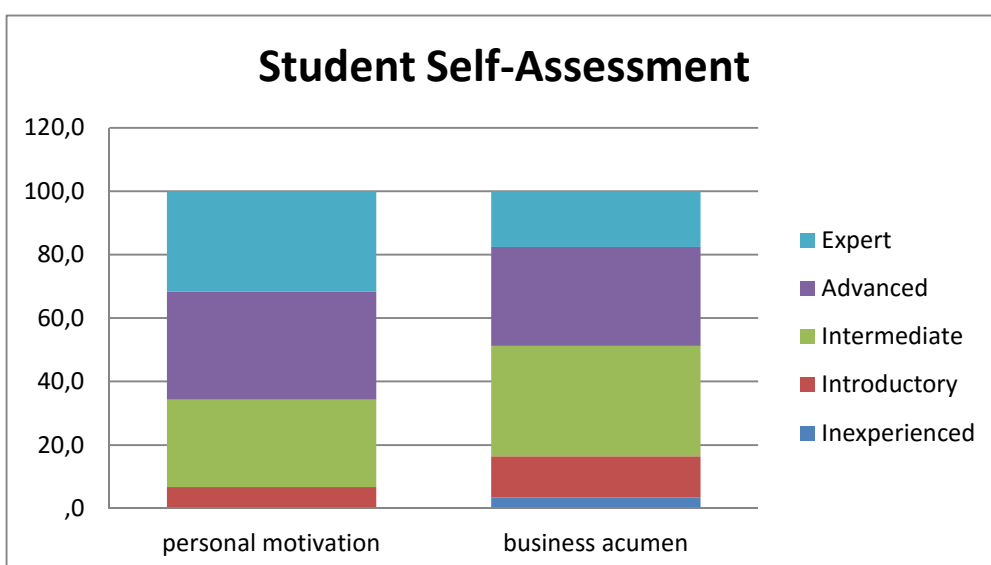
5.4.2 Competence Self-Assessment per target group

While the ranking of competences by target group was differentiated, there were less clear differences in assessing / rating the own competence levels. For means of facilitating to grasp the main findings in the data, the following section will (a) report the two main strengths and weaknesses per target group and (b) will show the highest and lowest rated competence in detail. This can lead us to derive competence gaps which should be filled by the business game.

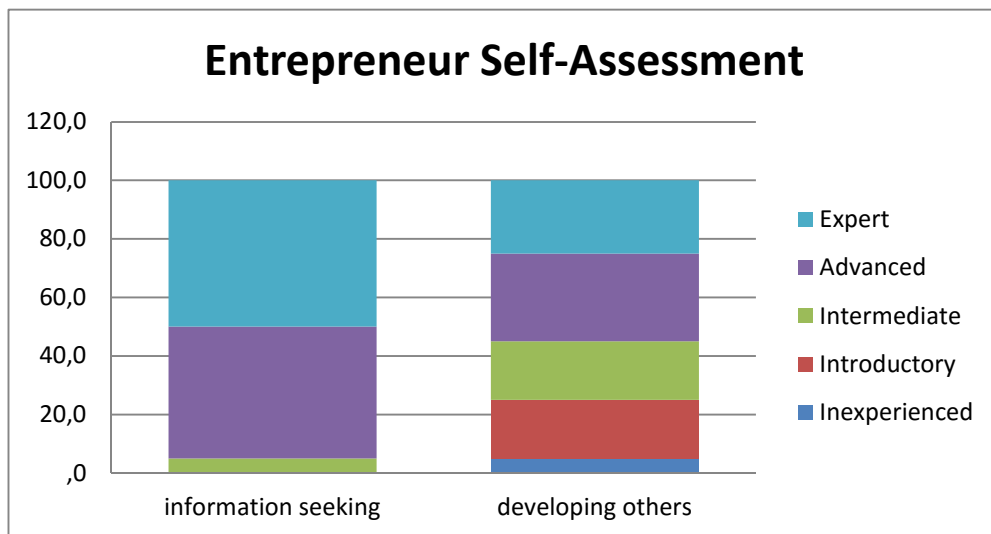
Beginning with the target group teachers, one main competence is empathy (4,1) followed by developing others and information seeking competences (4,04) on equal terms. On the other hand, influencing others is the second least developed competences (3,7) while the highest deficit is in business acumen competences (3,64).



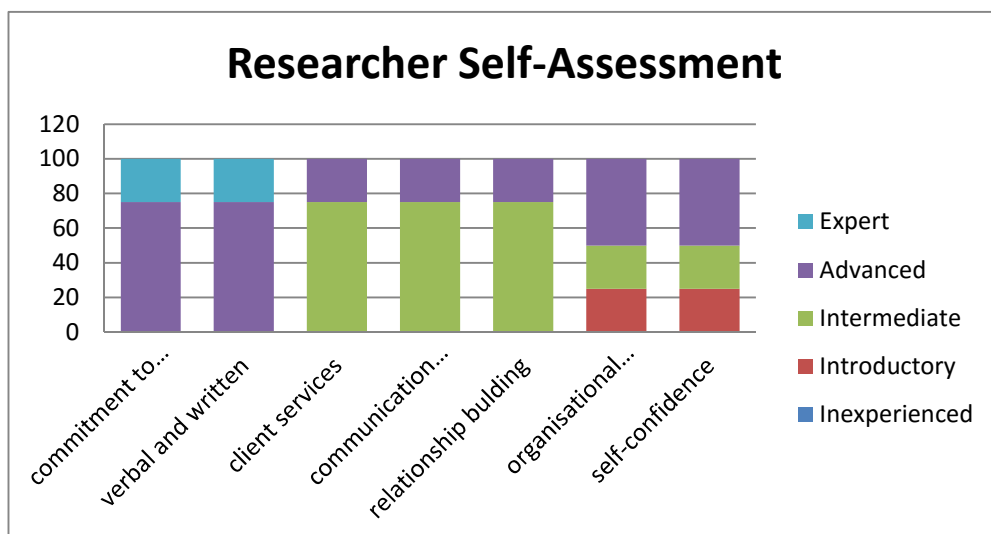
Student participants rate their competence to personal motivation as well as empathy (3,9) as the best competence on equal terms. On the other hand order and quality as well as client service competences (3,48) are rated as the second least competence. The least developed competence is business acumen (3,47).



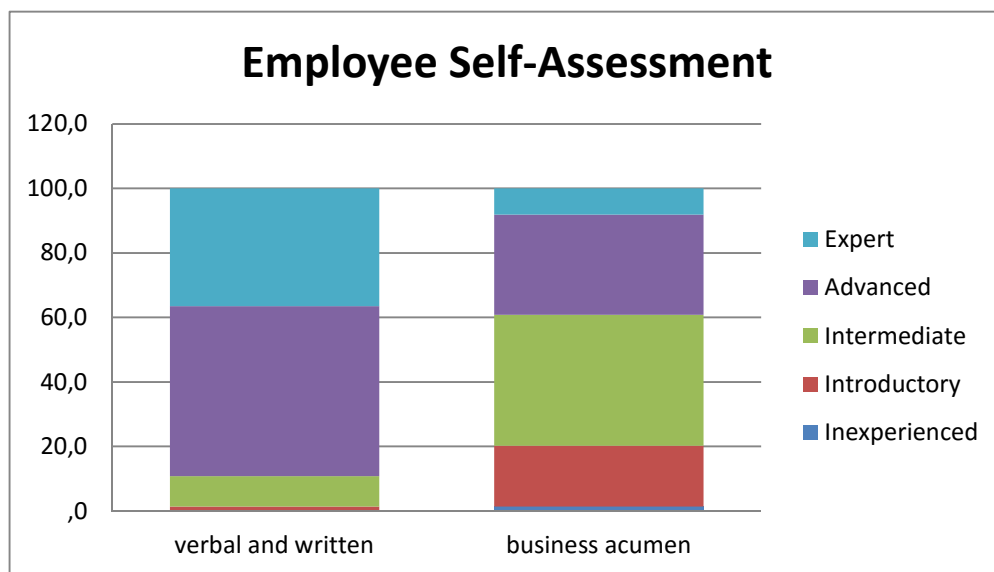
Entrepreneurs judge information seeking competences (4,45) and competence to personal motivation (4,35) as higher competences. In contrast, the competences business acumen and organizational awareness (3,60) are perceived as the second least important competences. The least developed competences lay in developing others (3,5).



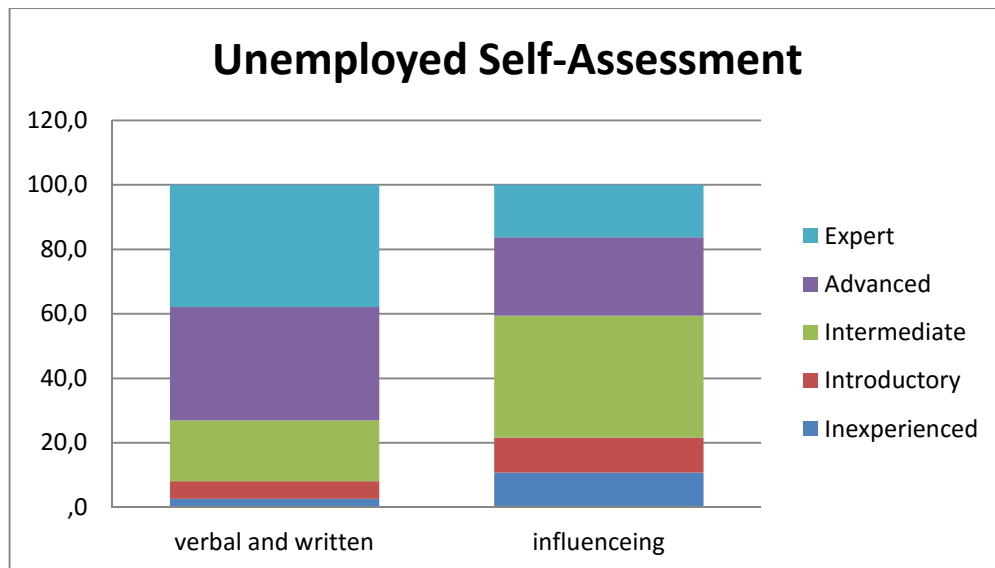
Coming to researchers a quite interesting pattern can be found. The participants judge two competences (commitment to learning, verbal and written competences 4,25) as the highest own competences. In contrast, competences in the areas client services, communication services, relationship building, organizational awareness and self-confidence (3,25) is judged equally low.



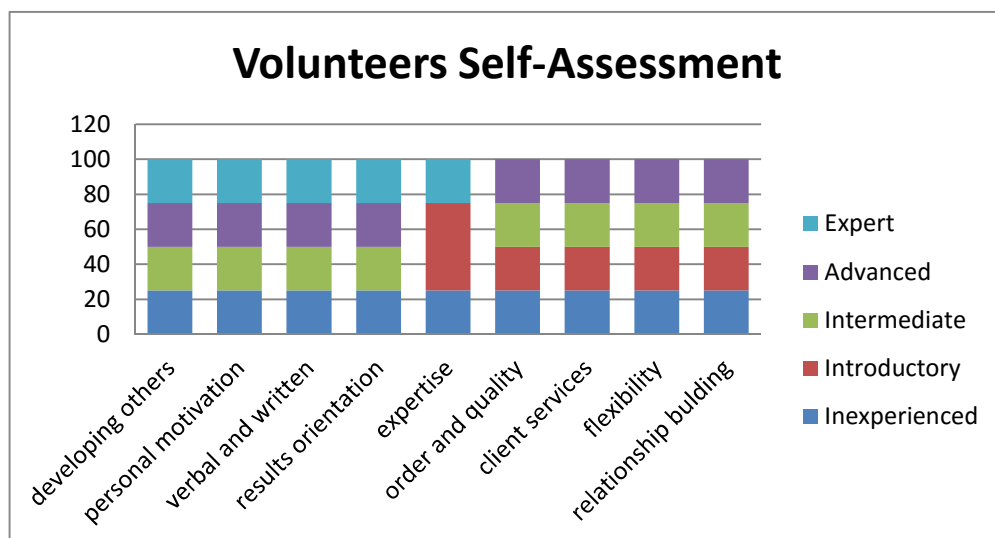
Employees judge their highest own competence to be in verbal and written skills (4,24), followed by flexibility (4,16). Coming to their weaknesses, influencing others (3,38) is the second least developed competence. Eventually, business acumen is the least developed competence (3,26).



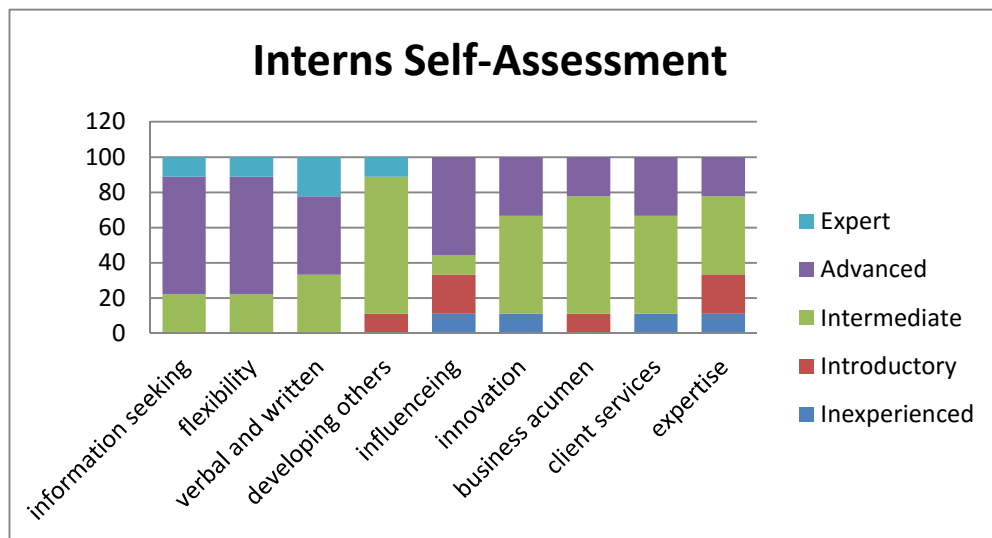
Compared to employed, unemployed similarly judge their verbal and written competences (4,0) as well as flexibility (3,97) as high. They also have the least developed competences in business acumen (3,27) and influencing others (3,24) although the ranking is switched in this place.



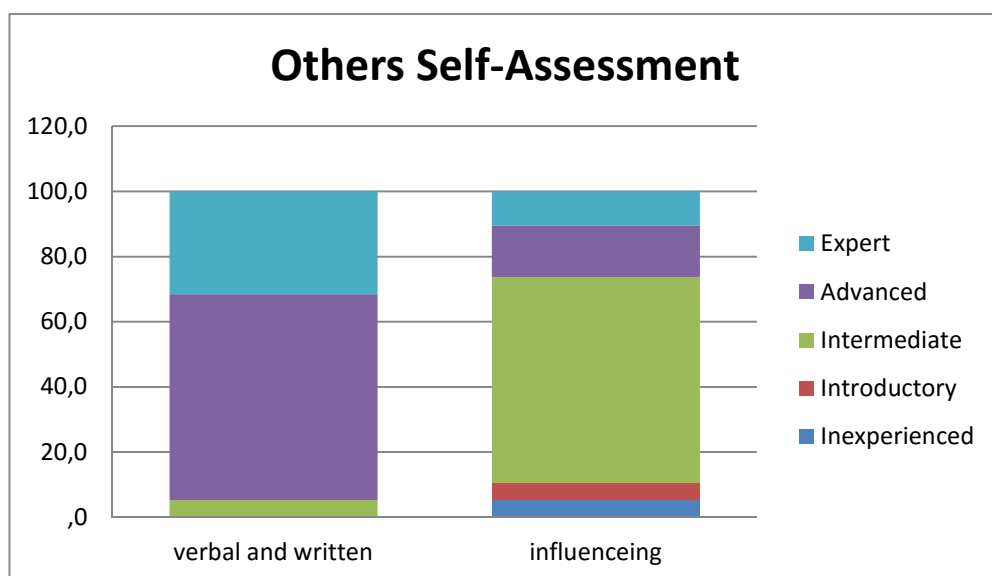
Coming to volunteers, a similar pattern to researchers can be found. Several competences are seen as the highest competence (developing others, personal motivation, verbal and written competences including results orientation 3,25). On the other hand, client services, order and quality, expertise, flexibility and relationship building are seen as least developed (2,5).



Coming to interns, a similar pattern to researchers can be found as well. Three competences are seen as advanced (information seeking, flexibility, verbal and written competences 3,98). However, five competences are seen as low developed (influencing others, innovation, developing others, business acumen, client services 3,11) while the expertise competence is seen as least developed (2,78).



Finally, participants who expressed their employment in other terms as the categories above, judged their highest competence to be verbal and written competences (4,26) followed by the competence commitment to learning (4,21). The second least developed competence is business acumen. This is followed by the least developed self-competence influencing others (3,21).





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5.5 Results: Implication for the Business Game

As a last part of the survey, we asked in an open question for ideas regarding the realization of the business game. Several ideas came up which should be considered

Thematic focus

One category of answers dealt with the thematic focus – most of those focus areas are related to the competences which were ranked highly in the previous parts of the survey. However, several new focuses came up which should be considered by the game developers:

- Cooperation with other individuals
- Team's dynamics
- Taking decisions, stimulating ambition and will, time saving, self-assessment
- Overcome fear of failure
- Motivation and orientation towards a private business
- Building a real sight about the business environment
- It prepares participants for the labor market
- Guidance in an environment and running of momentary business models in the negotiation process
- Expanding the cultural baggage of the participants and introducing them to aspects of the world of finance

Design principles

Several answers focus on design principles which should be taken into account by developers – while some of them were rather standard design principles (such as ease of use), some need to be considered, amongst them:

- Using tangible , visible materials
- Targeting social interaction
- Practical examples
- Must fit the present situation and comply with society 's traditions and customs.
- Role distribution of participants according to their interests and abilities should be done.

Game ideas

Further ideas for game scenarios and game-specific characteristics were mentioned – while not all of those ideas can be realized, these are still worth to consider and elaborate further:

- Creation of scenarios which simulate an entrepreneurial problem and through the disposal of possible solutions to it
- Creation of a problem solving situation and goals.
- Effectively simulating the exact market conditions
- A role play game





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- Creation of a virtual business.
- Include life-experience, examples of companies having success and vice versa
- Weak & strong points of your professional profile, learn about your critical thinking and judgment through case studies
- Intelligence games which can develop different

Summarizing this part of the survey, new and interesting ideas were expressed in the survey. While not all of those ideas can be realized, they can also give a direction for future developments beyond the project.





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6. Summary and Recommendations

During the assessment, the partnership has applied a mixed method approach to explore and understand competences for young entrepreneurs / innovators. The literature review helped us to understand competence classifications and competence specifications. The key outcome was the initial competence specification based on Wu (2009) which consists of 23 competences. Generally speaking, these competences were shown all as useful with different importance.

Within the focus groups, we extended this competence specification by additional competences – here, three competence areas were identified which need to be specified in more detail:

- Managerial competences, in particular. decision making
- Thematic / domain competences (e.g. innovating in the domain of ICT)
- Basic skills (e.g. math, economics, law)

Furthermore, the importance of affective skills became clear, identifying personal characteristics such as optimism, endurance, determination, etc.

Last but not least, the focus groups determined competence proficiency levels for all competences. These can be used during the game development to specify different levels of playing as well as for assessing competences.

In the survey, the partnership has prioritized competences based on the need to develop competences further (self-assessment). We also derived desired competences.

Both the focus groups and the survey has identified strong differences between Countries and also between target groups. A deep knowledge of entrepreneurship is missing as well as a common ground on what is essential to be a young entrepreneur in a globalized word. The collected data have demonstrated the strong need to build a common knowledge on entrepreneurship and to support entrepreneurship at a European level. The Greatest Common Denominator Matrix (GCDM) is the main result of the assessment (see Table at page 118) and it is our milestone toward the definition of the characteristics of a 'Young European Entrepreneur'. It summarizes the list of common competences among the different Countries and target groups and it identifies proficiency levels for each competence. The GCDM, together with the Syllabus, is the starting point from which the PLAY4GUIDANCE partnership will support a European culture on entrepreneurship. The GCDM will then be used as the ground to build the P4G Business Game, support learning materials and toolkit.

In addition, through our multi-method study, we have also achieved a better understanding of entrepreneurship competences at a Country level. The different contexts, the local markets and specific needs may require to identify specific Country related entrepreneurial profiles. We





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therefore propose to also use a generic competence scheme – based on this, competence profiles should be developed for each target group and country which are used for adaptations (different versions) of the business game.

6.1 Recommendations

Based on our empirical work, several recommendations can be made for the business game.

In order to support a European culture on entrepreneurship and to assist young people to become flexible entrepreneur able to work throughout Europe, we suggest to:

- Include the main 25 competences in the business game with a focus on certain competences such as business acumen, innovation or communication
- Include basic competences for thematic areas (e.g. through links / references), basic and managerial skills
- Take emotional / affective aspects into account
- Create an adaptable game in which further themes / topics / sectors could engage and develop the game further (or develop adaptations / derivatives).

In order to respond to Countries' specific needs and local markets, we suggest the partnership to consider the possibility to work on a second phase of the PLAY4GUIDANCE project. The second phase may be focused on:

- Creating different game versions for different target groups with different competence focuses
- Providing Country versions of the game

These very basic recommendations need to be accompanied by thoroughly reviewing the country sections. The development team can thus use the competence gaps identified as well as the desired competences when creating 1) the overall business game, and 2) specific adaptations.

Based on this deliverable, we will facilitate the discussions with the conceptual and development teams to finalize the game concept. This should be an iterative process, i.e. the teams need to determine which competences should be determined in which version.

As an outlook beyond the project, we see that the game should be a starting point for also creating branch-/sector-specific versions of the game which can be a promising approach for further use and exploitation.



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The following matrix shows the extended competence scheme including proficiency levels based on the focus groups (as an example for proficiency levels).

№	Category of competence	Description of the competence	Description of level of mastery		
			Weak	Average	Good
01	Analytical Thinking	The ability to analyze problems systematically. Objectively assess the situation, including facts and events related to the business. Analyze alternatives and make choices for the development of qualifications and focusing on perspective areas.	At peace with the situation. Waiting passively to improve the situation in the business.	Seek external assistance (counseling) in decision-making.	Analyze the situation, assess their capabilities, qualities and potential. Taking decisions to improve in line with the needs and perspectives of the market. Evaluate different alternatives, trends and patterns.
02	Business Acumen	The ability to discover opportunities and transform resources into performance Take matters into their own hands. Search, find and exploit new profitable opportunities for business development.	Not interested and misses opportunities. Shows indecision and lack of ambition. Afraid of change and of taking responsibility. Limited autonomy, relying on the help and the activity of others.	Use resources to achieve moderate results. Relying on traditional methods and approach with routine. Skeptical of novelty and innovation. Not willing to risk in situations of uncertainty.	Not satisfied with the achievements. Drafts projects, assesses risks, plans and effective using of resources, predicts results. Shows resourcefulness, courage, innovation, proactivity and entrepreneurship.
03	Client / Service Orientation	The ability to meet the needs of both internal and external customers. Ability to present the qualities and skills in the context of the benefits of products / services to potential customers. Ability to defend and justify the added value of their work in terms of the expectations of internal and external customers.	Not interested in the specific interests and needs of internal and external customers. Shows no awareness and sense for the requirements and customer needs.	Shows awareness of the market, products and customer requirements. Not able to justify their role in the formation of added value for the customer.	Invest time and effort to understand the customer requirements and create processes, finding solutions that satisfy the customer. Examine customer needs and strives to meet and exceed customer expectations; takes the customer satisfaction as their own top priority.



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04	Commitment to Learning	The ability to actively pursue learning and develop competitiveness Proactive search and utilizing opportunities for further training, retraining and development of new skills that are needed to improve the organization and its workforce.	Relies on the current qualification.	Participates in different forms of training with the aim to refresh their own knowledge.	Identify and exploit opportunities to learn, to receive feedback and to develop by knowing well their own strengths and areas for improvement.
05	Communication	The ability to effectively receive and express information or feelings. Ability to understand ourselves and others. To present ourselves, our skills and ideas within different business contexts and situations. To understand the messages of others and to give effective feedback.	Not able to listen, does not select the correct means of expression. Does not justify well and not able to influence others. Does not control his emotions.	Perceives the information adequately, knows techniques of persuasion and influence, but has a low emotional intelligence. Does not control the body language.	Deals with various means of expressions and presents the ideas in a clear and structured manner; adapts his own style of communication to the audience and communicate effectively with various people. Shows charisma, tact and high emotional intelligence.
06	Conceptual Thinking	The ability to recognize patterns or trends in a problem Ability to apply theoretical knowledge and conceptual models in practical situations.	Poor application of conceptual knowledge. Inability to use information and knowledge in solving practical problems.	Well prepared theoretically, but lacks practical skills.	Able to identify patterns, relationships and trends in practical situations. Mobilize and adapt the own knowledge in solving specific problems. Use and apply best practices.
07	Order and Quality	The ability to reduce uncertainty and to control quality. Demonstrating good organization and knowledge of business etiquette. Demonstration of readiness to reduce uncertainty, knowing and observing specific standards, rules and requirements to ensure quality.	Making errors, omissions and inaccuracies in the preparation of application documents. Low culture in the implementation of business etiquette. Inability to demonstrate organization and knowledge about specific rules, standards and requirements.	Good organization and precision in the drafting of documents when applying for a new job. Knowledge of standards and requirements for the job. Inability to justify the role of the position in the quality management system.	Proactively contributing to quality in everyday situations. Demonstrating good organization, precision and personal effectiveness. Readiness to provide quality, for conscious and responsible fulfillment of the commitments taken by respecting the contractual agreements, standards, rules, terms and conditions.
08	Developing Others	The ability to help others make progress	Focus on own development and advantages. Inability to work in	Good coordination and interaction with others. Sharing knowledge and	Demonstrates a willingness to exchange knowledge and experience, advise and assist the people who s/he



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		Ability to work in a team and cooperation with others with a focus on others' personal and professional development. Demonstrate a willingness to share knowledge and experience.	team, lack of commitment to the collective goals and results.	experience when required administratively.	works with, promotes and assists the professional development of others.
09	Empathy	The ability to understand and respond to the concerns of others Ability to adapt and socialize quickly to the organization and individuals. Demonstration of readiness for understanding and commitment to the care of others.	Egocentrism, inability to find a common language with others and to manage interpersonal relations.	Difficult and slowly adjustment and adaptation to a new environment	Rapid adaptation and deployment of the professional potential. Responsibility to interpersonal relations. Demonstration of readiness for understanding and commitment to the care of others.
10	Expertise	The ability to perform professional jobs. Expertise describes Professional competency in terms of domain knowledge and skills.	Low competence, inability to learn from the experience of others, low motivation to improve own knowledge and skills. Basic knowledge in the domain.	Rely on routine knowledge and skills acquired in the past. Does not demonstrate readiness for professional development.	High professional competency, strive demonstrated for permanent improvement. High knowledge to solve complex situations in the domain.
11	Flexibility	The ability to effectively adapt to a variety of situations. Ability to effectively adapt to new situations, environments and requirements. Striving to learn new skills and requalification. Tolerance to change and vagueness.	Rigidity and resistance to change. Inability to adapt to new conditions.	Changing attitudes and behaviors under external pressure.	Seeking change productively and adapting to novelties. Challenges are motivating
12	Influence	The ability to influence thoughts and actions of others. Ability to persuade, to cope with opposition and to influence the thoughts and behavior of others, assertiveness.	Inability to justify and defend positions.	Using routine and habitual techniques of persuasion and influence without complying them with the characteristics of the people who are contacted.	Possess and apply successful methods to influence the thoughts and behaviors of others, consistent with the context of the situation, goals and attitudes of the people with whom the contact is.



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13	Information Seeking	The ability to find and capture information to increase knowledge or find solutions. Ability to use information and communication technologies. Finding and selecting the information necessary to solve problems. Ability to select appropriate sources to collate and assess the information, and to apply it in practical terms.	No orientation in the search and selection of information. Does not know and does not use appropriate and reliable sources. Does not examine and does not use new information in solving practical problems.	Actively seek and select information. Not able to select and retrieve basic information.	Ability to use ICT in the daily work. Correct selection of sources of information. Ability to get oriented, to select information and retrieve data that are important for solving practical problems.
14	Initiative	The ability to be a self-starter and to meet the challenge of higher level objectives. Activity on the market to proactively develop an enterprise. Orientation to action. Exploring new opportunities and undertaking action related to successful business activities.	Passive and time-serving position. Permanently discouraged in the job search. Shows no desire for self-improvement.	Showing activity and initiative with the job searching. Not making efforts to improve own competences.	Proactively investigate opportunities and apply for a new job. Optimal using the lack of employment for professional development in view of new employment and stability in the labor market.
15	Innovation	The ability to make something new and to improve performance. Ability to create something new on the basis of which to launch a proper business project towards market maturity. Ability to show ingenuity, creativity, to generate and implement new ideas.	Lack of creative ideas and entrepreneurial spirit. Inability to shake off routine and to think unconventional and innovative	Generate innovative ideas but lacks determination and autonomy and is afraid of risk with their integration.	Actively generate new ideas and commitment to their implementation. Showing flair for new, original, unconventional realisation.
16	Organizational Awareness	The ability to recognize the power relationships in organizations. Create a realistic picture of the characteristics, nature and corporate objectives of the organization. Demonstrating commitment and	Insufficient awareness about the organization, the role and functions of the position which to apply for.	Good knowledge of the requirements for the position, but little awareness of the organization.	Awareness of the management structure, processes, products, customers and working conditions in the organization. Demonstrate knowledge and understanding of the own role.



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		clear understanding of the organization and its culture.			
17	Personal Motivation	The will to succeed. Will and ambition for success in the realisation on the market.	Discouragement. Lack of a clear goal. Reliance on random factors, and not on the own targeted actions. Unclear professional interests.	Striving to find "whatever" job. Extrinsic motivation connected with ensuring any incomes.	Will and ambition for realization in the area of professional interest. Intrinsic motivation connected with the feeling of professional success and labour satisfaction.
18	Relationship Building	The ability to build and maintain personal networks. Establishing and maintaining useful contacts that help finding information about business opportunities.	Isolation, alienation, passivity in building and maintaining contacts and relationships.	Relationship building and maintaining contacts with the aim of the business with existing partners.	High activity in the market and professional networks. Initiativeness and efforts in searching of work, using a broad network of links and relationships with customers / partners, institutions / individuals.
19	Results Orientation	The ability to set performance objectives, resulting targets and measures. Setting realistic goals and taking adequate measures in the process of business and personal development.	Inability to set clear and realistic goals for personal and business development.	Setting clear and realistic goals for personal and market objectives. Being inactive to retrain in accordance with the new opportunities and demands of the market.	Setting clear and realistic goals against the personal professional qualities and the situation on the market. Actively seek and exploit opportunities with realistic goals. to develop skills that are demanded by the labor market.
20	Self-Confidence	The ability to express oneself in a different / hostile situations. Ability to successfully present and express skills, potential and qualities in an environment that is skeptical about people with his/her social status. Objective assessment and confidence in their own abilities.	Limitation, reconciliation, anxiety, conformism	Having an objective judgment and confidence in their own abilities. Successfully managing and expressing in a traditional environment in unconventional situations, losing confidence and ability for accurate self-assessment.	Having an objective judgment and confidence in their own abilities. Coping to express themselves and prove their personal qualities and professional potential in all kind of situations.
21	Self-Control	The ability to manage one's emotions under pressure or temptation.	Depression, emotional instability, tension, anxiety, low performance.	Able to control thoughts, feelings and behavior in habitual environment.	Able to control thoughts, feelings and behaviors in any kind of situation. Keeping cool and controlling reactions



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		Ability to control your own thoughts, feelings and behavior. Keeping cool in contingency, tense and critical situations. Tackling and mastering states of stress and anxiety.		Losing self-control in a provocative environment and tense situations.	in conditions causing tension and stress..
22	Team Leadership	The ability to create a favorable environment and mobilize people to succeed. Ability to express leadership qualities to demonstrate readiness, skills and experience to work with people, taking responsibility, communicating goals, planning, organization and control.	Willingness and inability to assume responsibility for the work of others.	Demonstrating leadership and management skills, but lack inexperience in team management.	Demonstrating leadership and management skills, motivation and experience in team management.
23	Basic competences	Ability to apply basic knowledge needed for running a business. Ability to apply basic related concepts such as mathematics, law, economics and finances	Basic problem solving for routine problems	Solves problems independently also in new / uncertain situations	Creates new problem solutions also in highly complex situations
24	Decision making	Ability to make decisions. Ability to apply decision making models in different situations. Ability to find decision alternatives and information to support the decision process.	Basic application in small teams for simple problems	Solves problems independently also in new / uncertain situations in medium sized teams	Creates new problem solutions also in highly complex situations and in large teams / organizations
25	Personal determination	Ability and attitude to reach given objectives. Ability to positively react to different situations in an optimistic, determined, enduring manner	Reacting positively in routine situations	Reacting positively in situations of conflicts / problems	Reacting always positively, independently of the complexity of a problem / challenge

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8. Annex

In this part, we show the instruments used in our project, in particular the survey and focus group outline / instruments.

8.1 Literature Review

The following instructions were given to each contributor.

For the review, please try to use the common practice of the review:

1. Define keywords for the search (skills; competence, competences, entrepreneurship, entrepreneur, ...); define the databases you will be using.
2. Define in-/exclusion criteria.
3. Define Competence Categories to cluster lower level competences.
4. Add competences to the table below; synthesize competences which are sufficiently similar.
5. One table should be a comprehensive review of all competences found. These should be grouped by target group (e.g. which competences are important for unemployed) and category (e.g. management, organizational, individual, ...).
6. This table should be then discussed (how to harmonize them and how to transform them towards the skills matrix).

8.2 Focus Groups Planning

The following guidance was given to ensure a homogenous structure and comparable data.

8.2.1 8.2.1 Instructions (Overall)

Though the questions may vary among each target group, a common structure should be followed.

1. Introduce the project, goals and the method of focus groups
 - This includes outlining which topics will be addressed, intended time the meeting this day will take)
2. Conduct a task so participants can get to know each other
 - Particularly important in the case that the participants are unknown to each other. The task can be related to introduce themselves and their perspective on the topic ("entrepreneurship and games" like in our kick off meeting)
3. Start discussing the question sets

Topic A: Competences in the knowledge domain of entrepreneurs

Topic B: Interventions to reach entrepreneurial competences (the topic B may include specific questions as to how a game can lead to acquire these competences)

4. Thank participants and outline the next steps.
 - For P4G this means prepare to participants / or ask, if they are ok to distribute the forthcoming survey. Also ask if they expect to receive the results of the workshop analysis, or if they have open questions

This common structure is translated into an information leaflet for participants (Appendix) as well as an instruction sheet for workshop leaders to cohere the conduct of focus group workshops on site.

The sheet for workshop leaders to conduct focus groups presented in the following.

8.2.2 Instructions for Conduct of Focus Group Workshops (Detailed)

1. Introduce the project, P4G goals and the method of focus groups

1.1. Information about project

Play4Guidance (P4G) is an EU funded project that introduces an innovative Business Game with an aim to train and guide students and young unemployed on entrepreneurial, transversal and mathematical skills. The game will give players an opportunity to take an active role in running a virtual company. Through interactions players gain the skills of managing an enterprise and learn thinking about the results of those actions, as in other computer games. To ensure that we are designing this activity as best we can, we are asking you, as potential players, as well as your mentors/tutors/teachers for thoughts and opinions. In particular, we want to know your perspective on the character and competences of an entrepreneur which the game would need to address. With the help of your perspective we are creating a grid or so called “competence matrix” for the game - that describes a vision of entrepreneur. Together with many other competence matrices available today across Europe, this grid will give us a bigger picture of your and entrepreneurs needs and ideas. Building the game upon this matrix we aim at making a better learning experience for you and entrepreneurs in the future.

1.2. Inform about focus group. Ask: Who of you is familiar with a “focus group”?

- Explain focus group: a focus group is a group meeting of you and invited participants to reflect and discuss shared and divergent perspectives on entrepreneurship. You will be asked about five questions about competences and character. The focus group will take about an hour.
- Conditions of P4G focus groups:
 - o Participation is voluntary. You can ask questions at any time and withdraw from the project whenever you like.
 - o During the focus group you are free to outline any opinions, concerns and ideas which you and your group have. There is no right or wrong answer. At the same time we ask you not to disclose any confidential information which may harm you or group members personally or constrain any obligation related to contracts.
- Principles guiding the discussion are:
 - o Everyone is equally few to contribute
 - o We mutually respect the contribution of others,
 - o We talk about entrepreneurs and design approaches but people
 - o What is said remains in the group
- Allocation of roles:
 - o As the moderator my aim is to uphold these principles during the discussion. I encourage maintaining these principles afterwards. In this manner everyone can feel confident to reflect on the topic freely.
- Use of data
 - o In case you agree I would like to record the discussion with an audio recorder. This is to facilitate the transcription of your input for a better analysis. The audio record will be deleted while according to the European Union the transcription will be stored for 7 years. However, this is for documentation means. We will only use your input for the P4G project and related means, unless asking you for permission otherwise.

1.3. Organize activity: participants get to know each other.

Tell or instruct participants:

- Before starting discussion let's see who is who
- Please introduce yourself

2. Ask and Discuss The Focus Group Questions

We will ask you questions about what you think an entrepreneur is, what they do and what you think they need to know. We will then explore your answers in more detail.

2.1. Ask the first question about the character of an entrepreneur.

2.1.1. Why and which attributes describe the character of an entrepreneur the most?

- Example attribute:
 - o Ownership of businesses: a person who runs a business or sets up a business
 - o Leadership: An entrepreneur is a good leader - she/he can motivate other people to do their best.

2.2. Organize Activity: Making Notes, Exchanging Ideas. Workshop leader instructs participants to:

- 2 MIN: Take 2 minutes and take some notes about your ideas. List as many characteristics as you can.
- 5 MIN: Discuss with your neighbor about your notes. You may note considerations in the following tables

attribute/ knowledge competence category	descriptive example of good competence	descriptive example of average competence	descriptive example of poor competence	Importance
participants note down their stuff here	participants note down their stuff here	participants note down their stuff here	participants note down their stuff here	participants rate 1 being desirable but not essential to 5 being Absolutely essential

- 3 MIN: Pin all your tables on the flipchart, maybe we find similar attributes which we can cluster. Afterwards we discuss them in group

- [after clustering / collection on flipchart]
- 10: MIN Let's discuss and rank the attributes

= 20 MIN

2.3. Organize Activity Discussion. Workshop leader tells participants

- Please briefly present the notes that you made
- Do cluster make sense? Are there any attributes redundant or misleading?
- Please rank them according to the importance from desirable to essential

2.4. Example of Final Artifact:

attribute/ knowledge	good	average	poor	Importance
Leadership	motivates people to get their best performance; let's people grow; gives people a sense of their purpose in the organisation	praises staff occasionally, provides statutory rights, provides training necessary to do the job	Bullies employees, ignores their needs, does not see long term value in developing employees	1: Leaderships is desirable

2.5. Ask the second question concerns what you think an entrepreneur needs to know- what skills and knowledge?

2.5.1. Why and which skills (and knowledge) are unique for an entrepreneur compared to general business owners?

- Example skill

- o Customer knowledge: - An entrepreneur needs to know who his potential customers are.

2.6. Organize Activities: Making Notes, Exchanging Ideas

- 2 MIN Take 2 minutes and take some notes about your ideas List as many skills as you can.
- 5 MIN Discuss with your neighbor about notes. You may note considerations in the following tables

attribute/ knowledge competence category	descriptive example of good competence	descriptive example of average competence	descriptive example of poor competence	Importance
				1 being desirable but not essential to 5 being Absolutely essential

- 3 MIN Pin all your tables on the flipchart, maybe we find similar attributes which we can cluster. Afterwards we discuss them in group
- [after clustering / collection on flipchart]
- 10 MIN Let's discuss and rank the attributes

= 20 MIN

2.7. Organize Activity Discussion. Workshop leader tells participants:

- Please briefly present the notes that you made
- Do cluster make sense? Are there any attributes redundant or misleading?
- Please rank them according to the importance from desirable to essential

2.8. Final Artifact:

attribute/ knowledge competence category	good	average	poor	Importance
Knowledge of potential customers	undertakes market surveys and tests innovations in potential markets	monitors market conditions, takes customer feedback	gathers no customer information	5 his essentially important

3. Ask participants to provide information about demographics

The organiser should gather data on age profile/education profile/employment profile/ gender of the focus group.

3.1. Distribute a leaflet: Let them check the applying information

Education / Qualification	high school tertiary education, vocational qualifications, University degree, Post graduate, professional
Gender	Male female
Age	_____ -
Employment	pre-employment; looking for work; employed using qualification; employed ; in further education or training, self employed
Role in current organization	(e.g., teacher, student, entrepreneur, researcher, ...)

Experience with gaming	
Feedback and or open questions to the Focus Group	

End of focus group template.

3.2.2. Instructions Documentation of Instructions (Detailed)

Apart from a coherent structure, the focus group moderators in each country should document the results in a common manner.

1. Firstly, a transcription of the focus group sessions should be made (as long participants agree, of course).
 - a. If the focus group has been done in the local language, the results should be translated into English! Please take care about this point early.
2. Secondly, the analysis of the focus groups shall be synthesized with the results of the literature.
3. The synthesis is conducted by amending the analytical scheme as outlined previously for the literature review:

Competence category	Competence	Target group	Profile (at least 1 per target group per country) / Proficiency level	Annotations
Category of the competence	Concrete Competence description	For which group is the competence outlined	Describe an example how this competence is relevant in your target group) (what is a bad / average / good	Describe specific aspects of the context based on results of the focus group

			level of the competence)	
Example Communication	Ability to communicate with potential customers to determine market opportunities - Outgoing - Loud speaking		For unemployed, it is necessary to be taken seriously by potential customers. Thus, credibility needs to be achieved	This is a top priority competences following participants of the focus group

8.3 Survey Structure

The following guidance was provided to coordinate the multi-lingual survey

This structure of the question corresponds to the analytical scheme which we proposed for the literature review and analysis of the focus groups as outlined above.

3.2.1. Instructions

1. The survey will be directed over a survey platform (surveymonkey)
2. To provide links in all languages translations need to be made
3. After the survey, translations of the main answers to the open questions as well as the dataset need to be provided in English

The general approach to structure the survey is outlined in the following.

Demographic Data

- Age
- Gender
- Qualification: high school tertiary education, vocational qualifications, University degree, Post graduate, professional
- Role (e.g., teacher, student, entrepreneur, researcher, ...)

Competences

Please read through the following competences - how are those important in your context (rank 1, very unimportant, to 5, most important). Please specify how you see your current status.

Competence category Category of the competence	Competence Concrete Competence description	Rank (1 very unimportant -5 most important) How important is the competence	Level (0= no, 5 = expert) How do you see your current status regarding this competence?
1. Analytical Thinking:	the ability to analyze problems systematically.		
2. Business Acumen:	the ability to discover opportunities and transform resources into performance.		
3. Client Service Orientation:	the ability to meet the needs of both internal and external customers.		
4. Commitment to Learning:	the ability to actively pursue learning and develop competitiveness.		
5. Communication:	the ability to effectively receive and express information or feelings.		
6. Conceptual Thinking:	the ability to recognize patterns or trends in a problem.		
7. Order and Quality:	the ability to reduce uncertainty and to control quality.		
8. Developing Others:	the ability to help others make progress.		
9. Empathy:	the ability to understand and respond to the concerns of others.		

10. Expertise:	the ability to perform professional jobs.		
11. Flexibility:	the ability to effectively adapt to a variety of situations.		
12. Influence:	the ability to influence thoughts and actions of others.		
13. Information Seeking:	the ability to capture enough information to increase knowledge or find solutions.		
14. Initiative:	the ability to be a self-starter and to meet the challenge of higher level objectives.		
15. Innovation:	the ability to make something new and to improve performance.		
16. Organizational Awareness:	the ability to recognize the power relationships in organizations.		
17. Personal Motivation:	the will to succeed and offer service.		
18. Relationship Building:	the ability to build and maintain personal networks.		
19. Results Orientation:	the ability to set performance objectives and measures.		
20. Self-Confidence:	the ability to express oneself in a hostile situation.		

21. Self-Control:	the ability to manage one's emotions under pressure or temptation.		
22. Team Leadership:	the ability to create a favorable environment and mobilize people to succeed.		
23. Verbal and Written Communication:	the ability to speak and write satisfactorily.		

The previous table outlines questions which will enable a confirmatory approach. Due to interest in exploratory questions, the following kind will be integrated as well:

Exploratory approach, open answers:

- 3) After you have completed the questionnaire, we would like to know what we have missed. Please respond to the open questions by filling in written texts in the right box

- a. Which competences would you see additionally?
b. How can a business apart from the suggested techniques in the survey?

Free text 3.a.

game help

Free text 3.b.