

# State of University-Business Cooperation

### **University Perspective**

Study on the cooperation between higher education institutions and public and private organisations















### The State of Italian University-Business Cooperation: the university perspective

Partners



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### **Executive summary**

#### Summary

This report provides the findings of a study on the university-business cooperation (UBC) in Italy from the perspective of higher education institutions (HEIs). Examining the perceptions of Italian academics, HEI managers and knowledge transfer professionals (KTPs) provides positive signs for the future, with 99,6% of all respondents currently cooperating with businesses planning to maintain or increase their cooperation in the future. Yet, more can be done, for example, in supporting HEIs' cooperation efforts, including the development of dedicated UBC structures, as well as the development of incentive systems for academics engaging in UBC.

#### About the study

The results presented in this report reflect the perceptions of academics, HEI managers and KTPs in Italy with respect to cooperation between HEIs and business. Data was collected by means of an online survey distributed via email to all registered European HEIs in 33 countries during October-November 2016, leading to a total of 1451 response from Italian HEIs. The study measured the perceptions of respondents with respect to their cooperation efforts, barriers, drivers, supporting mechanisms and perceived capabilities.

#### **University-Business Cooperation activities**

Generally, the involvement of Italian academics in UBC is low, with over 80% of academics not undertaking any activities at all. The most common activities that are practiced by academics to high or medium extend are mobility of students (12,7%), consulting (12,7%) and R&D collaboration (11,3%).

Very few academics engage in UBC related to management and valorisation, along with mobility of staff and lifelong learning.

Italian academics see themselves as proactive initiators of collaborative activities with businesses. Over a half of the respondents state their high frequency of initiation of UBC. The students and internal intermediaries within the university as well as external intermediaries are seen as the most passive initiators of UBC in Italian context. The cooperation of Italian HEIs tends to take place with larger companies and SMEs, mostly located within the country or region.

#### Lack of resources

Regardless their cooperation experience, Italian academics see insufficient funding and bureaucratic procedures as the major factors that hinder UBC. Specifically, the lack of funding by SMEs, which themselves have a limited capacity to invest in longterm larger projects, emerges as a significant barrier. Lack of university and government funding similarly puts the UBC into question for Italian academics, as well as complicated bureaucratic nature of the collaborative activities. Italian HEI managers share nearly similar perspective on the barriers to the cooperation between businesses and universities. Interestingly, the issues related to human resources, such as frequent staff turnover within any of the partners, are not seen as factors that can seriously hinder the cooperation.

#### **Relationships matter**

The well-established relationship between the partners is a key to the successful collaboration, as

This report seeks to contribute to our understanding of the higher education institution's (HEI) perspective of universitybusiness cooperation (UBC), drawing on a survey of European HEIs. academics and businesses. While acknowledging limitations relating to the generalisability of the results due to the nonrandom nature of the sample, the results provide positive signs both of the present and for the future, while also providing an indication as to areas that require future development.

### **Executive summary**

both Italian academics and HEI managers agree upon that in their responses. Mutual trust and commitment, and a shared goal considerably facilitate UBC. However, the relationship should be supported by the structures and, more importantly, financial basis. Thus, the existence of funding to undertake the cooperation is one of the more frequently mentioned facilitators of UBC by all the Italian respondents.

### Personal gains versus contribution to other stakeholders

HEI stakeholders in Italy are driven by different motivations to engage in UBC. Academics who already cooperate with businesses are motivated by the opportunities to obtain financial resources and apply their research in practice, while those who do not undertake the collaboration see the possibility to improve graduate employability and contribute to the mission of the university more motivating. Interestingly, HEI managers hold a similar view to non-cooperating academics. They are more motivated to undertake UBC for the benefit of other stakeholders, such as improving graduate employability, impacting the society, contributing to the mission of the university and addressing societal challenges.

#### Policies and paper strategy first

Overall, the policy, strategic and structural mechanisms to support UBC are developed from low to medium extend in Italian HEIs, which is slightly lower than the European average. Regional innovation policies and those that positively support research collaboration between universities and

developed businesses are more on the governmental level, while documented mission, vision and strategy embracing UBC and university top-level commitment to collaboration are the internal strategic HEIs mechanisms developed to a greater extend in Italy. The more developed structural and operations mechanisms, that support UBC in Italy are connected with employability and networking activities (such as career offices, alumni networks and UBC activities facilitating student interaction with businesses), and bridging structures (such as board member or vice rector positions for UBC, agencies and industry liason offices).

#### Cooperating with conviction

Italian academics identify their capabilities for UBC as moderate. They believe it is their and university's role to collaborate with businesses in research. They also state that they have a lot to offer in R&D collaboration to companies. Italian academics, however, admit they do not know enough about what businesses need and want and they do not have sufficient support to undertake UBC, despite having positive attitude towards UBC in general.

Italian academics seem to be satisfied with the joint activities with businesses in research, however the education-related UBC has significantly lower satisfaction rates, which corresponds to European average. Nonetheless, 99,6% of Italian academics show very strong commitment to maintain or increase their collaborative activities in the future. This shows a positive momentum for UBC in Italy that still, however, has a large room for improvement.

### Introduction

#### About the study

The study focuses on the cooperation between higher education institutions (HEIs) and public and private organisations in the 28 European Union Member States and 5 associated countries.

The State of European university-business cooperation (UBC) study is executed for the DG Education and Culture at the European Commission (EAC/10/2015) by a consortium led by the Science-to-Business Marketing Research Centre (S2BMRC), in Germany from January 2016 until November 2017.

The aim of the study is to get a more profound, comprehensive and up to date understanding of the state of UBC in Europe: what is the state of play of a wide range of UBC activities in the different countries, what are the main drivers and barriers for the different stakeholders and at what levels; what is the regulatory framework and socio-economic conditions and what kind of measures/initiatives exist on a national level to support the development of UBC. The project investigates UBC from the perspective of both university and business.

#### **Main activities**

The main components of the project were a series of expert interviews with 23 recognised UBC experts, 52 good practice case studies, a UBC policy and indicators review as well as a major quantitative survey of stakeholders within both HEIs and business. The survey was translated into 25 languages and sent to all registered European HEIs (numbering over 3,000) in the 33 countries during October-November 2016. Through this, a final sample of 17,410 representatives from within HEIs and business was achieved. This makes the study the largest international study into cooperation between HEIs and business yet completed.

#### Why care about university-business cooperation?

- UBC is considered to be the engine towards knowledge-based societies and economies
- UBC is specially needed in the European context, threatened by increased global competition, with ongoing economic and social problems and high levels of youth unemployment
- UBC helps to create a more connected and functioning relationship between government, business and HEIs, which is at the core of EU funding schemes, such as Horizon 2020 and Erasmus+.
- UBC direct outcomes include:
  - improving the competitiveness of business,
  - increasing the relevance and innovativeness of research and teaching in HEIs,
  - improving the future job prospects of students and graduates,

which can in the longer term:

- create jobs,
- stimulate economic growth,
- increase living standards,
- reduce hindrances to good living.

#### **Study Objectives**

The specific objectives for the study are:

- Chart the current state of play and provide an in-depth analysis of UBC in the countries covered by this study, from the HE and business perspectives;
- Deliver 50 case studies of UBC (representative sample, balanced distribution among countries and organisations, balanced distribution of HEI and business led cases);
- Review indicators measuring UBC and propose possible scenarios for the implementations of UBC monitoring in Europe;
- Provide policy conclusions and recommendations for the furthering of UBC and the best approaches to take.



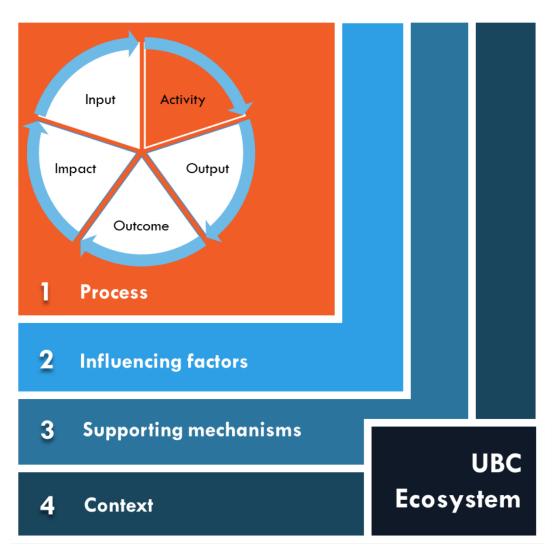
#### UBC Ecosystem Framework <sup>™</sup>

In order to best organise the project results, a project conceptual framework was chosen.

The UBC Ecosystem Framework possess a number of interrelated elements including the process of undertaking UBC, factors that are influencing UBC, mechanisms supporting UBC and finally the context in which UBC occurs.

The framework ties together the respective project activities, providing a common thread for reporting results and making recommendations.

### **UBC** activities



Source: Galán-Muros, V.; Davey, T. (2017) The UBC Ecosystem: Putting together a comprehensive framework for university-business cooperation. Journal of Technology Transfer. https://doi.org/10.1007/s10961-017-9562-3

### **UBC Activities**

Fourteen UBC activities are recognised and categorised into the areas of education, research, valorisation and management.

Area	Act	ivity
Education	1.	curriculum co-design
	2.	curriculum co-delivery (e.g. guest lectures)
	3.	mobility of students (i.e. student internships/placements)
	4.	dual education programmes (i.e. part theory, part practical)
	5.	lifelong learning for people from business (e.g. executive education, industry training and professional courses)
Dessevek	6.	joint R&D (incl. joint funded research)
Research	7.	consulting to business (incl. contract research)
	8.	mobility of professionals ( <i>i.e. temporary mobility of academics to business and vice versa</i> )
Valorization	9.	commercialisation of R&D results (e.g. licencing/patenting)
Valorisation	10.	academic entrepreneurship (e.g. spin offs)
	11.	student entrepreneurship (e.g. start-ups)
Management	12.	governance (e.g. participation of academics on business boards and businesspeople participation in university board)
	13.	shared resources (e.g. infrastructure, personnel, equipment)
	14.	industry support (e.g. endowments, sponsorship and scholarships)

Overall, Italian academics report lower development of the UBC activities in Italian HEIs than the European average shows.

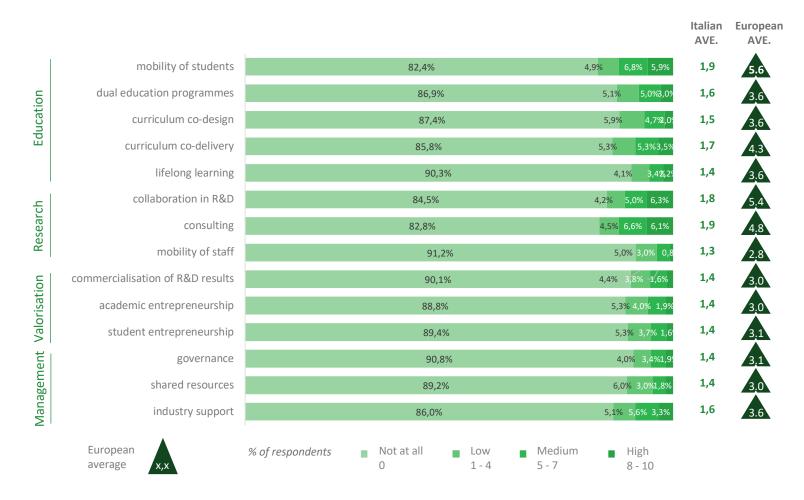
Italian academics most commonly engage with businesses in mobility of students (1,9), consulting (1,9) and R&D collaboration (1,8). However, more than 80% of Italian academics do not engage in these activities at all. The majority of Italian academics follow a "traditional approach" in their professional path (traditional teaching, developing academic papers, etc.). Even if technical universities are in the process of developing new ways to cooperate with businesses, there is still a noticeable lack of institutionalised incentives for the academics to engage in UBC.

The development of UBC management and valorisation activities, along with mobility of staff and lifelong learning is noticeably low in Italy. About 90% of academics do not undertake any cooperation related to these topics. Italian industrial landscape is filled with SMEs, which are undercapitalised. SMEs are not always interested to engage with universities in the activities that require more developed operational capacities, such as management and valorisation. Additionally, the flat structure and small size of Italian SMEs might appear unattractive for the universities in staff mobility or lifelong learning activities.

### **Development of UBC activities**

#### The extent of development of UBC activities

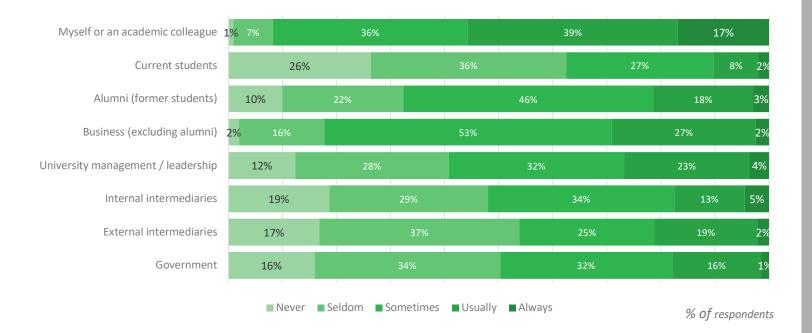
'Which UBC activities do you collaborate with businesses in?' – as answered by academics



### **Initiation of UBC**

#### How UBC is initiated

'How often various stakeholders initiate UBC activities' – as answered by academics

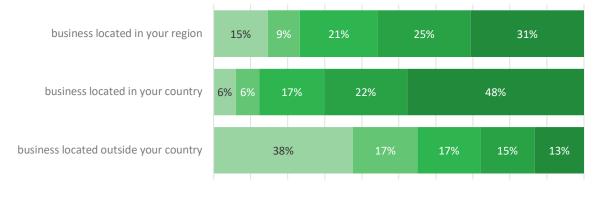


Over a half of Italian academics (56%) consider themselves or their colleagues to be the major initiators of UBC. In Italian case, cooperating with businesses is still seen as a practice linked to personal gains in research for the academics. Businesses (29%) along with university management (27%) are also considered active actors initiating UBC.

On contrary, academics perceive the intermediaries (internal or external) and students rather passive in starting the collaborative activities. The role of Italian intermediaries is still more connected with undertaking administrative tasks rather than providing a real structure that can stimulate UBC. As for the students, they are still more focused on their academic progress rather than entrepreneurship and business development. It finds reflection in a low number of spin-offs generated by Italian students during the academic period.

### Location of cooperating partners

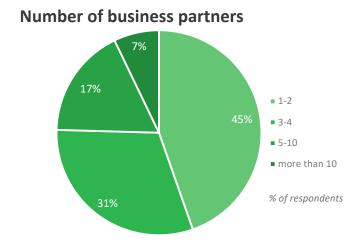
#### Location of business partners



■ Not at all ■ To a minimum extent ■ To a moderate extent ■ To a significant extent ■ To a large extent

% of respondents

Academics in Italy undertake a significant or high level of cooperation with national businesses (70%). However, collaboration with regional businesses is not far behind (56%). Only 13% of academics collaborate to a high extent with international businesses and about 40% do not collaborate at all. Language, "traditional view" on academic profession, and lack of international visibility of the Italian universities can possibly hinder the UBC with international partners. Therefore, Italian academics put more emphasis on the collaboration with national industries.

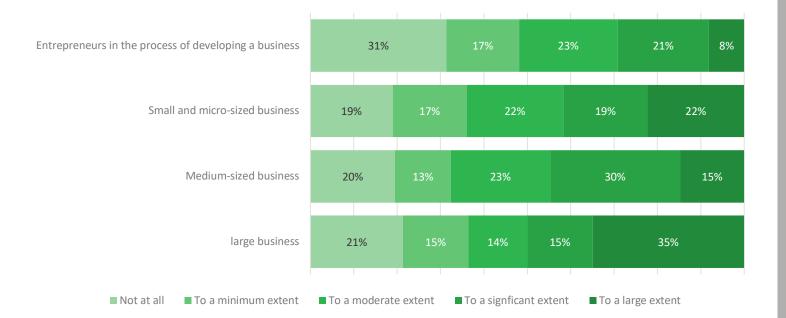


Over 70% of Italian academics cooperate with less than 4 businesses. 17% of them collaborate with 5 to 10 business partners and only 7% have UBC relations with more than 10 partners. In many cases, UBC is based on personal relationships.

### Size of cooperating partners

#### Size of cooperating partner

*'With whom do you collaborate?' – as answered by academics* 



Italian academics tend to cooperate more with larger businesses. A half of surveyed academics who cooperate with businesses engage in UBC with big companies to a large and significant extend.

UBC in Italy is reduced to 45% of cooperation with medium-sized businesses, 41% with small and micro-sized businesses and 29% with entrepreneurs. On the governmental level, UBC is often stimulated by national funding programmes that emphasise UBC between SMEs and academic/research centres<sup>1</sup>. Usually entrepreneurs are not targeted by these funding programmes.

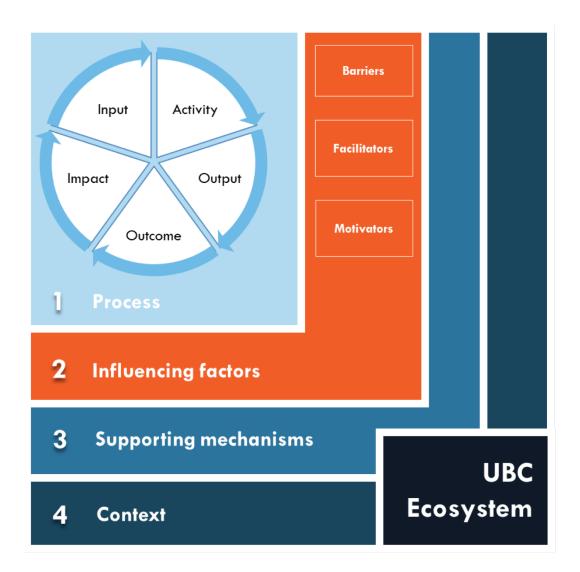
### **Factors influencing UBC**



Generally, a barrier provides a hindrance or obstacle to do something. Drivers comprise facilitators, which enable or ease the process, and the motivators, which triggers the starting of an activity and are often related to the expected outcome(s).

At the European level, this study has found that removing a barrier does not necessarily create UBC but rather it makes UBC possible. Instead, it is the facilitators and motivators (drivers) that initiate UBC.

For example, even when a lack of funds is often named as a major barrier to cooperation, the presence of funds may not be enough for cooperation to happen if the perceived facilitators or motivators are not sufficiently present.



### **Barriers hindering UBC**

Barriers

*What is inhibiting your cooperation with business?' – as answered by academics* 

Acade	mics collaborating with business	Academics not collaborating with business
1.	Limited resources of SMEs	Limited resources of SMEs
2.	Lack of university funding for UBC	Lack of university funding for UBC
3.	Lack of government funding for UBC	Lack of government funding for UBC
4.	Bureaucracy related to UBC	Difficulty in finding the appropriate collaboration partner
5.	Lack of business funding for UBC	Bureaucracy related to UBC
Lowest	Frequent staff turnovers within my university or the business	Frequent staff turnovers within my university or the business

The top five barriers to UBC for Italian academics relate to resources and administrative issues. They are similar for both collaborating and noncollaborating academics.

The limited resources of SMEs is the most relevant barrier to UBC as indicated by both groups. SMEs have a limited capacity to invest, and often rely on national funding programmes for UBC. Interestingly, lack of business funding in general represents a barrier for collaborating academics while their non-collaborating counterparts do not consider it as relevant.

Similarly, the lack of university and government UBC funding and bureaucracy related to cooperation are major barriers for UBC reported by both groups. The procedures and mechanisms for UBC are not welldefined and well-scheduled in Italian universities.

Interestingly, non-collaborating Italian academics see the difficulties with finding an appropriate collaboration partner more potentially inhibiting UBC than the cooperating academics do.

#### Italian academics perceive most of the barriers to UBC to a greater extend than the European average demonstrates.

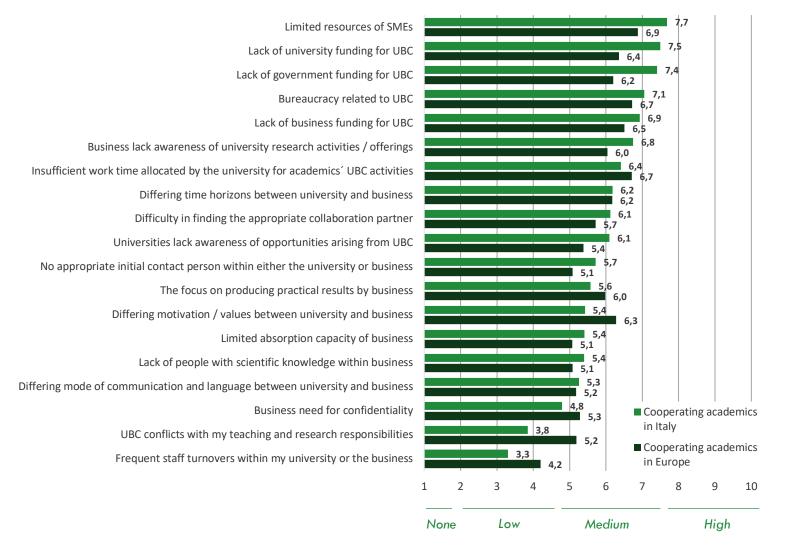
Italian academics find limited resources of SMEs and the lack of university and government funding more hindering for UBC than their European counterparts do. Even with the presence of UBC supporting national programmes, the Italian government can not provide stable research investment programmes for a wide range of disciplines.

Interestingly, Italian academics do not see the businesses focus on producing practical results and different motivations between universities and businesses as inhibiting UBC as their European counterparts do. The businesses' need for confidentiality, conflicting/overlapping responsibilities, and frequent staff turnovers are also significantly less noticeable barriers for Italian academics than for European ones. Academic/research institutions in Italy are rather stable organisations in terms of human resources and the turnover rates are low. The academics have autonomy and flexibility in their activities, therefore a possible conflict in responsibilities is not recognised by Italian academics as significantly hindering UBC.

### **Barriers hindering UBC**

#### **Barriers**

'What is inhibiting your cooperation with business?' - as answered by academics



### **Barriers hindering UBC**

#### **Barriers**

*'What is inhibiting your HEI cooperation with business?' – as answered by HEI representatives* 

#### Top 5 Barriers for HEI representatives

- 1. Limited resources of SMEs
- 2. Lack of government funding for UBC
- 3. Bureaucracy related to UBC
- 4. Lack of university funding for UBC
- 5. Lack of business funding for UBC

The strongest barrier potentially inhibiting UBC for Italian HEI representatives is the lack of resources, specifically lack of funding from SMEs, other businesses and the government.

HEI representatives recognise that bureaucracy related to UBC is also a major barrier for successful collaborative activities. Overall, Italian and European HEI representatives perceive the barriers hindering UBC similarly. Resources and funding related factors are the most inhibiting for both groups.

However, the businesses' lack of awareness regarding university research opportunities and their focus on practical results, as well as the different motivations/values between university and business seem more restricting to UBC for Italian HEI representatives than for their European counterparts. Italian HEIs lag behind in effective communication of their recent research and current work. Systematic engagement mechanisms, such as engagement of entrepreneurs in educational activities or open science cafes are not common in Italian HEI context.

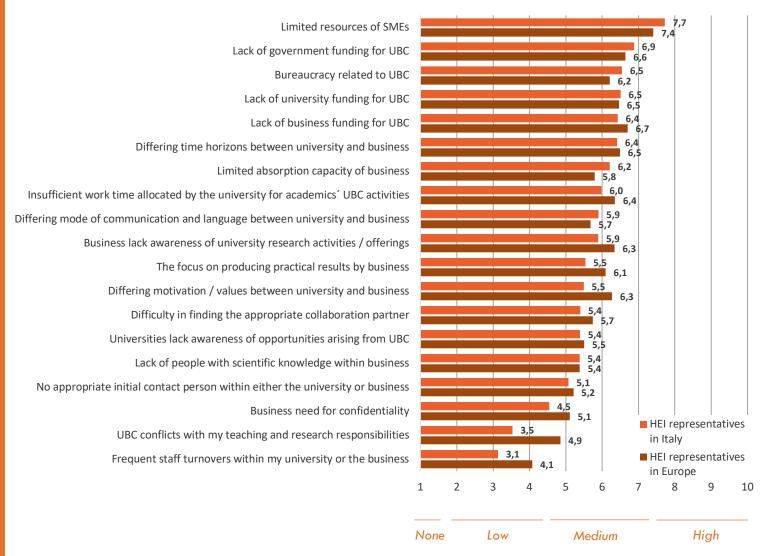
Both Italian and European HEIS the representatives notice that possibility that UBC will generate with other conflict academic responsibilities is rather low. Frequent staff turnovers within the university or in businesses is the lowest UBC barrier reported by all HEI representatives in Italy and Europe.

Importantly, Italian HEI representatives perceive almost all barriers lower than their European counterparts.

### **Barriers hindering UBC**

#### Barriers

*'What is inhibiting your cooperation with business?' – as answered by academics and HEI representatives* 



### **Drivers stimulating UBC**

*Drivers* are those factors that encourage businesses, academics or HEIs to engage in UBC.

Drivers of UBC are divided into two factors:

- 1. <u>Facilitators</u> factors that enable or ease cooperation
- 2. <u>Motivators</u> incentives or benefits that the respective stakeholders would like from the cooperation

Together, these two factors provide a comprehensive picture of what compels businesses to cooperate.

The 2010-11 State of European UBC study showed that for European universities the existence of strong UBC drivers can overcome the presence of barriers to UBC.

#### **Facilitators**

*'What is facilitating your cooperation with business?' – as answered by academics and HEI representatives* 

Acade	mics cooperating	HEI representatives	
1.	Existence of mutual trust	Existence of mutual trust	
2.	Existence of funding to undertake the cooperation	Existence of a shared goal	
3.	Existence of mutual commitment	Existence of mutual commitment	
4.	Existence of a shared goal	Existence of funding to undertake the cooperation	
5.	Interest of business in accessing scientific knowledge	Interest of business in accessing scientific knowledge	

The main factors that facilitate UBC are the same for both Italian academics and HEI representatives.

Both groups consider the existence of mutual trust the main facilitator for successful UBC. However, academics place more importance on the availability of funding than HEI representatives do.

Similarly, for HEI representatives having a shared goal is more important than for academics.

Both groups also recognise the interest of businesses in accessing scientific knowledge as an important driver for UBC. European and Italian perceptions of UBC facilitators align. Yet, Italian academics perceive most of the drivers to be slightly stronger, compared to European average.

For both groups, the most important UBC facilitators relate to the relationship factors, such as existence of mutual trust, commitment and a shared goal.

In addition, the existence of funding and the interest of business to access scientific knowledge are also widespread drivers of collaboration in the opinions of Italian academics.

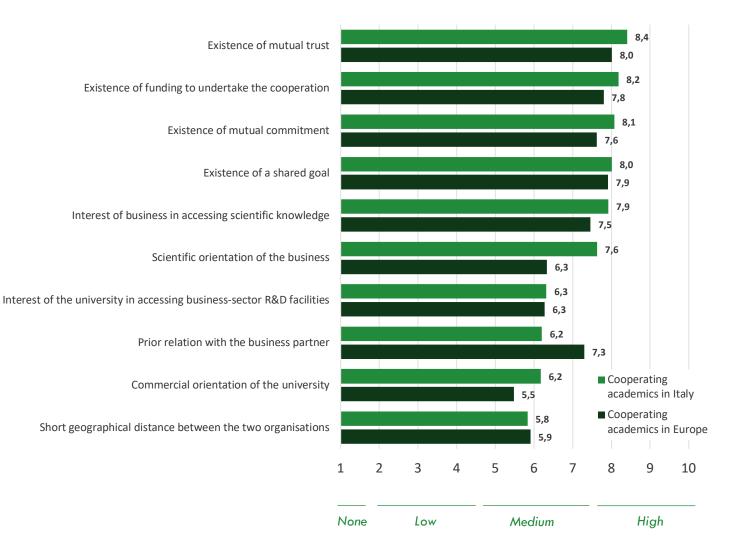
There is high likelihood that if businesses are scientifically oriented, it will serve as a driver for the Italian academics to establish UBC.

Italian academics do not assign much importance to the commercial orientation of the university and a short geographical distance that emerge as the weakest UBC facilitators.

### **Drivers stimulating UBC**

#### **Facilitators**

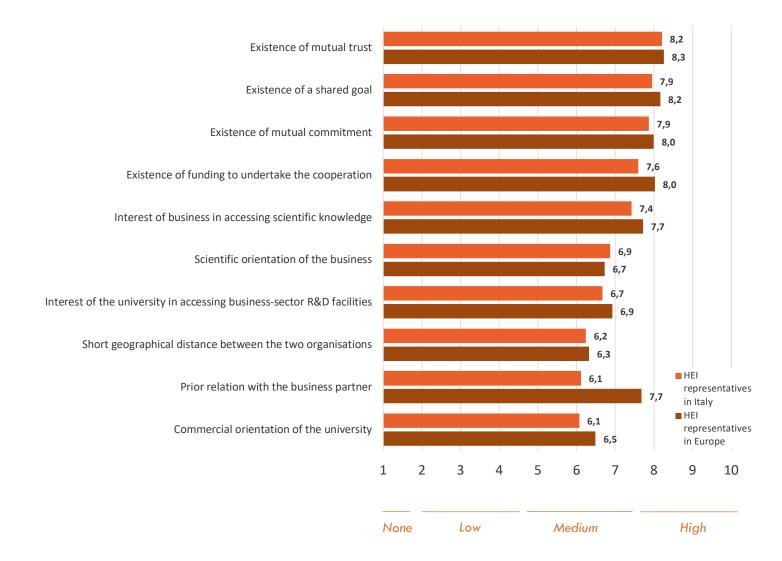
'What is facilitating your cooperation with business?' – as answered by academics



### **Drivers stimulating UBC**

#### **Facilitators**

*'What is facilitating your cooperation with business?' – as answered by HEI representatives* 



Italian HEI representatives and their European counterparts perceive the UBC facilitators in a similar way.

For both groups, the most important facilitators relate to the relationship aspect of UBC. The existence of trust, shared goal and commitment are the most important drivers for their cooperation with businesses.

The existence of funding and the interest of business in accessing scientific knowledge also play a significant role.

However, the importance of prior relations with the business partner is significantly higher for HEI representatives in Europe than for those in Italy. Motivation to engage in UBC for Italian academics who already cooperate with businesses and for non-cooperating academics vary.

While cooperating academics highlight funding availability, and the possibility to get insights and apply their research as primary motivations to engage in UBC, non-cooperating academics are more driven by their willingness to improve graduate employability and contribute to the mission of the university.

Interestingly, non-cooperating academics rate motivators related to other stakeholders (e.g. employability of graduates, societal needs, mission of the university) higher than the cooperating academics do.

### **Drivers stimulating UBC**

#### Motivators

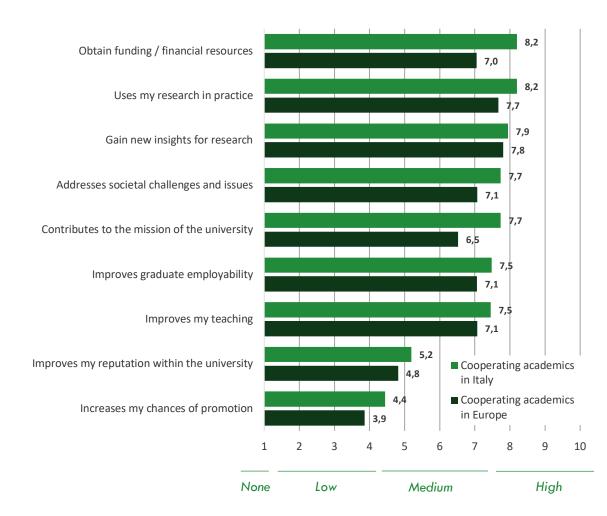
'What motivates you to cooperate with business?'- as answered by academics

Acade	mics who cooperate	Academics who <u>do not</u> cooperate
1.	Obtain funding / financial resources	Improves graduate employability
2.	Uses my research in practice	Contributes to the mission of the university
3.	Gain new insights for research	Addresses societal challenges and issues
4.	Addresses societal challenges and issues	Uses my research in practice
5.	Contributes to the mission of the university	Improves my teaching

### **Drivers stimulating UBC**

#### Motivators

'What motivates you to cooperate with business?'- as answered by academics



Italian academics perceive most of motivators higher compared to the European average.

The motivation related to funding is significantly stronger in Italy than on average in Europe. The cooperation with the businesses is a potential way to balance/compensate the lack of relevant governmental funds in Italy.

Furthermore, Italian academics rate motivators related to other stakeholders (e.g. employability of graduates, societal needs, mission of the university) higher. Italian academics demonstrate more observable social responsibility towards their students and wider community.

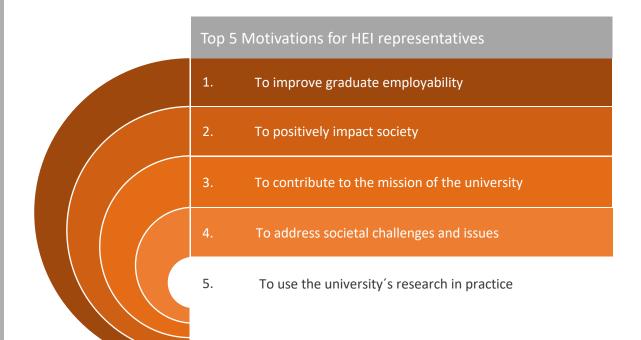
Notably, promotion and reputation related motivators are the weakest drivers stimulating UBC for both groups. Italian HEI representatives are more motivated by the benefits that UBC can bring to a wider range of stakeholders, such as graduates, society and university.

They are also driven by the motivation to use the university's research in practice.

### **Drivers stimulating UBC**

#### Motivators

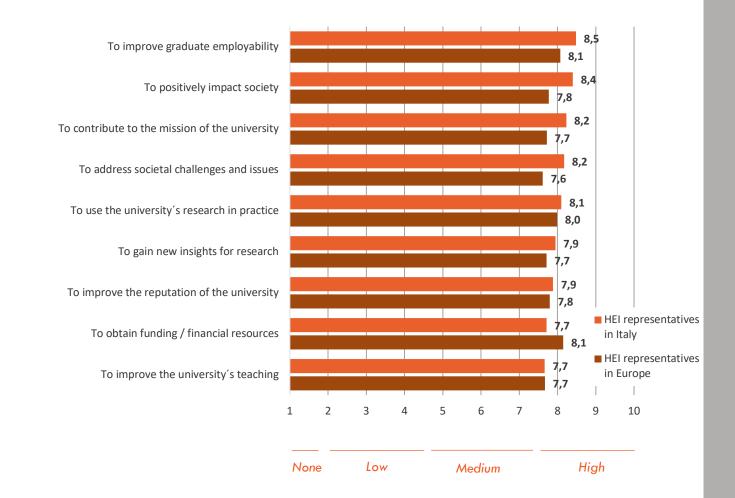
'What motivates your HEI to cooperate with business?'- As answered by HEI representatives



### **Drivers stimulating UBC**

#### **Motivators**

'What motivates your HEI to cooperate with business?'- as answered by HEI representatives



Italian HEI representatives perceive almost all motivators higher than their European counterparts. The exception lies in funding – for Italian HEI representatives the possibility to obtain additional financial resources is not as important motivation to engage in UBC as for their European universities.

Importantly, both European and Italian HEI representatives rate all the motivators as high-medium or high (from 7.6 to 8.5). This indicates existence of a greater potential for UBC for universities, where their representatives exhibit a high level of motivation for the collaborative activities with businesses. Italian academics and HEI managers have different perceptions about the major stakeholders that benefit from UBC.

While businesses and universities are perceived by academics as the main beneficiaries of UBC, HEI representatives recognise students and society as the stakeholder groups who benefit the most.

Academics and the government are believed to gain fewer benefits from UBC by both groups.

### **Benefits of UBC**

**Benefits** are the perceived positive outcomes (financial and non-financial) from undertaking UBC as relevant for the different stakeholder groups that can potentially participate in UBC.

The perception regarding who benefits from such cooperation can influence the decision to increase or decrease their participation or the involvement of other groups. For example, if academics perceive their own *benefits* to be low, they may refrain from engaging in UBC. Yet, if they perceive *benefits* for students to be high, they might undertake actions that contribute to students' involvement in UBC.

#### Benefits

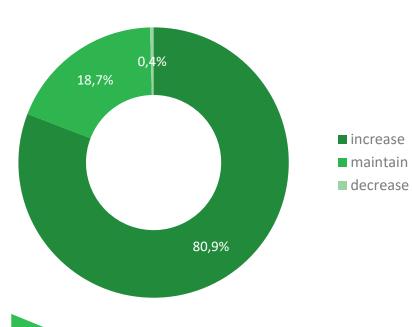
'Who receives the benefits of UBC?'- as answered by academics and HEI representatives

Acade	emics	HEI representatives
1.	Businesses	Students
2.	Universities	Society
3.	Society	Universities
4.	Students	Businesses
5.	Academics	Government / public authorities
6.	Government / public authorities	Academics

### **Future intentions**

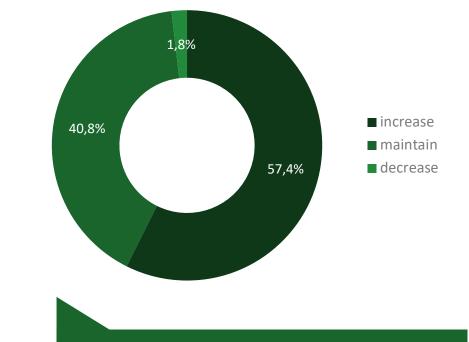
**Future UBC intentions – Italy** 

As answered by Italian academics



#### **Future UBC intentions – EUROPE**

As answered by European academics



Italian academics show a very strong commitment to UBC as 99,6% of them expect to increase or maintain their UBC activities. In this sense, Italy proves to be a vastly receptive market for UBC, with positive momentum for the future.

Academics in Europe also show a strong commitment to increasing UBC activities. 57,4% of cooperating academics expect to increase their collaboration and only 1.8% plan to decrease their activities with businesses. This shows a positive projection for UBC in Europe.

The willingness of Italian cooperating academics to recommend a colleague engagement in UBC varies depending on whether this cooperation is in research or in education.

Italian academics are more satisfied with UBC in research than their European counterparts (NPS=25). While 47% of them will promote cooperation in research further, 22% would not recommend it at all.

Italian academics are equally unsatisfied as their European counterparts with education-related UBC (NPS = -12 for Italian and -14 for European academics).

### Willingness to recommend UBC

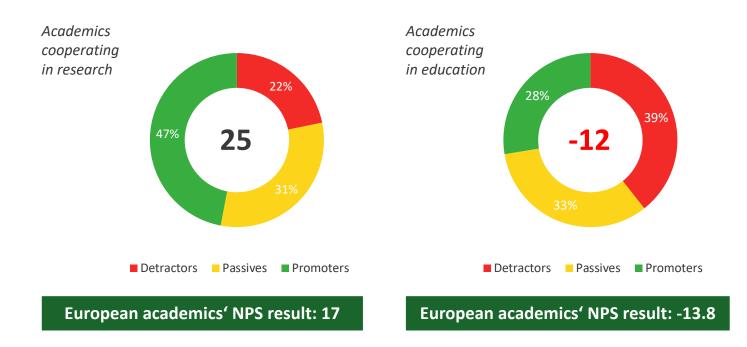
### *Willingness* to recommend *to an academic colleague cooperation with business in R*&D and education

As answered by academics

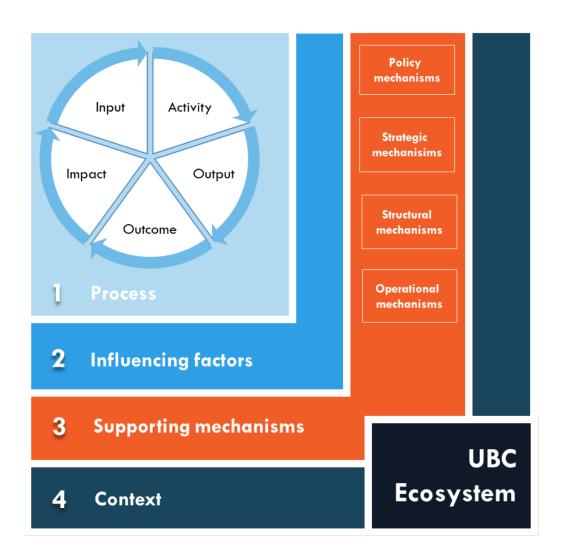
	Detractors	Passives	Promoters
Academics cooperating in E&T	39%	33%	28%
Academics cooperating in R&D	22%	31%	47%

Net promotor score
-12
25

#### Satisfaction in cooperation with businesses (net promoter score)



### **Supporting mechanisms for UBC**



Supporting mechanisms are interventions designed to support the development of cooperation between HEIs and business.

There are four types of supporting mechanisms:

- Policy
- Strategic
- Structural
- Operational

This section outlines the extent to which UBC supporting mechanisms are developed in this sample from the HEI perspective.

At the European level, the extent of development of all these mechanisms significantly influences the extent of cooperation. The level of the development of policy mechanisms supporting UBC is seen as medium to low by the Italian HEI representatives. This is similar to the perceptions of the European HEI representatives.

Regional innovation policies are developed better then the others (6.4), and are followed by the policies that positively support UBC (5.6). Those regional policies are usually translated into further funding programmes for the UBC projects offered by local authorities.

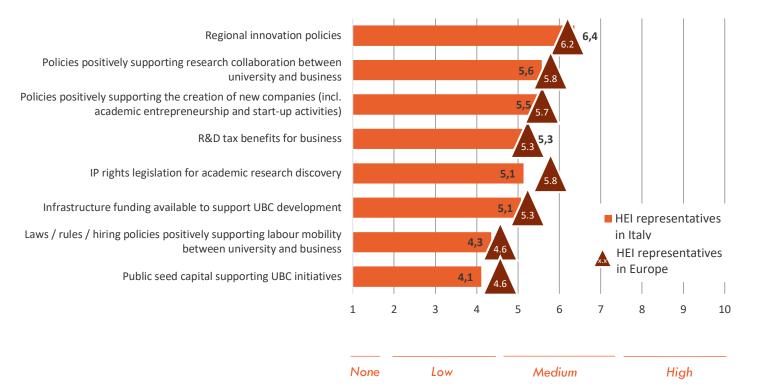
developed The least policy mechanisms, are the ones 'supporting labour mobility between universities and businesses' (4.3) and 'public seed capital supporting UBC initiatives' (4.1). Their development does not reach the European average. In Italian case, the "traditional" academics do not show explicit interest in mobility opportunities with businesses and entrepreneurship. Similarly, the market "seed capital" of underdeveloped in Italy.

IP rights legislation for academic research discovery is a much less developed policy mechanism in Italy than in other European countries in general.

### **Supporting mechanisms for UBC**

#### Policy mechanisms

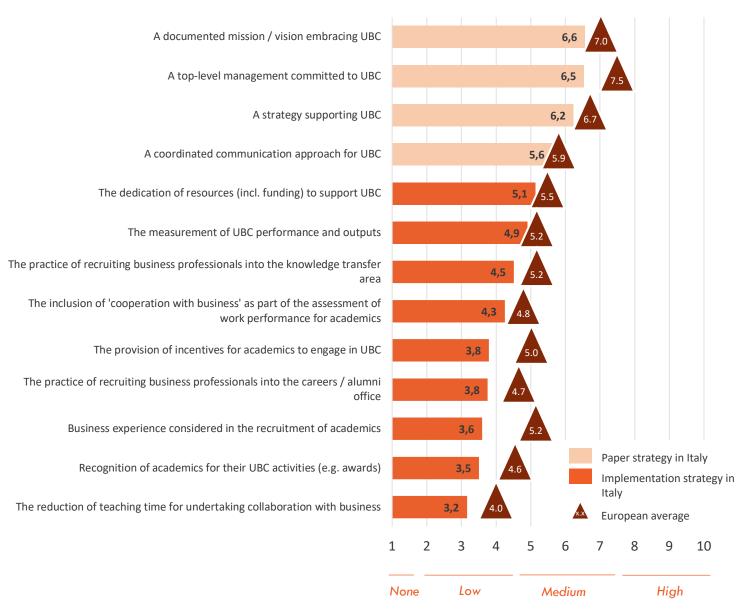
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



### **Supporting mechanisms for UBC**

#### Strategic mechanisms

'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



Overall, the level of the development of the strategic mechanisms in Italian HEIs is slightly lower than the European average.

Additionally, paper strategies are substantially better developed than the implementation strategies, indicating the official commitment of Italian HEIs to UBC above the actual dedication of resources.

The least developed supporting mechanisms according to Italian HEI representatives are the 'recognition of academics UBC activities' (3.5) and the 'reduction of teaching time' (3.2). Lack of incentives and formal recognition of academics engaged in collaboration negatively influences the overall perception and development of UBC.

The level of development of most structural mechanisms of Italian HEIs is slightly lower that the European average.

European and Italian HEI representatives indicated similar top structural mechanisms: career office(s) (6.6) and a board member or vice rector positions for UBC (5.8).

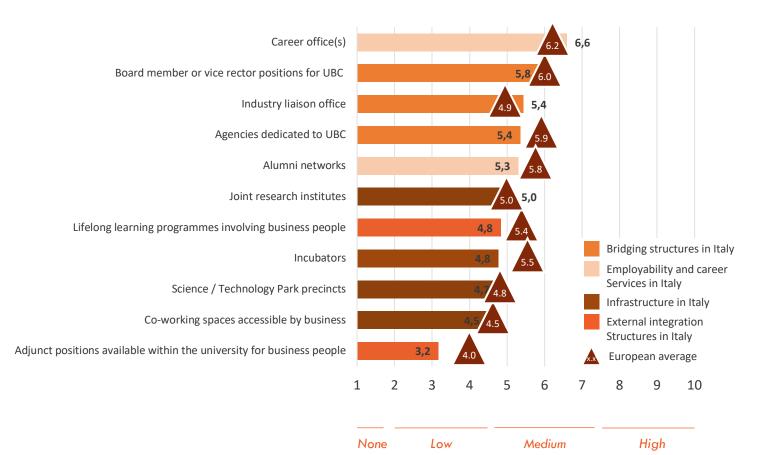
Overall, employability/careers services and bridging structures are the most developed types of structural mechanisms supporting UBC in universities in both Italian and European HEIs. In the past 10-15 years, the Italian government put considerable efforts in incentivising the creation of such bridging structures.

Infrastructure and external integration mechanisms are less developed in Italy than in Europe on average.

### **Supporting mechanisms for UBC**

#### Structural mechanisms

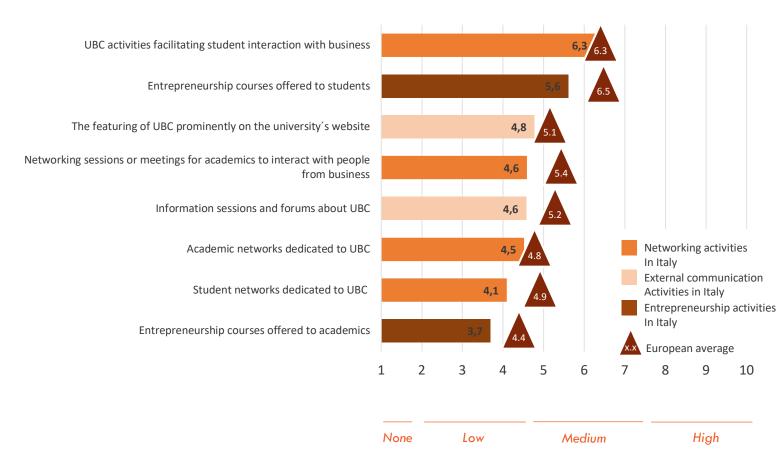
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



### **Supporting mechanisms for UBC**

#### **Operational mechanisms**

'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



Overall, Italian HEI representatives report that most of operational mechanisms supporting UBC are less developed in Italy than in Europe.

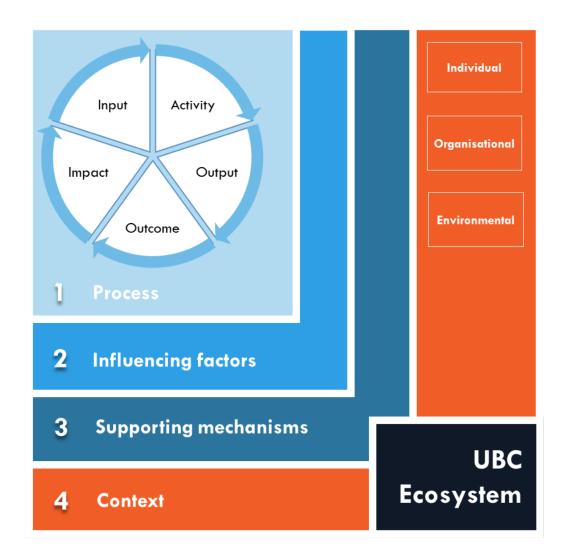
Student-centred activities are the most developed operational mechanisms in Italy. They include the activities related to student interaction with businesses (6.3) and entrepreneurship courses (5.6), which rank the highest.

There is a noticeable lack of student networks dedicated to UBC and entrepreneurship courses offered to academics in Italian HEIs. The degree to which UBC takes place is influenced by a set of element present in the context of the organisation that cannot be changed in short or medium term.

These include the characteristics of individual actors involved, the institutional factors relating to the university and business, as well as by a set of broader environmental factors (political, economic, social, technological, etc.).

This section outlines how some contextual factors influence UBC in the country.

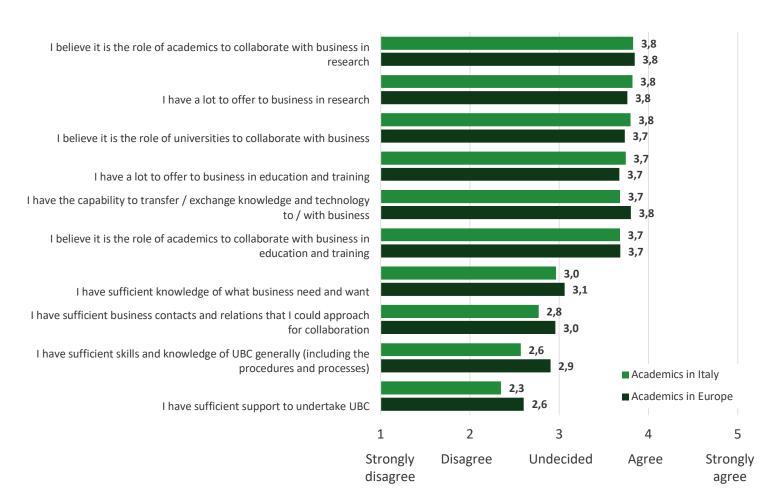
### Context



### **UBC** capabilities

#### **Capabilities for UBC**

'To what extent do you agree or disagree with the following statements?' - as answered by academics



Italian academics identified their capabilities to undertake UBC as moderate. Their perception of the role of UBC is similar to the views of their European counterparts.

Italian academics believe that it is their role to collaborate with business in research (3.8), as they perceive themselves to be capable to provide them with a good quality research. (3.8).

Generally, Italian academics believe that it is the role of universities to collaborate with business (3.8).

Nonetheless, Italian academics report lack of contacts, relations (2.8), skills, knowledge (2.6) and support (2.3) to undertake UBC, which is also lower than the European average. Italian academics have more positive attitude towards their own capabilities, the profile of the university and the region than their European counterparts.

Italian academics perceive themselves and their HEIs to have a strong profile both in education and research, especially basic research.

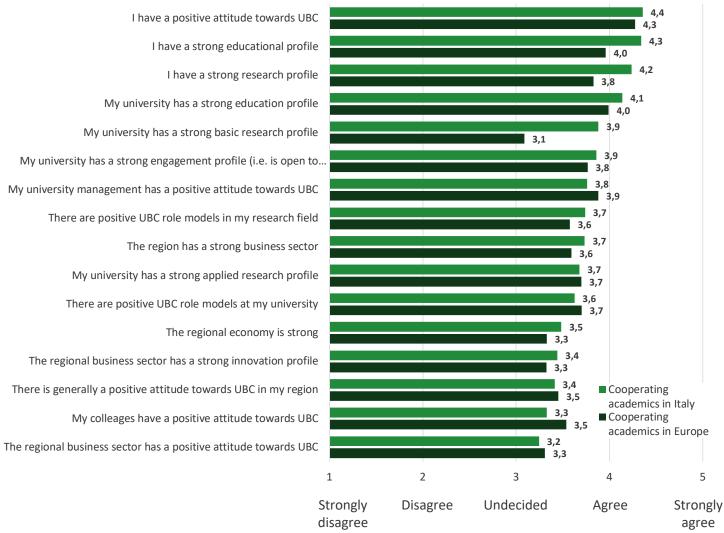
Generally, both Italian and European academics have a positive attitude towards UBC (4.4 and 4.3).

Yet, European academics identify that the attitude towards UBC in the region, of their colleagues as well as the business sector exceeds the European average.

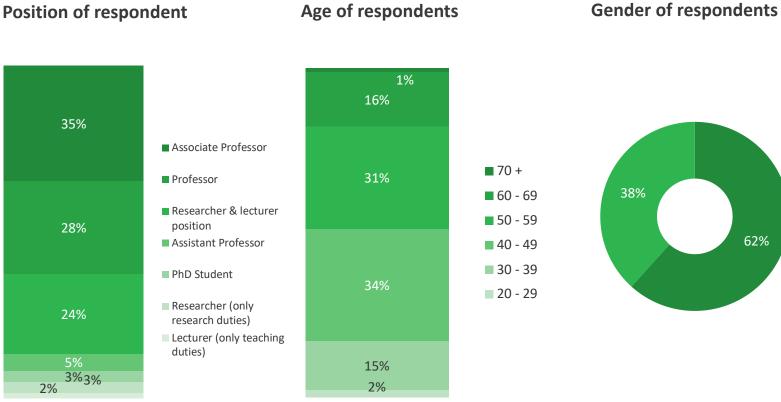
### Context

#### **Contextual factors affecting UBC**

'To what extent do you agree or disagree with the following statements?' - as answered by academics



### **Respondent profile – academics**



**Position of respondent** 

'Associate professors' (35%), 'professors' (28%), and 'researchers and lecturers' (24%) comprise the largest groups in the Italian sample. The remaining academics identified themselves as 'assistant professors' (5%), 'PhD students' (3%), 'researchers' (3%) and 'lecturers' (2%).

Two thirds of Italian academics in the sample are aged 40 - 59 (65%). Other significant groups are those aged 60-69 (16%) and 30 - 39 (15%). Academics between 20 - 29 represent 2% and those older than 70 are only 1%.

The gender distribution in the academic sample in Italy is skewed towards male respondents, with 62% of the total sample.

Male

Female

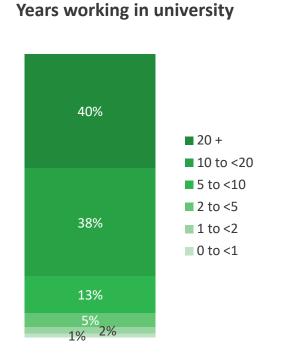
### **Respondent profile – academics**

#### Number of students of the HEI

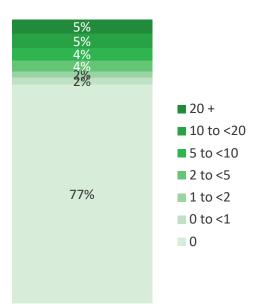


Almost a third of Italian academics (32%) work for medium-large HEIs (20,000 - 49,999 students) and 27% of them at very large HEIs with over 50,000 students. 16% work for medium HEIs (10,000 - 19,999 students) and also 16% for small HEIs (2,000 - 9,999 students). Only 9% work at very small HEIs (under 1,999 students).

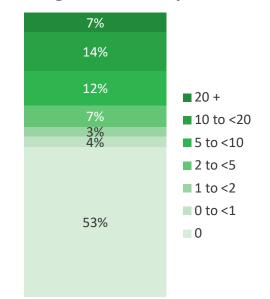
### **Respondent profile – academics**



#### Years working in business



### Years involved in UBC whilst working at a university or business

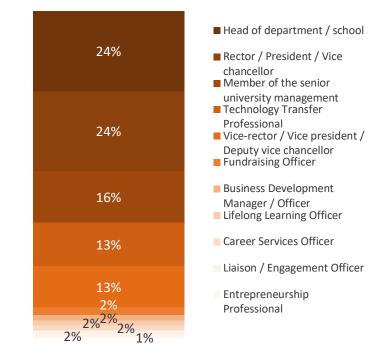


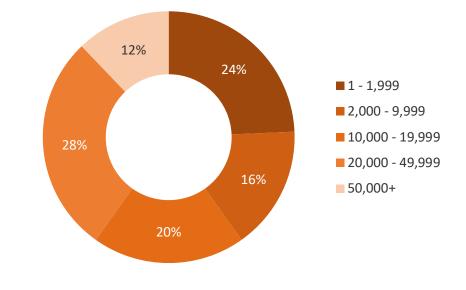
Almost 80% of academic respondents have worked in academia for over 20 years. 13% of them have 5-10 years of experience, 5% have worked in academic for 2-5 years and only 3% have less than 2 years of experience. Academic respondents are not experienced in businesses. 77% of the Italian academic respondents have no working experience in industry. 4% of them have worked in industry for less than 2 years, 8% have done so for between 2-10 years and 10% of them have more than 10 years of experience A half of academic respondents in Italy do not have any UBC experience. Only 7% have been involved in UBC for over 20 years, 14% have between 10 and 20 years of experience and 12% between 5-10. 14% of academics in the sample have less than 5 years of experience in UBC.

### **Respondent profile – HEI representatives**

#### **Position of respondent**

Number of students of the HEI





Italian HEI representatives hold a variety of roles. A quarter of them are rectors or presidents. Vice-rectors or vice-presidents are the second largest group (18%), along with members of the senior university management (17%). The smallest groups are heads of department/school (14%) and technology transfer professionals (13%).

Overall, an even proportion (40%) of HEI representatives work in small HEIs (under 9,999 students) and in large HEIs (over 20,000 students). The remaining 20% work in medium-sized HEIs (10,000 to 19,999 stundents).



## Contact us

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This report is part of the DG Education and Culture study on the University-Business Cooperation in Europe: drivers, challenges and opportunities in Europe EAC/10/2015. Further information can be found at <u>www.ub-cooperation.eu</u>

This report is also part of the Global University-Business Monitor initiative, a global study into university engagement and cooperation between university and business. Further information can be found at www.uni-engagement.com





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