



empl-oi

European Mobility Placements
for Open Innovation

e-book

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**Guidelines for educators:
encouraging a University/Business
proactive collaboration**

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1. Executive Summary

The aim of the guidelines is to build awareness of the need to foster massive changes in the Higher Education context. The guidelines move from the view that the need to foster an entrepreneurial education, to enhance employment-education interface, and to reduce the divide between practice and Higher Education towards collaboration, can no longer be neglected.

Indeed, Higher Education Institutions (HEI) are increasingly under pressure to become more relevant in society, to behave more entrepreneurially, and to reflect the new “world of work” for which graduates must be prepared. Despite these demands, still voices contend that entrepreneurial culture within an HEI is a deformation of their traditional role, while other call for greater imaginative use of knowledge, preparing students for life of work.

Barriers to the desired change towards entrepreneurial HEI and collaboration between those and companies, are still hard to defeat. The reference is to resistance, ignorance, and myopia about what entrepreneurship is and who entrepreneurial people are. Also, several limitations rise due to pre-conceived notions about the association of the entrepreneurship agenda to mere profit motive. Yet, some argue that entrepreneurial education can be a threat to traditional HEI values and can distract from their “proper” traditional HEI work.

On these grounds, the guidelines aim to make clear to readers the manifold reasons to foster collaboration and an entrepreneurialisation of HEI. Also, they try to suggest possible logics to adopt to support and ease the process of change, along with several tools/strategies to rely upon.

The guidelines specify the themes relating to the structure of curricula and teaching approaches; the strategies to foster embedment of entrepreneurship education and to successfully conduct changing processes; the ways to engage economic actors. These topics form the subject of the following sections, to offer a broader view of the phenomenon and to discuss the related views.



2. Introduction

Challenges to Higher Education in Europe

It is widely acknowledged to date that the raising levels of global completion worldwide put forth the need for future generations to have the mind-set and skills to be entrepreneurial in society, in work and in business. Among the qualities to emerge creativity and a social responsible posture on the one hand, and the ability to catch opportunities and to take and manage risks on the other hand, become paramount together with cultural openness and decision-making and team working capabilities. The challenges of the constantly evolving economic ecosystem(s) in an era of digitalisation require the effort by young people to develop an entrepreneurial attitude, going beyond the mere willingness to be entrepreneurs, instead applying entrepreneurial rationale, flexibility, proactivity and adaptability in their daily work and life. Thus, learning systems need to be entrepreneurial in their very design. Engaging with partners should be a pre-requisite of a modern learning environment, while high quality and effective training for both educators and educational leaders should be the rule rather than the exception. Practice must become a reality across all levels and disciplines towards a more entrepreneurial economy.

Entrepreneurial posture can be taught and must be learned, to enable society to benefit from the full potential of its people. It is clearly not the unique answer, but it can provide a contribution by developing the knowledge, skills and attitudes important for employability, active citizenship and new business creation. It is worth noting that the last ten years have seen policy progress, but there are still large gaps. Action is now needed and Europe has identified the policy priority for entrepreneurship education; national governments must now step up efforts and raise levels of entrepreneurial creativity and innovation.

In this regard, it is important to supersede the anti-intellectualism barrier in academia. and the call against the erosion of academic freedom. , effort has to be made to make people in academia perceiving the new reality in terms of broader responsiveness rather than downgrading. At the same time it is important to reduce the divide between practitioners and the higher education domain. It needs a twofold effort in terms of improved perception by practitioners of the crucial role that they can play in early stages of the student's pathway, as well as in relation to practitioners' awareness of the fundamental role of academia for lifelong learning programmes. The primary role of higher education is increasingly to transform students by enhancing their knowledge, skills, attitudes and abilities while simultaneously empowering them as lifelong critical, reflective learners. This means that the higher education-employment interface should not be seen as an 'add-on' to academic study. Conversely, the 'employability' of graduates should not be seen as the primary focus of higher education. Rather, employability is a subset of, and fundamentally contingent on, transformative lifelong learning.

3. Opening Universities

3.1 Universities roles in addressing such societal challenges

Labour Market Reality

Companies, policymakers and research institutes all agree that creating a culture of innovation and entrepreneurship is one of the **key challenges facing any society**. They are aware that the promotion of entrepreneurship and knowledge transfer and their conversion end into economic value.

Some universities have already taken this challenge into consideration by creating degrees or certificates in the field of entrepreneurship, matching the needs of companies with the knowledge and skills provided by given curricula, or by developing a helpdesk-kind for students who want to be supported in their entrepreneurial adventure. According to the survey carried out, the labour market, employers and entrepreneurs, think that those following skills are important for young students to get a job in their respective field, i.e. engineering/computing, economic, and business/management: **communication skills** (ability to listen, express and present ideas, to persuade, to negotiate) and **interpersonal skills** (ability to work in a team, ability to manage conflicts, networking). However, they consider there is a lack of those skills among the students and they think the universities should enhance them.

As far as students are concerned, they consider communication skills and interpersonal skills as important to get a job as well. It is noteworthy that the communication skills receive highest rating of importance while students also highly rate it as a lacking skill. This might be explained by the fact that students recognize how important are a good communication skills to get a job nowadays and, thus, **they feel that this skill should be better addressed by higher institutions**. This is also true for other highly rated skills such as interpersonal and personal skills.

We can therefore notice that students are aware of the labour's market expectations and they are willing to develop their soft skills alongside their academic skills.

Academics think that interpersonal skills (ability to work in a team, ability to manage conflicts, networking), learning skills (ability to learn independently; curiosity and drive for continuous learning) and entrepreneurial skills (flexibility, opportunity seeking, risk-taking) are the most important skills for the students to get a job.

Eventually, according to both academics and students' visions, the **field related work experience** as well as the **specific professional skills** and knowledge are the most important characteristics that employers search in an employee. Employers expect the students to be operational immediately with a first concrete approach of their working field.

What should be improved? / How to shape curricular along with the labour market needs?

Technical skills

Both academics and labour market actors think universities should improve the students' employability through the setting-up of practical tasks and assignments in the courses and by providing on-going collaboration with the labour market actors, through for instance providing field-related internship experience (locally and/or abroad) as an integral part of the study programme.

Indeed, for more than 70% of the academics, the best way to cooperate with companies is through "offering real-life problem issues for students to solve and/or research on", followed by "organising internships for students" stated by 66% of the respondents.

For more than 80% of the employers the best way to cooperate with universities is through "organising internships for students", followed by "cooperation with career centres" stated by more than 60% of the respondents. Almost half of them mentioned "participation in courses, debates or seminars organised by universities" as an equally important way to promote collaboration between the two institutions.

Entrepreneurial skills

For a long time, academics and professionals deemed entrepreneurship as an inner skill, or an intuition or coming from a previous professional experience rather than a training delivered at the university. However, this had never been demonstrated, and nowadays this teaching is known. Of course, the entrepreneur's personality cannot be denied, yet the entrepreneurial training teaches everyone how to undertake, depending on their project and personality or weakness by the association of complementary skills.

As far as the students are concerned, 66% of them think they command the skills to become an entrepreneur but only half of them think that it is thanks to the curricula they have followed. Indeed, entrepreneurial skills are the least rated in the improved (at the university) variable and is equally lowest rated in the other two variables (essential skills and lack skills); therefore, one might say that students do not consider this skill as important as others like communication and thinking skills.

However, 80% of academics said they are willing to help students in their entrepreneurial initiatives and over 80% of them are willing to enhance the ties of current cooperation with companies.

We can notice here that entrepreneurial skills (i.e: time management, flexibility, leadership, problem solving, team working, technical skills, etc.) could and should be improved, since it isn't enough taught at universities and academics are willing to get involved in this discipline.

International environment

According to studies carried out on the entrepreneurial training course at the university, it seems that the business creation success is more about the open-mindedness, opening the scope of possibilities by researching new different knowledges and by their questioning. In other words, academics have to teach students how to be self-trained throughout their career.

However, regarding the international mobility, less than half of the students studied abroad and even less - 22.2% - did an internship in a foreign country, whereas according to our results for 83.5% of the inquired students, an international job experience is seen as quite important. According to our results for 80% of the inquired academics, an international job experience is considered as quite important



3.2 Curricula and teaching approaches

How to build an entrepreneurial curriculum?

As per the above it is important to highlight several issues emerging from the survey that can be considered of a more general applicability.

- Entrepreneurial education is more easily achieved when academics have previous experiences or at least the entrepreneurial skills/attitudes.
- Entrepreneurial education is much more effective for students that have intrinsic entrepreneurial skills, but is much more perceived by those students that have no previous posture for these issues.
- Entrepreneurs and Institutions and students favourably view more efforts to put “more practice” in the academic programmes, but academics do not always feel ready to do it without the professionals support.
- Entrepreneurs, students and academics have very different perceptions of what should be taught, what is important to be successful and what is required by the other categories of individuals mentioned.
- This means that joint projects to design the curricula are the way forward to limit dissatisfaction, to reinforce cooperation strategies, and to supersede the divide between academia and the job market.
- Teaching methods and approaches represent crucial issues that deserve attention.

How to improve teaching methods and approaches?

In relation to teaching methods and approaches several issues need to be considered.

- The use of different methods from front-based teaching is suited to entrepreneurial education. It would allow students not to only focus on the lecture content, but also to often participate and therefore increase their creativity and their sense of initiative
- The use of multiple methodologies set to make students active and proactive learners is perceived important to develop interpersonal skills (mean 2.95) and learning skills, such as ability to learn independently, curiosity and drive for continuous learning (mean 3.05), by students, academics and entrepreneurs.
- On the contrary, divide is still recognizable in regard to communication skills. Surprisingly, academics assign greater importance than students to these topics. Probably, because they are on average older than their students and less familiar with alternative communication (and teaching methods) that become a central worry for them.

- However, there is agreement that the gap between what the academics think they taught and what the students perceive they have assimilated could be filled through alternative teaching methods (i.e. business game) that improve flexibility, opportunity seeking, risk-taking and develop the ability to work productively in a virtual team.
- The approach to alternative teaching methods is sensitive because there can be some difficulties, to implement them, such as resistance by traditionalist academics more oriented to the front-based approach. In other words, educators and schools should be empowered to have the flexibility to shift between teaching methods.

In order to increase the degree of effectiveness of the above-cited initiatives, some authors, such as Bae et al. (2014)¹, suggest that teachers should:

- have a clear educational concept, seeking to equip student teachers with the ability to teach for the world of tomorrow. This concept should be embedded in their entire curriculum.
- have a clear vision about how entrepreneurship education fits into the broader curriculum and development plan.
- have advantages linked to the connection between educational institutions and the business sphere. Indeed, business representatives could support entrepreneurial teaching and learning in many ways: as experts, as supporters, as mentors or as critical friends.

Overall, to improve the entrepreneurs teaching ability, we suggest that teaching action should:

- Create and facilitate dynamic training programmes for student to develop their own entrepreneurial knowledge, skills and attitudes.
- Support active learning, practical experiences and learning by doing experience to maximize students experience.
- Discuss, reflect and evaluate students learning process.

¹Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship theory and practice*, 38(2), 217-254.

3.3 Embedding entrepreneurship education

With reference to entrepreneurial education it is possible to make a difference between the skills that students “think they need to be entrepreneurs” and those skills that entrepreneurs think that students should enrich in Universities.

- Our results put into light the existence of skills that students think to be successful factors in entrepreneurial career. Learning skills (mean 3.05), interpersonal skills (mean 2.95) and thinking skills (mean 2.70) are the most important according to the respondents’ view.
- Surprisingly, skills like virtual collaboration, such as ability to work productively in a virtual team/environment (mean 2.10) and intercultural skills (mean 1.98) receive a lower attention, despite globalisation impose such views and requires efforts to make these areas more effective
- Entrepreneurs think that students should enrich their attitude and work ethics, assigning a crucial role to Universities in this regard (mean 3.90 and 3.25 respectively).
- Equally, entrepreneurs view personal skills and interpersonal skills as the most important characteristic in entrepreneurship (mean 3.90), while students pay less attention to these themes (2.60 and 1.98 respectively).
- The ability to obtain and process information is favourably recognized by entrepreneurs (mean 3.15), but also in this case students record a slow mean score (mean 2.2). What should be noted is that entrepreneurs always rate skills much more highly than students, we can explain this phenomenon stating that both groups give a different value to education.
- An alignment between the average scores of students and entrepreneurs is with regard to the services offered by the University. When asked “What kind of services does your university offer to improve your skills?” students preferred: course relevant for the labour market (mean 3.30), practical tasks and assignments in the courses (mean 3.50) and field-related internship experience locally and/or abroad (3.88). According to students’ thought, entrepreneurs similarly recognize the aforementioned skills: course relevant for the labour market (mean 3.50), practical tasks and assignments in the courses (mean 3.45) and field-related internship experience locally and/or abroad (3.97). This result shows that the services offered by the European University for the development of entrepreneurship are sufficient for the growth of youth entrepreneurship.

In the light of the aforementioned results, it is possible to state that academics should:

- define learning outcomes for entrepreneurial teaching together with students and representative of the job market
- try to improve all the skills related to project management, such as planning, organising, cash management, analysing, communicating, human resources management, leadership, delegation and also the ability to encourage networking.

- promote a strong practical component to learning supported by a solid theoretical basis;
- adapt constantly the courses and subjects to the needs of the students and to the labour market requirement.
- develop an entrepreneurial approach to teaching. They need to create an environment that enables innovation and good practice in students’ education.
- endorse the concept of social entrepreneurship explaining profit-making rather than ‘profit taking’. Also, they should connect to common ideals of teaching and can help to overcome bias.
- assimilate subject of the study programme as a horizontal approach and a cross-curricular subject, rather than consider it in isolation. Subject might be perceived as a competence and talent crucial to any teachers’ qualifications.
- develop assessment methods for entrepreneurship education pedagogy.
- create their own networks to share best practice.
- support and facilitate the development of practical and concrete materials to help the growth of the entrepreneurship education.
- collect students’ feedback systematically in order to improve the degree of effectiveness.

The data represented in the tables derive from a survey administered by University partners (collecting data in countries such as Italy, France, Lithuania, Poland, and Spain) among scholars, students and practitioners.

The questionnaires have been developed in accordance with the Ajzen’s Theory of Planned Behaviour (TPB), around the issues relating to 1) personal attitudes, 2) subjective norms, 3) perceived behavioural control for entrepreneurship, and employed a Likert scale (ranging from 1- strongly disagree-to 4-strongly agree) initially validated using 60 responses, before starting the dissemination.

Then, we used an exploratory factor investigation by using the principal components analysis (PCA). This procedure was used to suppress indicators with a correlation lower than 0.3, or whose exclusion increased the Cronbach’s Alpha value, which should not be lower than 0.7.

We eliminated two factors concerning subjective norms and one factor of perceived behavioural control. We had an overall Cronbach’s Alpha of 0,88 that is considered an acceptable value.

The final sample of respondents was made as follows. Students were in total 1731 (of which 941 Italians, 96 French, 30 Lithuanian, 399 Polish, 265 Spanish); Academics were in total 273 (of which 41 Italian, 16 French, 16 Lithuanian, 157 Polish, 43 Spanish). Practitioners were in total 197 (of which 15 Italian, 4 French, 13 Lithuanian, 157 Polish, 8 Spanish).

Table 1 – Skills that university should enhance

Students' point of view (S)	Academics' point of view (A)	Entrepreneurs' point of view (E)
What types of skills do feel that University should enhance?	What types of students' skills you feel able to improve at the University?	What types of students' skills do you feel that Universities should enhance?

Questions+D14A4:D15A4:C15A4A4:E1	(S) mean	(A) mean	(E) mean
Communication skills (ability to listen, express and present ideas, to persuade, to negotiate etc.)	2.8	2.98	3.5
Personal skills (self-confidence, positive attitude, strong work ethics etc.)	2.6	3.1	3.9
Interpersonal skills (ability to work in a team, ability to manage conflicts, networking etc.)	2.95	2.8	3.4
Intercultural skills (command of more than one language, work in culturally diverse teams etc.)	1.98	3.11	3.25
Learning skills (ability to learn independently; curiosity and drive for continuous learning etc.)	3.05	3.09	3.27
Entrepreneurial skills (flexibility, opportunity seeking, risk-taking etc.)	2.3	3.08	2.95
Thinking skills (critical, analytical, strategic thinking etc.)	2.7	2.98	3.04
Information, media and technology skills (ability to obtain and process information)	2.2	3.16	3.15
Virtual collaboration skills (ability to work productively in a virtual team/environment)	2.1	2.9	2.58
Technical skills (professional field related skills to accomplish specific tasks etc.)	2.65	3.65	3.1
Other (specify)	2.55	2.6	2.48
Standard deviation	0.33	0.25	0.38

Table 2 – Skills important to get a job

Students' point of view (S)	Academics' point of view (A)	Entrepreneurs' point of view (E)	
What types of skills do you consider important in your field to get a job	What types of skills do you consider important for your students to get a job in your field?	What types of skills do you consider important for your students to get a job in your field?	
Questions	(S) mean	(A) mean	(E) mean
Courses relevant to the labour market	3.3	3.2	3.5
Includes practical tasks and assignments in the courses	3.5	3.33	3.45
Provides field-related internship experience (locally and/or abroad)	3.88	3.78	3.97
Includes sector specific work placements as an integral part	3.3	3.35	3.95
of the study programme			
Provides post-graduation support (facilitate relations between	3.17	2.87	3.75
graduates and companies)			
Provides on-going collaboration with labour market actors	3.25	3.15	3.99
Cooperates with companies	3.32	2.98	4
Cooperates with foreign universities	3.15	3.03	3.88
Provides additional foreign language and informatics courses	3.38	3.17	3.58
Provides additional teaching facilities (e.g. on-line courses)	2.88	2.56	2.56
Cooperates with associations (e.g. AIESEC)	2.55	2.18	3.02
Standard deviation	0.32	0.4	0.44

Table 3 – Services

Students' point of view (S)	Academics' point of view (A)	Entrepreneurs' point of view (E)
What kind of services does your university offer to improve your skills?	What kind of services does your university offers to improve your teaching experience?	What kind of services should a University provide to improve students' skills and favouring students in getting in touch with labour market?

Questions	(S) mean	(A) mean	(E) mean
Courses relevant to the labour market	3.3	3.2	3.5
Includes practical tasks and assignments in the courses	3.5	3.33	3.45
Provides field-related internship experience (locally and/or abroad)	3.88	3.78	3.97
Includes sector specific work placements as an integral part of the study programme	3.3	3.35	3.95
Provides post-graduation support (facilitate relations between graduates and companies)	3.17	2.87	3.75
Provides on-going collaboration with labour market actors	3.25	3.15	3.99
Cooperates with companies	3.32	2.98	4
Cooperates with foreign universities	3.15	3.03	3.88
Provides additional foreign language and informatics courses	3.38	3.17	3.58
Provides additional teaching facilities (e.g. on-line courses)	2.88	2.56	2.56
Cooperates with associations (e.g. AIESEC)	2.55	2.18	3.02
Standard deviation	0.32	0.4	0.44

3.4 On managing change and strategic leadership

What is Change Management?

Change management is a structured approach to transitioning individuals, teams, and organizations from a current state to a desired future state, to fulfil or implement a vision and strategy. It is an organizational process aimed at empowering employees to accept and embrace changes in their current environment. There are several different streams of thought that have shaped the practice of change management.

Change Management as a Systematic Process

Change management is the formal process for organizational change, including a systematic approach and application of knowledge. Change management means defining and adopting corporate strategies, structures, procedures, and technologies to deal with change stemming from internal and external conditions.

- Society for Human Resources Management, 2007 Change Management Survey Report

Change Management as a Means of Transitioning People

Change management is a critical part of any project that leads, manages, and enables people to accept new processes, technologies, systems, structures, and values. It is the set of activities that helps people transition from their present way of working to the desired way of working.

- Lambeth Change Management Team, Change Management Toolkit.

Change Management as a Competitive Tactic

Change management is the continuous process of aligning an organization with its marketplace—and doing so more responsively and effectively than competitors.

- Lisa M. Kudray and Brian H. Kleiner, "Global Trends in Managing Change," *Industrial Management*, May 1997

How can Change Management be carried out in the Higher Education field?

A change effort or initiative must start with a vision. Whether change is prompted by external (political, economic, social or technological) or internal factors (policy, systems or structure), creating a vision will clarify the direction for the change. In addition, the vision will assist in motivating those that are influenced to take action in the right direction.

To be effective a vision must be:

- Imaginable – conveys a picture of what the future will look like
- Desirable – appeals to the long-term interests of employees, customers, stakeholders etc.
- Feasible – comprises realistic, obtainable goals
- Focused – clear enough to provide guidance in decision making
- Flexible – General enough to allow initiative and alternative responses
- Communicable – can be fully explained in 5 minutes

It is worth noting that change effort or initiative usually suffer obstacles that are mainly related to the following dimensions:

- Employee resistance
- Communication breakdown
- Insufficient time devoted to training
- Staff turnover during transition
- Costs exceeded budget

These obstacles to change mainly arise in the wake of mistakes such as:

- Allowing too much complacency
- Failing to garner leadership support
- Underestimating the power of vision
- Under-communicating the vision
- Permitting obstacles to block the new vision
- Failing to create short-term wins
- Declaring victory too soon
- Neglecting to anchor changes firmly in the culture

The above-listed issues become even more complex to manage within the Higher Education field due to the complexity revolving around Universities from a twofold perspective. First, Universities have a multifaceted mission and need to balance the interests of many groups of stakeholders, who can resist any unwanted changes. Second, the Universities are facing increasing challenges due to increased competition and the need to offer to students learning opportunities and initiatives that better encompass the requests coming from the employers, and thus need to involve these subjects in the preparation phase.

To ease the changing phase that higher education worldwide faces the provision of an effective change management strategy becomes paramount. Thus, we propose the following 6 steps.

1- Increase Urgency

- **How:** Ensure a compelling story, create the vision, do not underestimate the difficulty of driving people out of the comfort zone, do not be paralyzed by risks.
- **Desired New Behaviour:** People start telling each other, “Let’s go, we need to change things!”

2- Build the Guiding Team

- **How:** Showing enthusiasm and commitment to help draw the right people into the group, modeling the trust and teamwork needed in the group, avoid no prior teamwork people at the top, avoid too much governance complexity of the team
- **Desired New Behaviour:** A group powerful enough to guide a big change is formed and they start to work together well.

3- Get the Vision Right

- **How:** Trying to see – literally – possible futures. Build visions that are so clear that they can be articulated in five minutes or written up on one page, avoid being overly analytical on strict financial issues
- **Desired New Behaviour:** The guiding team develops the right vision and strategy for the change effort.

4- Communicate for Buy-In and empower action

- **How:** Developing a communication strategy. Keeping communication simple and heartfelt. Speaking to anxieties, confusion, anger, and distrust, build a participatory and cooperative environment, involve resisting people
- **Desired New Behaviour:** People begin to buy into the change, and this shows in their behaviour because More people feel able to act, and do act, on the vision.

5- Create Short -Term Wins

- **How:** Short-term wins nourish faith in the change effort, emotionally reward the hard workers, keep the critics at bay, and build momentum
- **Desired New Behaviour:** Focus on one or two goals instead of all and make sure no new initiatives are added until one of those goals is achieved and celebrated.

6- Make Change Stick

- **How:** Making absolutely sure you have the continuity of behaviour and results that help a new culture grow, build a new social culture
- **Desired New Behaviour:** New and winning behaviour continues despite the pull of tradition.

4. Engaging economic actors

4.1 Incentives and advantages of building closer relationships

Collaboration between universities and industry have been taking place for over a century, but the rise of a global knowledge economy has intensified the need for strategic partnerships that go beyond the traditional funding of discrete research projects.

There are several kinds of collaboration schemes followed by universities and companies worldwide:

- Transactional partnerships such as an executive giving a lecture. This collaboration is pretty common and may lead to more and bigger projects together in the future
- Project-based partnerships, when both sides run a common R&D project for one to three years. They can be valuable for building ties that lead to a strategic partnership.
- Strategic partnerships, more stable, need a broad, flexible agreement. The knowledge produced by the collaboration is likely to influence the university's future research and teaching and a company's strategy.

According to multiple success stories, the most productive collaborations are strategic and long-term. They are built around a shared research vision and may continue for a decade or beyond, establishing deep professional ties, trust and shared benefits that work to bridge the sharp cultural divide between academia and industry.

Now, if closer and more stable relationships provide more benefits to both worlds, why is it so complex to set up a fruitful cooperation scheme?

Let's face partnerships have a high cost in human capital for a company. They are set up as a last resort, when company understands there is no other way to accomplish the goal alone. Thus, executives start looking for suitable partners among universities located preferably in their surrounding area. The main problem a company faces is to find not only scientific capabilities but also business-oriented approaches. It requires universities which understand business and make industry partnerships a clear priority. In turn, it requires companies that are able to support universities towards hybrid teaching schemes.

- Strategic partnerships need input at the highest level from both the company and the university, creating joint steering groups including senior academics with industrial background and company executives.
- To attract industry involvement, universities must have people capable of building and managing partnerships.
- University programmes need to be strongly oriented toward helping solve the scientific and technological challenges that companies care about. Universities must become more open to giving people leading positions who bring more than just a research background.
- The goals and benefits of partnering must be clear for both sides and incentives for university personnel to collaborate with industry must be designed to reduce cultural gap. This does not mean to undercut basic research but to put a clear priority on engaging with industry for mutual benefit and for the benefit of society.
- On the industry side, public funding incentives from Governments and European Union should encourage this kind of partnerships, not just focused on particular joint research projects applications but also long term strategic collaboration with clear roadmaps to be developed within 5 to 10 years.
- The European Commission has already launched several initiatives to enhance closer and more effective ties between the three corners of the knowledge triangle, including the European Institute for Innovation and Technology (EIT), the Knowledge Alliances pilot project and the University-Business Forum.
- Universities must keep in mind that companies will only work with the best so if they want to succeed in setting up close relationships, they must adapt their structure to become more attractive. We are in the right path but it is a long journey till we bridge the cultural gap between academia and enterprises.

4.2 Establishing an impactful dialogue

As already stated, a constant dialogue between universities and companies should be established in order to create educational programmes. However, this is far from being a common practice in many countries, where businesses do not participate in this phase which later creates the environment for further trainings. On the one hand, this gives a way to create workplaces (i.e. employ people, pay taxes, etc.), on the other hand, this means that a graduate after several years of studies with the knowledge he/she has gained is no longer needed in the labour market.

A possible way forward to establish an impactful dialogue encompasses the following elements:

- Business representatives should form a board (depending on the sector) and the board should provide counselling for the specific educational programme.
- Educational programmes could benefit from the presence of foreign partners from both the university and business sides; Interdisciplinary in the team that design the educational programme is also advisable, as increasingly scientists contend the lack of several technical knowledge that can support their career;
- Social security or labour exchange or other relevant institutions should implement a nationwide monitoring of the university graduates. Knowing the competencies the student has acquired in the specific programme, there should be created a way to see how long he/she is in the labour market, how actively he/she is acting (i.e. changing the positions in one company; changing companies; changing the position and the company).
- We cannot deny the apprenticeship as a way to see a student's competences in the vocational education and trainings area. The similar system might be helpful in high education as well.

5. Conclusions

The guidelines have been conceived to provide a baseline to reflect upon the need for massive changes in the Higher Education context and to offer theoretical ideas and practical tools to make this happen. The view that the guidelines share is that the employment-education interface requires fresh thinking and new strategies to reduce the divide between practice and Higher Education.

On the one hand, the guidelines acknowledge the pressures that HEIs face to date, and on the other hand they provide several solutions to prompt an entrepreneurial education pathway.

The guidelines allow us to put into use new logics to defeat the current barriers to this pathway. These logics pass through true and profound engagement of different types of actors to develop a shared and common culture. The change in culture is not only addressed for students but also encompasses the chance to train educators and that passes through an entrepreneurship agenda that becomes a relevant priority.

Yet, the guidelines strongly suggest the importance of early industrial placements (implying frequent and productive relationships between the University and the entrepreneurial context), guest speakers, and practice-oriented academics (PRACADEMICS).

This effort should culminate in students more aware of entrepreneurial behaviour, attitude, and skill development, owning basic entrepreneurship competencies, understanding key values and know how, but above all important and lasting relationships.

The guidelines are grounded in the view that to support the necessary (slowly) changing process of the mindsets in the game there are important aspects that deserve attention. The reference is to curricula and teaching approaches, with special regard to the ways through which designing an entrepreneurial curriculum and the evolving teaching methods and approaches; the ways to embed entrepreneurship education; how to manage strategic change and leadership; how to engage economic actors.

The guidelines transfer several strong and new messages, which follow

- Awareness
- Engagement
- Trust
- Hybridisation of the actors involved
- Dialogue, mediation, and common interests development
- Practice-based education
- Theory-driven practice
- Search for a common discourse between the actors involved
- Substantive actions not formal initiatives



