



BACKGROUND STUDY

ENTREPRENEURIAL EDUCATION IN HE IN PARTNERS COUNTRIES,
ENTREPRENEURIAL SKILLS REQUIRED BY HE STUDENTS, FRAMEWORK FOR
INTERNSHIPS

WORK PACKAGE 2: PREPARATION

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1. Introduction

Enter.Mode aims at designing, developing, testing and disseminating a novel model for entrepreneurial competence building through entrepreneurial internship. In this way Enter.Mode will take entrepreneurial education a big step further by aims at stimulating entrepreneurship and entrepreneurial skills of higher education teaching staff and company staff and develop an entrepreneurial mind-set and related skills and competences in higher education students.

The first output of this project is the present study which presents entrepreneurial education and internships in Higher Education in partners' countries, results from interviews and surveys with students, companies and HEI staff regarding required characteristics of internship programmes, entrepreneurial competences to be developed and gamification. It concludes with specific recommendations for the internship model for acquisition of entrepreneurial skills and on the entrepreneurial competences grid to be adapted.

This study intends to serve as a basis for the development of common ground among the partnership and to provide direction to the Enter.Mode process towards an entrepreneurial internship model.

The study analyses the context in the partners' countries on the following issues:

- Entrepreneurial education in HE in partners' countries for students of non-business studies.
- Higher Education framework for internships in partner countries.
- Opinions of internships stakeholders (students, HEI staff and companies) on required characteristics of internship programmes
- Opinions of internships stakeholders (HEI staff and companies) on entrepreneurial competences
- Opinions of internships stakeholders (students, HEI staff and companies) on gamification as a learning tool for entrepreneurial education.

The background study was elaborated through a combination of desk research, interviews and surveys. The desk research included a review and analysis of competence grids for

entrepreneurial skills and competences for higher education students at different levels and a mapping of the frameworks for internships in each country.

The interviews focused on the set of entrepreneurial competencies that can be acquired at the workplace, during internships, methodological aspects of the work-based learning experience, challenge-based learning and gamification techniques.

The surveys were sent to students in partners' countries focusing mainly on their experience as interns and their view on the desired characteristics of an internship program.

The above mentioned activities were simultaneously undertaken, following a common design (see Appendix IV), in Germany, Greece, Hungary, Italy and Slovakia and resulted in the development of five national reports (see Appendix I). The national reports contain all the detailed results related to each country.

This study serves as an executive summary of the reports and concludes with recommendations for the development of the internship model.

The study was co-ordinated by the University of Ioannina (Uoi) with the collaboration and participation of the Ludwig-Maximilians Universität (LMU), the Semmelweis University (SOTE), the Università Telematica PEGASO and the Technická Univerzita v Košiciach (TUKE).

2. Higher Education Internship in participant countries

Internships are, nowadays, considered to be a very important element of the higher education curriculum in all partners' countries. In all of them, the prevailing approach to internships, from a pedagogical point of view, is that internships help students to get insight in possible professional areas and the demands of a professional field, but there co-exists a point of view that understands internships as a link between theoretical and practical knowledge.

The following points can be extracted from the national reports regarding how internships are organized in their Higher Education Institutions:

- Regarding the integration of internships in Higher Education curricula, in all countries internships are offered both as compulsory and voluntary elements of the curricula. In some fields like medicine, law, teacher education, tourism sciences and training internships are compulsory (DE, GR, IT).
- Universities tend to offer internships in organizations and companies both in the private and public sector.
- Regulations, special terms and conditions for internships vary significantly between the countries but also within countries between universities, in terms of whether internships are paid or not, their duration (<1 - 12 months), their distinction from or similarity to employment, social security and insurance, and in many cases the framework of internship regulation is agreed between universities and hosting companies.
- ECTS credits are awarded for internships that are part of the curriculum in all countries.
- In most countries internships (when paid) are funded by the hosting organization or company. In Greece, internships are paid by the university or by both the university and hosting organization in the case of Higher Technological Education Institutions.

3. Entrepreneurial education in HEIs in participant countries

Entrepreneurship is considered as a major driver of innovation, competition and growth. As a result, national governments and international organisations such as OECD and European Commission have an increased focus on entrepreneurship education (Wilson, 2008). With the term 'entrepreneurship education' we follow the definition of European Commission (2015) covering 'all educational activities that seek to prepare people to be responsible, enterprising individuals who have the skills, knowledge and attitudes needed to prepare them to achieve the goals they set to live a fulfilled life'.

Although entrepreneurship has been part of higher education in the United States for more than 60 years, Europe is lagging behind with significant approaches in the last 10-15 years. Still, efforts are not always well organised, entrepreneurship is not universally accepted in academia (a trend that is changing rapidly in recent years) and approaches are often fragmented and driven by external factors and stakeholders.

The European Commission in a recent report (2015) identifies the importance of entrepreneurship education to the individual, as it

- Helps boost career ambitions
- Leads to higher employability
- Leads to improved entrepreneurial skills and attitudes
- Leads to behavioural change towards higher entrepreneurial intentions

In addition, entrepreneurial education

- Supports a higher rate of start-ups and helps creating successful ventures
- Leads to economic impact (including impact on employment)
- Can help protect individuals against social exclusion.

For this reason entrepreneurship is often considered as a key competence, while EC (2012) puts an emphasis on the entrepreneurial skills that should be developed suggesting that 'all young people should benefit from entrepreneurship education before leaving compulsory education'.

The analysis of the national reports confirms that although country members recognise the need to create linkages between the education and labour market the relevant activities in Higher education remain fragmented, do not cover all academic fields but focus mainly on business and/or technology subjects. The relevant courses most of the times are elective (not compulsory); as a result studies indicate that students still consider that they have limited exposure to entrepreneurial training (including the development of relevant competences). The findings are inline with the Global University Entrepreneurial Spirit Student Survey (2016), where e.g. in Italy, a 66.1 of the students has not attended a course on entrepreneurship; the figures varies among countries, with Greece demonstrating a good performance of 34.6% (with a global average of 55.5%).

Among the five countries considered in this report, the situation is considered to be slightly better in countries such as Greece and Italy, where the recent years several courses have been introduced at HEIs and are offered to students from different fields. Post-graduate programmes have also started to be evolving (see e.g. Greece, Italy and Germany). It should be noted that in most of the cases, additional activities initiated by other stakeholders such as non-for-profit organisations, chambers, foundations etc. complement the entrepreneurial training offered by HEIs.

4. Internship characteristics and suggestions

In the context of the study, university students from the partners' countries, who had undertaken an internship were asked about their experience from the activity they participated in.

Regarding the main reasons they undertook an internship for, the following reasons were mainly stated:

- It was compulsory (SK, IT, HU, DE)
- In order to develop professional skills (GR, DE, SK)
- To obtain professional experience (GR, HU, SK)
- As a means for career planning (GR, HU, SK, IT)

Regarding their expectations from their internship professional experience (SK, GR, DE) and professional skills development (GR, IT, DE, SK) were mainly stated.

As in many cases the internships were compulsory, no clear expectation were formed beforehand and it seems that the compulsory character leads to low expectations or absence of expectations at all.

Regarding the positive aspects of their internship, students referred mainly to:

- Professional networking (GR, IT, SK)
- Working together with experienced professionals and clients (GR, IT, SK, DE)
- Assuming responsibility (GR)
- Testing knowledge in practice (IT, SK, DE)
- Professional growth (HU)
- International experience (HU, SK)

Event though, students regarded their internship as a positive experience and not many of them mentioned negative aspect (mainly in GR, IT, DE), some negative aspects were also mentioned including limited duration (GR, IT) and compensation issues (GR, SK). Other negative aspects, mentioned by some students refer to mismatching between their abilities and the expectations their mentor had from them (IT), limited free time and heavy workload (SK, HU)

When asked to express their opinion on the optimal duration of an internship, students in all countries provided a wide range of proposed durations and no clear conclusion can be drawn.

Nevertheless, there seems to be a consensus that internships should last at least one month full-time (6-7 hours per day) and most students tend to propose a duration around six months. On the other hand, both companies and HEI staff seem to agree that internships should last six months or more.

Students were also asked to state the criteria they would use to select a company for hosting them as interns. They seem to regard future job opportunities at the company (IT, SK, HU), relevance with their career plan (IT, GR) and location of the company (distance from their place of residence) (IT) as very important. In some cases, the reputation of the company related to previous internships and the perceived capacity of knowledge transfer of the hosting company are also mentioned as important.

Regarding the requirements a student should meet to be eligible for an internship, all the stakeholders (students, HEI staff and companies) agree that students should have sufficient scientific knowledge in their field of study and be ambitious, motivated and committed to implement an internship. Minimum language competence is also required for international internships

Apart from scientific knowledge and motivation, companies also value soft skills as a requirement for students, as they consider that this would facilitate the internship. In any case, it should be noted that the development of skills is a main goal of an internship.

Companies and HEI staff were also asked to describe the main challenges interns should be faced with during their internship. Both companies and HEI staff seem to agree that interns should be integrated in team working conditions, undertake real tasks, be provided with opportunities to interact with all employee levels within the company. An important challenge mentioned from companies is to enable interns to learn to work independently, while learning curves and time should also be considered as important parameters.

Regarding the main elements/milestones an internship program should include, companies and HEI staff noted that internship programs should be commonly designed by companies and universities and should also:

- Have a clear structure with clearly stated learning goals
- Prepare the students about the internship before it starts

- Start with research, job shadowing and observation of the company's functions and procedures
- Include activity- and/or project-based learning
- Include a supervisor/mentor for the intern
- Include rotations within company departments
- Incorporate the design and delivery of tasks/projects
- Provide frequent feedback and summary of lessons learned
- Have a gradual approach, focusing on small tasks
- Allow time for reflection
- Include evaluation
- Help students to learn working with deadlines
- Balance between individual tasks and group tasks

Both companies and HEI consider **mentoring** of interns as an integral part of an internship program. All stakeholders agree that mentors, apart from possessing a solid academic background and extended professional experience should also:

- be willing to share and listen
- be dedicated to the role
- be available to the intern
- be experienced at supervising
- value ongoing learning and growth in the field
- have personal interest in the mentoring relationship
- be active listeners and have empathy
- stimulate interns' creativity
- Provide guidance and constructive feedback
- Motivate others by setting a good example.

5. Competences to be developed

Regarding the competences of the Entre.Comp framework, both HEI staff and companies regard all of them as important, scoring high, but there seem to be concerns about whether all the competences can be developed in the context of an internship.

Although there are differences between the partners' countries, if one wanted to focus on the three most important competences, as referred to by the participants, those seem to be Motivation and perseverance (GR, SK, HU, DE), Spotting opportunities (GR, IT, SK) and Vision (IT, SK, DE).

On the other hand, the least important competences mentioned were Financial and economic literacy (SK, GR, HU), Valuing ideas (GR, IT, DE), Mobilising others (HU, DE), Taking the initiative (SK, IT) and Planning and management (SK, IT). It should be noted, however, that these competences abilities also score above average in the respective countries.

It is also worth emphasizing that some of the least important competences (e.g. Ethical and Sustainable thinking in IT) seem to be referred to as more easy to be developed during an internship while other competences with high scores of importance (Mobilising resources, Mobilising others, Coping with uncertainty, ambiguity and risk) are considered as harder to be developed.

Concluding given the national survey ment that the three most important entrepreneurial competences to be developed by an entrepreneurial internship programme include (i) Spotting opportunities, (ii) Vision and (iii) Motivation and Perseverance.

Using examples and challenges are considered good techniques to be considered in the internship.

Observational learning together with hands-on experience, analysis of the market environment (including relevant briefing of relevant information) as well as putting challenges related to the design a new or improved product or a new target group to focus on appeared during the study as indicative suggestions for developing the 'spotting opportunities' competence.

Some suggestions related to the 'vision' competence include the analysis of the firm's vision and the development of future scenarios. Finally, team working and role models have been

suggested as indicative actions for the development of the 'motivation and and perseverance' competence.

6. Gamification needs

Regarding gamification as a tool for enhancing skills development, all companies and HEI staff from Germany, Greece and Italy stated that they had never used a digital educational game from training purposes. In Slovakia only one member of HEI staff had used a digital game, expressing a generally positive experience. In Hungary, two out of five participants had used one, mentioning the “fresh look” of the game and its flexibility as positive aspects. The fact that the games were not tailor made for their specific educational needs and looked not very professional were mentioned as negative points.

Most students had also never used a digital educational game. In HU most had not used one and two of them mentioned kahoot and a language studying app as digital educational games they had used. In GR only three out of 36 had experience in digital educational gaming. What liked was the interactivity, the online collaboration and the immediate feedback. On the other hand they did not like the competitive culture among players and the repetitiveness of the tasks. Students in the DE national report had a very poor experience while in SK 10 out of 23 students mentioned that they had played a digital educational game. They considered it as funny way to learn (mainly languages) but did not like the limited interactivity of the games they played.

Regarding the gaming elements they would value most, students in the IT national report valued highly the ability of collaborating with colleagues and having **instant feedback** on their performance. Challenges, scores and competition with colleagues would seem to be less relevant. In DE Challenges, **Collaboration** and Leaderboards would seem to be the dominant motivational elements. In GR, students valued most **Instant feedback**, Badges and **Collaboration** while for SK students, instant feedback was the most important element.

Regarding the preferred interface styles, in the IT national report students proposed realistic, colourful and extremely detailed games, GR would prefer colourful, realistic and fun games and SK students proposed realistic and colourful games.

7. Conclusions - Suggestions for the internship model for acquisition of entrepreneurial skills

Taking into account the results and main points of the interviews with companies and HEI and the surveys with the students of the partners' countries, presented in the previous sections, and the national reports (see Appendix I) the following suggestion could be derived, regarding the internship model for acquisition of entrepreneurial skills:

1. Internships for acquisition of entrepreneurial skills should not be compulsory, because compulsory internships do not motivate students and do not foster self-reflection and goal setting.
2. The suggested internship duration is 6 months.
3. International internships are extremely beneficial.
4. Students, in order to take part in an internship program, should
 - a. have sufficient scientific knowledge in their field of study
 - b. be ambitious, motivated and committed to implement an internship
 - c. possess minimum language competence (at least in international internships)
5. Sufficient information about the company should be provided to students in order to make an informed choice of company.
6. Regarding main challenges for interns, it seems that they should
 - a. be integrated in team working conditions,
 - b. undertake real tasks,
 - c. be provided with opportunities to interact with all employee levels within the company
 - d. An internship program should
 - e. have a clear structure with clearly stated learning goals
 - f. include time and information for student preparation
 - g. start with research, job shadowing and observation of the company's functions and procedures
 - h. include activity- and/or project-based learning
 - i. include a supervisor/mentor for the intern

- j. include rotations within company departments
 - k. incorporate the design and delivery of tasks/projects
 - l. provide frequent feedback and summary of lessons learned
 - m. have a gradual approach, focusing on small tasks
 - n. allow time for reflection and Include evaluation
 - o. help students to learn working with deadlines
 - p. be balanced between individual tasks and group tasks
7. Mentoring is an integral part of an internship program. Mentors should possess a solid academic background and extended professional experience, be dedicated to the role experienced at supervising.
 8. Initial training on mentoring and the role of the mentor could be a very important element of an internship program. Active training is even more important.
 9. Careful selection of students and matching of students with companies could be a very important step towards a successful internship.
 10. Given that all competences included in the Entrepreneurship Competence Framework (Entre.Comp) seem to be important, the most important entrepreneurial competences to be developed by an entrepreneurial internship programme include (i) Spotting opportunities, (ii) Vision and (iii) Motivation and Perseverance. Using examples and challenges are considered good techniques to be considered in the internship.
 11. Observational learning together with hands-on experience, analysis of the market environment (including relevant briefing of relevant information) as well as putting challenges related to the design a new or improved product or a new target group to focus are indicative suggestions for developing the 'spotting opportunities' competence.
 12. "Vision" competence development could include the analysis of the firm's vision and the development of future scenarios.
 13. Team working and role models are indicative actions for the development of the 'motivation and and perseverance' competence.

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Appendix I - National reports



GERMAN NATIONAL REPORT

WORK PACKAGE 2: PREPARATION

O2.1. - BACKGROUND STUDY

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This background study is focussing on entrepreneurship education in higher education, on entrepreneurial skills required and on currently

1. Internships in Germany: formal aspects

Internships (in Germany) are appointments for a limited period of time (usually a few weeks up to one year, in very limited cases even longer) in which a (higher education) student is acquiring new practical skills or is deepening practical skills and so is receiving work experience. Internships are part of a professional training – they are no professional trainings by themselves. Internship (in Germany) are neither part of a regular employment relationship nor of a formal apprenticeship. In some cases, an internship is a precondition to apply to a university program. O’Higgins & Pinedo (2018) differ between three types of internships: a) Internships, which are linked to a course or academic study, b) Work experience undertaken as part of an Active Labour Market Program and c) Open market internships – that is, work experience in firms or organisations, which do not fall under one of the previous criteria (p. 3).

To understand the rules and regulations for internships within a university program in Germany it is important to mention the differences between two types of university programs: On the one hand, there are BA/MA programs. Their regulations are completely determined by the universities and so independent from governmental rules. On the other hand, there are programs with state examinations: law, medicine and teacher education. Those programs can not be determined by universities independently, but always in cooperation between universities and ministry. Since tertiary education in Germany is in charge of the federal states, there are slightly different rules between the states but common rules between the universities of one federal state. One consequence of this fact is that internships in law, medicine and teacher education, are ruled by the federal states in Germany. For the BA/MA programs which are completely in the hands of the universities there are no legally binding regulations within the federal states. So here, all regulations for internships are coming from the regulations at each university and each degree program. The consequence is that there are degree programs with no compulsory internships, programs with short compulsory internships (about 6 weeks), programs with long compulsory internships (half a year) and programs with compulsory internships before entering the program. Generally speaking, universities tend to less compulsory internships and to shorter ones. Universities of applied sciences tend to longer and more compulsory internships. As Bargel (2012) points out, the average duration of internships is 4.8 months at full universities and 6.3





months at universities of applied sciences. 75% of the students at full universities have experiences with internships (13% of them abroad), whereas at universities of applied sciences the number was 80% (10% of them abroad).

On the other hand programs in law, medicine or teacher education have compulsory internships during the study and afterwards. These internship-programs are highly regulated and focusing on professional practical skills. But the internships are shorter. As Bargel (2012) points out, the average duration of internships looking at students of law is 3.1 months, natural sciences 4 months, medicine 5,6 months and social work (at full universities) 7 months. So the differences between full universities and universities of applied sciences do not only depend on the different regulations, but also on the different study programs.

According to the various regulations at German universities, one can differ between compulsory and voluntary internships. In compulsory programs, the university is formally acting as an employer. So payment and vacation are not mandatory. In voluntary programs, the employer is the company where the internship is taking place. In this case, general rules for (minimum-) wages apply as well as rules for vacation. Two days for leave for each month are mandatory. A contract about the length of the internship, about tasks and remuneration is highly recommended but not obligatory. It is also recommended that there is a contact-person at the company, where the internship is taking place. But it is not mandatory. So students are in charge to choose an enterprise with good conditions for their internship.

In addition to this, there are trainee programs to adopt the skills acquired at the university to the requirements of a job or possibilities to work at a company as a working-student (Werkstudent).

To help students to find an internship program and / or to enter an internship universities and the employment agency are offering guidance. The guidance offered by the employment agency is focused on getting into a job, the guidance offered by universities is focused on the requirements of the study program. In addition to this, universities are offering vacancy boards where students and possible employers are coming together and talk about their needs, goals, requirements and offers. Often those boards are offered in cooperation between universities and employment agency, chambers or employment representatives. One of the consequences is that universities in bigger cities with many companies around have more possibilities to offer such events than universities in smaller cities or cities with less elaborated economy. This also contributes to the attraction of a university.





2. Internships in Germany: learning aspects

Viewing at internships from a pedagogical point of view there are two different aspects to mention: a differential aspect and an integrative aspect (Schubarth et al, 2016). The differential perspective points out that theoretical knowledge (taught at universities) and professional knowledge (needed at the workplace) are structurally different. Internships can help to build links between the two sorts of knowledge or adaptations. From this point of view internships should help to bridge the gap between theory and practice and should not introduce into the demands of a profession. The integrative aspect is negating the difference between the two sorts of knowledge and postulates to integrate theoretical and practical knowledge very early in a university program by special offers. Internship from this point of view help to get insight in possible professional areas and the demands in a professional field.

According to those two aspects, four positions viewing on internships can be mentioned:

- An internship is not an integrative element of a university program but a separate space of experience. University programs and internships should strictly be separated.
- An internship helps to introduce into acting as a professional and to transfer theoretical knowledge into a profession.
- An internship helps to get necessary professional knowledge in the sense of an apprenticeship.
- An internship helps to get insights into a professional field as a matter of a scientific program.

The value of an internship model or skills that can or should be acquired during an internship, depends on the above mentioned positions. Learning within an internship can happen formally and informally. The effects of an internship are strongly depending on applicable competences that can be acquired.

3. Entrepreneurship Education in Germany

Entrepreneurship Education in Germany is undertaken in two ways: a) as a special university program and b) as general programs offered in addition to special university programs.

3.1 Entrepreneurship programs offered at universities:

All in all there are 12 Entrepreneurship programs offered at universities in Germany. They are listed in the following table (source: <https://www.studis-online.de/Studiengaenge/Entrepreneurship/Uni/>):





University program	University	University degree
Entrepreneurship and Sustainable Development	ECP Business School, Berlin	Master of Science
Innovation Management, Entrepreneurship and Sustainability	Technical University, Berlin	Master of Science
Innopreneurship	Universität Duisburg-Essen	Master of Arts
Family Entrepreneurship	Zeppelin Universität, Friedrichshafen	Master of Arts
Entrepreneurship in digital Technology (<i>two programs</i>)	Universität zu Lübek	Master of Science
Innovation Management and Entrepreneurship	Carl von Ossietzky University, Oldenburg	Master of Business Administration
Entrepreneurship and SME Management	Universität Siegen	Master of Science
Intra- and Entrepreneurship	University of Stuttgart	Master
Entrepreneurship (<i>two programs</i>)	WHU – Otto Beinsheim School of Management, Vallendar	Master of Science
Entrepreneurship and Innovation	Bergische Universität, Wuppertal	Master of Science

Since two of the listed programs are offered twice, there are 12 programs altogether. All programs are master programs. Most of them Master of Science. Most of the programs are completely focusing on economics.





3.2 General programs offered in addition to special university programs



Looking at databases about entrepreneurship one can find statistic of universities and of the companies founded there (see the right column in the following table).

Infografik: Das Gründerszene Hochschul-Ranking
Die wichtigsten Startup-Universitäten

Hochschule	Anzahl der Köpfe in der Gründerszene Datenbank
WHU - Otto Beisheim School of Management	107
Ludwig-Maximilians-Universität München	81
Freie Universität Berlin	64
Technische Universität Berlin	53
European Business School, International University Oestrich-Winkel	52
Universität Hamburg	48
Universität Karlsruhe/Karlsruher Institut für Technologie (KIT)	43
Technische Universität München	40
Westfälische Wilhelms-Universität Münster	40
HHL - Leipzig Graduate School of Management / Handelshochschule Leipzig	34
Humboldt-Universität zu Berlin	29
Georg-August-Universität Göttingen	25
Universität Mannheim	25
Friedrich-Alexander-Universität Erlangen- Nürnberg	23
Fernuniversität in Hagen	22

Quelle: www.gruenderszene.de

Source: https://www.gruenderszene.de/allgemein/top-startup-unis?interstitial_click

Following the table besides the private University in Valendar (WHU) the universities in Munich (Ludwig-Maximilians University and Technical University) and Berlin (Free University of Berlin and Technical University) are showing the most companies founded. So these two cities are stated as the heartland of entrepreneurship in Germany (see also Schmude et al., 2011). Since the survey from 2011 (Schmude et al.) points out, that it is not so easy to get reliable information about entrepreneurship education in Germany, because neither the universities nor their students nor companies are liable to collect and





publish information about their activities in entrepreneurship, it is remarkable that those two independent surveys are coming nearly to the same conclusion (see especially p. 22). Another Study (Kawohl et al.), a survey of the top-100 entrepreneurs, came to a similar conclusion: 70% of the successful startups were located in Berlin, the next 10 Percent in Munich, 7% in Hamburg and so on. So it might be a good example to have a look at the Entrepreneurship centers of the Ludwig-Maximilians University (LMU) as well as the Technical University (TUM) in Munich The following section contains some informations about them.

The entrepreneurship Center of the LMU (<https://www.entrepreneurship-center.uni-muenchen.de/ueberuns/index.html>):

The LMU Entrepreneurship Center (EC) wants to educate future entrepreneurs, support and guide them by founding their own company and foster a culture of entrepreneurial thinking and acting at all faculties of the LMU. More than one thousand people a year are visiting courses offered by the EC and more than 235 entrepreneurial teams were supported. There are four areas of operations: teaching, accelerating, supporting the community and research.

- Teaching: Entrepreneurship-courses for every 18 faculties of the LMU, for researchers, staff and partners as well as presentation of practical know how and entrepreneurial competences.
- Accelerating: offering free offices, coaching and networking to persons starting a company. More than 230 teams were supported up to now. Every semester about 15 more teams are supported.
- Community: Organizing events for members and participants of the EC
- Research: The research is done in cooperation with the Max-Planck-Institute for innovation and competition. Topics are: the growing of enterprises, success factors of entrepreneurship, strategic management of new enterprises, financing or entrepreneurial activities and so on.

The entrepreneurship Center of the TUM (<https://www.tum.de/wirtschaft/entrepreneurship/>):

The entrepreneurship Center of the TUM is putting a focus on technology-based companies. It offers support from the project-idea to the growth of a company. The services offered are:

- Guidance
- Entrepreneurship education
- Workshops with tools for building technical prototypes (maker space)
- An institute for Research on Entrepreneurship (ERI)
- Offices and workplaces





Together the LMU and TUM offer a study program (Honors degree) for technology management (<https://www.cdtm.de/>).

The **Entrepreneurial Network University** at the Free University (FU), Berlin: This network was founded at the FU in 2009 in cooperation with the Charité, the famous university hospital. It supports the university to build structures and strategies in supporting entrepreneurship among students, institutionalizing guidance for entrepreneurship, establishing adaptive entrepreneurship education and building a network structure for helping and supporting each other. In 2013 the Entrepreneurial Network University at the FU as a concept won an entrepreneurial competition run by the German ministry of economics (EXIST). As an additional field of action the Network University is focusing on sustainability (https://www.fu-berlin.de/sites/enu/ueber_uns/index.html)

The **Technical University of Berlin** is offering both, a Center of Entrepreneurship (<https://www.entrepreneurship.tu-berlin.de/menue/willkommen/>) and special study programs for entrepreneurship (<https://www.imes.tu-berlin.de/home/overview/>). The Center of Entrepreneurship has a Startup School offering Workshops and qualification programs for Entrepreneurship, it is offering guidance and support to tackle financial problems and to get funding, and rooms, spaces and workplaces to rent for a relatively small budget. Finally, there is a Startup Award entrepreneurs coming from the Technical University. The Study program is a dual degree Master Program 'Innovation Management, Entrepreneurship and Sustainability' which was already mentioned above. This program is realized in cooperation with the universities in Twente, Warsaw, St. Petersburg and Moscow.

The Humboldt University of Berlin, the third of the tree big Universities in that city only has a study program. It is called 'Entrepreneurial Design and Decision Making' (<https://www.wiwi.hu-berlin.de/de/professuren/bwl/ebdm/standardseite>).

3.3 Supporting initiatives

In this context an initiative from the **German Ministry of Economics and Technology** has to be mentioned which is called EXIST (<https://www.exist.de/DE/Home/inhalt.html>). The program aims at improving the entrepreneurial environment at universities and research institutes. It also aims at increasing the number and success of technology and knowledge based business start-ups. The program supports university graduates, scientists and students in preparing technology and knowledge based start-ups. The program comprises three schemes:





- Culture of Entrepreneurship – supporting universities in implementing a strategy for increasing entrepreneurial culture and spirit.
- Business Start-up Grant – supporting students, graduates and scientists in preparing their start-up projects.
- Transfer of Research – funding the development of resources necessary to prove the financial feasibility of start-up ideas.

Furthermore, the program is in contact with contact persons at universities or research institutions so that it is possible to find a network for supporting one's own projects. The search can easily be done by a special map, as it is shown in the following figure. The numbers are telling, how many networks are available in a certain region.



In addition to that, it is possible for technical start-ups to enter a three-months mentoring program to the centers of innovation in the US – the destinations are New York City, Silicon Valley's Palo Alto and San Francisco.

So all in all this initiative has a strong focus on innovative technology. This judgement is supported by the fact that there is another initiative to get financial support that also aims at technology driven start-ups (<https://high-tech-gruenderfonds.de/en/#title>)





After describing the strategies of supporting entrepreneurship in Germany in the second part of the report an analysis of the questionnaires is done, that were sent to university students, HEI staff and managers of companies.

4 Analysis of the questionnaires

4.1 Analysis of the Student questionnaires

Since the author of this study is working in the field of teacher training his students are expected (and expecting) to work in schools. Their internships are regulated by federal state rules. The first step was to use networks to get impressions about internships from many different subjects. Though sending several e-mails to several networks and waiting for a very long time there was no questionnaire sent back. So, finally a network of a scholarship foundation in which the author is engaged was used to get answers to the questions. For this reason, most of the students who answered to the questions were engaged in teacher training programs. Their internships were mandatory and they received credits for them.

The goal of the internships, which are mandatory for teachers, is to deepen their knowledge about the subjects they teach and to give them experiences in planning their lessons, presenting themselves in front of their students and soft skills to cooperate with their colleagues. So it is no surprise that these goals were mentioned in every questionnaire that was filled out by a future teacher (three persons). This is what the three of them expected and these expectations were met. One reason for that is seen in the fact that there is a mentoring system consisting of experienced teachers to support the students during their internship. The experience to be part of a team was worshiped very much and the general possibility to get experience in teaching (“teaching is practice”). Two other students who want to become a teacher did their internship before starting at the university to see whether their career goal is realistic and interesting for them. The experiences they made supported their decision to start at the university. Since teaching is a job that has to be done at schools which are governed by federal ministries of education it is no option for a teacher student in Germany to engage in entrepreneurship education. According to this fact, the answers in the questionnaires did not show any motivation in this field. Also, the experiences in digital educational games were not elaborated. The only educational program that was mentioned was kahoot. With this program you can organize a quiz with questions concerning a specific topic.





There was only one questionnaire coming from a student, who does not want to become a teacher. He expected to learn more about entrepreneurship during his internship. He worked together with a friend and spoke very positively about the internship (it was fun, rapid prototyping experiences). On the other hand, he found his internship chaotically organized and planned. His experiences concerning Educational Games he made in his childhood (Ecopolicy).

Though the experiences with gamification were very poor, five of the six interviewees answered the question D2 about motivating factors of gamification elements. The mean scores were as follows (a score of 5 means 'most motivating'): Challenges: 4,6 – Levels: 3,2 – Instant feedback: 3,4 – Scores/Points: 3,4 – Badges/Rewards: 2,8 – Leaderboards: 4,0 – Competition with peers: 3,8 –a Collaboration with peers: 4,2.

4.2 Analysis of the HEI-Staff questionnaires

The questionnaire for the HEI-Staff was sent to a network of colleagues at the LMU. It was sent back from five colleagues, all from the LMU and working in different faculties (psychology, statistics, economics, german language teaching). The competences regarded as most relevant are coming from the area (putting things into action). The competence regarded as most relevant is 'Learning through experience' (mean = 4,6). Competences from the area 'Ideas and opportunities' are put on the second place. Having a vision is regarded as most important (4,8). While the answers in the area 'action' are rather homogeneous, the answers in the area 'Ideas and opportunities' are not. The competence 'Valuing ideas' for example is regarded as not very important (1,8). Fewest important are competences from the area 'Resources'. Self-awareness and self-efficacy (1,8) and mobilising resources (2,0) are not regarded as very important. Most important is motivation and perseverance (4,0). The complete frequency table can be found in the Appendix. All of the competencies belonging to the area 'Into action' are rated as 'can be developed'. The competencies that cannot be developed (as rated by the majority of the respondents) are 'Spotting opportunities', Creativity', Valuing ideas', Motivation and Mobilising resources' and 'Mobilising others'. Three of the five competences, which are regarded as impossible for developing during an internship, are from the area 'Ideas and opportunities'. The ideas, how they can be developed during an internship, can easily be summarized. The competencies can be acquired by meaningful examples by staff members as role models and by overtaking responsibility for autonomous projects. If the interns are (or can be) involved in successful projects, they can develop their self-efficacy, motivation and skills for coping with uncertainty. Two respondents are stating that it is important to have a contact person in the company that feels responsible to introduce the interns into the firm, to





supervise his work and to manage him having contact to responsible projects. At least in the field of pedagogics it is regarded as relevant that internships have a preparation phase at the universities and a postprocessing phase afterwards. So internships should be integrated into the study program. Ideally, the study program should define criteria what should be done during an internship and how the internship should be supervised. To facilitate this a supervision and guidance of internships should be offered within the study program.



As ideal duration of an internship, 6 weeks are regarded as sufficient. This is also important for students from abroad, because they are not allowed to work for more than six weeks without special permission. An alternative model could be to do an internship during the lectures and seminars, for example for two days a week. So the experiences during the internship could easily be integrated into the study program. From the view of a study program, an internship can be compulsory or not. Only if it is compulsory, it may be supervised by the university. But in this case every student has to do an internship and it is no use to think about a good fit of students (beside of the fact that this would be a rather subjective judgement). If the internship is voluntary, it is the student, who is deciding to do an internship or not. Maybe only students with a specific personality are doing that. So it would be a procedure of self-selection. As main challenges for interns, the respondents regard to find projects that can be realized and finished during the time of the internship on the one hand and that can make the intern responsible for being successful. That can only happen, if the staff (or at least one person) feels responsible for the intern as a person and for the intern as employee who is in charge to realize a project. That means that there has to be a supervisor in the company who is giving feedback to the intern and who can act as a role model.

4.3 Analysis of the questionnaires sent to company-managers

The questionnaire was sent to a network of companies who are involved in a scholarship program together with the author. It was sent back from three representatives, working in companies in or around Munich (all SMEs). As the staff from universities the company managers are regarding competences from the area 'into action' as most important (4,7). Differently to the first group competences from the area 'Resources' are at the second place (4,2) followed by competences from the area 'ideas and opportunities' (4,0). Similar to the university staff the company managers are regarding special projects as important to acquire those competences. On the one hand there must be an opportunity for the interns to work in a challenging project, on the other hand it depends on the skills and competences of the interns whether the company allows him to work in such a project and to take over responsibility for its success. So the opportunity strongly depends on the experience the company has made with





former students / interns. From the perspective of the managers it is important to communicate with persons from the university to give feedback about the interns and about the skills they should have to do their internship successfully.



The ideal duration of an internship in the eyes of the company managers would be half a year. The reason is that it normally takes some weeks to introduce an intern into the business processes of the company and some more weeks (months) until the work of an intern is profitable for the company. Selection criteria is a personal fit to the visions of the company and to the team. Performance criteria are important, too, but second place. The requirements are depending on the project to some degree. In some projects language skills are mandatory, in others not. In some projects practical skills are important. Generally speaking, an intern should have good social and communicative skills and self-esteem. He should be highly motivated and to think and work systematically. None of the respondents had experience with a special internship program. The way, internships are designed depends on the experience with interns that were made in the company. Mentors should be very experienced staff-members who can be a role-model for the interns. They should have pedagogical experience.

5 Conclusions

As the initiatives, that are undertaken to support entrepreneurship and entrepreneurship education in Germany show, there is no general program implemented by the central government to foster entrepreneurship. Some universities have special master programs for entrepreneurship, others are supporting networks to establish entrepreneurship as a general initiative or culture for all faculties. This leads to a very different support structure that is not clearly arranged. On the other hand, it offers those, who show initiative, many possibilities to define and realize their own project. Looking at the start-ups, that are successful and where they are located, it can be said, that the chance to have success very much depends on the city where the start-up is founded. Berlin, Munich and Hamburg seem to be the best places.

The analysis of the questionnaires has some limitations from the fact that it was hard to get answers from students. As most of the questionnaires were answered by teacher students, the results are biased by their situation and background. So the results cannot be generalized. Their interests are in internships are mainly focused on practical experiences in teaching and planning lessons. The answers of the HEI-staff members and the company managers were corresponding well. On the one hand, there were different interests depending on their institutions (e.g. the duration of the internship: six weeks vs. six months). On the other hand, the answers about the success factors of an internship were concordant: The success highly depends on the motivation of the intern and the quality of support he is getting





during his internship. Therefore, there should be a good cooperation between HEI-staff and company managers, responsible for the internship.

In order to strengthen the professional knowledge the results of the interviews and the personal experiences of the author at the LMU, Munich recommend the following suggestions:

- The regulation of an internship should correspond to the study plan (curriculum). It should be defined, what the students shall learn within their internship, the responsibilities for controlling, whether the targets were reached and giving feedback to the student, the institution of the internship and the university.
- An internship report should be compulsory to make transparent, what was done in the internship and whether the goals were reached. If research-based activity, connected to questions, that are relevant for the company, was done, the results must be published here.
- Universities and companies should have an internship agreement in which they agree on the learning objectives, the requirements of the applicant, the duration of the internship (hours), support, feedback and the qualification of the supervisor (at the company).
- As society is changing to a knowledge-based society, there is more and more focus on problem solving using scientific methods (evidence based). With the help of internships, practice should become more research based and research more practically focused.

To support this, it is very welcome, if there is a regular cooperation between university and at least some companies; if internship-search and cooperation are supported by an alumni-network. Practical relevant competences cannot be achieved only by internships. All possibilities of teaching and learning should be coordinated (e.g. communities of practice, connected learning, research-based learning)





6. Literature

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Appendix: Results of the closed questions in the questionnaire



Student-Questionnaire

Element	Mean
Challenges	4,6
Levels	3,2
Instant feedback	3,4
Scores / Points	3,4
Badges / Rewards	2,8
Leaderboards	4
Competition with peers	3,8
Collaboratin with peers	4,2

HEI Staff

Competence	Mean
Spotting opportunities	4,0
Creativity	3,0
Vision	4,8
Valuing ideas	1,8
Ethical and sustainable thinking	3,8
Self-awareness and self-efficacy	1,8
Motivation and perseverance	4,0
Mobilising resources	2,0
Financial and economic literacy	3,2
Mobilising others	3,2
Taking the initiative	4,2
Planning and management	4,0
Coping with uncertainty, abiguity and risk	3,8
Working with others	4,0
Learning through experience	4,6





Companies

Competence	Mean
Spotting opportunities	4,3
Creativity	4,3
Vision	4,7
Valuing ideas	3,3
Ethical and sustainable thinking	3,3
Self-awareness and self-efficacy	4,0
Motivation and perseverance	5,0
Mobilising resources	4,7
Financial and economic literacy	3,7
Mobilising others	3,7
Taking the initiative	4,7
Planning and management	4,7
Coping with uncertainty, ambiguity and risk	5,0
Working with others	4,7
Learning through experience	4,7





GREEK NATIONAL REPORT

WORK PACKAGE 2: PREPARATION

O2.1. - BACKGROUND STUDY

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1. Report framework

This document reports on the current situation regarding internships in Greek universities and entrepreneurial education in Greece and presents empirical data from a series of surveys and interviews conducted with students, companies and higher education professionals in order to obtain useful insight that could provide a basis to design, develop, test and disseminate a new model of entrepreneurial internship in order to improve entrepreneurial mind-set and skills for Higher Education students.

The second section is about internships in Greece and was prepared in collaboration with the staff of the internship office who provided all necessary information and access to resources.

The third section is about entrepreneurial education in Greek tertiary sector and other relevant activities targeting students and offering entrepreneurial support

The fourth section presents the results from the survey and interviews conducted with students, companies and higher education professionals.

Finally, the fifth section, concludes with suggestions for the Enter.Mode model of entrepreneurial internship .

2. Higher education Internships in Greece

2.1 Higher education in Greece

The Greek educational system is mainly divided into three levels: primary, secondary and tertiary. Higher Tertiary education constitutes the last level of the education system and comprises the University Sector (Universities and Polytechnics) and the Technological sector (Technological Education Institutions (TEIs)). Undergraduate courses typically last 4 years (5 in polytechnics and some technical/art schools, and 6 in medical schools), postgraduate (MSc level) courses last from 1 to 2 years and doctorates (PhD level) last typically 3 to 6 years. Higher education institutions are fully self-administered legal entities of public law. Tertiary institutions are nominally autonomous, but the Ministry is responsible for their funding, and the distribution of students to undergraduate programs.

2.2 Internships in Greek Higher Education Institutions

In Greece, internships are, nowadays, considered to be a very important element of the higher education curriculum. More students and companies are aware of the benefits of experiential learning obtained during internships. In Greece, students increasingly demand internship programs so they can acquire professional skills before looking for a job while, at the same time, companies train students in their organization and use internships to reduce uncertainty in the hiring process after graduation.

Over the last decades public debates on educational policy have drawn the attention to changes required in higher education to produce graduates better equipped for the modern working environment, stressing the need for acquiring transferable skills and employability characteristics during studies. As such, the development of links with companies is perceived as an essential part of this process at both undergraduate and at postgraduate levels.

Both University and Technological sectors integrate in their curricula internships in public or private organizations (during the latest years, university students have also the opportunity to do an internship in another country through ERASMUS+ mobility programs).

2.3 Internships in Greek Universities

Greek universities started launching internship programs since 1997 in the framework of programs co-funded by the European Union. Internship programs of the Greek universities continued as parts of the respective operational programs 2007-2013 and 2014-2020 of the National Strategic Reference Framework (NSRF), which are also co-funded by the European Union (European Social Fund) and the Greek State. Moreover, under the aforementioned programs, the universities have founded Internship Offices which are responsible for the connection of students with the labor market.

Internships for university students take place in public or private organizations and their duration varies from 2 to 4 months as each University and each department sets its own terms and conditions. What also varies is whether or not the internship is mandatory as part of the academic program or not. For most universities and departments internships are optional, but there are programs that require an internship for obtaining a degree (i.e. medicine, primary education, physical education, music science and arts etc). ECTS credits are awarded for all internships that are part of the curriculum.

Regarding the legal prerequisites for the realization of an internship by university students, it is obligatory for the students to be insured against the risk of accident whereas there is no provision for the health insurance coverage of the interns. Regarding the funding of the internship programs this also depends on the educational institution and, in particular, whether or not the University has ensured the funding of these activities. In several cases, the host entities where the students realize their internship contribute to the payment of the interns they occupy and thus increase the total amount of their compensation²⁷.

Finally, it is interesting to mention that there has been created a central database of available internship positions for undergraduate students of the Greek Higher Education Institutions which aims to simplify the contact procedure between stakeholders and mitigate the bureaucracy. This new internship search tool is called "Atlas" and is a centralized online service which interconnects companies that provide internship positions with all academic institutions in Greece by creating a unique internship positions database²⁹.

2.4 Internships for students of the Higher Technological Education Institutions

The framework of the internship programs run by the Higher Technological Education Institutions (TEI) is more structured than the one for the Universities due to the fact that most of the curricula of TEIs include an obligatory 6-month internship in order for the students to obtain their degree. The obligatory internship was first established for TEI students in 1983 with law 1404/83 which stated that the practice is part of the learning process and therefore an integral part of the academic course programme³⁰.

The special terms and conditions of the internship for TEI students vary also from one department to another and each Technological Educational Institution sets its own requirements to its students. However, the general rule is that the internship is mandatory as it constitutes an integral part of the curriculum. The duration is six months and it is undertaken during the last semester. The Presidential Decree 174/85³¹ introduced the framework of the organization, monitoring and evaluation of the internship and, in particular, the 6-month duration of the internship for TEI students as well as the obligations and the rights of the interns.

As far as the legal status of the TEI students' internships is concerned, it is compulsory for TEI students during their internship either in a public or in a private entity to be insured through the Unified Social Security Fund (EFKA) against the risk of accident, in accordance with the applicable legislation³². Regarding the compensation of the interns from the Technological Education Institutions, this has been set since 1985 with the Law 1566/85³³. In particular, for those who perform an internship during their studies in an organization of the private sector, compensation is calculated as the 80% of the wage of an unskilled laborer. Companies of the private sector employing interns from TEI take advantage of a 50% grant from the Manpower Employment Organization (OAED) on the compensation paid each time.

2.5 The Erasmus Placement Programs

Greek students of the higher education institutions have the opportunity to realize an internship abroad through the Erasmus+ program of the European Union. Internships can take place in almost all European countries for a period of 2-12 months during which students have the opportunity to work in a company, a university, a research center or another organization abroad and gain professional experience. Internships

at a workplace abroad are supported during within a maximum of one year after the student's graduation. Students can undertake an internships regardless of whether the internship is mandatory for the completion of their studies while it is important to notice that the interns are also provided with some funding during the internship abroad. Regarding the legal status of the internships of the Erasmus+ Program, the Erasmus grant does not include an insurance policy. The training agreement indicates if the organization offering the placement will cover the liability insurance so it is up to the host organization to provide the trainee with insurance.

3. Entrepreneurial Education in Greece

Greek entrepreneurial education has made a significant progress the last 10-15 years. Following European policies and through EU co-funded actions, Greece introduced entrepreneurship education in higher education. The Greek Ministry of Education has adopted a top-down approach to introduce entrepreneurship related courses in all Greek Universities through the Operational Programme for Educational and Vocational Training (EPEAEK II) which was then further supported through the subsequent Operational Program for Education and Life-long learning (EDULLL).

Even if there is no national strategy for entrepreneurship education, these actions intended to stimulate the entrepreneurial mindset and to strengthen the university-industry relationship. This was implemented through:

- the introduction of entrepreneurship related courses offered to students from different academic disciplines (note: till this point, not even business schools were offering dedicated entrepreneurship courses (Papayannakis et al. (2008)) and the development of relevant training material
- the delivery of entrepreneurial support services for students/wanna-be entrepreneurs (including study visits, case study analysis, mentoring, business game competitions, consulting, special software, workshops, events, etc.)
- the promotion of networking for the promotion of entrepreneurship.

The above activities concluded with the development of a specific structure within each University, named Innovation and Entrepreneurship Unit, responsible for managing all related activities. These units aim at promoting the entrepreneurial mindset within the HEIs, develop entrepreneurial skills and provide entrepreneurial knowledge, encourage new business creation from students and graduates. In an attempt to achieve better co-ordination, these units operate as a structure within the Career Offices, together with the Internship Office (i.e. a dedicated structure managing internship programmes). Innovation and Entrepreneurship Units, have been promoting substantially entrepreneurship among students (of all disciplines) but also to the greater academic community.

As literature reports (see Vassilopoulou (2016), Papayannakis et al.(2008), , the implementation of these activities had often to face (i) lack of staff with expertise in entrepreneurship education (ii) lack of systematic co-operation with the business world (iii) a general attitude against entrepreneurship among students parts (iv) scepticism on the academic relevance from a part of the academic community (iv) issues in the implementation of the activities in non business/economic schools/faculties (v) limited synergies among HEIs. Despite these, in general the operation of the IEUs was successful and had a significantly positive impact in terms of changing the attitude against entrepreneurship, building an entrepreneurial culture, enhancing the perception of the business environment, its function and needs by providing relevant knowledge and developing skills and competences (see also Papagiannis (2018), Stamboulis and Barlas (2014)).

The operation of IEUs was intended to become a fully operational unit within the universities, following the end of the initial financial support from the Operational Programme; currently it suffers from under-staffing and lack of resources. This can be attributed to a series of reasons including among others the fact entrepreneurship is not a major part of HEIs strategies but also the budget cuts and decrease in the available HEI personnel, as an outcome of the economic crisis. Despite that, in general Greek HEIs continue to offer entrepreneurship courses both to business and non-business students at a great extent. In addition Greek universities organise specific summer schools focusing on entrepreneurship (see e.g. the University of Aegean, the Democritus University of Thrace).

In terms of postgraduate courses (Master's degrees) there are several programmes in business related aspects (such as management, marketing, etc.). The recent years at least 10 new specialised programmes on entrepreneurship are offered as follows:

Programme	Higher Educational Institute
Sustainable farming and Businesses	International Hellenic University
Bio-business	University of Thessaly
Management of Innovation, Technology and Entrepreneurship	Democritus University of Thrace
Entrepreneurship and Consulting for agro-farming growth	Agricultural University of Athens
New Entrepreneurship, Innovation, Growth	University of Thessaly
Strategic Management and Competition	National and Kapodistrian University of Athens
Strategic Management of Tourism Enterprises	University of Aegean
Innovation and Technology Management	Technical University of Crete
Digital Innovation and Start-ups	National Technical University and University of Aegean

Source: Greek Ministry of Education

In addition the University of Ioannina has participated in the building of a transnational, on-line master's programme on entrepreneurship (MHIE-ME- Multiple Higher Educational Institutions – Masters in Entrepreneurship), developed by several European universities under the framework of the Erasmus+ programme.

Still, it should be noted that according to a recent study from Endeavor Greece (2017), a very high percentage of young people (82%) believe that the educational system does not prepare them adequately for entering the job market, while on the other side a 77% of the employers claim that it hard to find qualified human resources (a significant lack of soft skills is reported according to employers opinion). Endeavor's survey also shows that 41% of students rate as medium the preparation that they receive from their universities for entrepreneurship. Despite this mismatch, Greece still has a strong education core that helps produce talented and high-skilled workforce driven by innovation; as a result Greece is listed as a stage 3 economy (innovation driven) in Global Competitiveness Index 2017-2018 together with 36 developed

economies in the world. Also according to the Global Competitive Index, Greece ranks 44th in Higher Education & Training (see also The Foundation (2017)).

It should be noted that formal entrepreneurship education in the tertiary sector is further supported by a series of actions implemented by several national or international institutions promoting entrepreneurship (often with the support of the HEIs).

Some indicative examples include:

- Activities earlier implemented, were the 'Youth Entrepreneurship Gates', supported by the Greek Secretary of Youth, building regional support offices promoting entrepreneurship and offering information, advice and marketing services for young entrepreneurs and the 'Observatory of Entrepreneurship', acting as an observatory to collect and analysing data related to the entrepreneurship (see also Vassilopoulou, 2016).
- Innovation Odysseys has been a flagship activity from University of Ioannina, aiming at providing a crash course on entrepreneurship on potential entrepreneurs and then, supporting them in the building their business ideas/plan and offering them support in their first entrepreneurial steps.
- The Programme for the Updating of the Graduates Knowledge has been implemented by the Ministry of Education (funded through the EDULLL Operational Programme) to update knowledge in graduates. In this framework, four Universities (University of Thessaly, University of Ioannina, University of Patras, University of Peloponnese) have successfully implemented a programme on International Business and Entrepreneurship, enabling graduates to get new knowledge on entrepreneurship in a global environment.
- Athens Centre for Entrepreneurship and Innovation from the Athens University of Economics and Business provides training, accelerator services, support and networking to students and wanna-be entrepreneurs.
- Business Days, in the framework of Entrepreneurship Panorama event, which include students and graduate visits to businesses.
- Grow Greek Tourism online is a Google backed initiative, implemented in several parts of Greece, usually in collaboration with HEIs, aiming at providing training in digital entrepreneurship and marketing with a focus on the tourism sector.
- Several business competitions backed by large organisations (such as banks, business associations, etc) aim at promoting innovation and start-up creation.

- Ennovation, a student business competition (with an emphasis to digital economy), with the participation of 20 Greek Universities.
- YESS- Young Entrepreneur's startup school (run by University of Ioannina), offers an entrepreneurship bootcamp, as a preparatory phase for a virtual business incubation.

Finally, several actions (such as discussions, workshops, competitions, etc.) are organised by student associations focusing on entrepreneurship (ThinkBiz, Mindspace).

4. National interviews synthesis

Samples

Students

The respective questionnaire was sent to 150 students / alumni of the University of Ioannina. They were randomly selected from a pool of 1000 students / alumni who had completed an internship in the previous three years, having excluded “business” students, as the project mainly targets “non-business” students.

Overall 42 students/alumni responded to our invitation to complete the questionnaire. Six of the respondents failed to complete more than two open questions with meaningful answers so they were excluded. Finally, 36 students/alumni participated in our survey.

Most of the participants had recently completed their studies and had received their bachelors/diplomas. They were between 21 and 25 years old as shown in the following table.

Table 1. Age of the participants

Age	N	%
21	6	17%
22	11	31%
23	13	36%
24	4	11%
25	2	6%
Sum	36	100%

The following table shows the field of study of the participants.

Table 2. Field of study of the participants

Field of study	N	%
Arts & Humanities	10	28%

Education	6	17%
Health Sciences	3	8%
Life Sciences	8	22%
STEM	9	25%
Sum	36	100%

In order to classify the field of studies, we used the classification system of the Times Higher Education World University Rankings. Under the “Arts & Humanities” fall fields like Languages, Literature & Linguistics, Arts Archaeology History and Philosophy and Arts. Health Sciences include Medicine, while Life Sciences mainly include Biology and STEM includes disciplines like Physics, Chemistry, Engineering, Mathematics, Computer Engineering etc.

Companies

A total of nine companies/organizations responded to our team’s call for participation in the interviews. Four of them were micro-enterprises (up to 10 employees), three were medium-sized enterprises and two of them were large companies/organizations (more than 250 employees).

HEI Staff

The sample comprised three higher education professionals involved in internship management and career services, from universities in Athens and Thessaloniki.

4.1 Internships: experience and problems

4.2.1 Students’ view

All the participants had completed their internship in 2018.

All the participants stated that their internship was not compulsory, which is in line with the fact that, as mentioned in the first section of the report, internships in Greek universities are mainly not compulsory.

Twenty-eight of the participants stated that they received compensation for their internships (paid internship through programs funded by the EU and Greece).

All of them had been awarded ECTS for the internship and the duration of their internship was two months, full time (40 hours per week).

From an analysis of their answers we could derive that 14 of the participants understood that their internship was focusing on soft skills development and 23 of them referred to knowledge as the main focus.

Most of the internships (11) took place in the city of Ioannina, where the University of Ioannina is located) and seven took place in the capital of Athens. The following figure shows a map of Greece with the location/number of internships.

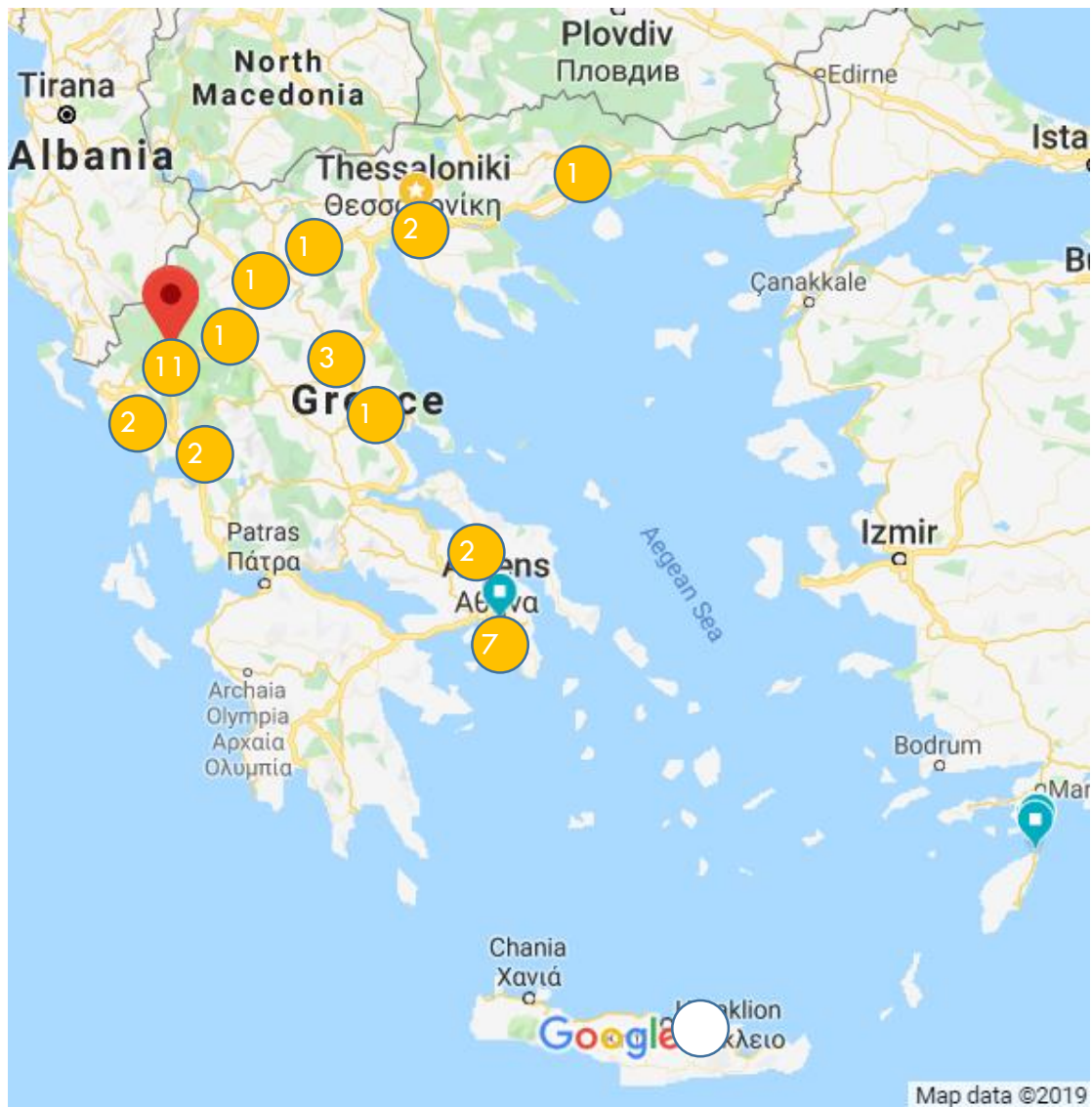


Figure 1. Map of Greece, with the location of internships and number per location.

In order to identify the expectations of students from their internship, their satisfaction from the internships and the main goal they had set when deciding to pursue an internship we conducted a content analysis on their answers to the respective questions.

Twenty-eight of the participants explicitly stated that their expectations were met and they were satisfied from the internship experience. While the rest (eight) did not explicitly refer to the matter, for four of them we could conclude that they also were satisfied as they did not mention any negative aspects from their experience, but did so regarding positive aspects.

Regarding their expectations from their internship, as shown in Figure 2, most of them (22) expected to be able to develop skills (soft but also hard/professional skills), while 14 expected to gain professional experience. It is notable that five students used their internship also as a tool for career planning, as they were enabled to try out if the profession and the professional field is really what they wanted to pursue,

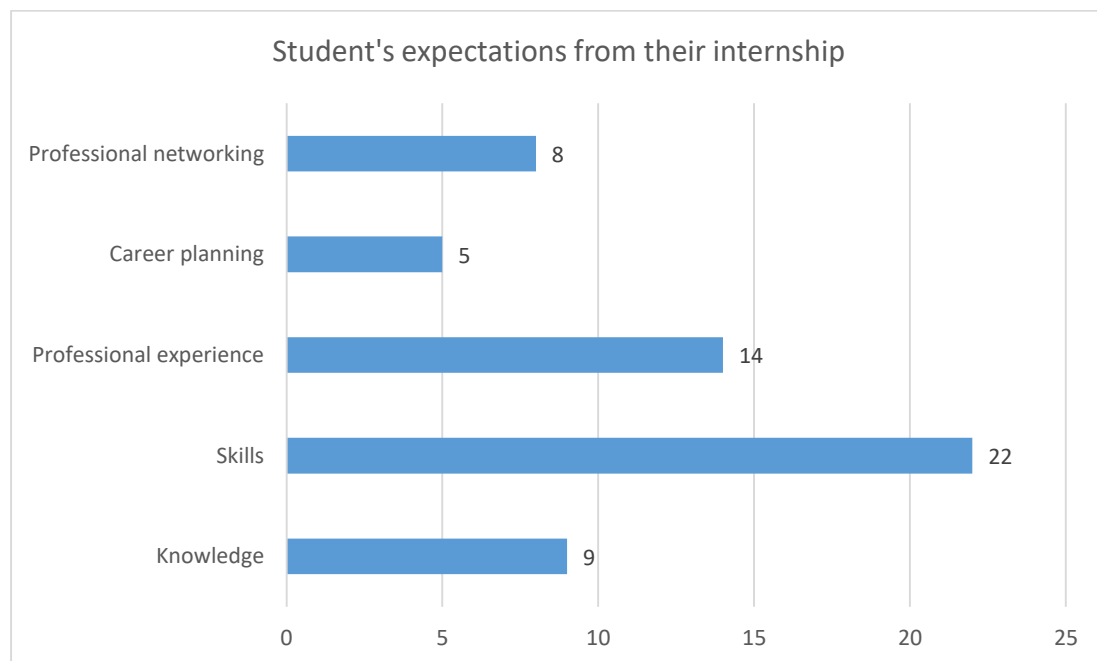


Figure 2. Student's expectations from their internship

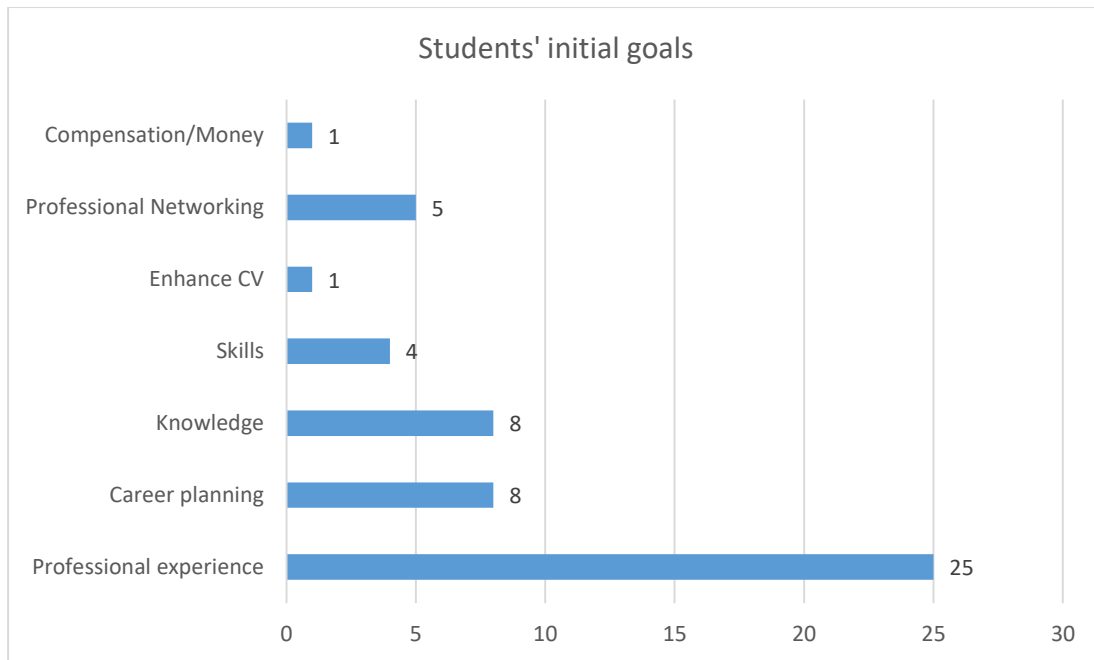


Figure 3. Students' responses to the question: "Why did you want to do an internship in the first place?"

When asked to identify the main reason they wanted to do an internship in the first as place, most of the students responded that they wanted to gain professional experience, as shown in figure 3. This an indicator that students initially have a more general goal set regarding the use of internship which becomes for elaborate when they are in the stage of selecting the company/organization that will host them as interns.

Regarding the positive aspects from their internship, as shown in figure 4, students value very highly the networking opportunities and the general professional experience they had gained. It is also notable that eleven students explicitly refer to opportunity to assume responsibility as a main positive aspect and eight of the participants refer to the friendly professional environment.

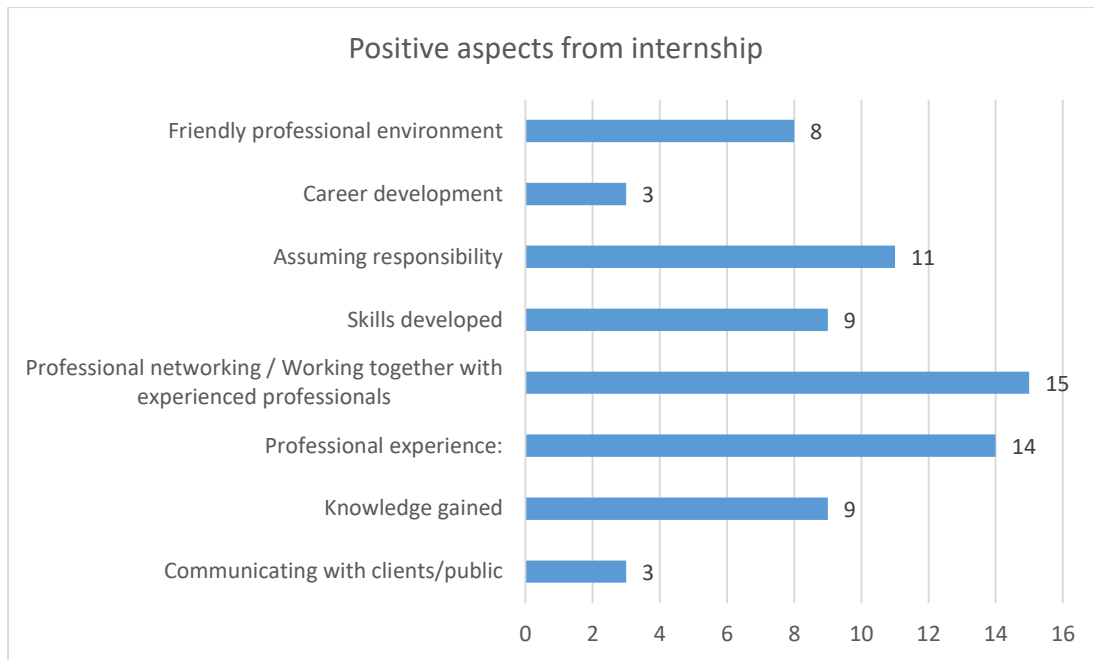


Figure 4. What were the main positive aspects of your internship?

On the other hand, when asked to state main negative aspects of their internship, only 11 of the 36 participants mentioned at least one. Their responses are shown in figure 5. Most of them (nine) refer to the limited internship duration and five state that the compensation they received was not enough to cover the expenses related the internship.

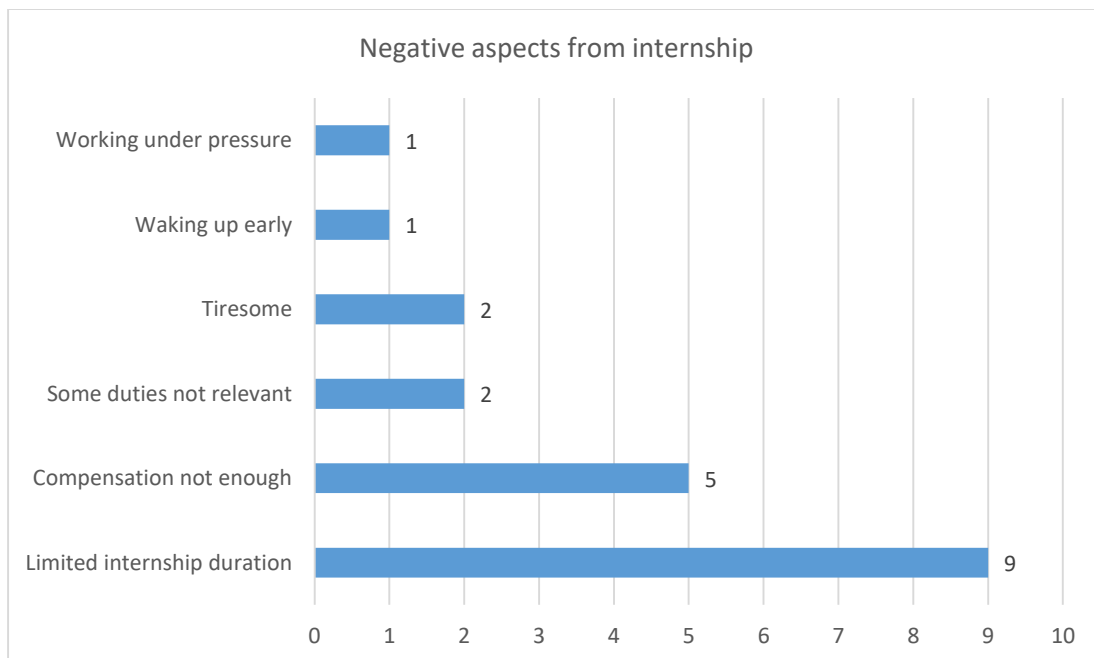


Figure 5. What were the main negative aspects of your internship?

The rest of the respondents, either stated explicitly that there were no negative experiences associated with their internship (20) or did not provide a response (5).

4.2.2 Companies' view

All nine of the companies/organizations had the experience of hosting at least one university student as an intern.

With regard to the barriers faced while hosting an intern, the companies mainly referred to problems related with low levels of self-motivation, educational but also cultural differences, ethical dilemmas, and difficulties in management and planning.

4.2.3 HEI Staff's view

The three HEI professionals who participated in the survey are actively involved in internship management.

With regards to barriers faced while managing internship programs they referred to the following:

- Companies are often located in places not near interns' home or university location
- Interns are not always offered interesting and specialty related job tasks
- University curricula are not always designed incorporating internships meaningfully as an integral part

4.2. Competences and Enter.Mode

4.2.1 Companies' view

The companies' representatives were asked to classify the 15 competences of the EntreComp conceptual model of entrepreneurship in terms of importance (in a 5-point scale from 1=Low importance to 5=High importance), according to their experience and point of view, and to indicate whether they believe that the competence can be developed through an internship. The following table is presenting the results, averaging the scores of "Importance" and providing the frequencies of answers to the question of ability to be developed.

Table 3. Companies' view of competences (Entre.Comp framework)

Area	Competence	Importance		Can it be developed?		
		(1=low, 5= high)		(N)		
		Average score	SD	Yes	No	Not Sure
Ideas and opportunities	Spotting opportunities	4,78	0,15	8	0	1
	Creativity	4,22	0,22	7	1	1
	Vision	4,22	0,43	6	1	2
	Valuing ideas	3,78	0,28	7	0	2
Resources	Ethical and sustainable thinking	4,22	0,40	4	1	4
	Self-awareness and self-efficacy	4,33	0,37	5	0	4
	Motivation and perseverance	4,67	0,24	7	1	1
	Mobilising resources	4,44	0,34	5	1	3
	Financial and economic literacy	3,89	0,48	5	3	1
	Mobilising others	4,11	0,35	5	0	4
Into action	Taking the initiative	4,56	0,24	7	1	1
	Planning and management	4,67	0,24	8	0	1
	Coping with uncertainty, ambiguity and risk	3,56	0,41	3	2	4
	Working with others	4,78	0,15	7	0	2

Learning through experience	4,22	0,46	7	0	2
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It is notable that even though most of the competences are classified as very important, three of them (Valuing ideas, Financial and economic literacy and Coping with uncertainty, ambiguity and risk) are averaging scores lower than 4. It is also important to mention that Ethical and sustainable thinking, Self-awareness and self-efficacy, Mobilising others and Coping with uncertainty, ambiguity and risk are competences accompanied by ambiguity about whether they can be developed through an internship program.

Regarding the actions through which the competences can be developed, companies state that the mental/emotional/cognitive toolkit of each person is of most importance and have proposed the following actions, organized under the three main areas of the Entre.Comp framework:

Ideas and opportunities

- Observational learning paired with hands-on experience
- Shadowing employees and learning more about the job
- Work-based learning experience
- Challenge-based learning
- Situational judgement tests
- Briefing of bulk information
- Research and market analysis
- Gamification-based techniques

Resources

- Observational learning paired with hands-on experience
- Challenge-based learning
- Situational judgement tests
- Team projects
- Self-reflection
- Gamification-based techniques

Into action

- Observational learning paired with hands-on experience
- Shadowing employees and learning more about the job
- Work-based learning experience
- Participation in task design
- Team projects
- Small and individual projects
- Assign real job tasks
- Challenge-based learning
- Situational judgement tests
- Gamification-based techniques

4.2.2 HEI Staff's view

The HEI professionals were asked to classify the 15 competences of the EntreComp conceptual model of entrepreneurship in terms of importance (in a 5-point scale from 1=Low importance to 5=High importance), according to their experience and point of view, and to indicate whether they believe that the competence can be developed through an internship. The following table is presenting the results, averaging the scores of "Importance" and providing the frequencies of answers to the question of ability to be developed.

Table 4. HEI Staff's view of competences (Entre.Comp framework)

Area	Competence	Importance (1=low, 5= high)		Can it be developed? (N)		
		Average score	SD	Yes	No	Not Sure
Ideas and opportunities	Spotting opportunities	5,00	0,00	3	0	0
	Creativity	4,67	0,33	3	0	0
	Vision	4,67	0,33	2	1	0
	Valuing ideas	5,00	0,00	2	1	0

Resources	Ethical and sustainable thinking	4,00	1,00	2	0	1
	Self-awareness and self-efficacy	4,67	0,33	2	0	1
	Motivation and perseverance	4,67	0,33	2	1	0
	Mobilising resources	4,33	0,33	3	0	0
	Financial and economic literacy	4,00	0,00	3	0	0
	Mobilising others	4,67	0,33	3	0	0
	Taking the initiative	4,00	0,58	1	2	0
Into action	Planning and management	3,33	0,88	3	0	0
	Coping with uncertainty, ambiguity and risk	4,00	0,58	2	1	0
	Working with others	5,00	0,00	3	0	0
	Learning through experience	5,00	0,00	2	1	0

Regarding the actions through which the competences can be developed, HEI professionals state that inherent qualities of each student plays a very important role and have proposed the following actions, organized under the three main areas of the Entre.Comp framework:

Ideas and opportunities

- Observational learning
- Job shadowing employees
- Research and market analysis

- Internships accompanied by special courses at the university

Resources

- Participation in team projects

Into action

- Participation in projects
- Participation in business idea competitions

4.3 Suggested characteristics of an (entrepreneurial) internship program for HEI students

4.3.1 Students' view

With reference to the desired duration of an internship program, as shown in figure most participants (19) proposed a duration of five to six months, 12 suggested a duration between three and four months and five of the participants stated that a 2-month period is enough. It should be noted that the durations refer to full time internships.

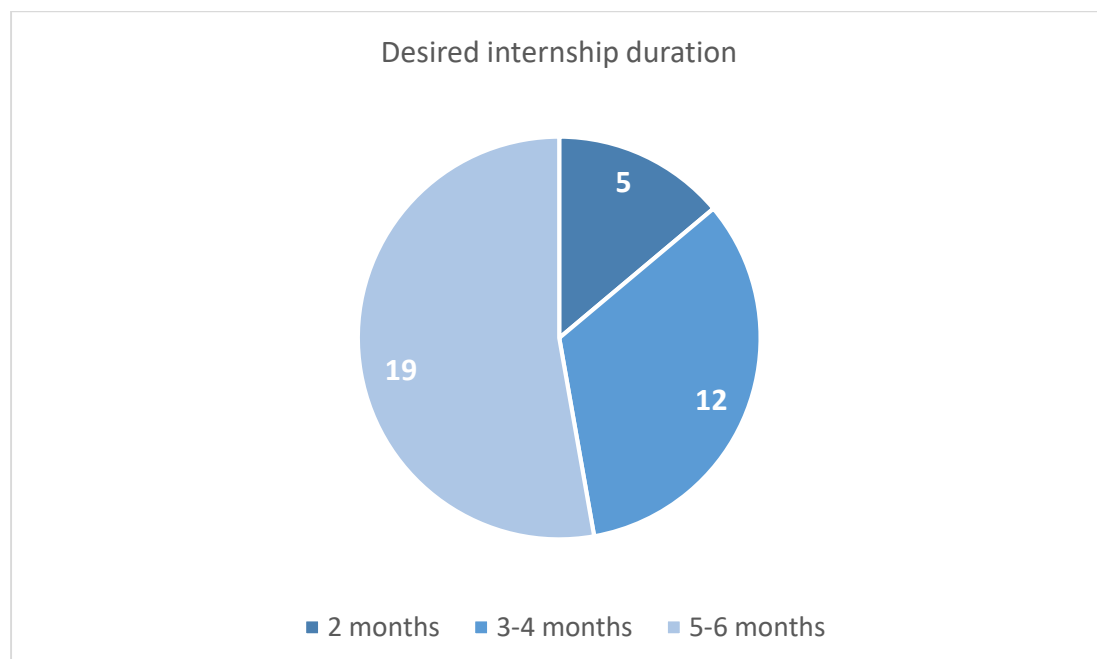


Figure 6. What would be the desired duration of an entrepreneurial internship program?

Regarding the requirements a student should meet to take part in an entrepreneurial internship program, the vast majority of the respondents (22 of 36) stressed that students should have the necessary scientific background before undertaking an internships while 10 of them noted that students should have the willingness to learn, improve and develop. Figure 7 shows the responses to the respective question.

Finally, when asked about the criteria they would use to select a company for being hosted as an intern, the participants provided the following answers, as shown in figure 8. It is evident that most of the participants focus on the relevance of the company with their professional goals and career plan and the capacity of the company to provide the necessary resources in order to help the intern develop skills.

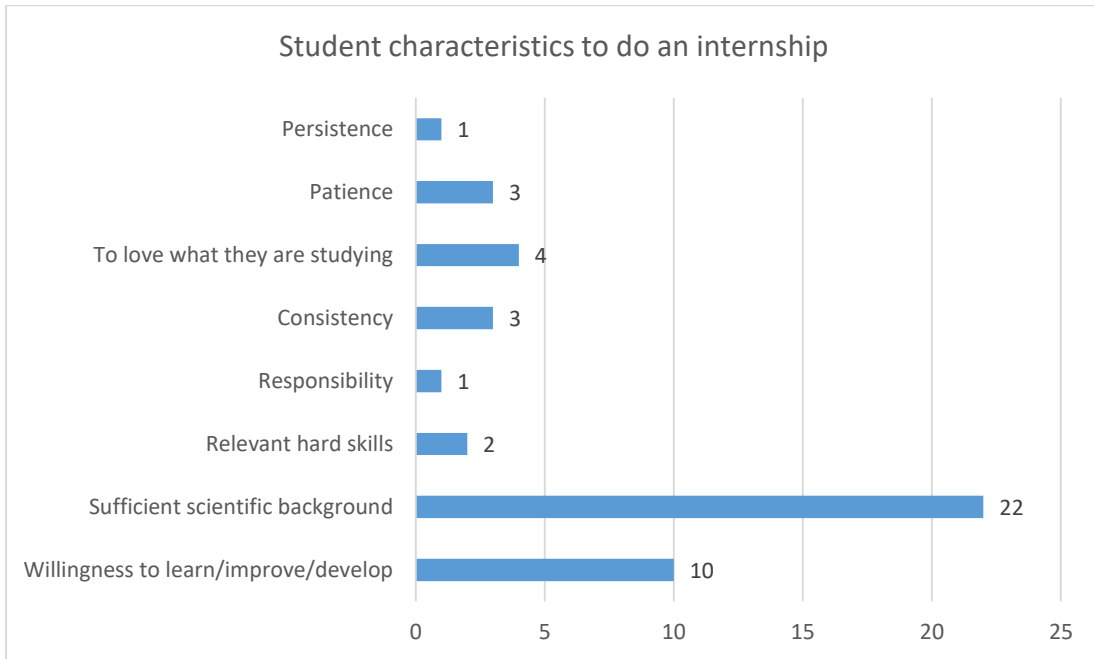


Figure 7. Based on your experience are there any requirements a student should meet to take part in an entrepreneurial internship program?

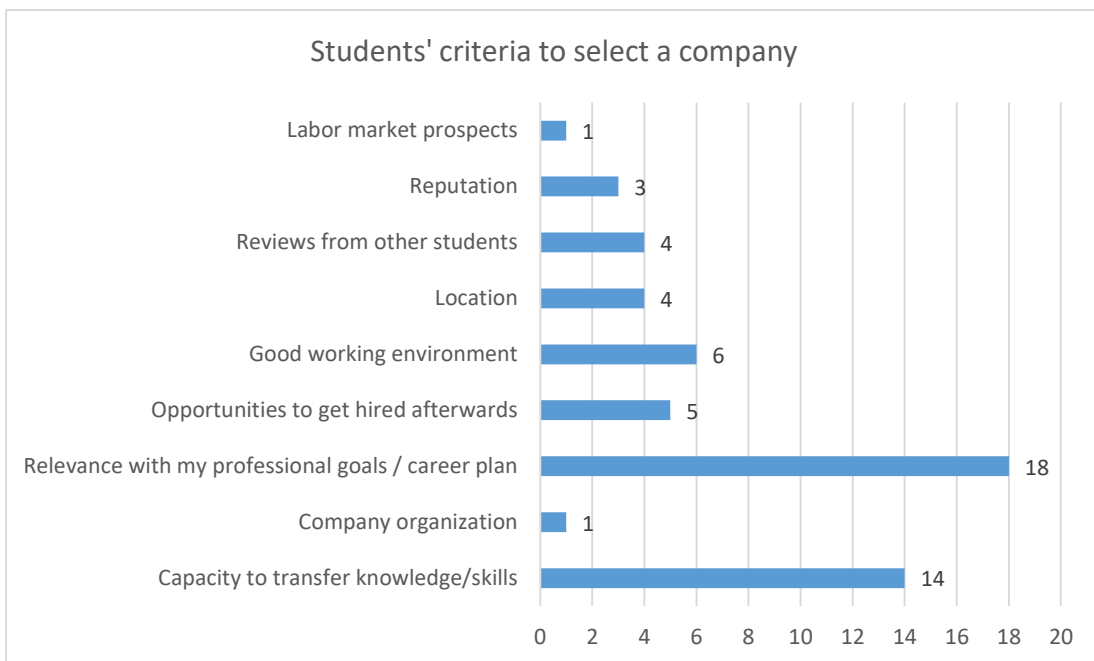


Figure 8. How you would select a company for being hosted as an intern?

and acquire knowledge.

4.3.1.1 Students' experience in Digital Educational Games

Regarding their experience with digital educational games, only three of the respondents had used a digital educational game, as shown in figure 9. The game elements they liked the most were Interactivity, online collaboration and immediate feedback and what they did not like was the competitive culture among players and the repetitiveness of the tasks.

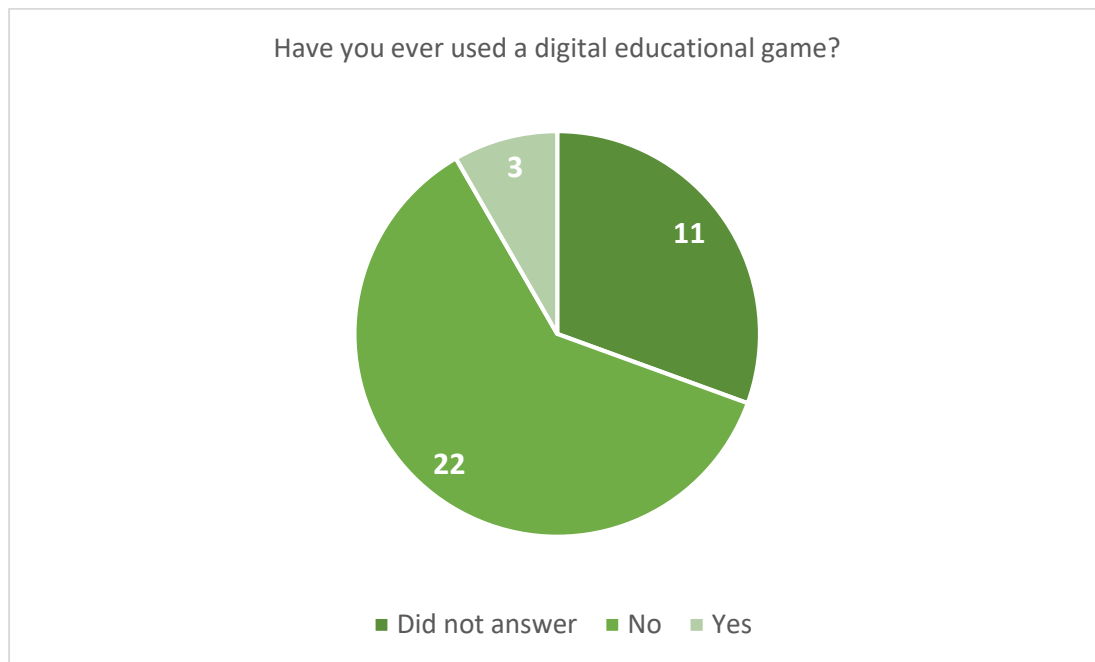


Figure 9. Digital educational games experience

Regarding the gamification elements in a digital educational game, the students were asked to rank the following gamification elements on a scale of 1 to 5 (1= the least motivating, 5=the most motivating). The results are shown in figures

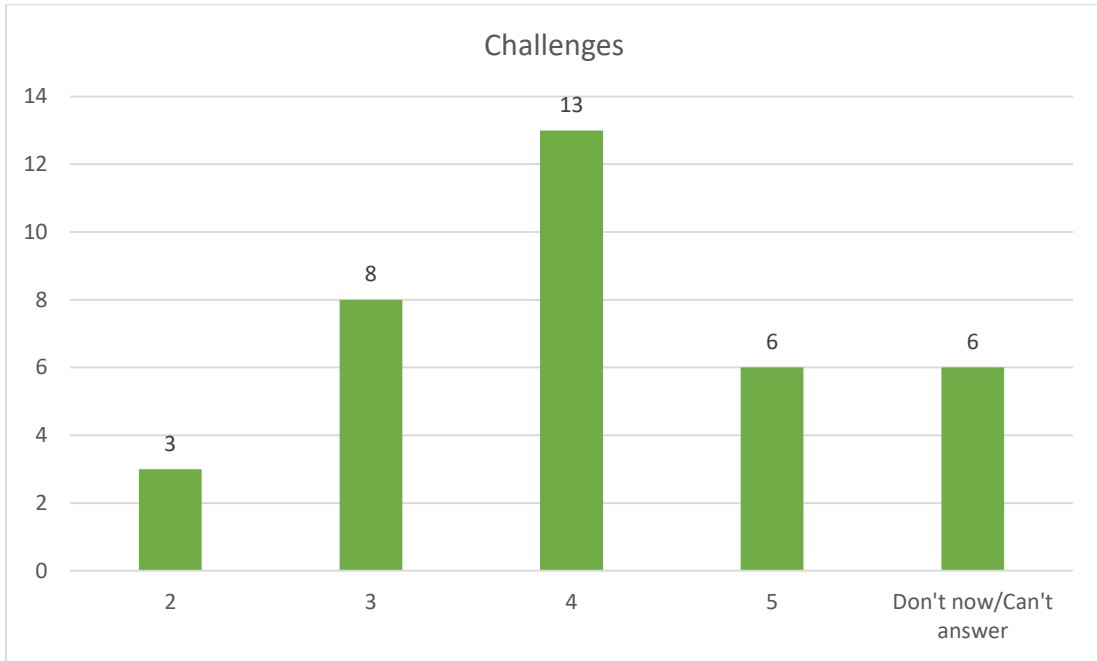


Figure 10. Please rank the following gamification elements on a scale of 1 to 5: Challenges

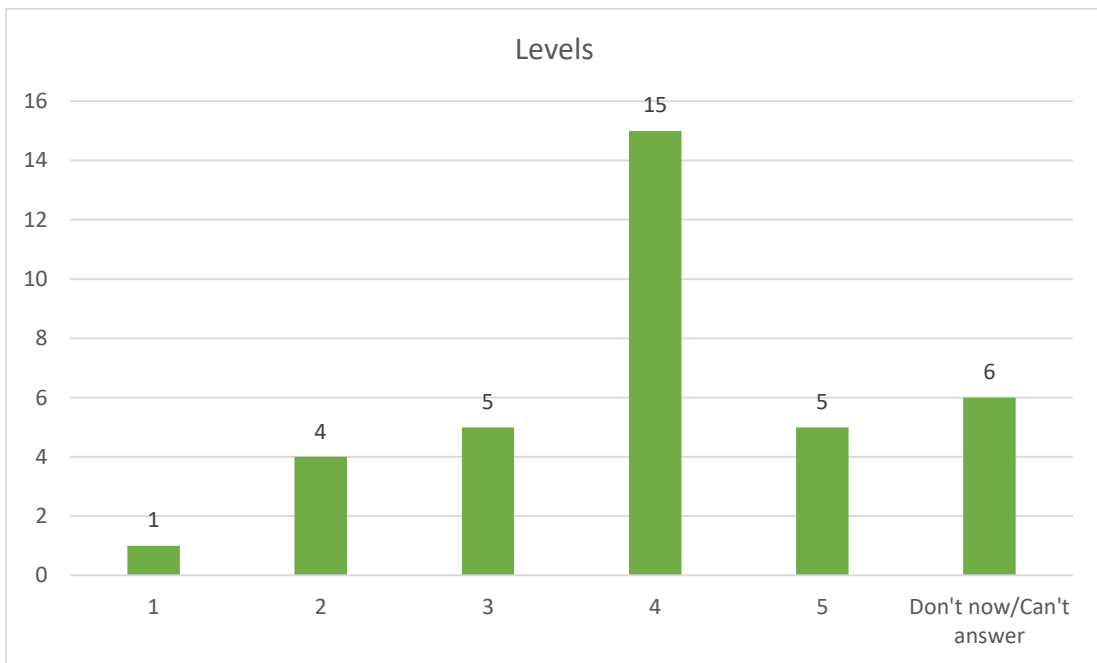


Figure 11. Please rank the following gamification elements on a scale of 1 to 5: Levels

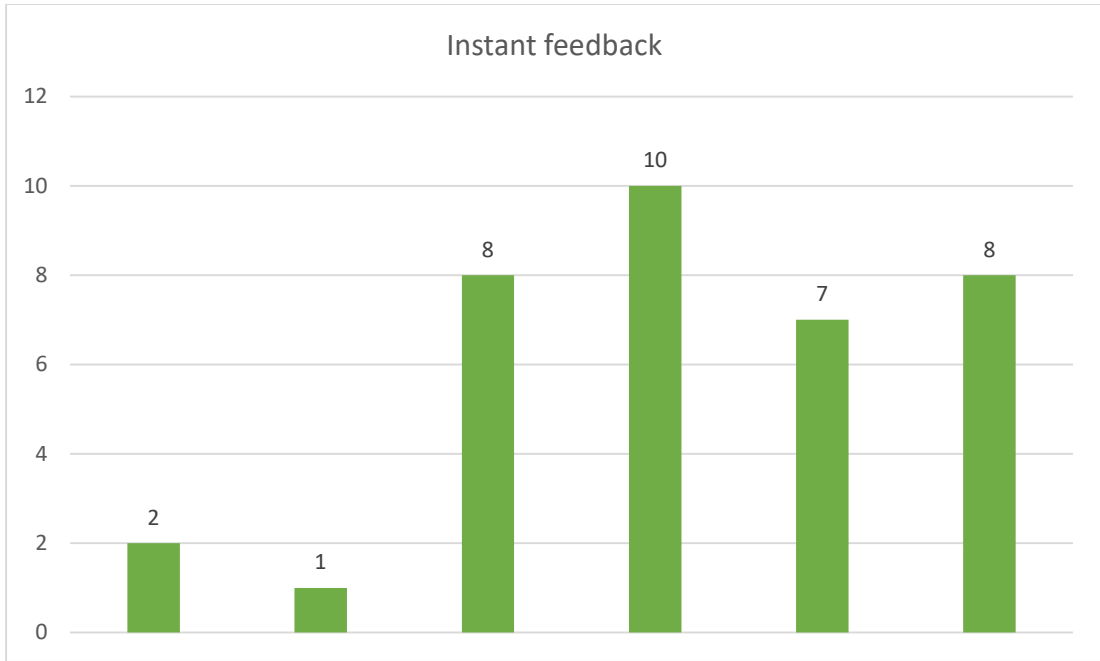


Figure 12. Please rank the following gamification elements on a scale of 1 to 5: Instant feedback

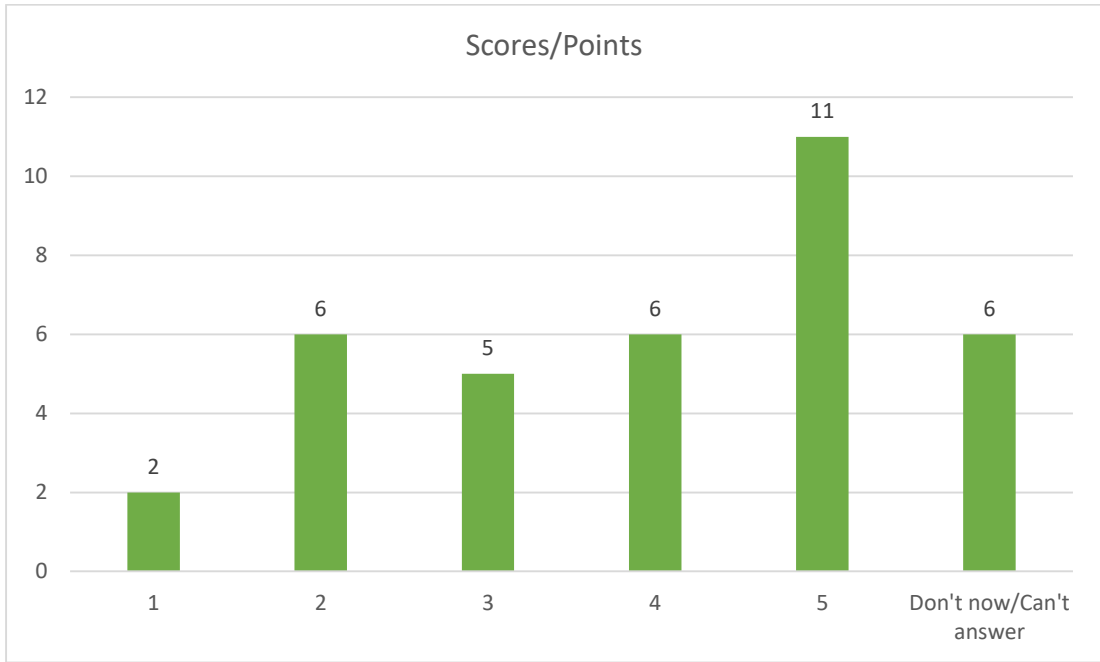


Figure 13. Please rank the following gamification elements on a scale of 1 to 5: Scores/Points

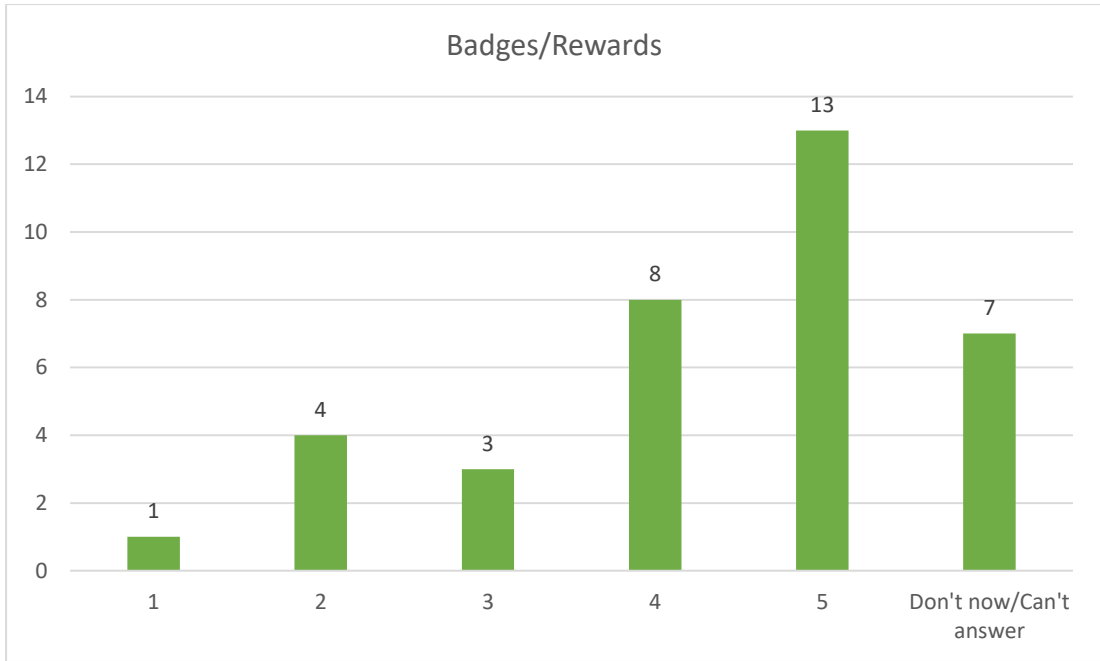


Figure 14. Please rank the following gamification elements on a scale of 1 to 5: Badges/Rewards

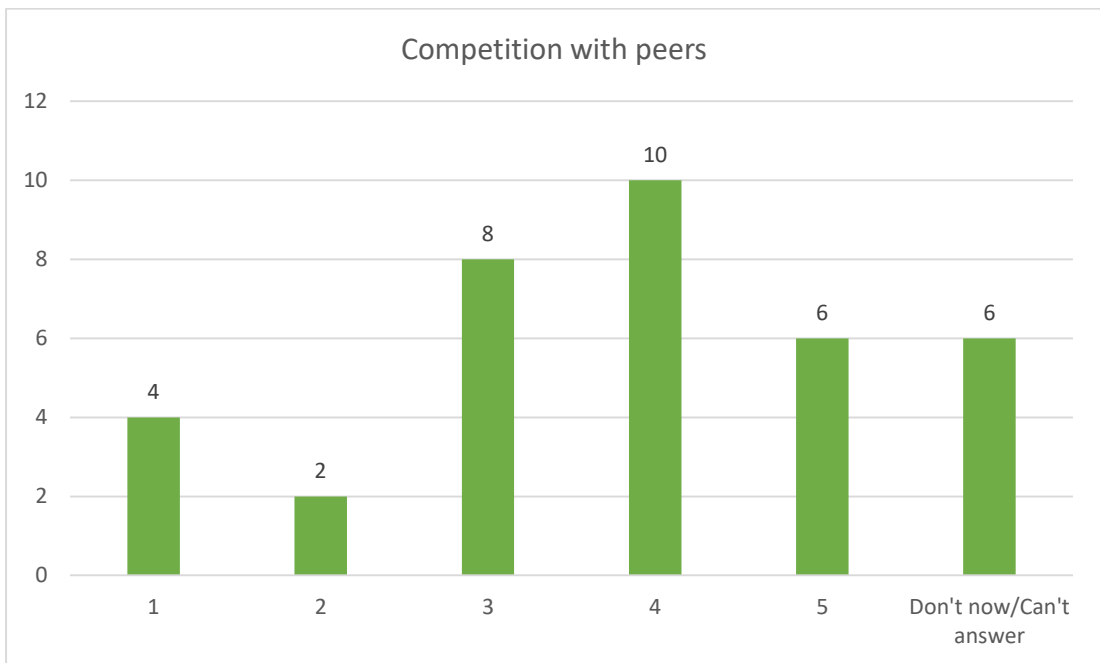


Figure 15. Please rank the following gamification elements on a scale of 1 to 5: Competition with peers

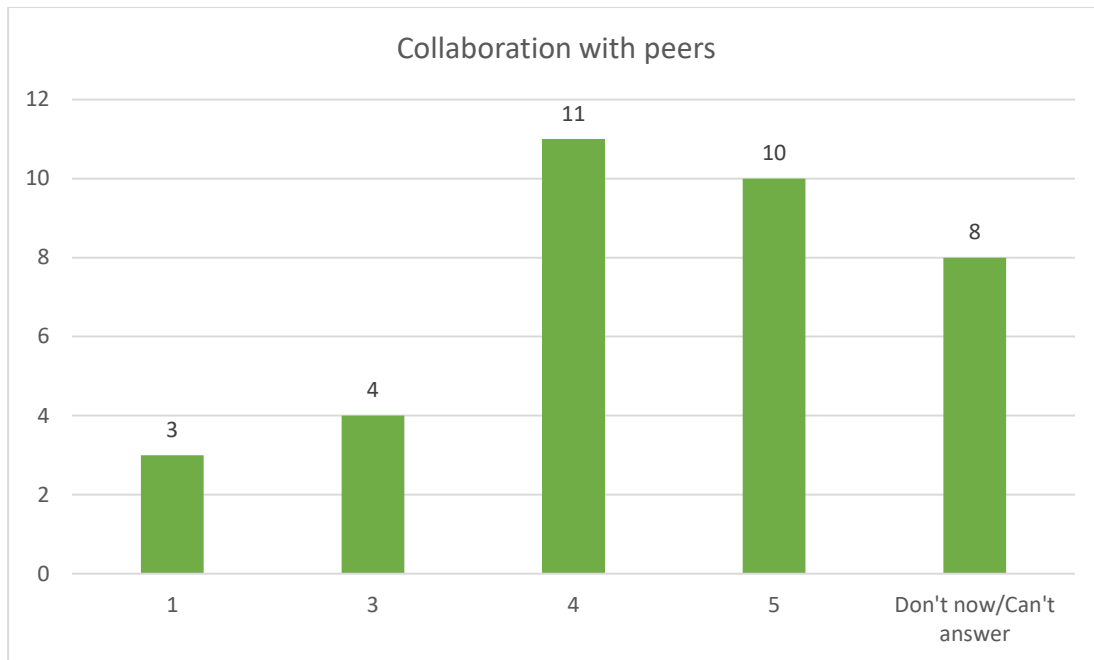


Figure 16. Please rank the following gamification elements on a scale of 1 to 5: Collaboration with peers

Finally, regarding the style they would prefer for a digital educational game, the responses are shown in figure 17.

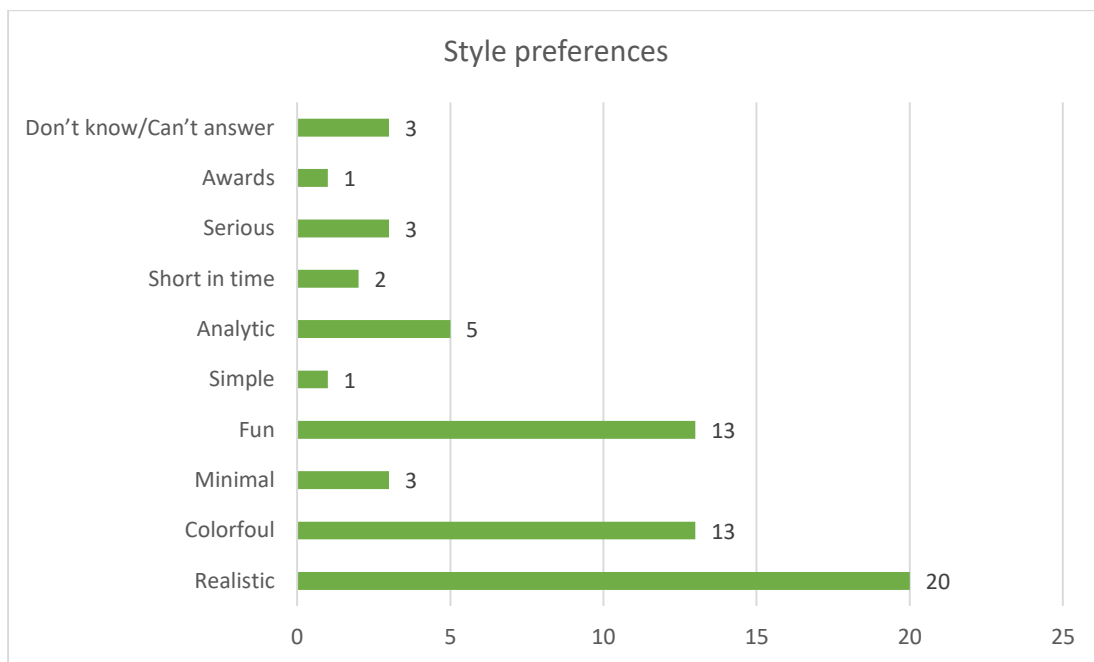


Figure 17. What style would you prefer for a digital educational game?

4.3.2 Companies' view

Regarding the suggested duration of an internship, three companies suggested a minimum duration of 3-4 months and six suggested a duration of 6 months.

Regarding **criteria the companies would use to select a student** that would be a good fit for an entrepreneurial internship program, the following criteria have been proposed:

- Motivation (N=6)
- Willing to learn (N=4)
- Solid scientific background (N=3)
- Desire to work in the specific field
- Academic references
- Ambition
- Critical thinking
- Attention to detail
- Initiative
- Integrity
- Ability to teamwork
- Vision
- Creativity
- Perseverance

With regard to the **requirements a student should meet** to take part in an entrepreneurial internship program, the following requirements were stated:

- Good marks (N=4)
- Motivation (N=4)
- To have already completed a major part of the curriculum (N=3)
- Ability to work in a group
- Creative thinking
- Commitment to the internship
- Clear personal goals

The **main challenges to be presented to an intern** during an entrepreneurial internship program so that he/she develops the targeted skills, as stated by the companies are the following:

- Team working (N=3)
- Undertaking real tasks (N=2)
- Interacting with all employee levels within a company (N=2)

- Conducting research
- Achieve specific goal
- Fast pacing
- Multitasking
- Assign responsibilities
- Managing expectations
- Sharing knowledge
- Overcoming personal beliefs

Asked to mention the **main elements/milestones of an entrepreneurial internship program**, the companies suggested that an internship program should:

- Have a clear structure with clearly stated learning goals
- Start with research, job shadowing and observation of the company's functions and procedures
- Include a supervisor/mentor for the intern
- Include rotations within company departments
- Incorporate the design and delivery of tasks/projects
- Provide frequent feedback
- Allow time for reflection

Finally, when asked whether the companies consider **internship mentoring** as an integral part of an entrepreneurial internship program, all nine of them stated that mentoring is very important. Mentors should

- be willing to share and listen
- be dedicated to the role
- be available to the intern
- be experienced in supervising
- value lifelong learning
- have personal interest in the mentoring relationship
- be active listeners
- have empathy
- stimulate interns' creativity

4.3.1.2 Companies' experience in Digital Educational Games

None of the companies had experience in Digital Educational Games

4.3.3 HEI Staff's view

Regarding the suggested duration of an internship, all three HEI professionals suggested a duration of 6 months.

Regarding **criteria the companies would you use to select a student** that would be a good fit for an entrepreneurial internship program, the following criteria have been proposed:

- Motivation
- Willing to learn
- Desire to work in the specific field
- Entrepreneurial orientation

With regard to the **requirements a student should meet** to take part in an entrepreneurial internship program, the following requirements were stated:

- Good marks (N=3)
- Motivation (N=3)
- To have already completed a major part of the curriculum (N=3)
- Commitment to the internship

The **main challenges to be presented to an intern** during an entrepreneurial internship program so that he/she develops the targeted skills, as stated by the HEI professionals are the following:

- Undertaking real tasks (N=3)
- Achieve specific goals

Asked to mention the **main elements/milestones of an entrepreneurial internship program**, the HEI professionals suggested that an internship program should:

- Be part of the university educational process, integrated into the curriculum
- Have a clear structure with clearly stated learning goals
- Induction period and observation of the company's functions and procedures
- Include a supervisor/mentor for the intern

- Incorporate the design and delivery of tasks/projects

Finally, when asked whether they consider **internship mentoring** as an integral part of an entrepreneurial internship program, all three of them stated that mentoring is very important. Mentors should:

- Exhibit enthusiasm in the field
- Value ongoing learning and growth in the field
- Provide guidance and constructive feedback
- Set and meet ongoing personal and professional goals
- Value the opinions and initiatives of others
- Motivate others by setting a good example.
- Have a solid academic background and extended professional experience
- Stimulate interns' creativity
- Be willing to share and listen
- Be dedicated to the role

4.3.1.3 HEI Staff's experience in Digital Educational Games

None of the HEI professionals had experience in Digital Educational Games

5. Conclusions - Suggestions for the Enter.Mode internship model

The following main conclusions - suggestions for the Enter.Mode internship model can be derived from the results presented in the previous section.

Duration of an internship

According to the stakeholders of an internship program (students, companies and HEI professionals) a meaningful internship should have an extended duration of more than 3 months. Most participants proposed a duration of 6 months.

Companies' characteristics to be chosen by students

Students tend to undertake internships mainly in order to gain professional experience, develop professional skills and become part of a professional network. According to their view, companies should be able to allocate resources to them as interns and to have the capacity to help them develop skills and gain professional knowledge.

Requirements students should meet

All parts agree that students should meet the following requirements:

- Willingness to learn/improve/develop - Motivation
- Sufficient scientific background
- Good marks
- To have already completed a major part of the curriculum

Main challenges for students

- Team working
- Undertaking real tasks
- Interacting with all employee levels within a company

Elements / milestones of an internship program

- Be part of the university educational process, integrated into the curriculum
- Clear structure
- Clearly stated learning goals

- Start with research, job shadowing and observation of the company's functions and procedures
- Include a supervisor/mentor for the intern
- Include rotations within company departments
- Incorporate the design and delivery of tasks/projects
- Provide frequent feedback
- Allow time for reflection

Internship mentoring

Both companies and HEI professionals state that mentoring should be an integral part of an internship programs. Mentors should be experienced professionals dedicated to the mentoring relationship, willing to share knowledge and provide guidance and constructive feedback.

Digital educational games

None of the companies' representatives and the HEI professionals had experience in digital educational games and only three of the students stated to have had some related experience. Most of the students stated that they would prefer a realistic, colorful and fun style of game. Regarding the elements of the game, all presented elements scored rather high in importance.

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HUNGARIAN NATIONAL REPORT

WORK PACKAGE 2: PREPARATION

O2.1. - BACKGROUND STUDY

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MAY 2019





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REPORT FRAMEWORK

The EnterMode project “aims to stimulate entrepreneurial skills of higher education teaching staff and company staff and develop the entrepreneurial mind-set and related skills of higher education students.” (entermod.eu) To reach this goal, the project first had to map the different entrepreneurial education in higher education, on the entrepreneurial skills required by HE students and on the frameworks for internships in a national report of each partner’s country. The national reports will summarise in the first the first output of the project is the background study.

The Hungarian Report has followed the structure and methodology provided by WP2 leader – University of Ioannina in Greece. It includes a comprehensive desk research on the internship system and entrepreneurial education in Hungary, as well as a primary research based on interviews and questionnaires with our three main target groups:

1. HEI students from any field participating in internship programme.
2. Companies who gain experience with trainees and internship programmes regardless their field or size
3. HEI staff member, who have experiences about compulsory internship programmes at their Institute with regard to advantages and disadvantages of the programs

1. HEI students (or graduates) participating in internship programme

Altogether 16 students filled our questionnaire, which distributed on line with google form. The majority of the students came from the Semmelweis University, although in regard to the diversity we have considered important, the involvement of more Faculty was involved to distribute the form. Beside the Semmelweis University, we reached students from jurists, technical and sociology field as well.

2. Companies who gained experience with trainees and internship programmes

Altogether three companies filled our questionnaire from April 15 till April 18, 2019. From which two companies operates with less than 10 employees and under 2million EUR turnover while the third is a multinational company. The first is from the field of IT, the second is from the domain of law, and the third is from telecommunication.

3. HEI staff member, who have experiences about compulsory internship programmes

We reached two University staff members from Milton Friedman University and Budapest University of Technology and Economics, who gained experiences about compulsory





internship programmes at their Institute. The questionnaires were filled from March 20 till April 5, 2019.





THE HUNGARIAN HIGHER EDUCATION SYSTEM

MILESTONES OF THE EDUCATION SYSTEM:

- ⦿ Until 2005 Traditional Higher Education System
- ⦿ 2006 Introduction of the Multilevel Bologna Structure, Bachelor -Master System
- ⦿ 2008 New Higher Vocational Education System (OKJ)
- ⦿ 2013 Higher Education Certificate System (felsőoktatási szakképzési rendszer)
- ⦿ 2015 New Apprenticeship System for students at the Higher Education Certificate System
- ⦿ 2015 New Internship System for Bachelor students

(Kóródi , 2014)

THE TRAINING SYSTEM AND LEVELS

According to the official website for application to HEIs (felvi.hu, retrieved 18.04.2019), the Hungarian higher educational system consists of three cascading pillars: **bachelor, master and doctoral level**. Additionally, there is a special **undivided postgraduate level** (4, 5 or 6 year mainly in the field of medicine, pharma, law and education). Furthermore, after the high school diploma students could also gain higher education certificate (intermediate level between high school and the bachelor level and usually lasts for 2 years). Students can apply for master degree only if they successfully completed their bachelor degree. Students having a master degree can either apply for vocational trainings or for Doctoral training.

The credit system of the Hungarian Higher education system could be considered as flexible, therefore offers many possibilities after entering the system.





THE INTERNSHIP SYSTEM AT HEIS IN HUNGARY:



The internship system is regulated at the highest level by the Act CCIV of 2011 on the National Higher Education, and sets the basic framework of the system. The details were regulated in the 230/2012 (VIII. 28) Government Decree.

During both the bachelor and master training according to the regulation -where internship is compulsory- before completing the final exam student must successfully accomplish their internship. It is also regulated that the internship must be based on the student labour contract setting stricter regulation to the employer than is stated by the Hungarian Labour Act. Internships could take place at external organizations or at companies funded by the University. In every case the University and the Company offering internship must sign a cooperation agreement supervised by the Education Authority

It is declared that if the student fulfilled more than 6 contiguous weeks at an intern must be remunerated (except the internship is financed from the central budget). The amount must be equal with the 65% of the current minimal wage. The requirements concerning the internship are set in the Training and Outcome Requirement document (based on the Government Decree) and students could receive a maximum of 30 credits for their internship.

The internship system aims to support students acquiring as well as connecting theoretical and practical professional knowledge at a professionally related working place, additionally to establish and improve their employee competencies.





ENTREPRENEURIAL EDUCATION

According to 18/2016. (VII. 5.) Decree of the Minister of Human Capacities the outcomes of the Higher Educational programmes are define in three levels:

1. General criteria and compulsory modules for all Higher Educational Program (are described in the 18/2016 (VII.5) Decree of the Minister of Human Capacities)
2. Special criteria and compulsory modules for all the different fields and sectors (are described in the 18/2016 (VII.5) Decree of the Minister of Human Capacities)
3. Special criteria and compulsory modules for every Higher Educational Program (are described in their Training and Outcome Requirement documents)

In regard to this regulation the level of entrepreneurial education is very much depend on the field and sector of the program as well as on the Institutes. Concerning entrepreneurial skills, the general criteria and compulsory modules for all Higher Educational Programs are the following:

- Labour market knowledge
- Basic knowledge of foreign languages
- Basics of processing professional and financial information (including basic IT knowledge)
- Communication knowledge.

Although the skills learnt through the compulsory modules can be successfully used at enterprises, we miss the appearance of entrepreneurial knowledge as a compulsory module. This module could include the basic legal, management, and economics knowledge required for business development, with interesting good practices to inspire the new generation.



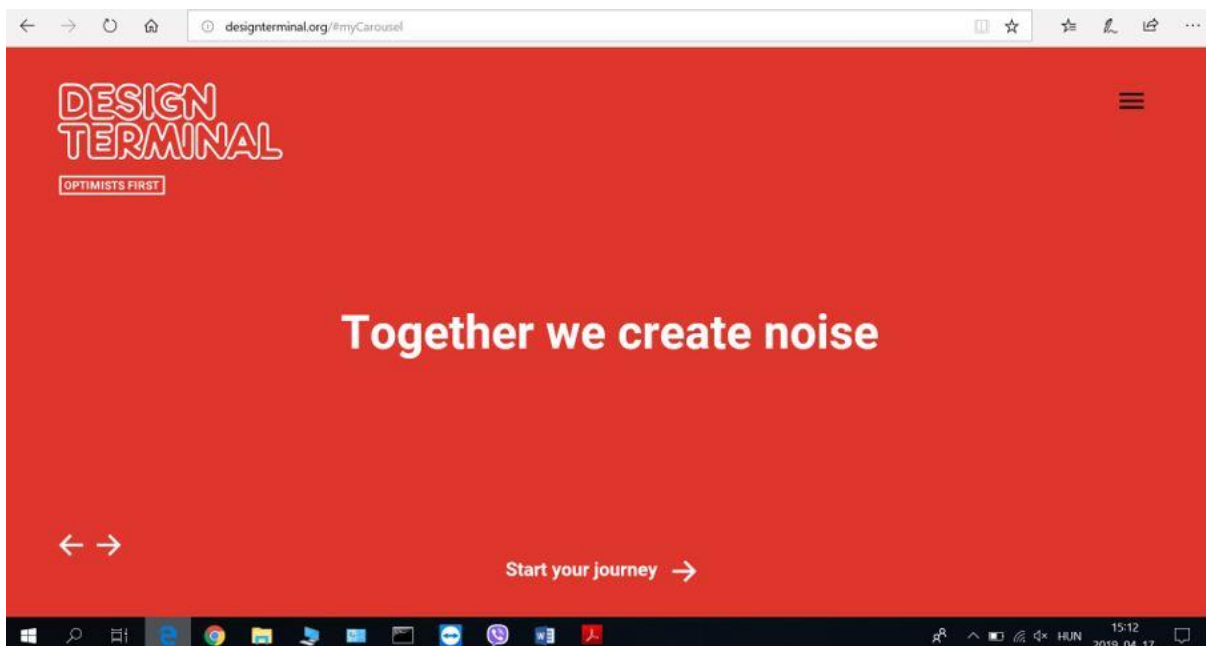


GOOD PRACTICES



As we have described earlier, the internship programmes were outsourced to market based companies, which caused, that the support of the entrepreneurial skills has not been developed at the Universities. We've collected three good-practices, which close relationship with the state or universities, though they are committed for a market based operation.

I. Design Terminal



1. The story:

Design Terminal was founded in 2004. In 2014, it became a governmental budget entity and got financed by the central budget. In January 2016, a list of state institutions was published in many media platforms with the threats to be closed or restructures. The Ministry of Human Capacity announced in 2016, that the institution will operate further, though the finance of the institute should base on the market in the future.

2. Activity:

Design Terminal is a place and meeting point for those, who are interested in startups and entrepreneurship. Therefore, they give place for useful presentation for the wider audience, organise internship programmes, innovative challenges, mentoring programs, work as an accelerator and facilitate matchmaking with potential investors.

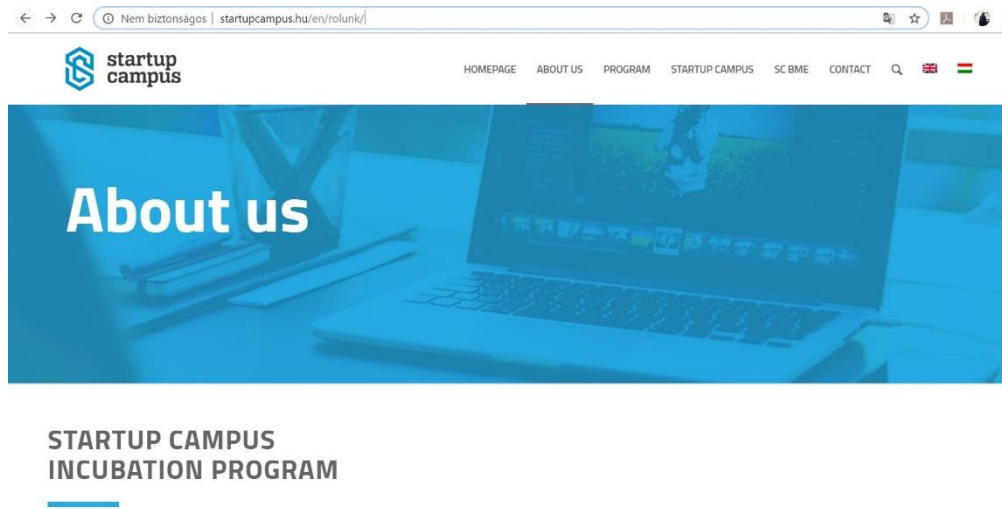
Source: https://hu.wikipedia.org/wiki/Design_Terminal

Official website: <http://designterminal.org/>





II. Startup Campus Innovation Program



1. The story:

The aim of the Startup Campus Program is to create a treasury of innovative ideas, which is able to use the potential of innovative skills of the students and professors at universities. Beside the program is also committed to support the commercial exploitation of their RDI projects with effective tools. That is why it is present in the largest university cities of Hungary such as Debrecen, Győr, and Budapest, as well as in London.

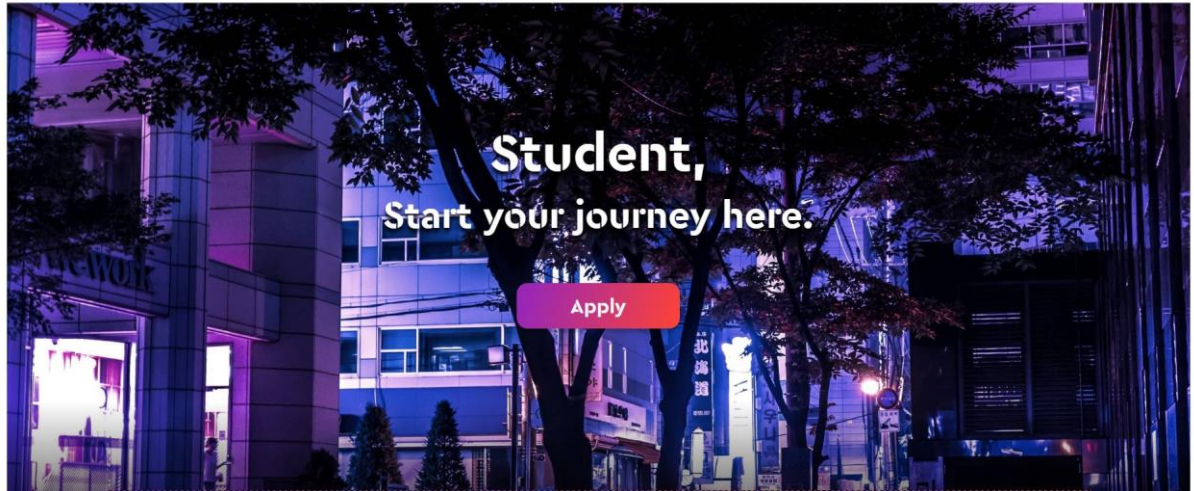
2. Activity:

The Startup Campus Innovative program is actively present at the biggest Hungarian Universities, organise innovation related university events and mentor programmes, map and support university teams with business potential and operate a complex incubator program.

Official website: <http://startupcampus.hu>

III. Demola Budapest





1. The story:

The Demola Budapest was officially funded in 2015 as a result of Academy-Industry cooperation, with a cooperation agreement between the Budapest University of Technology and Economy and the Technopolitan Co. Demola trademark and innovation platform is owned by Demola Global. Demola Global was established in Tampere, Finland. Now Demola operates in 16 countries: Finland, Sweden, Denmark, Norway, Spain, France, Lithuania, Latvia, Hungary, Portugal, Mexico, Namibia, South Africa, Japan and China. Demola is an international innovation challenge platform that brings together students and leading brands. With Demola, global and local organizations challenge university students to create a better future.

2. Activity:

Demola Budapest supports the local and European startup ecosystem by facilitating innovation projects. It offers matchmaking, project facilitation and office space for multidisciplinary projects, building bridges between competencies, universities and the riverbanks of Danube.

Official website: <https://www.demola.net>

Source: https://www.bme.hu/hirek/20150430/Demola-modell_uj_felfogasban





STUDENT QUESTIONNAIRE ANALYSIS GENERAL STATISTICS ON THE STUDENT SURVEY

I. The study field of the respondents and their proportion

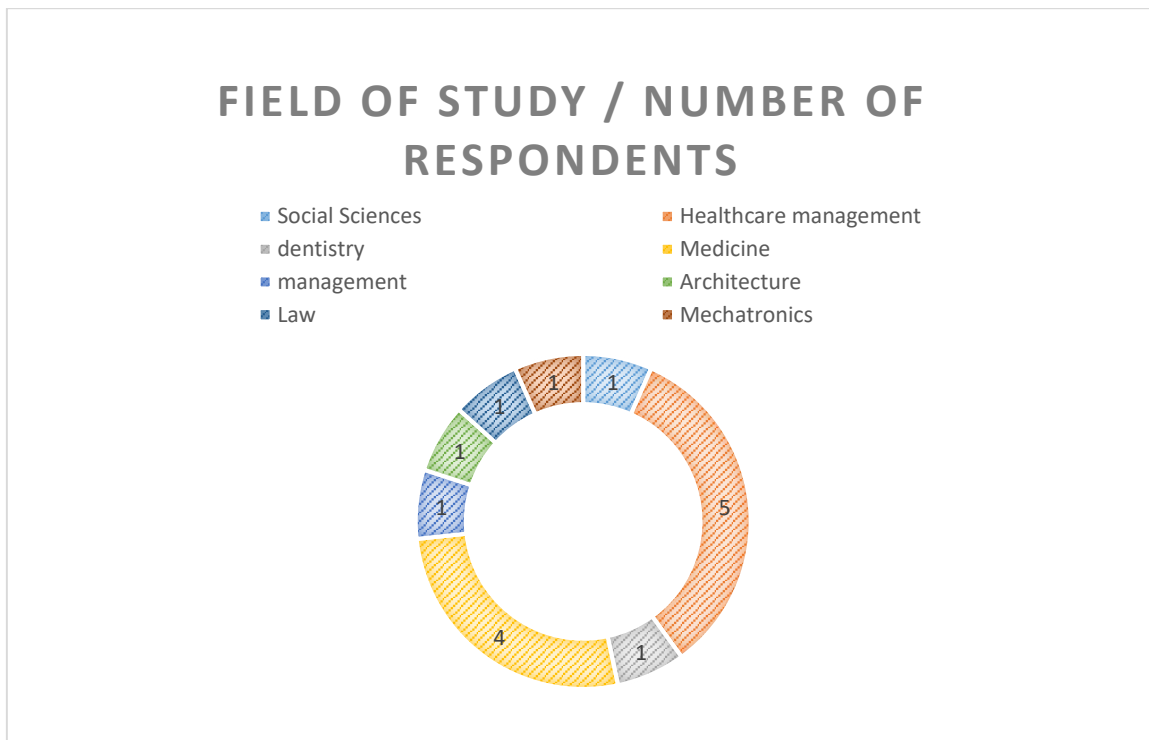


Figure 2, Field of study/ respondent from the student survey, 2019





II. Distribution of the students based on the year when the internship was implemented

The year when the internship was implemented	Number of respondents
2015	1
2016	2
2017	1
2018	7
2019	4

Table 1, Distribution of the students based on the internship year

III. Distribution of the students based on age

Age of the respondents	Number of respondents
21	3
22	1
23	5
24	4
25	2

Table 2, The age of the respondents





IV. Distribution of the students based on the country where the internship took place



Country where the internship took place	City	Number of respondents
Hungary	Budapest	9
Germany	Munich	2
Germany	Heidelberg	1
Italy	Rome	1
Russia	x	1
Austria	Vienna	1

Table 3, the country and city of the internship/ student distribution

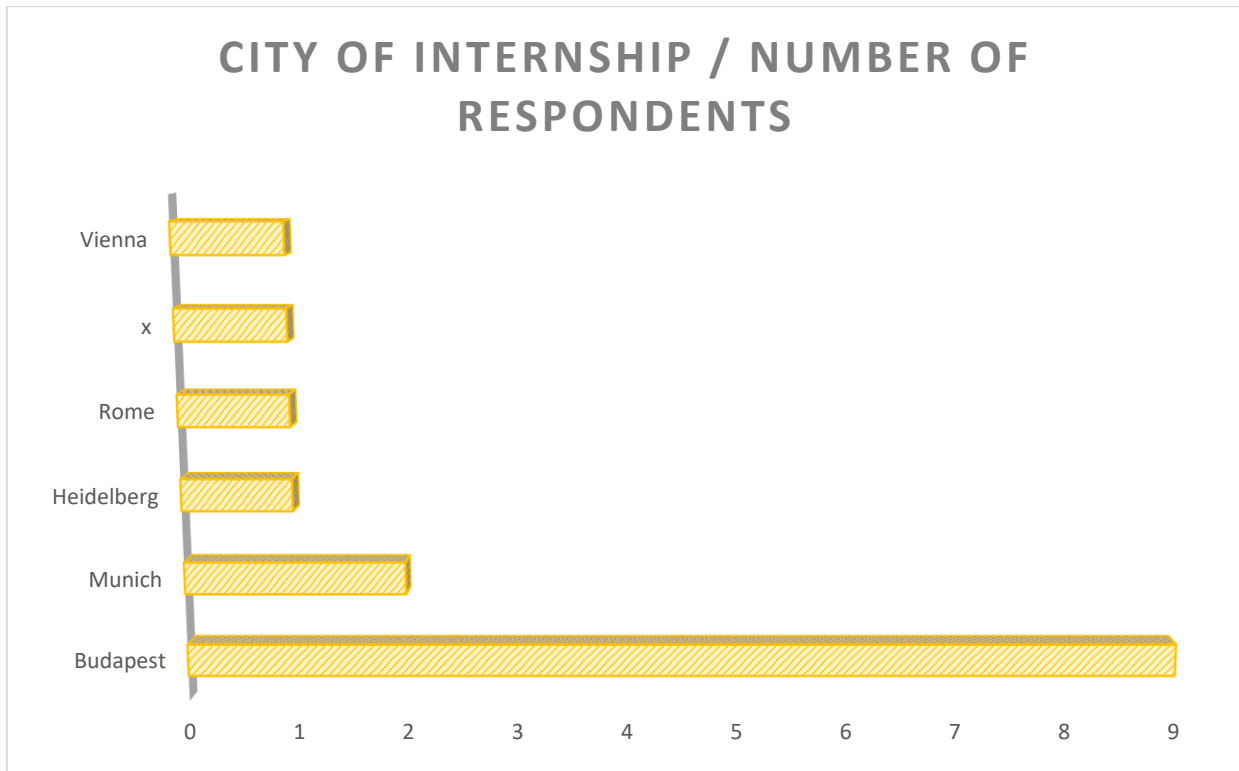


Figure 3, City of internship and the number of internship





THE ANALYSIS OF THE KEY QUESTIONS



B1. What was your internship about?

Based on the answers of the 15 respondents the majority of the internships were unpaid (9 student indicated that their internship was unpaid), and instead of financial support students received credits or ECTS. Only one student received payment for his/her internship, while students fulfilling their internship abroad in most of the cases received Erasmus/ university scholarships (2 students). The type (practical based, knowledge based), topic and duration of the internship varied across professions and countries. Only 4 students did their internship on a voluntary basis, while for the others it was a compulsory element of their university training. The field of internship was in a close relation with the subject of the studies 7 students did their internship in a medical facility, while 2 in the IT/engineering sector and 1 worked for the government. Some respondents failed to answer the facility where they carried out their internship.

B.2 What were your expectations from the internship? Did the internship meet your goals and expectations? How?

Regarding the expectation the following could be concluded: those students who were armoured with exact and high expectations were satisfied during their internship, while the other students did not have any kind of expectations, as they did not know what they will do during the internship. Altogether students gained practical and theoretical knowledge, could be working as a team member, could gain insight how real life working environment operates, as well as some student future plans was better oriented after the internship.

B.3 Why did you want to do an internship in the first place?

Students choose the internship because of the following reasons: personal growth, getting to know other countries system and working mechanism, gaining office experience, trying out new things as well as making a more informed decision about career plans.

B4. What were the main positive aspects of your internship?

The positive aspects of the internships could be summarized as follows:

- Professional growth
- Improved language skills
- Making new (international) acquaintances
- Getting to know new culture and lifestyle
- Gaining real life experience





B5. What were the main negative aspects of your internship?

Based on the answers it could be postulated that students rather liked their internship, nevertheless some negative aspects were highlighted. Those students who did their internship abroad struggled with language barriers, whereas in Hungary some of the students felt that the management at their internship place was not enough supportive. It is interesting that regarding working hours and independency on one hand some students felt that they could have done a lot more, whilst the other experienced too many working hours and pressure from high responsibility.

C1. What would be the desired duration of an entrepreneurial internship program?

Regarding the desired duration, the answered varied between 1 month to 1 year so no conclusions could be made.

C2. Based on your experience are there any requirements a student should meet to take part in an entrepreneurial internship program?

In terms of requirements student listed the following skills and characteristics: having appropriate language skills, being motivated, enthusiastic and open as well as being able to solve problems and overcome on challenges independently.

C3. How you would select a company for being hosted as an intern?

Students would prefer choosing companies:

- based on the company's reputation (ranking, fame, achievements)
- based on others' opinion who has/had some contact with the company
- based on its portfolio and profile
- based on what the company can offer (salary, opportunities etc.)
- and whether the place is student friendly.

D1. Have you ever used a digital educational game? If yes, please let us know what you liked the most.

Most of the respondent haven't used any educational game or just simply have skipped the question, one respondents said that he or she uses **language studying apps**.





D2. Have you ever used a digital educational game? If yes, please let us know what you didn't like.

For students answered yes, from which 3 used and uses actively **kahoot** (see www.kahoot.it), while one student stated that he or she likes the advantage of gamification, however did not identified the name of the app.





HEI STAFF MEMBER AND COMPANY QUESTIONNAIRE ANALYSIS

NUMBER OF RESPONDENTS

All together because of the short time framework 3 companies and 2 University staff responded to the interview questions, answering the questions required 20 minutes averagely.

RESPONDENTS

Universities:

- Budapest University of Technology and Economics, Budapest, Hungary
- Milton Friedman University, Budapest, Hungary

Main domain of the companies

- Company A: IT (Staff headcount under 10, turnover under 2M EUR)
- Company B: Telecommunication (Staff headcount over 250)
- Company C: Law (Staff headcount under 10, turnover under 2M EUR)

Region

All the universities and the companies are located in Central Europe, Budapest

ANALYSIS OF THE COMPETENCE MATRIX IN TERMS OF ENTREPRENEURIAL INTERNSHIP

Explanation:

- ⦿ Averages: 5 - high importance, 1- least importance
- ⦿ Development opportunities: - Whether the given competence could be developed?
- ⦿ Key words: How the Competence could be developed?





Altogether according to the answers of the respondents, coping with uncertainty, motivation and perseverance and valuing ideas are the most important competencies. However, it is also important to mention, that all of the listed competencies could and should be developed. Please see below detailed information of the competency analysis.



A) Spotting opportunities

- Average in terms of importance:3,4*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

B) Creativity

- Average in terms of importance:3,2*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

C) Vision

- Average in terms of importance:3*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

D) Valuing ideas

- Average in terms of importance:3,6*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

E) Ethical and sustainable thinking

- Average in terms of importance:3*
- Is it developable? YES: 3 from 5 respondents indicated **yes***

F) Self-awareness and self-efficacy

- Average in terms of importance:3*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

G) Motivation and perseverance

- Average in terms of Importance:3,6*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

H) Mobilising resources

- Average in terms of importance: 3*
- Is it developable? YES: 3 from 5 respondents indicated **yes***

I) Financial and Economic literacy

- Average in terms of importance: 2,8*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

J) Mobilising others

- Average in terms of importance: 2,25*
- Is it developable? YES: 3 from 5 respondents indicated **yes***





K) Taking the initiative

- Average in terms of importance: 3,2*
- Is it developable? Not decided: 2 from 5 respondents indicated **yes***

L) Planning and management

- Average in terms of importance: 3,4*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

M) Coping with uncertainty

- Average in terms of importance: 3,8*
- Is it developable? Not decided: 2 from 5 respondents indicated **yes***

N) Working with others

- Average in terms of importance: 3,4*
- Is it developable? YES: 4 from 5 respondents indicated **yes***

O) Learning through experience

- Average in terms of importance: 4*
- Is it developable? Not decided: 2 from 5 respondents indicated **yes***

With regard the competencies, the table below summarises the key-messages concerning their development.

Name of the competence	Key words in terms of developing the competencies
Spotting opportunities	<ul style="list-style-type: none">• understanding the company• case studies• cooperation• shadowing• young talent program
Creativity	<ul style="list-style-type: none">• open problems• teamwork• special trainings• challenging existing methods• good and relevant ideas





Vison	<ul style="list-style-type: none">• giving a career example by introducing the intern to co-workers of different seniorities• involving interns to planning• possibilities based vision
Valuing ideas	<ul style="list-style-type: none">• giving career example• good teamwork• interactions• special and multidisciplinary trainings• involving interns to implementation product development• learning from feedbacks
Ethical and sustainable thinking	<ul style="list-style-type: none">• supporting the related ideas of interns• formal education• family & environmental impact• demonstrating examples• basics is a must
Self- awareness and self-efficacy	<ul style="list-style-type: none">• continuous reflections on behaviour• different Courses• psychological tests• mentoring• feedbacks
Motivation and perseverance	<ul style="list-style-type: none">• mentoring the intern professional or personal crisis• trainings and competence development programs• demonstrating examples• demonstrating role models
Mobilising Resources	<ul style="list-style-type: none">• interns participating on meetings• teaching them how to connect• involving interns to implementation, product development
Financial and Economic literacy	<ul style="list-style-type: none">• depends on the business and position• well developed education and courses• involving interns to implementation, product development• learning from real cases





Mobilising importance	<ul style="list-style-type: none">• participation in cross-functional teamwork• coaching and trainings role plays• involving interns to implementation, product development
Taking the initiative	<ul style="list-style-type: none">• rewarding initiatives with attention, mentoring and resources• giving freedom over responsibilities• shadowing
Planning and management	<ul style="list-style-type: none">• good programs, trainings, courses• shadowing• time mgmt. and project mgmt. trainings• working together with pm managers
Working with others	<ul style="list-style-type: none">• mentoring• trainings• teamwork
Learning through experience	<ul style="list-style-type: none">• mentoring• reflection on learning points• regular feedbacks



Table 4, The development opportunities of competencies during entrepreneurial intership, 2019





SHORT QUESTIONS CONCERNING THE INTERNSHIP



Desired duration of and entrepreneurial internship program

Based on the answers an optimal and desired duration on an internship should be **between 3 and 12 months** with the average of **6 months**.

Criteria to be used to select students being appropriate for the studentship program

Based on the answers of the respondents in terms of selection criteria the following could be summarized as essential:

- former teamwork experience
- being passionate and open minded
- can do attitude
- problem solving mind-set
- having constructive ideas
- general business related knowledge
- basic domain specific experience
- and being able to work independently

Requirements criteria that should meet to be employed

According to the answers the following are the minimum must have abilities:

- embracing professional know - how,
- being motivated and desired
- and at least speaking English on a communication level
- outstanding progress with the studies

The main challenges of an intern during an internship

These kind of challenges could be summarized as follows:

- uncertainty
- working and acting independently
- processing failures
- learning time and project mgmt. field

Characteristics of such an internship programme

- owning an independent project by being mentored
- being well balanced
- having both formal educational coaching
- individual and team focused aspects
- project managers and team leaders as mentors





The role of mentoring during an entrepreneurial internship program

In line with the opinion of the respondents it is essential that mentors are building proper professional and personal relationship with the intern as well as facilitating his or her work continuously within the organization. Additionally, mentors should have solid background in the professional field to be able to provide adequate advices.

Barriers faced during an internship (personal, institutional)

Respondents mentioned mainly personal aspects such interns in some cases are not enough motivated and matured for being a proper intern. Regarding institutional barriers funding is always a key element, as well as the type of team and members are also sometimes problematic (multidisciplinary teams, mixed networks and connections, etc..) Furthermore, the utilization of the values of interns and the inappropriate follow up were also mentioned.

Main lessons by the respondents learned during and internship

It could be concluded that interns should be always given clear vision about the internship, they must be provided with well-structured working methods and exact schedules and their work has to be evaluated continuously.

The popularity of educational games

From the 5 respondents 2 have used some type of educational games one for supporting interns to learn about GDPR. The mentioned advantages of these games were greater engagement, having a fresh look and allowing more flexibility to embracing new skills. The disadvantages were mainly that these games are not enough tailor-made as well as sometimes using them rather echoes playing than professional learning.





CONCLUSION

Although, several aspects of entrepreneurship are already covered in compulsory modules of all the higher education institutes, we strongly believe, that entrepreneurial skills should be corporate in a unified manner into the general criteria and compulsory modules for all Higher Educational Program. This module should prepare the students for basic legal, management, and economics knowledge required for business development. A unified system with an innovative methodology could strongly encourage as well as supporting the new generation entering the business market, and strengthening the SME sector.

Although, most of the institutes expect the fulfilment of internship programs, we would recommend to extend and strengthen the system. It would be recommended to make internship compulsory on national level. At all higher education institutes would be fruitful to establish internship university offices would be also essential. The offices should serve as a pivotal point between the students and the companies by building and maintaining an overall professional network, by preparing the students for the internship and by evaluating the companies in terms of the success of the internship. One of the role of the offices would be the build up a strong network of potential companies accepting students, and connect them with the students with regards to their special needs.





Sources:

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2. Official website for applications to HEIs. Retrieved from: felvi.hu, on 18.04.2019
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ITALIAN NATIONAL REPORT

WORK PACKAGE 2: PREPARATION

O2.1. - BACKGROUND STUDY: GREEK NATIONAL REPORT

EUGENIO D'ANGELO, IDA CARUCCIO
UNIVERSITA' TELEMATICA PEGASO
25.06.19





Content:

1. Report framework	p. 1
2. Internship	p. 6
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2.2. Internship programmes in Italian HEIs	p. 7
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3. Entrepreneurial education	p. 10
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4.1 Internships: experience and problems	p. 28
4.2 Competences and Enter.Mode	p. 31
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1. Report framework:

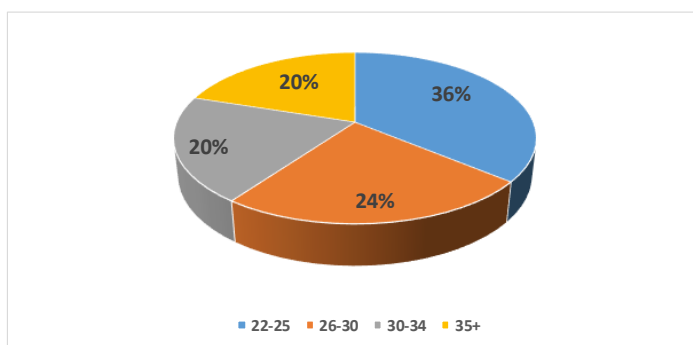
The Enter.Mode project has the objective to design, develop, test and disseminate a new model of entrepreneurial internship in order to improve entrepreneurial mind-set and skills in Higher Education (HE) students. The first output of the project is the background study which is focused on the current entrepreneurial education in higher education, on the entrepreneurial skills required by HE students and on currently adopted frameworks for internships in each partners' country. In order to provide a brief representation of what has been requested, the working group of Università Telematica Pegaso has drafted this document that is structured into three more section and conclusions. In the second section we provide a definition of the institutional framework for internships, a brief description of the Internship programmes in HEIs and the good practices of internship programs in the Italian setting. The third section is dedicated to the entrepreneurial education, including some good practices concerning entrepreneurial education and internships. In order to compose a more comprehensive picture, in the first two sections, we have summarized what our country proposes to encourage entrepreneurial training not only at University level but also at lower educational level, with reference to both training and vocational training. The second section was developed with the help of the administrative staff of our University who provided us all the normative references useful for developing the synthetic framework we have reported. The third section was developed by consulting the websites of the major national Universities and by consulting colleagues and national experts on the subject of academic entrepreneurship education and training, in order to provide a framework that can be representative of the real situation regarding the boost to entrepreneurship carried out by our country through Universities. In order to complete the fourth section of the report, a series of interviews were conducted.



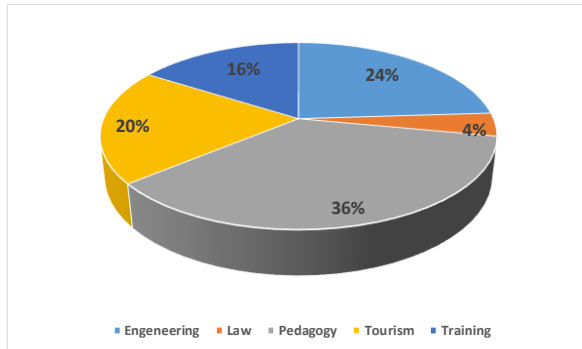
The study design prepared by the WP2 leader included a minimum of 15 and a suggested number of 25 student interviews (without discipline limitations even if the focus of the project are non-business students), a minimum number of 3 and a suggested number of 10 interviews to companies (without sector or size limitations) and a suggested number of 2 interviews to be submitted to HEIs staff members (other than Pegaso Staff). Consistently with this approach, the Pegaso work group managed to receive 25 interviews from non-business students, 15 interviews from companies and 2 interviews from University staff members (other than Pegaso). Below we will present some descriptive elements of the overall sample (42 observations), divided in 3 subsamples (students, companies and staff).

■ Students

Although there were no limitations or indications in structuring the sample to be interviewed, we decided to compose it (randomly, but) in the most heterogeneous possible way, in order to highlight, in the case, some critical issues that can be useful for the continuation of the project. With reference to the stratification by age, we interviewed students aged between 22 and 55 years, since the Pegaso catchment area is also composed of working students of later age. Below, in the graph, we reported the definition of the students' sample according to a breakdown into 4 age clusters. The largest class is made up of students aged between 22 and 25 (9 students), followed by those aged between 26 and 30 (6 students) and the last two (both composed of 5 students) composed of students older than 30 years.



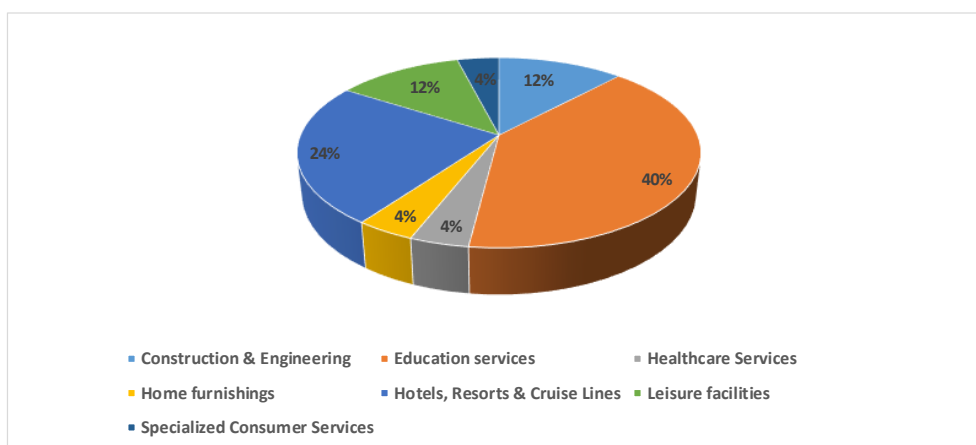
Since the study design and, more generally, the whole project has as a main target "non-business" students, we have structured a sample that foresees a stratification also according to their study discipline. Five different disciplines have been studied by the sample of students interviewed, with a prevalence of pedagogy students (as required by the project proposal with reference to the Pegaso main research area). The graph below shows the composition of the sample by discipline. We have had, as mentioned, 9 pedagogical students, in addition to 6 engineering students, 5 tourism sciences students, 4 training (also called *physical and sport education*) students and 1 law student in the sample.



The students interviewed have all carried out their internship period very recently (in the last three years), so that no time-related biases may have affected the analysis, with a particular concentration in year 2018 (64%). The composition of the sample by year in which the internship has been carried out is shown in the table below.

Internship Year	N.	%
2017	3	12%
2018	16	64%
2019	6	24%
Total	25	100%

Most of the students interviewed (21 out of 25) carried out a compulsory internship because it was included in their study plan. Only 4 students decided independently and voluntarily to have this experience. Consistently, only 4 internships have been paid and 21 of them have been made for free. Another element, in terms of sample description, concerns the sector of the company in which they carried out the internship. To categorize the industry sector of hosting companies, we used the Global Industry Classification Standard (GICS), an industry taxonomy developed in 1999 by MSCI and Standard & Poor's (S&P). The GICS structure consists of 11 sectors, 24 industry groups, 69 industries and 158 sub-industries into which S&P has categorized all major public companies. Consistently with the stratification of the students' sample by discipline, previously seen, the education sector (typical placement for pedagogics) is the most widely represented (40%) as shown in the following graph.





Finally, with reference to the geographical location where the internships were carried out, we found that hosting companies were mostly located in Italy and in particular in the southern regions. Out of 25 students interviewed, 21 carried out their internship in Italy and only 4 abroad. With reference to internships carried out abroad, these were hosted by companies located in Greece, Malta, Spain and Turkey (1 internship for each Country). Half of the internships carried out in Italy were hosted by companies located in Campania (11), the other 10 internship experiences were carried out in Sicily (4), Basilicata (2), Calabria, Lazio, Tuscany and Liguria (1 for each Region), as shown in the following chart.



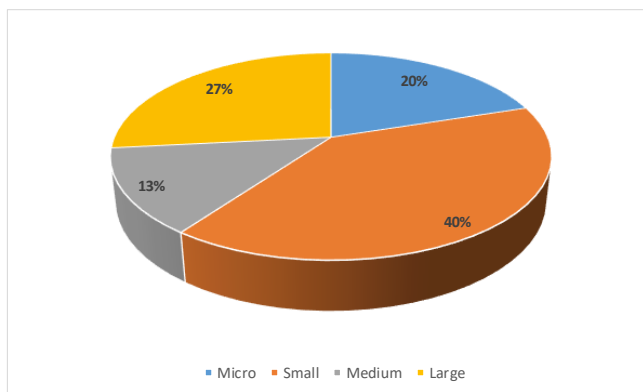
■ Companies

With reference to the companies' sample, it should be noted, first of all, that the work group submitted the questionnaire to 22 companies. After only one recall (a higher number of recalls would not have been possible in compliance with WP2 deadlines), 15 out of 22 questionnaires returned back completely filled, with a response rate of 68,2%, a very high response rate compared to the average response rate that can be found in previous similar studies (the response rate generally does not exceed 30% after only 1 recall and with no reward or incentive scheme). From the sampling point of view, as well as for students, also for companies no limitations (of size or sector) were foreseen by the study design, however the interviewed sample resulted extremely heterogeneous from both points of view. Observing the composition of the companies' sample from the sectorial point of view, we can see that 12 sectors are represented (once again according to the GICS classification mentioned above). The list of sectors represented in the sample is shown below in the next table. Note that only three sectors (pharmaceuticals, food and beverage processing and construction & Engineering) are represented to a greater extent.

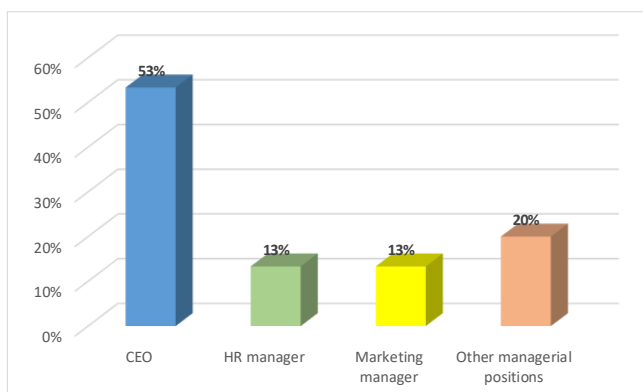


Sector	%
Pharmaceuticals	20%
Construction & Engineering	13%
Food and Beverage Processing	13%
Apparel	7%
Automotive Retail	7%
Commercial Printing	7%
Computer & Electronics Retail	7%
Food retailer	7%
Health Care retail	7%
Hotels, Resorts & Cruise Lines	7%
Multi-Utilities	7%
Total	100%

From a dimensional point of view, companies were asked to indicate the number of employees and the value of sales and total assets. This information has been necessary to describe the sample according to the size of the companies interviewed. In line with the European Commission Recommendation 2003/361/CE, which defines the size category of micro, small, medium and large enterprises (that has been implemented by the national Italian legislator with the Ministerial Decree of 18 April 2005), we proceeded to hinge the companies of the sample into the described dimensional categories, as shown in the following graph. Small businesses are the most represented category (40% of the sample), followed by large companies (27%), micro (20%) and medium-sized firms (13%).



When it comes to the role held in the company by the respondents, it should be noted that in most cases the CEOs filled the questionnaire, in other cases middle managers who responded mainly belong to the functional areas of HR and marketing, as reported in the following chart.





■ HEI Staff

The overall study was completed by another sample composed by 2 interviews submitted to University Staff involved in internships planning and management. There is not much to say about the composition of this sample (since its size is extremely small) except that the Universities involved in the interviews are both located in the south of Italy, one in Campania and one in Lazio. One of them is a traditional State University and the other is a private Telematic University. One has a rather large size (about 25.000 students) and the other has a very small size. In essence, by selecting the employees of these two academic realities we have tried to diversify the sample as much as possible in terms of dimension, governance and teaching method.

2. Internship:

2.1 Definition of institutional framework of internships in Italy

The Minister of Labour and Social Security, with the Law n. 196/1997, introduced in Italy training and orienting internships with the aim of creating moments of alternation between study and work and facilitating professional choices through direct knowledge of the work environment, through practical training initiatives and internships in favour of subjects who have already completed compulsory education. The law is composed by a series of rules and indications for the implementation of training internships, such as, among others, duration and recipients. As far as the University sector is concerned, the law established that the internships cannot last more than twelve months. Also young people who have already completed their University studies in the previous eighteen months could also take part of this internship program introduced in 1997.

The evolution of legislation includes educational activities aimed at acquiring further linguistic knowledge, as well as computer and Telematic, relational, or in any case useful skills for entering the job market, as well as training activities aimed at facilitating professional choices, through direct knowledge of the sector which the educational qualification can give access to. In 2004 it is specified that University degree study courses have to include training internships in companies, public administrations, public or private institutions and professionals (including the third sector) based on specific agreements (memorandum of understandings). With this "Plan of action for the employment of young people through the integration between learning and work" Italy begun a more rational and efficient framework concerning training and placement in order to enhance employment and reduce the abuse and the distorted use of the internships. The maximum duration of an internship is reduced from 12 months to 6 months and the target of the possible participants is narrowed, bringing the maximum period elapsed between the degree and the beginning of the internship to 12 months. Internships can be promoted only by subjects in possession of specific requisites previously set in accordance with regional regulations, in terms of guarantees in carrying out these initiatives.



In 2011 the Ministry of Labour and Social Policies clarified the definition of a curricular internship as a training and orientation internship included in the University study plan, aimed at refining the learning and training process with the study-work alternation modality. The labour reform, in 2012, provided an agreement between Government and Regions for the definition of shared guidelines regarding internships. Among the criteria indicated there are some aiming at preventing and opposing a distorted use of the institution through the punctual identification of the modalities, also economic ones, with which the trainee provides his activity. The subsequent 2013 and 2017 regulations set the "Guidelines on training and orientation internships, defining minimum standards that the Regions will have to implement and regulate". There is also a compulsory professional training, foreseen by some professional regulations, which has a maximum duration of eighteen months and serves to achieve the necessary skills to work as a chartered professional. These kinds of internships are governed by rules established differently for each Professional Association (Engineering, Lawyers, Accountants and so on). To carry out the professional training it is necessary to be included in the register of practitioners held at the council of each Association. To enrol in these registers is compulsory to have a degree or a diploma. However, there is the possibility to carry out the internship, for the first six months, during the last year of the degree course, as long as there is a specific agreement between the National Associations of Professionals and the Ministry of Education, University and Research. Internships can also be carried out, for a period not exceeding six months, with institutions or professionals from other countries with equivalent qualifications and qualified to practice the particular profession. It should be noted that the internship could also be carried out in the form of a public employment or private subordinate employment, providing that there are timetables and working methods that allow it to take place effectively.

2.2 Internship programmes in Italian HEIs

In Italy there are curricular and extra-curricular internship programs. The curricular internship is a formative experience that a student carries out in a hosting structure that has signed a memorandum of understanding with the University. The internship may be mandatory or voluntary, as determined by the individual study plan, and must be carried out during the specific year foreseen in the teaching plan. A number of University training credits (CFU) are assigned to the student for the internship period as defined by the study plan. The purpose of the internship is "to create moments of alternation between study and work in the context of training processes and to facilitate professional choices through direct knowledge of the work environment" (Article 1 of Ministerial Decree 142/98). From the student's point of view, it can have multiple purposes, such as make the work environment known through direct contact or deepen, verify and expand the knowledge received from the degree course. For the University it is an opportunity to verify the congruence between the training courses of the degree courses and the potential job opportunities that students aims. From the company point of view, the internship is an advantageous opportunity for interacting with young people with up-to-date scientific knowledge and is also an opportunity to train "young talents" to be eventually recruited. The extra-curricular internship is a period of training spent at a company to allow the graduate to acquire specific skills and enter the work environment in an easier way.



The recipients of the extra-curricular internships are therefore graduates who have achieved the degree since no more than a year (but this possibility can also be extended to Master or to PH.Ds). Specifically, the subjects admitted to carry out the internship are:

- Subjects in a state of unemployment or workers at risk of unemployment;
- Beneficiaries of income support measures in the context of employment;
- Subjects already employed in search of other employment;
- Subjects with disabilities as per art. 1, co. 1, of the law of 12 March 1999, n. 68 (Rules for the right to work of the disabled).
- Disadvantaged persons pursuant to the law of 8 November 1991, n. 381 (Discipline of social cooperatives);
- Persons who have requested international protection and holders of refugee status and subsidiary protection, victims of violence and grave exploitation by criminal organizations and subjects holding a residence permit issued for humanitarian reasons, victims of trafficking pursuant to the decree legislative 4 March 2014, n. 24.

Furthermore, in 2013, the Italian Government introduced the "Youth Guarantee Program" which aims to increase geographical or transnational mobility for young under 29 years old persons. The duration of this program is 6 months (12 months in case of disability). In Italy the "Your first EURES job" program is also used, it is a program dedicated to young people between 18 and 35 years of age looking for a job opportunity, an internship or an apprenticeship in another European country. Another partnership program with a strong focus on internationalization with an exceptional investment in individual learning mobility is ERASMUS+. The program introduces innovations that increase opportunities for students to experience a study and internship period abroad, extending this latter activity also to the graduate. It is possible to carry out a study mobility abroad, from 3 to 12 months (including a training period, if planned and including previous mobility experiences in LLP) at a Higher Education Institute in one of the countries participating in the Program a starting from the second year of studies; in the case of single-cycle study programs, students can take advantage of a mobility period of up to 24 months. In favour of the Higher Education sector, there is also the EU initiative called "Digital Opportunity Traineeships". This latter program aims at training young students and new graduates, through an internship experience in the digital environment (development of applications, software, scripts, websites, data analysis, IT security, cloud computing, quantum intelligence and artificial). And again, the project "Digital Opportunity Traineeships", financed with the Horizon 2020 Program, is implemented towards young graduates of Higher Education and is implemented through the Erasmus plus program.

2.3 Good practices of internships programs in Italy

Italian Universities promote and support training and orientation activities for undergraduate and graduate students. The training and orientation internship can be essential to obtain the academic qualification and, therefore, is part of the student's career.



In fact, internships can be included in the University's academic plan, and can be compulsory or optional, allowing, in the first case, the acquisition of educational credits. The number of credits assigned to curricular internships is indicated in the Statutory Study Plan (which is different from University to University and from discipline to discipline). Each University establishes agreements with various institutions and companies where students can carry out their training. Furthermore, as already mentioned, the Italian University system promotes internships also through vocational extracurricular courses and alternate school/work apprenticeship, in Italy or abroad.

Our University (Pegaso), like all Italian Universities, guarantees that every student obtains a general or professional qualification also through apprenticeship before entering the labour market. Internships become the concrete means with which activate experiences "in common" between the course of study, the productive world and local institutions. In this context, good practices are promoted by the experts in the guidance, training and job placement offices as well as by the University Teaching Managers.

Below are described some initiatives and good practices concerning internship programs. In order to create professional figure consistent with the objectives of the defined profile, the Italian study courses include compulsory activities such as internships and/or curricular internships but also the possibility of activating extra curricular internships for students who request them. In accordance with the requirements that place the centrality of the student at the forefront with its motivations and expectations, the University internship offices guarantee concrete professional prospects, making use of the support of updated and flexible teaching methods; in practice it activates agreements with institutions and structures proposed by the student. Thanks to a wide offer of affiliated facilities, the student gets a series of advantages: he will have more choice based on the geographically closest location, a series of options regarding the type of host structure, the reduction of the timing for the start-up and completion of internship activities. The training and orientation stages (or extracurricular) are specifically designed to facilitate the professional choices of young people, through training in a productive environment and direct experience in the work environment.

These internships are intended for subjects who have obtained one of the following qualifications within and no later than 12 months: three-year degree, master's degree, first and second level University masters, research doctorate. The duration of the internship cannot exceed 6 months, including extensions, and the participant must be recognized a minimum monthly participation allowance which varies according to the Region where the internship takes place. In addition, the Job Placement services are set up with the primary purpose of developing and enhancing the collaboration between the University and companies, as well as the activation of new aggregation tools to gather incentives from companies and institutions interested in cooperating with the University in identification and pursuit of common activities. The Job Placement services promote a constant dialogue between University and Business by developing a network of privileged contacts between Universities and companies on the territory. As far as the Pegaso Telematic University is concerned, in the academic year 2017/2018 there has been a significant increase in the number of companies where internships have taken place. Of particular interest was the exponential increase in the number of agreements activated in Regions where the presence of hosting companies was poor.



The goal set by the Internship Office is to offer a real opportunity to enter the work environment. The internship office provides an internal self-assessment activity that allows monitoring the process and also detecting the occurrence of any critical issues. In fact, a satisfaction questionnaire at the conclusion of the internship is given to the individual student and to the company tutor. The analysis of the questionnaires shows a high degree of satisfaction both on the part of the student, who sees the realization of theoretical knowledge in practical skills, and of the company that makes use of profitable collaborations up to the recruitment and insertion of the student in the working context. A very high number of trainee students receive a real job opportunity from the hosting company. The University also has an ILO (Industrial Liaison Office) that works to put initiatives, projects and resources in place that have enabled the development of structured collaboration between the University, external research organizations and other stakeholders of national and international context by offering placement services for the activation of internships and for planning and implementation of initiatives aimed at reducing the time of job placement of new graduates. All activities are carried out promoting a constant comparison with national and international competitors (benchmarking). ILO promotes the establishment of a network of partners in order to create essential synergies for the realization of the University's mission. This area may include measures intentionally intended to affect the number and type of business opportunities, with interventions aimed at establishing bridges between the world of academia and the business world and facilitating technology transfer. Direct provision of relevant business information (through forms of advice and counselling); formal initiatives aimed at providing entrepreneurial education, also through field experiences, in the various educational paths, the measures aimed at feeding the transmission of knowledge and the construction of entrepreneurial skills through institutionalized mentorship and tutoring mechanisms (by entrepreneurs older or serial to younger entrepreneurs or aspiring ones) and building communities that include, among others, business angels.

3. Entrepreneurial education:

According to a recent study, Italy is a country with a strong self-entrepreneurial vocation. With reference to young people who have started their own businesses, our country shows record numbers: 29.9% of people between 20 and 29 have their own business. The Italian Ministry of Education and University (MIUR) states that young people must be educated to proactivity, tenacity and above all to practice. The MIUR has decided to fund over 800 million euros in six years, to promote innovation in schools and to encourage self-employment. The MIUR program is divided into 3 phases. A first phase involves the inclusion of high school students in entrepreneurship education courses. The objective, therefore, is not only to provide a basic preparation on the different ways of doing business, but also to encourage the development of transversal skills. From this point of view, direct contact with companies helps to support the path of corporate culture education. Kids will learn to lay the groundwork for success, but they will also learn how to accept failures.



In particular, they will also be educated on the corporate social responsibility, on the values that the company must have if it wants to be useful for the development of the community in which it operates, on the policies to be undertaken for the well being of employees. The second and third phases of the plan, on the other hand, are more dynamic and come out of school boundaries. In fact, the best kids will be encouraged to collaborate with local companies and institutions to develop their ideas. Companies will act as guides for students and will accompany them on the training path until the final moment, that of "start-up". The ultimate goal is to transform students' creative projects into real, structured and ready-to-start businesses. An initiative which is consistent with the School-Work Alternation Project, which provides the possibility for high school students to complete their training within companies and grasp their growth dynamics. The Isfol (Institute for the development of professional training of workers) is a public research body that works in the field of training, work and social policies and has recently pointed out some useful elements for a positive development of new and effective actions to enhance the entrepreneurial attitude. The first condition is the creation of collaboration between schools, businesses and the local community, involving business professionals, managers and entrepreneurs through projects of social responsibility in the learning process and in a direct relationship with young people. The development of networks on the territory is a fundamental element for the feasibility of projects aimed at young people, both inside and outside the school. These must be as flexible as possible and not predetermined, they must be trained as needed in a service perspective to solve problems. Projects may differ in characteristics but must have a common denominator: the enhancement of youth resources and the development of the territory and the local community. These projects fully include the projects to promote active citizenship. Isfol argues that, in order to achieve a concrete professional change in teachers towards greater closeness to the current problems of society and the economy, it is essential to start with the initial training of the teachers themselves, who must become able to accompany the students in the process of growth, autonomy, self-fulfilment and responsibility, aiming at developing transversal skills and mastering their use. Teacher training, which must involve teachers of schools of all levels, is one of the main success factors of initiatives related to entrepreneurship education. Furthermore, the sensitivity and preparation of teachers favours the creation of stable collaborative relationships with companies. The dialogue between teachers and companies helps to build paths that can be modulated based on the interests and direction of study of the students and by selecting the most significant sectors for local development. Training can be in the field, through the experience acquired in the business world and through participation in courses, using appropriate teaching materials. In some projects, to encourage involvement and highlight the importance of the role, an ad hoc teacher was appointed as a "project manager" of the business project, as a link between students and companies. For the effectiveness of the initiatives it is essential to balance theory and practice, involving students in real work situations, and to favour an active role of young people in the learning processes. Learning by doing and peer education are useful approaches to learning to stimulate the involvement of young people. If the former contributes to integrating theoretical abstraction with practical experimentation, consolidating learning, the latter guarantees "models of entrepreneurship" potentially closer to the learners: the testimony and contribution of other young people who have experienced are heard with more interest by students.





All the teaching practices that are inspired by these principles are useful, as well as the use of technologies and networks for business simulation projects. The youth policies that finance business projects focus on the activation principle, without which it is difficult to learn, and offer participants the chance to test themselves as protagonists, to be considered as bearers of resources and not merely recipients of policies developed by others. It is a question of offering the possibility to try out one's own business idea, which can infect other sensitive and interested young people in a positive and virtuous circle. Furthermore, a close link between the creative capacity and the creativity expressed by young people and the concrete development needs of local territories and economies are fundamental. In this direction, there are the projects for active citizenship, which are characterized as non-formal education devices and promote the participation of young people in active life, constituting in fact one of the main and most widespread non-formal education settings. They represent one of the major "knots" in which institutional dimensions intertwine, democratic and representative processes, territorial and economic development, are carried out on a voluntary basis and are carefully designed to promote the personal and social development of the participants. Also in the school environment, especially in reference to technical school networks, the program or activity must be adapted to the student's learning environment and to the chosen study address. On this basis, companies in the most promising development sectors that are more responsive to the needs of new entrepreneurship can be identified in the territory (and involved as partners). Finally, ISFOL maintains that it is necessary to introduce elements of innovation (of process, of teaching methods, of training materials) to guarantee the success of a project idea. Stimulating the development of entrepreneurial, creative and innovative skills through greater interactivity of learning contexts and strengthening of the infrastructure dedicated to the transfer of knowledge is in fact considered by the European Union as one of the fundamental strategic issues for fostering excellence and development regional. A European dimension of entrepreneurial culture is urged on a continual basis, through community projects that encourage the exchange of experiences and ideas with other schools and with students from other countries, students and teachers must be encouraged to look beyond the confines of their own school environment.

At University level, the key actions promoted for entrepreneurial training are related to attitudes (spirit of initiative, risk appetite, self-efficacy, etc.), to skills (creativity, analytical skills, motivation, ability to relate, adaptability) and the knowledge (understanding the role of the entrepreneur, knowledge necessary to carry out entrepreneurial activities) are part of the University study plans and are the basis of internship and traineeship programs. Entrepreneurial education is not aimed solely at increasing the number of entrepreneurs but also at spreading the entrepreneurial culture in areas other than self-employment. The entrepreneurial mind-set develops for the course of study concerned and for belonging or not to national / international strategic plans. Full collaboration between schools, Universities and companies is being disseminated in the name of mentoring, coaching, internship, joint project development and company visits. Entrepreneurial education still remains of main relevance in the field of professional and economic training only, its development must be addressed in all study courses with the possibility of using them in an interdisciplinary way in order to guarantee the opportunity to learn and develop the appropriate entrepreneurial skills. The placement of a senior business mentor to implement support for academic spin-offs, which often struggle to cross, due to the lack of appropriate skills, the wide gap that separates technology from the market is spreading at University level. .





The main actors involved in this process of transmitting entrepreneurial knowledge are the smallest entrepreneurs and artisans who are the most dynamic and who are most exposed to invest in new products and processes. Many Universities have a curricular module in Creative Economy and Entrepreneurship, with the aim of strengthening entrepreneurial attitudes and skills, addressing the issue of recognition of entrepreneurial opportunities and their enhancement, focusing on the role played by contextual and subjective factors in the two phases. The methodology used is based on lectures, speeches by entrepreneurs and managers, classroom discussions, presentation of entrepreneurial cases by students. The final evaluation is based both on the results of a written test and on the quality of the presentation of entrepreneurial cases (written and oral). The debate on the fragility and fragmentation of the Italian entrepreneurial system dealing with the challenges of innovation and productive internationalization is inextricably intertwined with that relating to the role of human capital as a driver of growth. The elevation of the educational threshold of those who make company is therefore in itself a desirable goal aimed at enhancing both entrepreneurial attitudes and skills. Entrepreneurial education and training are set to constitute an effective tool especially for the development of entrepreneurship with high growth potential, in particular, the scientific-technological one and the one linked to the enhancement of cultural heritage and tourism resources, two areas in the which our country shows a clear abundance of opportunities to be exploited. Entrepreneurial training is not aimed solely at increasing the number of companies and, in particular, those with greater probability of success. It contributes to developing skills and attitudes which are associated, in addition to better employment opportunities, with a greater capacity to act in an entrepreneurial, innovative and creative manner, including for employees (intrapreneurship). Intervening on the side of entrepreneurial education at the University level creates the basis for removing the barriers that continue to hinder its birth and growth, channelling, also through innovative institutional solutions, more financial resources in favour of new entrepreneurial initiatives. The study on entrepreneurship produced by GEM (Global Entrepreneurship Monitor), in the 2018 report, illustrates that Italian entrepreneurship is capable to reward creativity and inventiveness, as well as the entrepreneurial and technical skills seen as the main factors that favour entrepreneurial activity. The experts expressed recommendations that can be summarized in 5 areas of intervention:

1. Finance

Experts suggest a reform of the entire financial sector, facilitating access to credit, creating accompanying tools dedicated to the development of new businesses and encouraging the venture capital market.

2. Training

The analysis shows the central role of entrepreneurship training at all levels of education, starting from primary school and in the STEM disciplines (Science, Technology, Engineering, Math).

3. Business model

Investments in R&D, internationalization and partnerships between companies are the keywords that highlight a necessary change in the Italian business model.





4. Regulations

The normative aspect in the Italian ecosystem weighs down the business system; experts suggest necessary points of intervention such as streamlining of procedures, reduction of the tax burden and incentives for innovative companies.

5. Policy

The Italian ecosystem needs an industrial policy that supports SMEs at district and sector level in a new logic of competitiveness and presence in international markets, massive infrastructure investments, especially in the South of the Country and more incisive public policies on technology transfer aimed at to stimulate the connections between University and business.

A sample of 10 Universities was chosen (3 from the North, 3 from the Centre, 3 from Southern Italy and the Pegaso Telematic University) to illustrate entrepreneurial training in higher education.

University of Torino

Course Title: “Diventare imprenditori”

Recipients: Students regularly studying at the University of Turin. New graduates, PhD students, PhDs and students from other Universities are admitted, compatibly with the number of places available.

Course objectives and expected results: The course is based on the following objective: present an overview of the topics with which the entrepreneur must confront, encourage participants to evaluate and discover their entrepreneurial attitudes, outlining the main junctions of the path that leads the student to become an entrepreneur and describe some characteristics of the entrepreneurial world.

Frequency: hours and/or CFU: Course attendance is mandatory. If you are not interested in taking the exam, you can also only obtain a certificate of attendance.

Program: The course is divided into a general part, a larger part, and a specific part, dedicated to the industrial, professional and commercial dynamics of the economic sectors. A meeting is dedicated to each of the following macro-themes:

1. Become entrepreneurs: do business with human capital
 - Business model and managerial skills
 - How to start: Finance for start-ups
 - Sector analysis and the economic sector (s) of reference



2. Legal issues for the entrepreneur: company law:

-Legal issues for the entrepreneur: the property

3. Management skills

4. Commercial skills

-Services for entrepreneurship in the area and testimonials from start uppers

■ University Milano Bicocca

Course Title: “Management e Imprenditorialità Sociale”

Recipients: The course is aimed at students regularly studying at the University

Course objectives and expected results: Provide essential elements of knowledge on the most recent theories of social entrepreneurship and on the main reference models at national and European level. Develop the planning, evaluation and management approaches and methodologies used in the planning of projects applicable in the context of social entrepreneurship understood as events and strategic management within the company.

Frequency: hours and/or CFU: 6 CFU.

Program: Management and social entrepreneurship:

- 1) Social entrepreneurship
- 2) Social entrepreneurship and corporate social responsibility
- 3) Management tools and organizational models
- 4) Manage, measure and balance economic and social value
- 5) Existing models of profit and non-profit (Italian social enterprise and international models)

The course includes: simulation of the identification of a project; simulation of the development of social enterprise projects; simulation of a project evaluation process.

■ University Cà Foscari Venezia

Course Title: “Imprenditorialità, Start Up e sviluppo”

Recipients: The course is aimed at students regularly enrolled at the University

Course objectives and expected results: The course is based on an assumption: entrepreneurship is not a coherent and structured "academic" discipline whose fundamental precepts can be transferred from the teacher to the learner in a series of traditional lessons. Entrepreneurship is rather a path of discovery based on actions. The course intends to be a moment of collective and collaborative experimentation: the students will be engaged for the entire duration of the module in the design and development of business ideas.





At the end of the course the students will have to present: 1. A prototype of the product/service and/or of its business model 2. The feedback of at least 5 potential stakeholders 3. A diary of the entrepreneur (individual). The teaching of the course intends to introduce the "entrepreneurial method" also in classroom management: students will require an active approach to the development of their own learning and to manage their own path of discovery in an independent, self-directed and creative way. The classroom meetings will be mainly devoted to the discussion of problems and solutions to the main problems encountered by the participants in the activities aimed at developing their entrepreneurial project. Lessons are foreseen based on the analysis of concrete cases and on the testimonies of entrepreneurs and operators.

Frequency: hours and/or CFU: Students are asked to report on the blog the business ideas on which they would like to test themselves. Attendance is mandatory. 6 CFU

Program: Classroom discussions will focus on four thematic areas, corresponding to the fundamental principles of the logic of performance:

1. Expectations, identities and resources
2. Risk and failure
3. Partnership and network
4. Surprises and pivoting

■ **University Sapienza Roma**

Course Title: "Valorizzazione e Comunicazione dell'Heritage per le Imprese e le Organizzazioni"

Recipients: Those with a secondary school diploma can participate in the training course. Students in possession of qualifications issued by foreign schools can access the Training Course by presenting a diploma accompanied by an official translation in Italian with legalization and declaration of value.

Course objectives and expected results: The Training Course aims to create a training course aimed at providing interdisciplinary knowledge and skills for the management of historical and cultural enhancement and communication projects promoted by companies and organizations in general.

Frequency: hours and/or CFU: 5 CFU

Program: The educational program will explore the main areas and tools for promoting Made in Italy heritage and entrepreneurial culture. The contemporary changes that affect the management and communication of the corporate identity, the main issues related to the design and operational management of historical archives, corporate museums and other heritage branding initiatives, in-depth analysis of specific company experiences and best practices, selected in the triple private, public and non-profit sphere.





■ University Teramo

Course Title: “Contamination Lab Unite”

Recipients: Students from the Abruzzo Universities who are regularly enrolled in three-year undergraduate, masters, single-cycle, foreign students (Erasmus), Masters, specialization schools, research doctorates and recent graduates can be admitted to the project.

Course objectives and expected results: The goal is to create places of impulse and contamination to implement new models of training and learning of entrepreneurial culture, supporting the development of projects with high innovative and technological content in synergy with the network of the territory.

Frequency: hours and/or CFU: N.A.

Program: The groups will follow a period of non-conventional entrepreneurial training based on the "Entrepreneurship Education" model, with professors, professional figures from the corporate world and experts of innovation in the Italian start-up scene. In the C-LAB Unite course the students will be supported not only by teachers, but also by entrepreneurs, start uppers, managers and innovation experts.

The training course will focus on:

- Start-up Fundamentals;
- Team Building;
- Brainstorming Ideas;
- Business Model & Lean Start-up Project Management;
- Business Planning;
- Fundraising;
- Digital Marketing & Communication.

■ University LUISS Roma

Course Title: “Digital Support”

Recipients: The course is dedicated in particular to those who have a three-year degree, or a master's degree in the following areas:

- Degrees in economic disciplines;
- Degrees in Management Engineering or Computer and Telecommunications Engineering;
- Degrees in Communication Sciences, Political Sciences, Philosophy, Letters;
- Degrees in Design and Visual Communication

Course objectives and expected results: It promotes the growth and renewal of the Marche production system by supporting the creation of innovative start-ups and promoting scientific research and technological innovation.



DIGITAL SUPPORT is an “operational” training course, aimed at creating a new class of professionals specialized in providing support to small businesses on marketing and digital issues in particular. The training course foresees, already within it.

Frequency: hours and/or CFU: N.A.

Program: The students, coordinated by a group of coaches/tutors, will design and implement ad hoc interventions based on the needs of the individual companies

- Corporate management.
- The business organization.
- The role of marketing in a digital context.
- The planning of a digital strategy in the context of business strategy.
- Social media serving SMEs.
- Content creation for a social media strategy.
- Use of the main online advertising tools (Facebook Ads and Google Ads).
- Budget management and optimization of digital marketing resources.
- Selling online: e-commerce management for SMEs.
- Control and monitoring tools at the service of web marketing.

■ University Salerno

Course Title: “Imprenditorialità e Innovazione”

Recipients: The master can access subjects with a master's degree, a specialist degree, an old-style degree and, above all, small and medium enterprises.

Course objectives and expected results: The master - aims to offer multidisciplinary skills to turn a good idea into a competitive business, into a successful business. The growth of small and medium-sized enterprises, so as to have greater skills to compete in a dynamic and constantly evolving market. The master aims to help local businesses by referring to innovation in the product they sell and, especially, on how they sell it

Frequency: hours and/or CFU: 1 year

Program: The master has two phases, one theoretical and the other practical, with experiences in the many partner companies of the initiative. We are aiming at the development of new businesses thanks to the training of professionals who work alongside emerging structures, accelerators, incubators, venture capital, start-ups.



The field of action is: technological skills, development of business models, strategies of aggregation of human resources and presentation of projects, in-depth analysis of the fields in which it is decided to operate, ability to create links between institutions, research institutions and companies.

■ **University Palermo**

Course Title: “Contamination Lab”

Recipients: All students enrolled in a UniPa degree course (whether three-year, specialist or single-cycle), a doctorate course, a Postgraduate School or a master's degree at the University of Palermo can participate in the selection.

Course objectives and expected results: The UniPA CLab aims to promote the culture of innovation and economic enterprise by supporting students in the development of innovation projects with a strong entrepreneurial vocation. In fact, during this training experience, students coming from different disciplines will work together to carry out joint projects, acquiring planning and organizational tools and skills.

Frequency: hours and/or CFU: The total number of hours of activity is set at 150

Program: The study program includes: a common basic glossary and to experiment with some transversal skills; a comparison with experts in the start-up and entrepreneurial innovation processes. The formation of working groups advocating innovation.

■ **University Pegaso**

Course Title: “La formazione imprenditoriale nel settore turistico”

Recipients: Secondary school diploma

Course objectives and expected results: Project wants to give a new paradigms of interactive teaching and delivery teaching. In concrete terms, the project is aimed at training those who intend to operate in the tourism sector, providing legal / economic skills for tourism operators.

Frequency: hours and/or CFU: 60 CFU

Program: Private Law, Consumer Law and Tourism Users Public Law, Environment and Cultural Heritage Institutions Political Economy GEOGRAPHY SOCIOLOGY OF TOURISM Management.

Furthermore for their continuity in time, national coverage and articulation on the various school levels, the following educational programs are mentioned.

- "Financial education in schools" - Project promoted by the Bank of Italy, inspired by a teaching based on competences and oriented to the development of behavioural skills of students to consciously make daily and longer-term financial choices.





The training programs for schools of all levels include: money and payment instruments, price stability, the financial system and, for secondary schools of second grade only, civil liability for road traffic. The training offer is supplemented by additional awareness-raising and play-related initiatives, particularly in the field of monetary circulation and monetary policy, which for some years have been an important component of collaboration in the field of financial culture between the MIUR and the Bank of Italy.

- "Economi @ scuola" - Project promoted by the Foundation for Financial Education and Savings on the conscious use of money and economic citizenship based on an innovative teaching methodology and on a value approach that values the economy and finance
- "Economic Legality" – Project promoted by the Guardia di Finanza oriented to explain the meaning of "economic legality" through concrete examples found in everyday life; to increase students' awareness of their role as citizens, holders of rights and duties that also affect the economic plan; to sensitize young people to the value of economic legality, to be appreciated not for fear of the relative sanctions, but for its usefulness, from an individual and social point of view; to illustrate the role and tasks of the Guardia di Finanza and to reflect on those clichés, present in some socio-cultural contexts, which project a distorted image of the value of "economic-financial security" and of the mission of the Corps.
- "Tax at school" – Project promoted by the Revenue Agency aimed at reinforcing the contributory culture, promoting tax legality and raising the awareness of tomorrow's tax payers about the importance of fiscally correct behavior as a method of citizen participation in the realization and operation of public services.

Furthermore, the MIUR, a few years ago, promoted the program called "Economic Education". The Ministry has signed with other public institutions and non-profit organizations, the Charter of Intent for "Economic Education", as an element of development and social growth "which includes, among its objectives, the definition of a strategy at national level for improve the financial culture of young people. To achieve this result, the signatories of the Charter of Intent have committed themselves to share the educational programs already in place and to favour the integration of education initiatives with economic citizenship and legality offered on the territory. The purpose is precisely that of promoting the interest, knowledge and awareness in young people of issues relating to the economy, finance and fiscal legality. With the "Impresa in Azione" program, over the past two school years, over 31,000 students across Italy have participated or are participating in this entrepreneurship education program within the Alternating School Work activities. Through this educational path, lasting 80/120 hours and typically held during one or two school years, the students of a class or an interclass group realize a mini-company, from the generation of the business idea to the marketing, acquiring the skills and the appropriate knowledge to enter the labour market and make career choices aimed at encouraging their entrepreneurial spirit, promotes creativity, the informed use of resources, courage and risk responsibility. The mini-company of students can operate on the market (albeit on a very small scale) through the sale of a product or the provision of a service.



With the support of a teacher coordinator of the school and one or more business experts from the local entrepreneurial / managerial world, the student groups work during the project to develop a product / service idea, create a Business Plan and a Production plan, define marketing strategies, manage a budget (social capital), sell their product during local trade shows or school events, up to the liquidation of the corresponding activity at the end of the school year. During the activities the students are assisted by a coordinating teacher who has the task of organizing the educational activities and stimulating the students to work with this new teaching methodology. The teacher is then assisted by an expert from the corporate and business world: a dream coach. The coach supports the class in all activities of the mini-company. Through his professional and personal experience he encourages and motivates, giving the right advice to the class to plan, find resources, face challenges and problems with lucidity, and help re-interpret any experience, including failures, in a constructive way. Due to its concreteness and closeness to reality, the mini-company represents a unique training experience for those who are part of it, effectively realizing that "contamination" of contents, methodologies and skills required both by the school and by the companies. Through a balance sheet of their abilities and interests, students apply to cover the managerial roles of a modern company, experiencing the main responsibilities, tasks and competences for the duration of the program. In this way, they have the opportunity to develop and enhance some transversal skills and abilities particularly appreciated by the world of work and considered today necessary for personal fulfilment, social integration, active citizenship and employment. In particular, with the mini-company device, higher education institutions operate with a close and facilitated connection with the most modern business realities, with the aim of stimulating among students:

- Personal attitudes and vocations: strengthening multidisciplinary and transversal skills for a better orientation to University study or to the world of professions.
- Creativity, innovative spirit and problem solving: to increase some useful skills as a basis for facing the most complex organizational problems and the "real" obstacles that the world of work and the economic system will present to them in the future
- The ability to work in groups: developing adaptability, managing emotions and accepting diversity, attitudes to cooperation and awareness of levels of responsibility and autonomy • The use of modern technologies and foreign languages: consolidate some fundamental knowledge in work contexts and provide a real field of application to the theoretical disciplines studied at school • Relations with your community: stimulate students to identify possible opportunities for involvement and support for their company by locally-based public and private institutions (the stakeholder map). • Link between school and the world of work: bringing out vocations, increasing skills, building cultural and professional premises so that young people can develop a sense of personal autonomy and a working alternative. • Reflection on Corporate Social Responsibility: encouraging the acquisition of the values of ethics, environmental and social sustainability. The educational path of the mini-company is characterized by the parallel presence of different training methods that integrate with each other:





1- Learning by doing: managing a business is an activity that is "learned by doing", experimenting in the educational environment the different managerial roles and the main responsibilities and actions, realizing specific strategies to operate successfully in the market and carrying out practical activities. The dynamics that develop during this process prove to be powerful accelerators of learning.

2- Relational skills: Like all learning experiences that enhance the group dimension, "Enterprise in Action" encourages team spirit and cooperation among students. The course of the program requires strong interpersonal communication between the members of the student company. On the one hand the individual student better understands his personal and professional identity, verifies his own inclinations also in relation to the ability to establish positive relationships with the group to which he belongs; on the other, he experiments with group dynamics, cooperative learning and the need to adapt to the reference organizational culture.

In synergy with higher education institutions, Italian Universities promote and support training and orientation activities for students enrolled in undergraduate and postgraduate courses. Training and orientation internships are aimed at obtaining an academic qualification and, therefore, they form an integral part of the student's career. They are included in the University's academic plan, and can be compulsory or optional, allowing the acquisition of educational credits. The number of credits assigned to curricular internships is indicated in the Statutory Study Plan. Each University establishes agreements with various institutions and companies of high entrepreneurial level where students can carry out their training. In addition to the curricular internship there are extracurricular training programs. The "Youth Guarantee" Program was born in 2013, is aimed at young people up to 29 years old and aims to increase geographical or transnational mobility. The duration is 6 months, 12 months in case of disability.

"Your first Eures job" is a program dedicated to young people between 18 and 35 years of age looking for a job opportunity, an internship or an apprenticeship in another European country. The Ministry of Public Education has signed an agreement with the Ministry of Foreign Affairs and International Cooperation, the Ministry of the Economy and Finance; the Ministry of Economic Development, the Universities, the CRUI Foundation, the Court of Auditors, Assocamerestero, the State Property Agency, the Italian Space Agency, the Italian Aerospace Research Centre, the National Civil Aviation Authority, Farmindustria for the activation of curricular internships at Italian diplomatic missions abroad for University students. The MAECI – MIUR internship program is aimed at integrating the University training course and allowing the student to acquire a direct and concrete knowledge of the institutional activities carried out by MAECI within the framework of its international activities. The recipients are students from all the Universities who are enrolled in a master's degree or single-cycle degree course. The CRUI Foundation internships are based on joint Programs with prestigious institutions and institutions interested in hosting young University students for an on-the-job training period. From 2001, the year of the first Program with the Ministry of Foreign Affairs, over 18,000 jobs were offered of internships, presented in more than 150 tenders, with a wide variety of choices for the candidates, both as regards the geographical location of the place of training, both for the different types of activities to be performed, as well as for the diversified skills required.



Another partnership program with a strong drive towards the internationalization of Higher Education Institutions with an exceptional investment in individual learning mobility is ERASMUS +. The program introduces innovations that increase opportunities for students to live a study and internship experience abroad, extending this latter activity also to the graduate. It is possible to carry out mobility for study abroad, from 3 to 12 months, at a Higher Education Institute in one of the countries participating in the Program starting from the second year of study; in the case of single-cycle study programs, students can take advantage of a mobility period of up to 24 months.

Furthermore for the two-year period 2018-2020 the European Union has launched the initiative "Digital Opportunity Traineeships"; this intervention is aimed at training young students and / or new graduates, coming from the Higher Education sector, through an internship experience in the digital environment (e.g. application development, software, scripts, websites, data analysis, IT security, cloud computing, quantum and artificial intelligence, etc.). The "Digital Opportunity Traineeships" project is funded through the Horizon 2020 Program and is implemented through the Erasmus + program, therefore implemented according to the Erasmus + rules. In addition to the Erasmus project for University students, the European Union offers the "Leonardo da Vinci" mobility program. As part of Erasmus mobility for internships (Erasmus placement) the University student can carry out an internship abroad with companies, institutions, research and training centres operating in another EU country or participating in the Program. The Erasmus placement is part of the training agreement signed between the student, the University of origin and the host society. The Leonardo da Vinci Project, also now included in the Erasmus Plus program, it allows you to receive a financial contribution for the performance of work experience in European foreign companies. Participation is not subject to age limits. The internship has a longer duration than that of Erasmus placement (between 22 and 26 weeks) and this program aims to encourage the learning of languages and to acquire core specific knowledge and skills.

The "Garanzia Giovani" program includes a series of actions for the definition of paths aimed at job placement, internship experiences, vocational training and support for starting entrepreneurial initiatives and self-employment. The young person who signs up for the "Youth Guarantee" is placed in an integrated information system for the entire national territory, in which his path is recorded, which will be accessible to all the subjects qualified to provide the services provided by the system, such as the employment centres and authorized agencies. The criteria of contestability of young people among the authorized and rewarding structures for the most efficient ones are introduced, adopting an innovative system of standard costs. At the central level it is then possible to monitor in real time the actions and the path of the young person who has registered. The Ministry of Labour, the National Agency for Active Labour Policies and the Confederation of Italian manufacturing industry have started a collaboration to support the actions of the Government, the Regions and the public administrations involved in the implementation of the national Youth Guarantee Program 2017 - 2020 ". This is to promote the professional integration and social inclusion of young people. The agreement also provides for the activation of actions to promote support for work. Operators of the subjects accredited / authorized to work at regional level help in a practical way every young person who is looking for a job. Such as Identifying the most suitable job offers and following the young person in the candidacy, selection, interview phase up to the job placement.





The measures envisaged by the plan include the recruitment of members through the apprenticeship contract.

This type of placement can be applied to young people between the ages of 15 and 29, based on the 3 types of apprenticeships that can be activated, namely: Apprenticeship for qualification and professional diploma; Apprenticeship or professional contract; Apprenticeship for High Education and Research. The minimum duration of the Apprenticeship training period is 6 months. Candidates who take part in the Youth Guarantee may be offered traineeships lasting 6 months (12 months in the case of disabled or disadvantaged). Internships can also take place abroad, in national and transnational geographical mobility. Trainees are granted compensation. If the interns are then hired with a subordinate employment relationship within 60 days of completing the internship, the company receives an economic incentive. Young people who want to become entrepreneurs can start their own business and get personalized assistance in all phases of the business start-up, from start-ups to access to credit and microcredit tools, to the use of incentives. In fact, they are inserted in a targeted path characterized by a phase of specialized training and consulting assistance, and by a tutoring phase for administrative, legal and financial management to access financial instruments. The Youth Guarantee program makes use of the partnership of associations and business groups.

In addition to this ministerial training and apprenticeship program, there are specific national or international training programs of an entrepreneurial nature, carried out by individual Universities. The following are sample searches:

■ University Bologna

Title of the project that includes the internship: “Green eye”

Recipients: Individuals who have set up a company for less than 3 years or intend to start an activity based on a solid business project

Duration: From 1 to 6 months

Program: The Green EYE project focuses in particular on smart building, green tech, waste management, environmental impact reduction, as well as evaluating new potential entrepreneurs (New Entrepreneurs) and experienced host entrepreneurs (Host Entrepreneur) related to any other economic sector or activity.

■ University Pavia

Title of the project that includes the internship: “ Master’s Degrees PLUS”

Recipients: Graduate students

Duration: 12 months





Program: Experience in the company and for the purpose of preparing the thesis. Unlike the normal curricular internships provided in the 'traditional' Degree Courses, the activity in the company that the "PLUS" graduate student will carry out is an integral part of the course of study and serves to acquire professional skills consistent with the educational path and defined in close collaboration with the professors of the University of Pavia.

■ University Federico II Napoli

Title of the project that includes the internship: "Imparare l'imprenditorialità"

Recipients: Students of the Polytechnic School of Basic Sciences

Duration: From 2 to 5 months

Program: Internships aimed at training courses aimed at career orientation". The Learn Entrepreneurship project promoted by the Polytechnic School and the Basic Sciences and by the Order of Engineers of the Province of Naples, provides students of the Master's Degree Courses of the Polytechnic School and of the Basic Sciences with multiple opportunities for conducting business internships.

■ University Bergamo

Title of the project that includes the internship: "Starcup"

Recipients: University students

Duration: 5 months

Program: Training project and accompaniment of new ideas which, among its lines, provides for the consolidation of the relationship between the University and the economic-industrial fabric of the territory through the strengthening of research enhancement and technology transfer activities to support start-ups.

University Messina

Title of the project that includes the internship: "Restartup"

Recipients: Students and graduates

Duration: 3 months

Program: Objective: to train young neo-entrepreneurs, aspiring entrepreneurs or leaders of a network of companies under 40 who want to start a business in the sectors: agriculture, breeding, forest management, agri-food, crafts, tourism and culture, with the aim of favouring the enhancement, promotion and productive and sustainable development of the territories along the Italian paths.



■ University Urbino

Title of the project that includes the internship: "Temporary export manager 2019"

Recipients: Trainees, who have attained the Bachelor's Degree, the Master's Degree Acquire specialized skills in trade and international marketing and operating as Junior Export Manager with the task of developing business relationships in foreign countries, according to the internationalization strategy defined by the hosting company and with constant support from a senior consultant and a Chamber of Commerce manager or the Master's Degree

Duration: 4 months

Program: Acquire specialized skills in trade and international marketing and operating as Junior Export Manager with the task of developing business relationships in foreign countries, according to the internationalization strategy defined by the hosting company and with constant support from a senior consultant and a Chamber of Commerce manager.

■ University Verona

Title of the project that includes the internship: "ict digital ambassador"

Recipients: University students and / or graduates

Duration: 4 months

Program: The joint project between the University of Verona and the Verona Chamber of Commerce aims to support the micro, small and medium enterprises of the main supply chains in the territory in the digital transformation and in the adoption of business technologies 4.0 The project is aimed at to carry out an intervention in favour of all economic sectors, from agriculture, to industry, to crafts, to the tertiary sector, to services and smaller companies, with the creation of information points and assistance to businesses in individual territories on digitization processes.

■ University Cassino

Title of the project that includes the internship: "Tirocinio museo facile nuovi apparati comunicativi per il museo dell'abbazia di montecassino"

Recipients: Students of three-year and master degree courses in Literature and Communication Sciences

Duration: 9 months

Program: The museum and the public Museum audience analysis: traditional and innovative survey techniques Visual communication and photography Coordinated image and graphics in communication equipment



■ **University Varese**

Title of the project that includes the internship: "International Practicum"

Recipients: Graduate student in Global Entrepreneurship, Economics and Management

Duration: 10 months

Program: The project aims at reinforcing in the students involved the ability to apply the theoretical knowledge learned in the course of study in concrete planning, through teamwork, and on the other it allows students and companies to deal with different managerial approaches and corporate cultures by developing approaches of problem solving in a cross-cultural management perspective. Finally, the inclusion in entrepreneurial realities with a strong international vocation aims to stimulate students' vocation for international entrepreneurship, qualifying itself as an entrepreneurial education path strongly consistent with the guidelines promoted by the European Union and with the international vocation of our University and Department of Economics

■ **University Brescia**

Title of the project that includes the internship: "Donne, Tecnologia, Imprenditorialità"

Recipients: Female students enrolled in degree courses of the Faculties of Economics, Law, Engineering and Medicine and Surgery

Duration: 12 months

Program: The project has set itself some strategic objectives: to ensure that female students who attend University courses in traditionally male faculties can aspire to positions of responsibility in companies; helping companies to increase a managerial culture capable of enhancing the "gender"; to create ever-continuous partnerships with the State University of Brescia and with the Equal Opportunities Committee to be able to contribute to the employment orientation of young women who undertake historically male pathways in which they are underrepresented; women entrepreneurs in the social and cultural life of the city

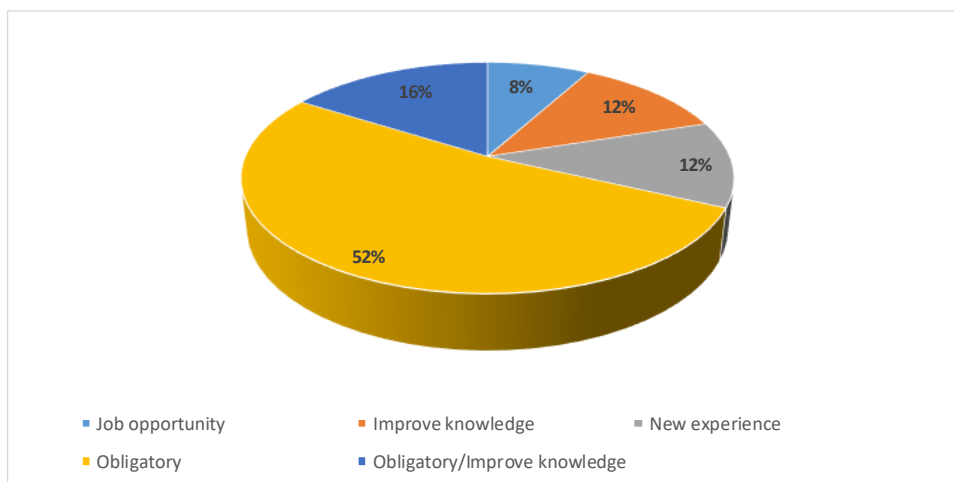
4. National interviews synthesis:

In the first section of this report, we have briefly described the main characteristics of the three samples of the interviews. In the remainder of this section we will instead focus on describing the results of the survey conducted on the field, with particular reference to the previous experiences of students, companies and staff and the indications that can be drawn for a better structuring of a internship program aimed at improving entrepreneurial attitudes according to the enter-mode model.



4.1 Internships: experience and problems

This section is basically dedicated to the previous internship experiences made by the interviewed students. First of all we need to focus our analysis on the motivations and expectations that the students had before starting the internship-training course. In the first part of the report, when describing the survey sample, we pointed out that 21 of the 25 students were obliged to take part in the internship program, as foreseen by their study plan and that their participation, in the same proportions, was unpaid. This circumstance is reflected in the analysis of the reasons that led them to participate in the internship program. As shown in the following chart, more than half of the students (52%) declared that they had participated in the internship program exclusively because it represented an obligation in order to obtain the academic degree for which they were studying. In addition, 16% of respondents said that compulsoriness was part of their motivation, along with the completion of their training. Only 8% of students felt that participation in the internship program could be an opportunity to improve their access to the labour market. The remaining 24%, equally divided, believed that it could be an opportunity to improve their hard and soft skills.



With reference to the duration of the internship program in which the students interviewed participated and to the educational credits they obtained, the discussion becomes slightly more complicated and may appear to lack internal consistency. With reference to the credits accrued through participation in the internship, as shown in the following table, the sample appears extremely fragmented. Some students (essentially those who took part in the program on a voluntary basis) did not receive any credit, while others received up to 15 credits. This variability is essentially due to the difference in the study plans that, in some cases, reserve fundamental importance to the work experience as a part of the training path. In other cases, instead, in the context of the overall student training, the internship becomes less important than exams.



Credits (ECTS)	N.	%
0	4	16%
3	5	20%
4	6	24%
5	3	12%
6	2	8%
9	3	12%
15	2	8%
Total	25	100%

With reference to the duration of the internship program, as previously mentioned, it is possible to find a consistency with respect to the educational credits achieved only with reference to the hours, but not to the days or months. The agreements between Universities and companies allow, in fact, considerable flexibility in the relationship between students and companies with reference to the days and months of duration of the internship programs. This is why the attempt to find homogeneity and consistency between months, days, hours employed and the number of credits obtained can be extremely complex. However, with the following tables we have tried to cluster the duration of internships in order to provide a useful synthesis tool, more than anything else, to understand the needs of students and companies in terms of the possibility of carrying out training programs.

Hours	N.	%	Days	N.	%	Months	N.	%
24	5	20%	<10 days	8	32%	<1 month	15	60%
32	6	24%	10<days<1	9	36%	1 month	3	12%
40	3	12%	20<days<3	4	16%	2<months<	4	16%
48	2	8%	40+	4	16%	4+	3	12%
72	3	12%	Total	25	100%	Total	25	100%
120	2	8%						
200+	4	16%						
Total	25	100%						

It is clearly evident that the duration of the internship programs is intimately connected with the expectations deriving from the participation of students in such programs. Especially considering that some of the students, who were part of the sample, are already working students, it is clear that an internship program lasting 1 month or less (most of the interviews found this type of duration) could not generate high expectations. Mostly, students had the expectation of testing (at least a part of) the knowledge acquired in their study path in the work practice. Only a residual part of the interviews allowed us to find different expectations and in particular regarding an improvement in group work skills or a possible job opportunity to be seized after graduation.

Finally, two students in particular pointed out that their expectations regarding the internship program were rather low (as shown in the following table).

Expectations	N.	%
Specific skills through practice	18	72%
Group work/ human relations	3	12%
Job opportunity	2	8%
Low expectation	2	8%
Total	25	100%



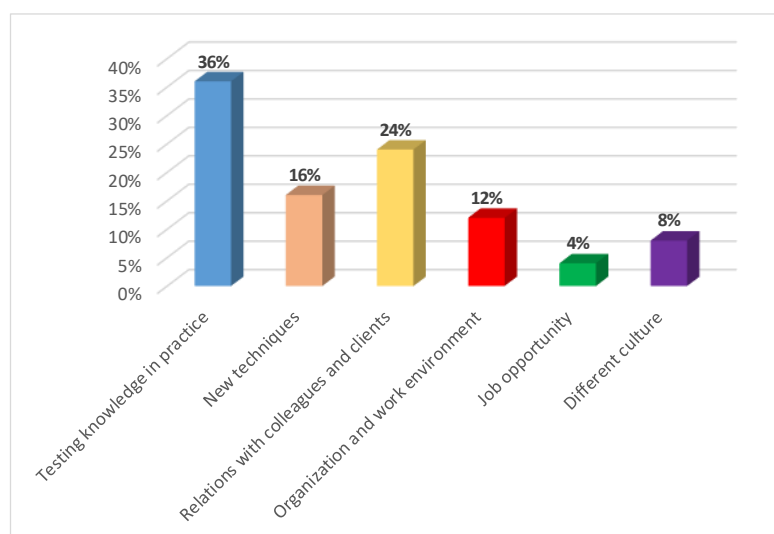
This circumstance helps us in the correct reading of the following table that shows the results of the questionnaires in terms of measuring the satisfaction of expectations with regard to internship programs. It is clear that the high number of students satisfied with their experience is also the result of the low expectation in terms of training that they had before participating in this training program.

Satisfaction of expectations	N.	%
Satisfied	21	84%
Not Fully satisfied	2	8%
Dissatisfied	2	8%
Total	25	100%

The results just mentioned find their internal consistency in the following tables. First of all, with reference to the focus (knowledge based vs. soft skills based) of their experiences, it clearly emerges that transversal skills have been a completely marginal part of the internship experiences that, instead, have had in most cases a focalization of specific practices.

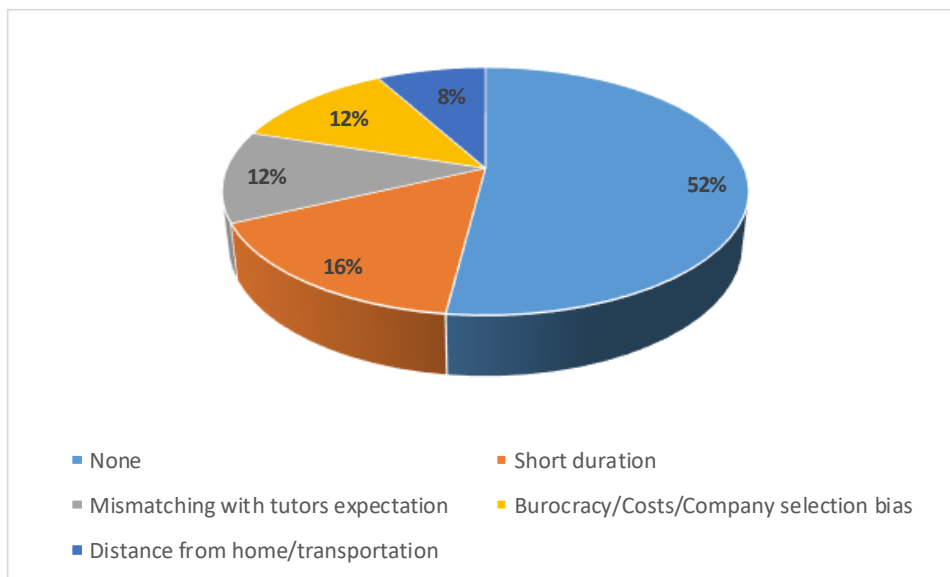
Internship Focus	N.	%
Knowledge	15	60%
Sfot skills	7	28%
Both	3	12%
Total	25	100%

To complete the section concerning previous experiences made by the interviewed students, it was asked to indicate the main positive and negative aspects that they found. With reference to the positive aspects (shown in the graph below), it is evident that the actual possibility of finding in practice what was studied during their University career represents the main element of satisfaction for about one third of the students. The relationships with colleagues and customers, therefore elements more typically coherent with the development of transversal competences, represent nevertheless the second element of satisfaction for the interviewed students (24%). The results of the analysis are completed by the acquisition of new technical skills, an adequate organizational level, the possibility of being placed in the workplace and the possibility of interacting with different cultures (an element substantially found in internships carried out abroad).





Finally, most of the students (52%) did not know how to indicate a negative element regarding their internship experience. However, if we focus on the remaining 48%, which instead indicated elements of potential improvement, it is possible to formulate some interesting reflections. First, 16% of students pointed out that the duration of the internship was too short. This element makes us understand that students have found an unexpressed potential of the experience they have done. In essence they perceived that the internship could have guaranteed them an important training moment, but it was not possible due to the reduced timing. Moreover, 12% of the students showed a mismatching between their abilities and the expectations of the tutor. This data should not be interpreted exclusively in a unidirectional way. In fact, not only there have been cases in which tutors expected more practical skills from students, but, in other cases, some working students found themselves carrying out an internship structured on a training program too simple for them. Apart from logistics, bureaucracy, cost and transport problems, which have also represented a rather redundant element in the interviews that have been conducted, it is necessary to reflect on the possibility of a bias concerning the selection of companies. Some students have in fact highlighted how it would have been necessary to have more information about the company where they would have done the internship and about the program of internship that they were supposed to perform in order to avoid an error in the selection of the company that did not reflect their training needs.



4.2 Competences and Enter.Mode

The questionnaires administered to companies and staff had the further objective of measuring which entrepreneurial skills are perceived as most important and whether and how it is possible to develop them through an internship program. For this reason, 15 types of skills have been selected, divided into three categories: "ideas and opportunity", "resources" and "into action".



With reference to the first set of skills, called "ideas and opportunity", the questionnaires showed that vision and opportunity represent the most important skills (both have achieved an average score of 4.53). In particular, 11 subjects out of 17 gave this competence a value of 5. Contrary to what has recently been affirmed in the scientific literature that is increasingly placing the logic of economic, social and environmental sustainability at the centre of the entrepreneurial mind-set, this type of competence was found to be the least important.

	Ideas and Opportunity									
	Opportunity		Creativity		Vision		Valuing ideas		Ethical and Sustainable Thinking	
Score	N	%	N	%	N	%	N	%	N	%
5	9	53%	10	59%	11	65%	8	47%	6	35%
4	8	47%	4	24%	5	29%	4	24%	7	41%
3	0	0%	3	18%	0	0%	5	29%	4	24%
2	0	0%	0	0%	1	6%	0	0%	0	0%
1	0	0%	0	0%	0	0%	0	0%	0	0%
Total	17	100%	17	100%	17	100%	17	100%	17	100%
Average score	4,53		4,41		4,53		4,18		4,12	

With reference instead to the second set of skills, that concerning resources, it seems that "mobilising others" represents the most important competence (average score equal to 4.53). Self-awareness and self-efficacy, with an average score of 4.12, represents the less important competence (only 4 out of 17 respondents gave a score of 5 to this type of competence).

	Resources									
	Self-awareness and self-efficacy		Motivation and perseverance		Mobilising resources		Financial and economic literacy		Mobilising others	
Score	N	%	N	%	N	%	N	%	N	%
5	4	24%	10	59%	6	35%	10	59%	10	59%
4	12	71%	3	18%	8	47%	4	24%	6	35%
3	0	0%	4	24%	3	18%	1	6%	1	6%
2	1	6%	0	0%	0	0%	2	12%	0	0%
1	0	0%	0	0%	0	0%	0	0%	0	0%
Total	17	100%	17	100%	17	100%	17	100%	17	100%
Average score	4,12		4,35		4,18		4,29		4,53	

The last group of replies concerned the "into action" section. Surprisingly, the ability to take initiative and to plan and manage, not only represent those considered of minor importance in this section, but for the entire structuring of an entrepreneurial internship program. On the contrary, the ability to improve through experience is considered the most important capacity for this type of skills and has found a value similar to the highest assigned to the most important skills of the other sections.



Score	Into Action									
	Taking initiative		Planning and management		Coping with uncertainty, ambiguity and risk		Working with others		Learning through experience	
	N	%	N	%	N	%	N	%	N	%
5	7	41%	7	41%	10	59%	9	53%	12	71%
4	5	29%	5	29%	4	24%	6	35%	4	24%
3	3	18%	4	24%	2	12%	2	12%	0	0%
2	1	6%	1	6%	1	6%	0	0%	0	0%
1	1	6%	0	0%	0	0%	0	0%	1	6%
Total	17	100%	17	100%	17	100%	17	100%	17	100%
Average score	3,94		4,06		4,35		4,41		4,53	

When it comes to talking about the possibility of improving these skills through an internship program, even more important considerations emerge. In particular, it is evident that there appears to be a dystonia between the abilities considered most important and the possibility of implementing them during a training program. In substances the skills that have had a higher evaluation would seem to be the most difficult to improve during the internship and, conversely, it would seem easier to improve less important entrepreneurial skills. The ability to act in a sustainable way which was the less important competence according to the valuation of competences described above, become the easiest to be improved through an internship program. On the contrary, the long-term vision that was among the most important from the point of view of evaluation turns out to be more complex to implement during the internship program.

	Ideas and Opportunity				
	Opportunity	Creativity	Vision	Valuing ideas	Ethical and Sustainable Thinking
Yes	8	7	6	9	12
No	6	5	8	5	3
Not Sure	1	3	1	1	0
Not Available	2	2	2	2	2
Total	17	17	17	17	17

The same considerations made previously with reference to the vision, can be repeated for the capacity of mobilising others which would seem to be the most difficult to implement in the internship program. Similarly, the ability to increase self-awareness and self-efficacy would be the simplest to implement.



	Resources				
	Self-awareness and self-efficacy	Motivation and perseverance	Mobilising resources	Financial and economic literacy	Mobilising others
Yes	10	7	6	8	5
No	5	7	7	7	7
Not Sure	0	1	2	0	3
Not Available	2	2	2	2	2
Total	17	17	17	17	17

A similar reasoning done previously for other skills can be borrowed with reference to the ability to learn from one's mistakes. With reference to the evaluation, this assumed a decisive importance, whereas when it came to assessing the possibility of increasing this capacity through an internship program, the interviewees pointed out that it should be considered rather difficult.

	Into Action				
	Taking initiative	Planning and management	Coping with uncertainty, ambiguity and risk	Working with others	Learning through experience
Yes	4	7	5	10	6
No	10	8	9	4	8
Not Sure	1	0	1	1	1
Not Available	2	2	2	2	2
Total	17	17	17	17	17

In order to provide a summary of the results of the analysis carried out with regard to entrepreneurial skills, below we present a table in which the competences are sorted by value and in correspondence with this the number of questionnaires that highlighted the possibility of implement them in an internship program.



Competences	Score	Possibility of being developed
Opportunity	4,53	8
Vision	4,53	6
Mobilising others	4,53	5
Learning through experience	4,53	6
Creativity	4,41	7
Working with others	4,41	10
Motivation and perseverance	4,35	7
Coping with uncertainty, ambiguity and risk	4,35	5
Financial and economic literacy	4,29	8
Valuing ideas	4,18	9
Mobilising resources	4,18	6
Ethical and Sustainable Thinking	4,12	12
Self-awareness and self-efficacy	4,12	10
Planning and management	4,06	7
Taking initiative	3,94	4

4.3 Suggested characteristics of an internship program for HEI students

While the first paragraph of the fourth section was developed essentially on the basis of the indications provided by the questionnaires submitted to students and the second was developed on the basis of the questionnaires submitted to companies and HEIs staff, this paragraph has as its source all 42 questionnaires that our research group has managed.

The first element of analysis is the duration of the internship. With reference to this topic, in order to bring all the answers of companies, staff and students back to the same scale, we had the foresight to ask the respondents a duration of the program assuming a full time employment of 6 hours a day. With reference to the answers provided by the students, it should be noted that none of these responded by indicating duration of less than one month full time and that more than half of these indicated a desired duration of more than one month. When it comes to companies and staff opinion, the duration that is considered appropriate for the implementation of an entrepreneurial internship increases significantly. The majority of companies and HEIs staff consider a period of 8 months and upwards to be necessary.



Desired duration	Students		Companies & Staff	
	N.	%	N.	%
1 month	10	40%	2	12%
2 months	5	20%	0	0%
3 months	2	8%	2	12%
4 months	4	16%	0	0%
5 months	1	4%	1	6%
6 months	2	8%	2	12%
8 months+	1	4%	10	59%
Total	25	100%	17	100%

Thinking about the process of selecting students and companies as a market where supply and demand need to match each other, students and businesses were asked to indicate on the basis of which features they would choose their counterpart for an entrepreneurial internship.

Most of the students responded by expressing the need for the subject of the internship to be as close as possible to their job ambitions or even that the company could then represent for them a future job opportunity after graduation. Here too, as previously mentioned, the need emerged for the internship to take place at a facility not too far from home. Finally, other key elements in the selection were the reputation of the company, its organization and the skills of the tutor.

How Students would choose companies	N.	%
Matching with work objectives / job opportunity	5	20%
Tutor skills and collaboration	4	16%
Organization and facilities	4	16%
Distance from house	5	20%
Leading company	4	16%
Direct relation and suggestion by previous intern	3	12%
Total	25	100%

When it comes to verify what emerges from the interviews with companies and HEIs staff, some elements of substantial importance can be noticed. First of all, a part of the interviewees did not interpret the question correctly and provided indications about the selection process and not about the characteristics of the student to be selected. However this element is useful because it enriches the analysis of a further aspect. In fact, some companies have shown that in selecting the candidates to carry out an entrepreneurial internship program, they would have considered not only the study path, but also some less focused skills such as: knowledge of languages, proactiveness, risk taking, communication skills, ability to work in a group, ambition, commitment, curiosity and previous work experience (not only related to the company core business) but also commitment to activities promoted by charities and associations.



It is evident that this kind of ability is not always deducible from the curriculum vitae and therefore many companies have highlighted the need to activate a selection process that integrates the examination of the curriculum with a business case, a questionnaire and a face-to-face interview.

A direct consequence of what has been described with reference to the selection criteria is shown in the following table, which sets out the characteristics that students should have to participate in an entrepreneurial training program.

Students requirements	Students		Companies & Staff	
	N.	%	N.	%
Ambition and commitment	5	20%	5	29%
Empaty, courtesy and communication	4	16%	3	18%
Specific knowledge	9	36%	1	6%
Lenguages and softwares	3	12%	3	18%
Creativity and intuition	0	0%	3	18%
no	4	16%	2	12%
Total	25	100%	17	100%

There are three further elements that have been investigated with reference to the planning of the entrepreneurial internship, but have been addressed only to companies and HEIs staff. We refer to the main challenges underlying the entrepreneurial internship program, the characteristics of its implementation and the characteristics of the mentors.

With reference to the first point, the main challenges underlying the entrepreneurial internship program that were surveyed in the questionnaire are related to the following elements:

- Autonomy (ask questions only one or twice a day – mentor has to give only guidelines)
- Stress environment
- Problem solving approach
- Test different tasks and discuss results
- Work with limited resources
- Mentors has to trust in students capabilities
- Fit between company and students aims

With reference to the main characteristics with which to implement an entrepreneurial training program, ensuring that the 15 competences discussed in the previous section will be improved, the following elements emerged from the questionnaires:

- Use of business case
- Gradual approach to challenging problems
- Focus on small tasks
- Defining deadlines
- Scheduled moment of results (appraisal) discussion
- Make sure that the student has an overall view of the business operation
- Give responsibility of individual tasks
- Share responsibility of group tasks
- Frequent brain storming



- Peaceful working environment
- Share the evaluation method with the tutor
- Employ SWOT analysis
- Take part to socially responsible initiatives
- Celebrate tiny winnings and discuss failures

Finally, with reference to the characteristics of the mentor, the interviews highlighted a series of characteristics that can be summarized as follows:

- Generous
- Focused
- Competent
- Oriented to the development of the student's career
- Charismatic
- High communication skills
- Experience
- Open-mindedness
- Highly motivational

In essence, the characteristics of the mentor must, as one of the interviewees appropriately pointed out, coincide with the entrepreneurial skills that the internship program would intend to develop in the student.

In order to better test the results of the enter-mode entrepreneurial internship program, the use of a digital game is envisaged. The survey sample was therefore interviewed also with reference to this technological aid. The following table shows the results of interviews with students regarding the elements of the digital game that most would have the ability to motivate them. The possibility of collaborating with colleagues and having instant feedback on their performance would seem to be the dominant motivational elements. Challenges, scores and competition with colleagues would seem to be less relevant.



	Challenges		Levels		Instant feedback		Scores	
Scores	N	%	N	%	N	%	N	%
5	6	24%	8	32%	10	40%	5	20%
4	3	12%	7	28%	7	28%	8	32%
3	9	36%	8	32%	6	24%	7	28%
2	3	12%	0	0%	2	8%	1	4%
1	4	16%	2	8%	0	0%	4	16%
Total	25	100%	25	100%	25	100%	25	100%
Mean	3,16		3,76		4,00		3,36	
Variance	1,89		1,36		1,00		1,74	

	Rewards		Leaderboards		Competition		Collaboration	
Scores	N	%	N	%	N	%	N	%
5	12	48%	5	20%	7	28%	17	68%
4	5	20%	14	56%	6	24%	6	24%
3	5	20%	3	12%	6	24%	1	4%
2	0	0%	3	12%	1	4%	0	0%
1	3	12%	0	0%	5	20%	1	4%
Total	25	100%	25	100%	25	100%	25	100%
Mean	3,92		3,84		3,36		4,52	
Variance	1,83		0,81		2,16		0,84	

From the point of view of previous experiences in the use of digital games, it is evident that only 11 of the 25 students interviewed actually had the opportunity to use them. Among the elements of satisfaction that they found in participating in digital games, the students highlighted: the possibility of structuring a strategy, the possibility of improving memory and concentration, the possibility of developing the logical approach and the possibility of interacting and collaborate with other players. The elements that have been a cause for disappointment in participating in digital educational games are mainly represented by repetitiveness, technical problems and possible dependence. Finally, from the point of view of style, in the comparison between minimal or realistic games, it clearly emerged that the latter are clearly preferable compared to the former, especially if coloured and extremely detailed. With reference to the same topic, no answer was provided by the companies (all declared that they had never used this vehicle as a working tool).

5. Conclusion

In light of what is analysed in this report, it is possible to deduce a series of final considerations. With regard to programs aimed at improving entrepreneurial attitudes, it must be said that over the years, Italy has developed a considerable amount of programs aimed at encouraging entrepreneurship. In the second and third section of the report, in fact, many programs have been examined, promoted by public and private bodies, which have the objective of supporting university education with tools that can determine the birth of entrepreneurial activities.



In the academic field we have been able to provide numerous examples of study programs aimed at increasing entrepreneurial skills also through internship activities. It is quite clear, however, that such programs are not having a concrete effect on the entrepreneurship of Italians; therefore the Enter.mode program assumes even greater importance to the extent that it could go to fill that gap that appears to exist in the transition between university education and the placement.

To reach this goal it is undeniable that it will be necessary to take inspiration from the results of the analyses carried out in this phase that have revealed a series of challenging issues that the project cannot ignore if we want it to be effective. First of all, a choice must be made regarding the generalizability of the model. If the partnership wants to implement a valid internship model in a general sense, it should keep in mind that the model will have to adapt first to the different types of disciplines. It is quite clear that it will be very complex to develop a model that is transversally valid for educationalists as well as for engineers. Likewise, it will be necessary to take into account any characteristics of the subjects that will test the model. On the students' side, it should be taken into account that there are students with particular needs that derive from their condition (e.g. gender differences, disabilities, etc.). Furthermore it is undeniable that working students could be characterized by different needs compared to students of a lower age who naturally could have more time to devote to the project. Therefore it could be imagined to exclude working students, even if in the case of Pegaso they represent a substantial part of the catchment area. In the structuring of the program, from the point of view of duration, for example, it will not be possible to disregard the fact that the obligatory internships (i.e. those provided for by the study plans) are characterized by a predetermined number of hours which changes according to the individual plans of study. Tourism science students can participate in mandatory internship programs lasting up to 24 hours, but training programs, on the other hand, can go up to 120 hours. Therefore the advice would be to focus first of all on students who have to practice voluntary and non-compulsory internships, so that time may not be an obstacle in defining the program. In addition, many students and businesses show that their experience requires a longer period so that entrepreneurial skills can be increased and this will be very difficult to reconcile with the generalizability of the model and with the economic and transport needs that many students have highlighted.

In addition, in the selection of students, certain attitudinal elements (ambition, dedication, proactivity, etc.) must be taken into consideration, which companies have considered fundamental prerequisites for this model of internship. Therefore we could hypothesize questionnaires for the identification of the most suitable subjects to develop the enter.mode program. Also from the point of view of the selection of companies the project could present not a few critical issues. On the one hand, it would be good to identify more structured and larger companies that would be more ready to develop entrepreneurial attitudes (think of companies that normally practice their activities with socially responsible actions communicated with social reporting). This clashes, however, with the spread of this type of reality on the Italian national territory and even more so of southern Italy, which is a land populated in most cases by small and micro-sized companies that do not lend themselves to the development of an entrepreneurial internship program based on a structured and detailed memorandum of understanding. Finally, taking into account what is summarized in these conclusions and the more detailed information in section 4 of this report, it is necessary, in order to correctly validate the internship program proposed by the enter.mode model, to administer the assessment tools of the program to a control sample stratified in a similar way to the pilot one of enter.mode. In essence, the digital game aimed at measuring the improvement of entrepreneurial attitudes should also be given to a group of students engaged in a traditional





internship program so that it can be verified that the enter.mode program is actually contributing substantially to an improvement in skills business.





SLOVAK NATIONAL REPORT

WORK PACKAGE 2: PREPARATION

O2.1. - BACKGROUND STUDY

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TECHNICAL UNIVERSITY OF KOŠICE
MAY 2019





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1. REPORT FRAMEWORK



The Report has been prepared based on the structure and detailed methodology provided by WP2 leader –University of Ioannina in Greece. It includes findings from desk research on entrepreneurial education in Slovakia and primary research. The primary research has been conducted for three main target groups:

- 1) Companies who have experience with internship for HEI provision.
- 2) HEI staff in charge of internship programme for HEI students.
- 3) HEI students (or graduates) participating in internship programme.

Companies which have experience with internship for HEI provision:

Altogether three companies took part in survey from March 15 till March 30, 2019. The first one was large international company, second one SMEs and the third one microenterprise. Two managers responsible for internship programme in company (large company and SME) and one owner of company (microenterprise) were questioned. The face-to-face visits have been carried out in order to get deep insight into their opinions and to ensure that questions were understood correctly.

HEI staff in charge of internship programme for HEI students:

Two faculty members responsible for internship programmes took part in the survey from March 20 till April 5, 2019. The first one was senior lecturer in charge with student internship (compulsory –credit given) at the Faculty of Economics, Technical university of Košice (TU Košice). The second one was vice-dean for education responsible also for student internship at top management level from faculty of Faculty of Electrical Engineering and Informatics, TU Košice. Both staff members were interviewed face to face. This approach enabled to compare opinion of HEI staff from two different fields – internships for student of economics and students in engineering. The reason for selection of respondents from same institution (TU Košice) was that, first of all, each faculty implement entrepreneurial education and internship programme independently. The second reason was that enables to compare engineering and non-engineering fields of study. The third reason is based on fact that TU Košice has been selected as a good practise example in the area of entrepreneurial education provision in Slovakia.

HEI students (or graduates) participating in internship programme:

Altogether 23 students took part in research. The questionnaires were distributed on-line. The diversity of study fields e.g. technical, economy, sociology, business, art, was assured by preselection of suitable respondents based on the following criteria:

- Field of study (engineering and non-engineering)
- Year of completion (since 2011)
- Type of internship (compulsory –volunteer)





- International – domestic students
- Internship in Slovakia and in other EU countries
- Students outside Europe having internship in Slovak companies



Table 1. Distribution of the students based on field of study

	Field if study	Number of respondents
1.	Finance and economics, regional development	8
2.	Public administration and regional development	5
2.	Business and management	3
3.	Civil engineering, architecture	3
4.	Sociology, psychology	2
5.	Law	1
6.	Marketing	1

Table 2. Distribution of the students based on year (when the internship was implemented)

	Year	Number of respondents
1.	2019	1
2.	2018	2
3.	2017	7
4.	2016	5
5.	2015	3
6.	2014	1
7.	2013	2
8.	2012	1
9.	2011	1





Table3. Distribution of the students based on age



	Year	Number of respondents
1.	2019	1
2.	2018	2
3.	2017	7
4.	2016	5
5.	2015	3
6.	2014	1
7.	2013	2
8.	2012	1
9.	2011	1

Table 4. Distribution of the students based on country/city where the internship took place

	Year	Number of respondents
1.	2019	1
2.	2018	2
3.	2017	7
4.	2016	5
5.	2015	3
6.	2014	1
7.	2013	2
8.	2012	1
9.	2011	1





2. INTERNSHIP IN SLOVAKIA



2.1. DEFINITION OF INSTITUTIONAL FRAMEWORK OF INTERNSHIPS IN SLOVAKIA

In the Higher Education Act in Slovakia (131/2002) there is only one mention on student internship (Chapter 5, paragraph 51): study programme is set of subjects which include mostly seminars, lectures, final thesis, project work, laboratory work, excursion, student internships, professional practice, state exam. It means that internship is listed in Act as one of the possible component of study programme. Many Slovakian HEI have internship as compulsory element in curricula and students gain the required credits during internship programme.

The several institutions (private and public) have their own directives e.g. the Directive no. 15/2016 on Traineeship of University Students at the Ministry of Education, Science, Research and Sport of the Slovak Republic. This Directive regulates the admission procedure for students as well as the organization of the course of student traineeship at the Ministry. It includes Trainee rights and duties and mentor duties.

2.2. INTERNSHIP PROGRAMMES IN HEIs IN SLOVAKIA

The current internship programmes in Slovakia significantly vary. The most of universities have internship as compulsory part of study and students are given the credits for internship. It means that students cannot graduate without fulfilling these requirements. The way how the internship is organised depends on each particular HEIs. HEIs have the right to choose and set up the internship rules independently. The description is included in so called Accreditation Report, which Slovakian HEIs have to submit for approval to Accreditation committee. The Accreditation committee has been created by Ministry of Education of the Slovak republic. It has right to award the accreditation to study programmes (including internship as a part of study programme). It is worth to mention that at present the changes in accreditation procedure in the Slovak Republic are undertaken. In order to assure the higher independency of Accreditation Committee from Ministry of Education, the new rules applies and new, independent agency for accreditation has been created in 2019.

In general, HEIs offer internship to the students at the companies from which either cooperation agreement exists or they express the interest in taking interns. In most cases the number of the companies who are willing to take interns is much lower than number of the students who have to take part in internship programme.





2.3. GOOD PRACTICES OF INTERNSHIPS PROGRAMS IN SLOVAKIA



ERASMUS+ programme is widely used for HEI internship. There are also several institutions outside HEI environment, which can arrange internship programmes e.g.

- www.iuventask.sk – IUVENTA – Slovak Institute for Youth
- www.aiesecsk.sk – AIESEC organise international internship for students
- European voluntary services – includes database of accredited internship programmes: http://ec.europa.eu/...ei_en.cfmvvv
- www.mladiinfo.sk – database of internship offers
- www.elsask.sk – ELSA – international independent law student organisation - exchange programme of working internship STEP
- www.pracovnestaze.sk
- www.mzv.sk – Ministry of foreign affairs of the SR, review and news about internship for university a different study fields: http://www.mzv.sk/...entske_staze

Good practices are mostly connected to concrete companies but it is difficult to find them on HEIs level. In many cases, it includes international companies who are using the same models as in their domestic countries and their system of internship is very well defined.





3. ENTREPRENEURIAL EDUCATION **enter** IN SLOVAKIA **MODE**

The National Reform Programme of Slovakia for 2015 sets entrepreneurship, and the need to create more linkages between education and the labour market, as one of its priorities. Entrepreneurship education in Slovakia is recognised as a cross-curricular objective at all school levels. Although Slovak HEIs are autonomous, there are also a number of top down initiatives in the country to support the implementation of the curriculum.

In terms of formal education in Slovakia, entrepreneurial potential is developed based on entrepreneurship education. Based on GUESS (Global University Entrepreneurial Spirit Student Survey, 2018) the level to which atmosphere and environment of Slovak universities is favouring, supporting and inspiring creation of entrepreneurial activities is considered by students as insufficient in comparison to average evaluation of the European countries. Slovak students assess the overall extent to which the courses and the other offering they attended (i.e. not only entrepreneurship education and training) improved their selected entrepreneurial characteristic and skills as insufficient. Four in ten Slovakian students have not attended any course on business or entrepreneurship during their studies. Approximately one quarter of students attended such course as elective, and 38 percent of them had such a course as a compulsory part of their study. Entrepreneurial education in Slovakia is present especially in business/economics fields of study, and in the form of at least one compulsory or elective course it is also frequently applied in technical sciences and engineering context. Contrary, majority of students in other fields of study will not receive even a basic entrepreneurial education or training during their study.

Similar structure is observed in case of entrepreneurial skills self-assessment, which shows the highest values among the students of economics and law (including business), engineering and sports, while it shows lower values in the other fields of study. Perception of own skills is generally related to starting a business –nascent student entrepreneurs indicate higher self-assessment in all the considered aspects compared to non-entrepreneurs.

One of the important factors for HEI students to start business is entrepreneurial education at university level. The research shows (Nowinski, 2017) that entrepreneurial education influence students to start their own businesses but only indirectly, by increasing the self-esteem of students.

In general, Slovakian students evaluate impact of education on their entrepreneurial activities development rather negatively. The worst evaluation was given to impact of entrepreneurial education on practical managerial skills needed to start own business, the most favourable was impact on ability to identify business opportunities and networking skills.

The lowest level of experience with entrepreneurial education is between students of medicine, mathematic, natural sciences and arts.

The research revealed that quantity of student's/graduates entrepreneurial activity rise not because of HEI support, stimulus or entrepreneurial atmosphere at Slovakian HEIs but more in





parallel and indifferent level to these activities. Even, in worst case not “due to” but “in spite of” HEI initiatives. The Slovakian students are not systematically exposed to development of business and entrepreneurial characteristics and skills (with exception of business and technical fields), they do not take business ideas from their educational environment, their entrepreneurial activities not always continue after graduation, and rather do not impact the social environment in country. These also lead to several areas where the improvement for HEI should be done.



The mission of HEI should be in further promotion of the entrepreneurial skills and talent of students and to use the HEI potential in full e.g. latest know-how, intensive student networking, mentoring, the ability of internship and cooperation with business ecosystem.

In Slovakia’s higher education sector, entrepreneurship is still a developing and unfolding theme, which is not yet fully anchored in national higher education legislation as a standard function of universities. Slovakian university institutions are therefore in the process of building their infrastructure for supporting and teaching entrepreneurship with contributions from external stakeholders like public and private organisations, initiatives, and networks in start-up support and consult-ing (e.g. the SPOT; Junior Achievement; KPMG), as well as individual Slovakian entrepreneurs.

3.1. CASE STUDY OF TECHNICAL UNIVERSITY OF KOSICE: EXTRA-CURRICULAR ENTREPRENEURSHIP EDUCATION ACTIVITIES AND START-UP COACHING WITHIN THE REGION

The Technical University of Košice (TU Košice), Slovakia, is located in Košice, the main city in Eastern Slovakia and the European Capital of Culture 2013. TU Košice is a fully-fledged university with a strong technical tradition. It offers curricular entrepreneurial education (EE) mainly through its Faculty of Economics, in particular courses in entrepreneurial management and developing entrepreneurial skills. The main emphasis of EE at TU Košice is on extra-curricular activities. These include a training programme and a linked start-up weekend for students to develop their own business ideas and start-ups (the AZU initiative), as well as infrastructure to coach individual student start-up projects and regional entrepreneurs (in the Start-up Centre). Within these activities the university integrates regional and national co-operation partners and their knowledge resources in supporting entrepreneurial ventures. This enables a flexible integration of university members with entrepreneurial motivation (staff, students, alumni) as well as a scaling of EE on campus. At the same time, it brings about the task of co-ordinating and sustaining single activities over time. Institutionalisation of an infrastructure for extra-curricular EE is currently mainly indirect. It has developed through start-up coaching and training for individual student or staff teams within general technology transfer activities in the university’s start-up centre and the prospective science park.

In particular, TU Košice offers a range of informal extra-curricular activities in EE. These activities are organised and supported within the university through:





- Individual groups of people like university lecturers, alumni, and students as well as professionals from the university region; e.g. AZU activities (an organisation delivering EE to students building their own business ideas and start-ups; www.azu.sk), the start-up weekend (<http://kosice.startupweekend.org/>), Eastcubator (an incubator for start-ups from Kosice and the region of Eastern Slovakia initiated by TUKE staff members and alumni together with entrepreneurs; <http://www.eastcubator.sk>).
- Particular TUKE institutions and funding programmes such as the university's Start-up Centre and the Technicom project to establish a science park, which includes resources for academic start-up coaching and support e.g. there is a business idea competition called Present Your Idea for start-up entrepreneurs from East Slovakia. This is a unique competition of innovative ideas, projects and solutions from various fields of science that have the potential for creating a future start-up (or those that have developed within existing start-ups). The purpose of the competition is to support innovative business ideas, which may result in new high-tech companies and create new job opportunities. The competition is also part of the objectives of the University Science Park Technicom and features around 30 ideas collected in two rounds in spring and autumn across its latest edition
- Single curricular courses which integrate additional extra-curricular entrepreneurship-related activities like business idea competitions (e.g. (<http://www.podnikatelskynapadroka.sk>; <http://www.nadaciatatrabanky.sk/grantovy-program-business-idea>) and entrepreneurial challenges (<http://www.jasr.sk/showdoc.do?>).

Name	Objectives	Target group
AZU entrepreneurial training programme	Provide training in entrepreneurial self-development as well as business idea generation, evaluation, and exploitation in strat-up projects	TU Košice students from all faculties
Start-up weekend	Prepare real start-ups from student's business ideas by student teams, coached by mentors and evaluated by panel of judges	TU Košice students from all faculties
Eastcubator	East-Slovakian incubator	Regional entrepreneurs





	<p>organisation associated with university staff; provide a networking and coaching platform for nascent entrepreneurs</p>	<p>in East-Slovakia including TUKE students and staff</p>
<p>TUKE Start-up Centre (start-up coaching; training workshops, campus business idea contests; incubation activities)</p>	<p>The Start-up Centre is to collect students' business ideas, compose Strat-up project teams, and Support and accelerate the start-up process through its coaching and training activities</p>	<p>TU Košice students from all, in particular, technical faculties as well as staff and regional entrepreneurs with business ideas</p>
<p>Various business idea entrepreneurial challenges</p>	<p>Complementary element of entrepreneurship courses offering students the opportunity to practice Business idea generation and working on entrepreneurial Management tasks</p>	<p>TU Košice students from all Faculty of Economics</p>





4. NATIONAL INTERVIEWS SYNTHESIS



4.1 INTERNSHIPS: EXPERIENCE AND PROBLEMS

Experience and problems are described from all three targets point of view.

Most **student respondents** said their internship was voluntary. Only three respondents had to internship as obligatory part of the study. Approximately for half of the respondents the internship has been paid. Duration of internship was from three weeks to 13 months. They spent usually 4 hours a day in a company. Approximately half of the respondents received some credits for their internship and the second half did not.

Sector/Field of the company was as follows:

- educational sector
- marketing
- services
- architecture
- health services
- production
- IT services
- manufacturing

Knowledge that respondents gained was mostly oriented to:

- soft skills (communication, team working, cross-border cooperation, formal communication)
- accounting by using specialized software
- knowledge in the field of marketing
- knowledge in the field of project management
- knowledge in the field of civil engineering and architecture
- work with Photoshop and design programs
- sales experience and ability to work across multicultural environment
- working with SAP and other office software

Most of the students respondents expected to learn new things, get new practical experiences and enhance their soft-skills. For some respondents the internship met their expectations, but for other respondents the main reasons for their **disappointment** with the internship was mainly fact that the internships was not long enough and in some cases the internship was boring.

The main reasons for **taking part in internship** were mostly that it was obligatory (university required to participate in internship) but the strong emphases was given also to getting new knowledge and practical skills/experiences and to find out if some field of future job is suitable for them.





Based on these facts the main positive aspects of internship were getting practical knowledge and skills, meeting new skilled people and learn from them. The students also appreciated using theoretical knowledge in practice and possibility to learn how to communicate with clients. The very important aspect was also opportunity to live and work in different country and working with people from different countries and cultures.

The several negative aspects of internship were mentioned as follows:

- it was quite boring
- time-consuming, lack of free time
- no wage
- bad communication among working team
- monotone work
- inability to know other company departments and colleagues

Student's respondents would **select a company** for internship mainly based on sectors, possibility to get a job in company after internship, previous experiences and reputation of the company, communication language, country, growth of the company, size of it. The recommendation of friends also plays significant role.

The **optimal duration** of the internship varies from 3-12 months. The companies suggested possibility for interns to choose either part-time or full-time internship at least for 3 months with the option to be prolonged and/or converted to full-time job or paid internship with no time limitation.

Regarding the **requirements** for internship participants all target groups agreed on:

- language skills, good work ethics
- general communication skills and social skills
- personal motivation
- critical and logical thinking

The **criteria for selection** should include motivation, ability to explain the reasons for applying for internship, describe the goals to be reached and own contribution to the hosting company. The companies expected that students wish to become part of company team which require passion, persistence and curiosity, dedication to his/her work tasks, pushing through challenges and new technologies.

On the other hand HEI staff stated that all students should have a chance to complete the traineeship. The distribution to internship should take into account the study results.





In order to **enhance entrepreneurial mind-set**, interns should prepare and present own idea on business derived from knowledge and skills learnt during internship (small business plan –canvas model). Companies recommend for on-board interns to solve business challenges that senior consultants do. So the main challenges are probably to catch-up with extreme gap they have as students to keep track and progress with seniors (over 15 and more years of experience). At the same time, it's very valuable and extremely interesting experience for the interns. HEI staff recommend attentive monitoring of activities, actions, activities of the entrepreneur; involving the student in the company's activities; endeavour to perform the tasks independently and evaluate their fulfilment by the entrepreneur; to propose improvements, be able to explain, justify and evaluate their effect; to inform students about what they can learn during the internship, what experience they can acquire and how they can use them in the future, assign students to develop a smaller project, strive for individual work of students.

For the **design of an entrepreneurial internship program** (main elements, milestones) the companies and HEI staff recommended the following scenario:

- Introduction to the company (profile, portfolio, vision, mission), to the unit where he/she is placed;
- familiarization with the necessary legislation, processes, safety at work ...;
- assigned mentor – developed a personal plan with the measurable milestones;
- assigned the roles & responsibilities with the clear measurable KPIs & reporting;
- buddy support (some younger colleague as a young but a bit more experienced colleague in case there are some e.g. communication problems to be solved);
- final review – exit interview with the summative evaluation & feedback from the both intern & company side.

The main elements should include:

- getting on the same page around work-style, reporting, standards at the company
- getting to work on small tasks and projects for 2-4 weeks on the beginning
- from the 5th week on if good progress - on boarding on the main projects we have.
- if great fit, switching collaboration after the internship to regular part-time or fulltime job.

Regarding **internship mentoring** as an integral part of an entrepreneurial internship program (the characteristics/requirements of a professional to be a good internship mentor, the role of the mentor in such an entrepreneurship internship programme) companies and HEI staff agreed that it has to be a part of internship. The main **mentor's characteristics** were described as follows:

- mature & experienced open-minded person without any biases, able to communicate openly yet able to point negative moments or low quality work of an intern,
- person able to support & navigate the intern in such a way that he/she feels safe, tries to follow the plan & fulfil the assigned tasks,
- ability to build positive relationship with students, start-up community, be also psychologist and educator;
- ability to guide, support the student in performing the tasks, explain and motivate self-reliance;





The companies have mostly very good **experience** with internship, however the challenge is sometimes age difference and simply for seniors to manage efficiently younger colleagues - millennials. The today's younger generation is described as more demanding, so it's important to set expectations well - ideally on the beginning.

The several **barriers** have been indicated from companies mainly devoted to fact that the cultural differences brought not only pros but also cons; sometimes companies need more communication in order to understand that some situations/ expressions are perceived differently. From time to time also the language barriers occurred.

HEI Staff has a problem to find companies willing to take interns. In many cases students have to find placement themselves. The problem with financing of the internship exists due to the lack of finance. There is also low interest in internship and lack of mentors, sometimes the students are not well placed to work in the field.

The main **lessons learnt**:

- companies underestimate the contributions that could be brought by interns and they do not pay sufficient attention to their inclusion to the company teams;
- it is necessary to give interns sufficient & relevant information about the company, their roles & responsibilities, provide the regular & open feedback to them but ask for feedback from their side as well;
- to assure really well selected mentors and seniors involved to manage interns. They need to have attitude to manage students and interns, ideally previous experience. So it fits all together
- to give students the opportunity to enter activities, discussions at the workplace and if a student cannot work alone, allow him to observe the work of others and discuss ongoing work;
- it is good for students to be motivated also financially, students should come into contact with real problems and tasks in the company, provide students with other benefits, give the best students the opportunity to prolong the internship or stay there.

4.2 EDUCATIONAL GAMES

The companies **do not use a games** and they do not offer many creative tasks to be done by interns.

At university the several several games at Faculty are used. The students most like it as they are gaining practical experience through them.

From the student only 10 respondents have used a digital educational game. The respondents liked the most that it was better like just to learn theory and also it was a funny way how to learn a foreign language. Respondents did not like following things:

- visual design of the game
- if it was boring or complicated
- unclear rules





- limitation of the number of variables that could be changed during the game

HEI staff also indicated that students do not like time pressure during games.

The opinion on the **most motivating gamification elements** in a digital educational game:

- **Most motivating:** challenges + levels + instant feedback
- **Motivating:** scores/points + completion and collaboration with peers
- **The least motivating:** badges/rewards

Respondents would prefer for a digital educational game following things:

- realistic
- minimalist
- simple, visually easy to understand
- useful, well organized, easy to follow
- colourful
- Elaborate, precise, complex, close to reality
- With instant feedback

The **few additional comments** of students:

„In Slovakia the system of internships is very badly set up. It doesn't make sense in general. If you are not student in capital town it's almost impossible to get an internship. Even you are studying in capital town you can combine internship with you studies if you have time, depends on the field.“

„Game has to include Guide -to understand the aim of the game. To leave the time to players to choose strategy -to be able to think strategically. “

4.3 COMPETENCES AND ENTER.MODE





The research addressed also questions whether the entrepreneurial competencies can be gained during the internship and to what extent. The tools/measures have been suggested as follows:

I. Ideas and opportunities

<p>Spotting opportunities</p>	<ul style="list-style-type: none"> -discussions, case studies, examples of good practice; -reading business journals, trends and forecast; -to become familiar with business environment and a competitors of company who host interns; -the student acquires information on competitive environment - how many and what companies already exist, or sufficiently meet the demand and requirements of consumers, or enterprises for which they might possibly be suppliers; -use events where entrepreneurs present their businesses and be inspired, find their space for business; -to give students a role to design a new or improved product or a new target group to focus on; -students should be able to identify the scope for improving the business/organization; -to show students examples of practice where new market opportunities have been found.
<p>Creativity</p>	<ul style="list-style-type: none"> -by searching the opportunity to explore new topics; to be willing to take risks in order to advance one's abilities; by practicing of recognition of patterns e.g. in everyday life or in business; -by giving a tasks – e.g. three different solutions for new product preparation; - observe how the entrepreneur with whom he/she is trained uses the creativity; -to show students examples from practice where an innovative approach to problem solving has been used; -to give students the opportunity to propose solutions to real problems that the business or institution in which the traineeship is conducted.
<p>Vision</p>	<ul style="list-style-type: none"> -by learning how to clarify the purpose of company: Why company exists? What opportunities can it address? -by future development scenarios preparation; -the ability to develop their visions by getting to know how to implement them – to be inspired during internship and confronting his / her vision with the possibilities of practical fulfilment; -the ability to create/design a vision is individual and not every student has the prerequisites to be able to bring in a suitable vision of a business or organization; -to provide students with examples of company specific visions.
<p>Valuing ideas</p>	<ul style="list-style-type: none"> -by learning how to change ideas into opportunities;





	<p>-to inspire, how the entrepreneur's business plan was drawn up, to try to get a vision based on the acquired knowledge, to turn it into own future business;</p> <p>-to provide students with the opportunity to discuss in common with each other specific ideas presented, in the discussion, students would argue which ideas they think are good and develop.</p>
Ethical and sustainable thinking	<p>-by role playing, discussions;</p> <p>-by introduction subject "Business ethics" during study;</p> <p>-by elaboration of report on concrete company - observation on weak points and issues to be improved in the area of sustainability;</p> <p>-the entrepreneur should familiarize the student with what he/she needs to know and respect - what existing legislation (EU or country where appropriate) on corporate social responsibility and the possibilities of measurement and monitoring in the field of sustainability - core documents and sector-specific a person doing business;</p> <p>-to inform students about the potential negative impacts of some decisions in the company that are contrary to ethical principles.</p>

II. Resources

Self-awareness and self-efficacy	<p>-by taking personality or psychometric tests, asking for feedback from trusted friends to describe you or at work;</p> <p>-the entrepreneur should inform the student about his own story, how psychological and personality assumptions in the business helped him, how he overcame them - to become a "professional entrepreneur" from a naive entrepreneur in terms of knowing and developing his personal assumptions;</p>
Motivation and perseverance	<p>-by learning how to plan and define the goals, which are important, and worth achieving;</p> <p>-to confront intern motivation with personality assumptions - an internship with an experienced long-time entrepreneur and interviews on how to get the ability to persevere in business and prepare for unfavourable situations;</p>
Mobilising resources	<p>-research on different topics;</p> <p>-in developing a business plan together with an entrepreneur to gain</p> <p>knowledge of the necessary resource structure;</p> <p>-on an internship with an experienced entrepreneur, compile their business needs, identify them;</p> <p>- exploration of possible suppliers of necessary material, material needs for action;</p> <p>-financial resources - what resources the entrepreneur has used - own /</p>





	<p>foreign and how the entrepreneur has coped with the lack of resources - to provide the student with information on possible sources - bank loans for entrepreneurs and support for entrepreneurship from the non-banking sector (EU resources, national institutions to support small and medium-sized enterprises) business.</p>
Financial and economic literacy	<p>-course / lecture / seminar on "Fundamentals of Financial Analysis" and gain knowledge about when it is appropriate to use external services (accounting, financial analysis of the company ...);</p> <p>-training courses, lectures, practical examples on this subject;</p> <p>-explaining to students why it is good to know about this topic;</p>
Mobilising others	<p>-according to the field of business, get information on an internship with an entrepreneur about the necessary skills how to motivate;</p> <p>-training courses for students on how to motivate others;</p> <p>-a lecture on psychology about how to motivate-techniques and skills;</p> <p>-practical examples during the internship.</p>

III. Into action

Taking the initiative	<p>-how and where to take entrepreneurial initiative at the start-up phase of the business and how and in what way the entrepreneurial initiative will be required in the next period - to realize this difference and to identify it on the basis of an internship with an experienced entrepreneur;</p> <p>-by giving them small tasks connected to everyday company life when interns need to find solution through communication with others at different positions;</p> <p>-training and courses for students to be proactive.</p>
Planning and management	<p>-practical steps of the entrepreneur - inform the student how to plan, manage a business (small, medium, large ...);</p> <p>-the specific practices of the entrepreneur with whom the traineeship has been completed;</p> <p>-planning his/her own training;</p> <p>-management courses during study;</p> <p>-to assign practical tasks to students so that they have the opportunity to learn from practice and experience.</p>
Coping with uncertainty, ambiguity and risk	<p>-interview with the entrepreneur with whom the person is trained on his/her knowledge, practices, experiences in his/her company - identification of risks ... experience of overcoming the crisis;</p> <p>-show students specific examples of how others are dealing with risk;</p> <p>-showing failure as tool for improvement;</p>





	-training.
Working with others	-to study relationships, communicate with other people, workers ...; -to assign teamwork to students to learn how to work in a team and collaborate; -to give interns common assignment to be completed for very short period – after it to have discussion how to work under stress.
Learning through experience	-at the internship with the entrepreneur, perform the tasks assigned, observe the working procedures of others, consult their procedures; -assign practical tasks from different areas of business or organization to students; -having „TED talks” – senior managers will speak how they learned from experience.



IV. Other competencies

- to shows interns how to set up the priorities;
- to give students multiple tasks that they need to resolve in the short term, so students need to consider what tasks are more important than others discussing with students why they did some tasks first;
- working in virtual teams;
- accepting and coping with diversity in all forms e.g. gender, ethnicity; age; religion; disabilities.





5. Conclusions: suggestions for the Enter.Mode model

The following suggestions for Enter.Mode model creation have been observed:

- to provide preparation for teachers by HEI – to raise awareness on entrepreneurial competences – provision of materials on how to support entrepreneurial education e.g. at web portal; Moodle platform;
- to train mentors in companies on entrepreneurial competences;
- to show teachers concrete examples how entrepreneurial competences can be included into curricula of non-business study students;
- to provide preparation of the students before internship - to raise awareness on entrepreneurial competences - provision of materials on how to promote self – development of entrepreneurial competences e.g. at web portal; Moodle platform
- to include activity-based and/or project-based learning;
- to highlight the pragmatic and practical aspects of training – to be clearly understood by both, students and companies;
- to include discussion with top managers of company as compulsory parts of internship – students should prepare the structured interview and identify goals of this face to face meeting (to choose two -three concrete topics they are interested in) and prepare short summary of lessons learnt;
- to set up goals of internship, criteria for measurement and evaluation methods;
- interns will prepare the case study on company (on concrete topic agreed with mentor) – to be used by other students at seminars at HEI;
- to support internship with e-learning materials on concrete competences and theories and practical examples how they can be improved - tools and techniques.



Appendix II - EntreComp: the Entrepreneurship Competence Framework

[Bacigalupo, M., Kamylyis, P., Punie, Y., & Van den Brande, G. \(2016\). *EntreComp: The entrepreneurship competence framework*. Luxembourg: Publication Office of the European Union.](#)

[McCallum, E., Weicht, R., McMullan, L., & Price, A. \(2018\). *EntreComp into action-Get inspired, make it happen: A user guide to the European Entrepreneurship Competence Framework \(No. JRC109128\)*. Joint Research Centre \(Seville site\).](#)

A detailed explanation of the 3 competence areas and 15 competences follows (extracted from (McCallum, Weicht, McMullan, & Price, 2018)):

COMPETENCE	HINT	DESCRIPTION
1.1 Spotting opportunities	Use your imagination and abilities to identify opportunities for creating value	<ul style="list-style-type: none"> Identify and seize opportunities to create value by exploring the social, cultural and economic landscape Identify needs and challenges that need to be met Establish new connections and bring together scattered elements of the landscape to create opportunities to create value
1.2 Creativity	Develop creative and purposeful ideas	<ul style="list-style-type: none"> Develop several ideas and opportunities to create value, including better solutions to existing and new challenges Explore and experiment with innovative approaches Combine knowledge and resources to achieve valuable effects
1.3 Vision	Work towards your vision of the future	<ul style="list-style-type: none"> Imagine the future Develop a vision to turn ideas into action Visualise future scenarios to help guide effort and action
1.4 Valuing ideas	Make the most of ideas and opportunities	<ul style="list-style-type: none"> Judge what value is in social, cultural and economic terms Recognise the potential an idea has for creating value and identify suitable ways of making the most out of it
1.5 Ethical & sustainable thinking	Assess the consequences and impact of ideas, opportunities and actions	<ul style="list-style-type: none"> Assess the consequences of ideas that bring value and the effect of entrepreneurial action on the target community, the market, society and the environment Reflect on how sustainable long-term social, cultural and economic goals are, and the course of action chosen Act responsibly

COMPETENCE	HINT	DESCRIPTION
2.1 Self-awareness & self-efficacy	Believe in yourself and keep developing	<ul style="list-style-type: none"> Reflect on your needs, aspirations and wants in the short medium and long term Identify and assess your individual and group strengths and weaknesses Believe in your ability to influence the course of events despite uncertainty, setbacks and temporary failures
2.2 Motivation & perseverance	Stay focused and don't give up	<ul style="list-style-type: none"> Be determined to turn ideas into action and satisfy your need to achieve Be prepared to be patient and keep trying to achieve your long-term individual or group aims Be resilient under pressure, adversity, and temporary failure
2.3 Mobilising resources	Gather and manage the resources you need	<ul style="list-style-type: none"> Get and manage the material, non-material and digital resources needed to turn ideas into action Make the most of limited resources Get and manage the competences needed at any stage, including technical, legal, tax and digital competences
2.4 Financial & economic literacy	Develop financial and economic know-how	<ul style="list-style-type: none"> Estimate the cost of turning an idea into a value-creating activity Plan, put in place and evaluate financial decisions over time Manage financing to make sure your value-creating activity can last over the long term
2.5 Mobilising others	Inspire, enthuse and get others on board	<ul style="list-style-type: none"> Inspire and enthuse relevant stakeholders Get the support needed to achieve valuable outcomes Demonstrate effective communication, persuasion, negotiation and leadership

COMPETENCE	HINT	DESCRIPTION
3.1 Taking the initiative	Go for it	<ul style="list-style-type: none"> Initiate processes that create value Take up challenges Act and work independently to achieve goals, stick to intentions and carry out planned tasks
3.2 Planning & management	Prioritise, organise and follow up	<ul style="list-style-type: none"> Set long-, medium- and short-term goals Define priorities and action plan Adapt to unforeseen changes
3.3 Coping with uncertainty, ambiguity & risk	Make decisions dealing with uncertainty, ambiguity and risk	<ul style="list-style-type: none"> Make decisions when the result of that decision is uncertain, when the information available is partial or ambiguous, or when there is a risk of unintended outcomes Within the value-creating process, include structured ways of testing ideas and prototypes from the early stages, to reduce risks of failing Handle fast-moving situations promptly and flexibly
3.4 Working with others	Team up, collaborate and network	<ul style="list-style-type: none"> Work together and co-operate with others to develop ideas and turn them into action Network Solve conflicts and face up to competition positively when necessary
3.5 Learning through experience	Learn by doing	<ul style="list-style-type: none"> Use any initiative for value creation as a learning opportunity Learn with others, including peers and mentors Reflect and learn from both success and failure (your own and other people's)

Appendix III - Study desig



STUDY DESIGN

WORK PACKAGE 2: PREPARATION

O2.1. - BACKGROUND STUDY

RESPONSIBLE PARTNER: UNIVERSITY OF IOANNINA
07.03.2019



1. Scope

Enter.Mode aims at designing, developing, testing and disseminating a novel model for entrepreneurial competence building through entrepreneurial internship. In this way Enter.Mode will take entrepreneurial education a big step further by aims at stimulating entrepreneurship and entrepreneurial skills of higher education teaching staff and company staff and develop an entrepreneurial mind-set and related skills and competences in higher education students.

The first Output of this project is the Background study "Entrepreneurial education in Higher Education (HE) in partners' countries, entrepreneurial skills required by HE students, framework for internships". The current document provides the main design aspects of the study.

2. Goal of the study

The Background Study "Entrepreneurial education in HE in partners countries, entrepreneurial skills required by HE students, framework for internships" intends to serve as a basis development of common ground among the partnership and give the Enter.Mode process direction.

The background study will analyse the context in the partners' countries and identify good practices. It will tackle the following issues:

- Entrepreneurial education in HE in partners countries for students of non-business studies. The partners will map and present the entrepreneurial education in their Universities as well as in other Universities in their country, identifying good practices.
- Entrepreneurial skills required by HE students, as these derive from studies and already done research.
- Institutional framework for internships, including the legal framework and common practices in HEIs.

The background study will be elaborated through a combination of desk research and interviews.

The desk research will include a review and analysis of competence grids for entrepreneurial skills and competences for higher education students at different levels and a mapping of the frameworks for internships in each country.

The interviews will focus on the set of entrepreneurial competencies that can be acquired at the workplace, during internships, methodological aspects of the work-based learning experience, challenge-based learning and gamification techniques. Five interviews will be conducted from each partner from different types of stakeholders.

The background study will have chapters for each country's report and a final chapter with conclusions and recommendations for the development of the internship model.

A review process is foreseen. Details will be presented in the project's Quality plan.

The study is co-ordinated by the University of Ioannina (UoI), with the participation of all academic institutions, namely the Ludwig-Maximilians Universität (LMU), the Semmelweis University (SOTE), the Università Telematica PEGASO and the Technická Univerzita v Košiciach (TUKE).

3. Target groups and methods

For the interview needs three main target groups have been identified, corresponding to the main stakeholders of an internship, as follows:

Target Group	Description	Focus	Target Number	Methods
Companies	We refer to companies that would potentially be interested in the participation in an internship programme or ideally have already participated in one. No size or sector limits apply.	View on Competences Suggestions for Internship model	A focus group consisting of different companies is suggested. Minimum group number: 3 Suggested group number: 10	A specially designed questionnaire to be used (see Appendix).
HEI staff	We refer to HEI officials (not faculty members) dealing with relevant programmes (i.e. internship, entrepreneurship support, etc.)	View on Competences Suggestions for Internship model	At least 2 interviewees coming from two different HEIs, other than the one of the participating partner in the country.	A specially designed questionnaire to be used (see Appendix).
Students	Students will be the main beneficiaries of the developed internship. We refer to students of non-business departments. Ideally, students who have already participated in other internship programmes should be targeted.	Suggestions for Internship model	A focus group of per HEI is expected. 15-25 responses are expected.	A specially designed questionnaire to be used (see Appendix). Google Forms will also be used to facilitate data collection and analysis.

4. National reports and Final Study

Five national reports are expecting from each of the participating HEIs, as follows:

Country	Partner
Germany	Ludwig-Maximilians Universität (LMU)
Greece	Univ. of Ioannina (Uoi)
Hungary	Semmelweis University (SOTE)
Italy	Università Telematica PEGASO
Slovakia	Technická Univerzita v Košiciach (TUKE)

The structure of the National Reports is presented in the Appendix.

University of Ioannina will compile an overall study report that will conclude on specific recommendations for the internship model for acquisition of entrepreneurial skills and on the entrepreneurial competences grid to be adapted.

Format:

Language(s)	English
Media(s)	Paper Electronic file (pdf) Web

5. Timeschedule

6.

Task	Deadline
T2.2 Desk research	31.03
T2.3 Interviews with stakeholders	31.03
T2.4 National reports and peer review (available on 20.03 to be sent for reviewing)	31.03
T2.5 Compilation of background study	30.04

National report structure

1. Report framework

(how the report was prepared, who has been interviewed, sources accessed etc.)

2. Internship

2.1. Definition of institutional framework of internships

2.2. Internship programmes in HEIs

(description of the current internship programmes in HEIs in the country)

2.3. Good practices of internships programs in each country

3. Entrepreneurial education

- An overview of entrepreneurial education in HEIs
- Programs targeting entrepreneurial skills
- Existing (if-any) entrepreneurial internship actions.

4. National interviews synthesis

4.1 Internships: experience and problems

(Summaries of related sections/questions of interviews)

4.2. Competences and Enter.Mode

(Summaries of related sections/questions of interviews)

4.3 Suggested characteristics of an (entrepreneurial) internship program for HEI students

(Summaries of related sections/questions of interviews)

5. Conclusions - Suggestions for the Enter.Mode model

Appendix IV - Questionnaires



Study "Entrepreneurial education in HE in partners' countries, entrepreneurial skills required by HE students, framework for internships"

Structured interview questionnaire

Target group: **Companies**

About this questionnaire

Project Enter.Mode aims to stimulate entrepreneurship and entrepreneurial skills of higher education teaching staff and company staff and develop an entrepreneurial mind-set and related skills to higher education students.

In order to develop an integrated model of entrepreneurship skills acquisition, our project conducts a background study on the set of entrepreneurial competences that can be acquired at the workplace, during internships, methodological aspects of the work-based learning experience, challenge-based learning and gamification techniques. Enter.Mode reaches out for opinions of professionals, in order to gather insightful information that will help designed an informed model.

Section A. Company data and Personal data

Company name

Main company field/s

Company category (check appropriate boxes in each column)

Staff headcount		Turnover		Balance Sheet Total	
>250		>€50 m		>€43 m	
>50 and ≤250		>€10 m and ≤€50 m		>€10 m and ≤€43 m	
>10 and ≤50		>€2 m and ≤€10 m		>€2 m and ≤€10 m	
≤10		≤€2 m		≤€2 m	

Your role/position in the company

Region

--

Contact details

--

Section B. Enter.Mode and Entrepreneurial Competences

According to the EntreComp¹ conceptual model of entrepreneurship, 15 competences together, make up the building blocks of entrepreneurship as a competence for all citizens.

B1. Please classify these 15 competences in terms of importance according to your experience and point of view. Check appropriate box. (1=Low importance, 5=High importance)

B2. Please indicate whether you believe that the competence can be developed through an internship. Fill in (Y=Yes, N=No or Not sure)

B3. If you think a competence can be developed through an internship, what kind of actions, activities could be designed to achieve this? Please describe.

Area	Competence	B1. Importance (1=Low importance, 5=High importance)					B2. Can be developed (Y/N/Not sure)	B3. How? What kind of actions?
		1	2	3	4	5		
Ideas and opportunities	Spotting opportunities							
	Creativity							
	Vision							

¹ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/entrecomp-entrepreneurship-competence-framework>

Please refer to the appendix at the end of this document for more about EntreComp and a detailed explanation of the 3 competence areas and 15 competences.

Area	Competence	B1. Importance (1=Low importance, 5=High importance)					B2. Can be developed (Y/N/Not)	B3. How? What kind of actions?
	Valuing ideas							
	Ethical and sustainable thinking							
Resources	Self-awareness and self-efficacy							
	Motivation and perseverance							
	Mobilising resources							
	Financial and economic literacy							
	Mobilising others							
Into action	Taking the initiative							
	Planning and management							
	Coping with uncertainty,							

Area	Competence	B1. Importance (1=Low importance, 5=High importance)					B2. Can be developed (Y/N/Not)	B3. How? What kind of actions?
	ambiguity and risk							
	Working with others							
	Learning through experience							
Other competences not included in the EntreComp framework) (please add)								

Section C. Internship programs

C1. What would be the desired duration of an entrepreneurial internship program?

C2. What criteria would you use to select a student that would be a good fit for an entrepreneurial internship program?

C3. Are there any requirements a student should meet to take part in an entrepreneurial internship program?

C4. What would be the main challenges² to be presented to an intern during an entrepreneurial internship program so that he/she develops the targeted skills?

C5. How would you design an entrepreneurial internship program? What would be the main elements, milestones, etc?

C6. Do you consider internship mentoring as an integral part of an entrepreneurial internship program. If so, what would be the characteristics/requirements of a professional to be a good internship mentor? Which should be the role of the mentor in such an entrepreneurship internship programme?

C7. Have you ever implemented an internship (entrepreneurial or other) program? If so, please describe

C7a. Your experience

C7b. Barriers faced

C7c. Lessons learned and suggestions that could/should be integrated into our program.

² We refer to the challenges given to the students within the host company through the implementation of the internship program.

C8. Have you ever used a digital educational game as a learning tool for your students/a training tool for your staff? If yes, please let us know what the students/staff liked the most and what they didn't.

C8a. They liked:

C8b. They did not like:

C9. Additional comments / suggestions

Appendix

EntreComp: the Entrepreneurship Competence Framework

[Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. \(2016\). EntreComp: The entrepreneurship competence framework. Luxembourg: Publication Office of the European Union.](#)

[McCallum, E., Weicht, R., McMullan, L., & Price, A. \(2018\). EntreComp into action-Get inspired, make it happen: A user guide to the European Entrepreneurship Competence Framework \(No. JRC109128\). Joint Research Centre \(Seville site\).](#)

A detailed explanation of the 3 competence areas and 15 competences follows (extracted from (McCallum, Weicht, McMullan, & Price, 2018)):

COMPETENCE	HINT	DESCRIPTION
1.1 Spotting opportunities	Use your imagination and abilities to identify opportunities for creating value	<ul style="list-style-type: none"> Identify and seize opportunities to create value by exploring the social, cultural and economic landscape Identify needs and challenges that need to be met Establish new connections and bring together scattered elements of the landscape to create opportunities to create value
1.2 Creativity	Develop creative and purposeful ideas	<ul style="list-style-type: none"> Develop several ideas and opportunities to create value, including better solutions to existing and new challenges Explore and experiment with innovative approaches Combine knowledge and resources to achieve valuable effects
1.3 Vision	Work towards your vision of the future	<ul style="list-style-type: none"> Imagine the future Develop a vision to turn ideas into action Visualise future scenarios to help guide effort and action
1.4 Valuing ideas	Make the most of ideas and opportunities	<ul style="list-style-type: none"> Judge what value is in social, cultural and economic terms Recognise the potential an idea has for creating value and identify suitable ways of making the most out of it
1.5 Ethical & sustainable thinking	Assess the consequences and impact of ideas, opportunities and actions	<ul style="list-style-type: none"> Assess the consequences of ideas that bring value and the effect of entrepreneurial action on the target community, the market, society and the environment Reflect on how sustainable long-term social, cultural and economic goals are, and the course of action chosen Act responsibly

COMPETENCE	HINT	DESCRIPTION
2.1 Self-awareness & self-efficacy	Believe in yourself and keep developing	<ul style="list-style-type: none"> • Reflect on your needs, aspirations and wants in the short medium and long term • Identify and assess your individual and group strengths and weaknesses • Believe in your ability to influence the course of events despite uncertainty, setbacks and temporary failures
2.2 Motivation & perseverance	Stay focused and don't give up	<ul style="list-style-type: none"> • Be determined to turn ideas into action and satisfy your need to achieve • Be prepared to be patient and keep trying to achieve your long-term individual or group aims • Be resilient under pressure, adversity, and temporary failure
2.3 Mobilising resources	Gather and manage the resources you need	<ul style="list-style-type: none"> • Get and manage the material, non-material and digital resources needed to turn ideas into action • Make the most of limited resources • Get and manage the competences needed at any stage, including technical, legal, tax and digital competences
2.4 Financial & economic literacy	Develop financial and economic know-how	<ul style="list-style-type: none"> • Estimate the cost of turning an idea into a value-creating activity • Plan, put in place and evaluate financial decisions over time • Manage financing to make sure your value-creating activity can last over the long term
2.5 Mobilising others	Inspire, enthuse and get others on board	<ul style="list-style-type: none"> • Inspire and enthuse relevant stakeholders • Get the support needed to achieve valuable outcomes • Demonstrate effective communication, persuasion, negotiation and leadership

COMPETENCE	HINT	DESCRIPTION
3.1 Taking the initiative	Go for it	<ul style="list-style-type: none"> • Initiate processes that create value • Take up challenges • Act and work independently to achieve goals, stick to intentions and carry out planned tasks
3.2 Planning & management	Prioritise, organise and follow up	<ul style="list-style-type: none"> • Set long-, medium- and short-term goals • Define priorities and action plan • Adapt to unforeseen changes
3.3 Coping with uncertainty, ambiguity & risk	Make decisions dealing with uncertainty, ambiguity and risk	<ul style="list-style-type: none"> • Make decisions when the result of that decision is uncertain, when the information available is partial or ambiguous, or when there is a risk of unintended outcomes • Within the value-creating process, include structured ways of testing ideas and prototypes from the early stages, to reduce risks of failing • Handle fast-moving situations promptly and flexibl
3.4 Working with others	Team up, collaborate and network	<ul style="list-style-type: none"> • Work together and co-operate with others to develop ideas and turn them into action • Network • Solve conflicts and face up to competition positively when necessary
3.5 Learning through experience	Learn by doing	<ul style="list-style-type: none"> • Use any initiative for value creation as a learning opportunity • Learn with others, including peers and mentors • Reflect and learn from both success and failure (your wn and other people's)



KA2: Cooperation for innovation and the exchange of good practices - Knowledge Alliances
Internship Model for Developing of Entrepreneurial skills to Higher
Education Students (ENTER.MODE)
PROJECT NUMBER – 601125-EPP-1-2018-1-SK-EPPKA2-KA



Study "Entrepreneurial education in HE in partners' countries, entrepreneurial skills required by HE students, framework for internships"

Structured interview questionnaire

Target group: **HEI Staff**

About this questionnaire

Project Enter.Mode aims to stimulate entrepreneurship and entrepreneurial skills of higher education teaching staff and company staff and develop an entrepreneurial mind-set and related skills to higher education students.

In order to develop an integrated model of entrepreneurship skills acquisition, our project conducts a background study on the set of entrepreneurial competences that can be acquired at the workplace, during internships, methodological aspects of the work-based learning experience, challenge-based learning and gamification techniques. Enter.Mode reaches out for opinions of HEI staff, in order to gather insightful information that will help designed an informed model.

Section A. Personal data

University

Role/position

Region

Contact details

Section B. Enter.Mode and Entrepreneurial Competences

According to the EntreComp¹ conceptual model of entrepreneurship, 15 competences together, make up the building blocks of entrepreneurship as a competence for all citizens.

¹ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/entrecomp-entrepreneurship-competence-framework>

Please refer to the appendix at the end of this document for more about EntreComp and a detailed explanation of the 3 competence areas and 15 competences.



B1. Please classify these 15 competences in terms of importance according to your experience and point of view. Check appropriate box. (1=Low importance, 5=High importance)

B2. Please indicate whether you believe that the competence can be developed through an internship. Fill in (Y=Yes, N=No or Not sure)

B3. If you think a competence can be developed through an internship, what kind of actions, activities could be designed to achieve this? Please describe.

Area	Competence	B1. Importance (1=Low importance, 5=High importance)					B2. Can be developed (Y/N/Not sure)	B3. How? What kind of actions?
		1	2	3	4	5		
Ideas and opportunities	Spotting opportunities							
	Creativity							
	Vision							
	Valuing ideas							
	Ethical and sustainable thinking							
Resources	Self-awareness and self-efficacy							
	Motivation and perseverance							
	Mobilising resources							

Section C. Internship programs

C1. What would be the desired duration of an entrepreneurial internship program?

C2. What criteria would you use to select a student that would be a good fit for an entrepreneurial internship program?

C3. Are there any requirements a student should meet to take part in an entrepreneurial internship program?

C4. What would be the main challenges² to be presented to an intern during an entrepreneurial internship program so that he/she develops the targeted skills?

C5. According to your opinion which should be the main characteristics of such an internship programme (main elements, components, etc.)?

C6. Do you consider internship mentoring as an integral part of an entrepreneurial internship program. If so, what would be the characteristics/requirements of a professional to be a good internship mentor? Which should be the role of the mentor in such an entrepreneurship internship programme?

² We refer to the challenges given to the students within the host company through the implementation of the internship program.

C7. Have you ever implemented an internship (entrepreneurial or other) program? If so, please describe

C7a. Your experience

C7b. Barriers faced

C7c. Lessons learned and suggestions that could/should be integrated into our program.

C8. What would be the main barriers for the implementation of an entrepreneurial internship programme in your institution? Which would you consider as prerequisites for the successful implementation of such a program?

C9. Have you ever used a digital educational game as a learning tool for your students/a training tool for your staff? If yes, please let us know what the students/staff liked the most and what they didn't.

C9a. They liked:

C9b. They did not like:

C10. Additional comments / suggestions

Appendix

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Section A. Personal data

Discipline

Year

Age

Region

Contact details

Section B. Internship experience

B1. What was your internship about?



Please refer to the following:

Obligatory- Voluntary

Focusing on knowledge - on soft skills (if possible, please name the relevant (soft) skills)

Sector / Field

Duration (days/weeks and hours per day)

Paid /unpaid

Credits (ECTS)

B2. What were your expectations from the internship? Did the internship meet your goals and expectations? How?

B3. Why did you want to do an internship in the first place?

B4. What were the main positive aspects of your internship?

B5. What were the main negative aspects of your internship?

Section C. Internship programs

C1. What would be the desired duration of an entrepreneurial internship program?

C2. Based on your experience are there any requirements a student should meet to take part in an entrepreneurial internship program?

C3. How you would select a company for being hosted as an intern?

Section D: Digital Educational Games

D1. Have you ever used a digital educational game? If yes, please let us know what you liked the most and what you didn't like?

D1a. Liked:

D1b. Did not like:

D2. What are in your opinion the most motivating gamification elements in a digital educational game? Please rank the following gamification elements on a scale of 1 to 5 (1= the least motivating, 5=the most motivating):

Element	1=least motivating	2	3	4	5=most motivating	Do not know/can not tell
Challenges						
Levels						
Instant feedback						
Scores/Points						
Badges/Rewards						
Leaderboards						
Competition with peers						
Collaboration with peers						

D3. What style would you prefer for a digital educational game (e.g.: minimalist, realistic, colourful, elaborate, etc.)?

Section E

E1. Additional comments / suggestions