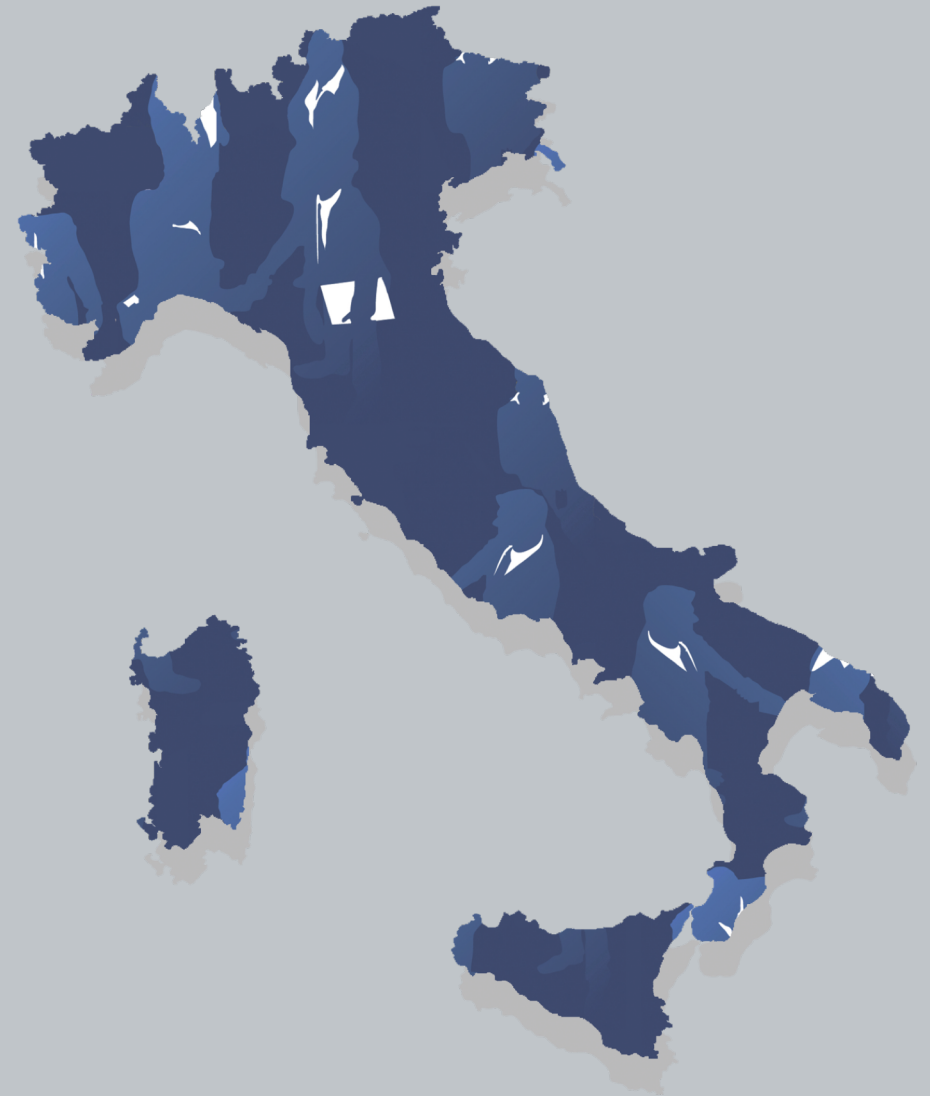


State of University- Business Cooperation ITALY

Business Perspective

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



The State of Italian University-Business Cooperation: the business perspective

Partners



Authors: Arno Meerman, Balzhan Orazbayeva, Alberto Soraci, Tonia Sapia, Todd Davey, Victoria Galán-Muros, Mihai Melonari and Alexandra Zinovyeva.

For further information about the State of European University-Business Cooperation project, national reports or the Global Engagement Monitor, please contact Todd Davey (davey@uiin.org) or Arno Meerman (meerman@uiin.org)



Executive summary

Summary

This report provides the findings of a study on the university-business cooperation (UBC) in Italy from the business perspective. The analysis of the perceptions of representatives from a wide range of Italian businesses yields a positive sign for the future. 99% of businesses that currently cooperate with higher education institutions (HEIs) plan to maintain or increase their cooperation in the future. Yet, more can be done, for example in supporting companies with the development mechanisms and activities that can foster their cooperation with universities, as well as in developing (actual and perceived) capabilities, particularly of those businesses not currently engaged in UBC.

About the study

The results presented in this report reflect the perceptions of business representatives in Italy with respect to UBC. Data was collected by means of an online survey sent out via email to a business database that was developed from publicly available information, leading to a total of 283 Italian responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

University-Business Cooperation

The nature of cooperation activities between the Italian businesses involved in this survey and universities is highly diverse. Italian businesses

demonstrate a higher inclination to engage in joint R&D, mobility of students and consulting. There is a noticeable lack of development of other UBC activities. Over 50% of Italian businesses do not undertake any collaboration in valorisation and management. Particularly underdeveloped are curriculum co-design and student entrepreneurship.

Notably, Italian businesses see themselves as the most proactive actors in the initiation of the UBC activities, with 70% reporting to have been the major initiators. On the contrary, Italian business representatives perceive external and internal intermediaries significantly more passive in the UBC initiation.

Cultural differences matter

Italian businesses see their cultural differences with universities, such as varying time horizons, as the major obstacle to collaboration. Italian business representatives also note that the lack of government funding and bureaucracy related to UBC in universities hinder the intensity and/or quality of joint activities. Different professional staff profiles in the business world and academia, and thus the lack of university staff with business knowledge are reported to serve as an important barrier for businesses to collaborate with universities.

This report aims at contributing to our understanding of the business perspective on university-business cooperation (UBC) in Italy, drawing on a survey of European higher education institutions, academics and businesses. While acknowledging limitations relating to the generalisability of the results due to the non-random 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

Relationship is the key

While funding to undertake cooperation emerges as the top factor that enables UBC in the eyes of Italian business representatives, the factors that are related to the relationships between the partners are not less prominent. Italian businesses highlight the importance of a shared goal, mutual trust, mutual commitment and prior relationship with the university partner. These results indicate that any effort towards enabling business cooperation with universities should focus on the development of relationships and building trust.

Benefits for all

Italian business representatives see UBC less beneficial for themselves than for the students and society. Then, what is the major motivation for businesses to undertake UBC?

Italian businesses are primarily driven to collaboration with universities for improving their own innovation capacities, obtaining additional financial resources and getting access to cutting-edge technologies. Attracting student talents from the universities and enhance their own reputation drive Italian businesses to engage in UBC as well. This aligns with the most commonly practiced UBC activities reported by the Italian businesses, being joint R&D and mobility of students.

Lack of supporting mechanisms

While universities emphasise the development of specific mechanisms for UBC, much less structured approach is normally taken by the business world in this respect. This study indicates that in Italy none of

the suggested mechanisms exist in over 50% of the businesses in the sample.

Nonetheless, almost a half of Italian business respondents report that their companies dedicate resources to collaborate with universities, and have a developed strategy for doing so. Interestingly, in Italian case, it is common for the companies to have a flat structure, without well-defined internal organisation. It is aligned with the finding that the top-level management is less committed to UBC than the average European perspective shows, and the official role of UBC facilitator is not well-developed in Italian business realm.

Our responsibility: research vs. education?

Italian businesses follow an overall European trend in being rather supportive of collaboration with universities. In particular, Italian businesses are certain of their own capability to absorb knowledge and technology from universities. They report that universities play an important role in the development of innovative ecosystem. Italian business also note they have sufficient university contacts, skills and knowledge of UBC and what universities want from collaboration.

Importantly, the Italian business representatives are more satisfied with their UBC in research than the European average portrays. However, with more focus on research and innovative development, Italian businesses do not see their own responsibility and capability to collaborate with universities in education-related activities, and therefore show much less satisfaction with UBC in education.

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.



UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

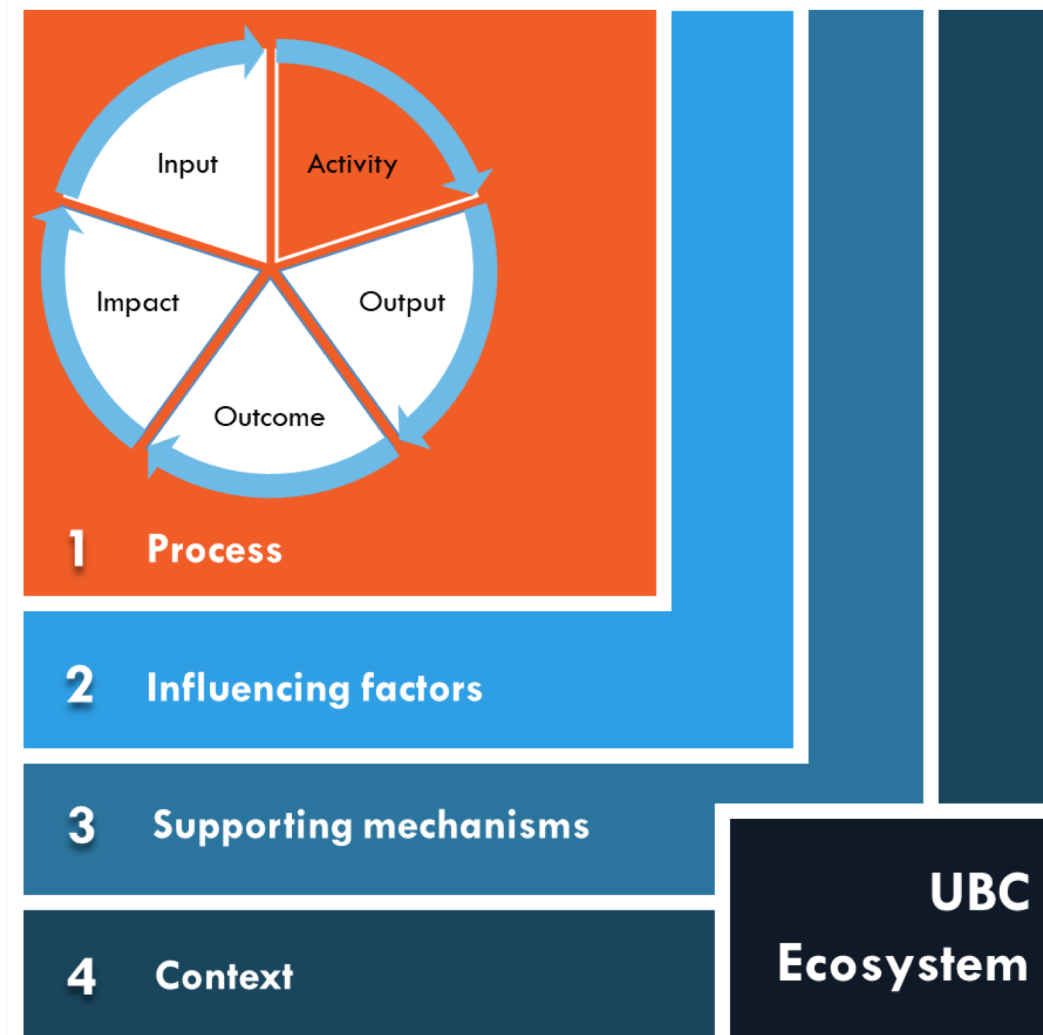
UBC activities

UBC Ecosystem Framework™

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.



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, commonly categorised into the areas of education, research, valorisation and management.

Area	Activities
Education	<ol style="list-style-type: none">1. curriculum co-design2. curriculum co-delivery (<i>e.g. guest lectures</i>)3. mobility of students (<i>i.e. student internships/placements</i>)4. dual education programmes (<i>i.e. part theory, part practical</i>)5. lifelong learning for people from business (<i>e.g. executive education, industry training and professional courses</i>)
Research	<ol style="list-style-type: none">6. joint R&D (<i>incl. joint funded research</i>)7. consulting to business (<i>incl. contract research</i>)8. mobility of professionals (<i>i.e. temporary mobility of academics to business and vice versa</i>)
Valorisation	<ol style="list-style-type: none">9. commercialisation of R&D results (<i>e.g. licencing/patenting</i>)10. academic entrepreneurship (<i>e.g. spin offs</i>)11. student entrepreneurship (<i>e.g. start-ups</i>)
Management	<ol style="list-style-type: none">12. governance (<i>e.g. participation of academics on business boards and businesspeople participation in university board</i>)13. shared resources (<i>e.g. infrastructure, personnel, equipment</i>)14. industry support (<i>e.g. endowments, sponsorship and scholarships</i>)

Development of UBC activities

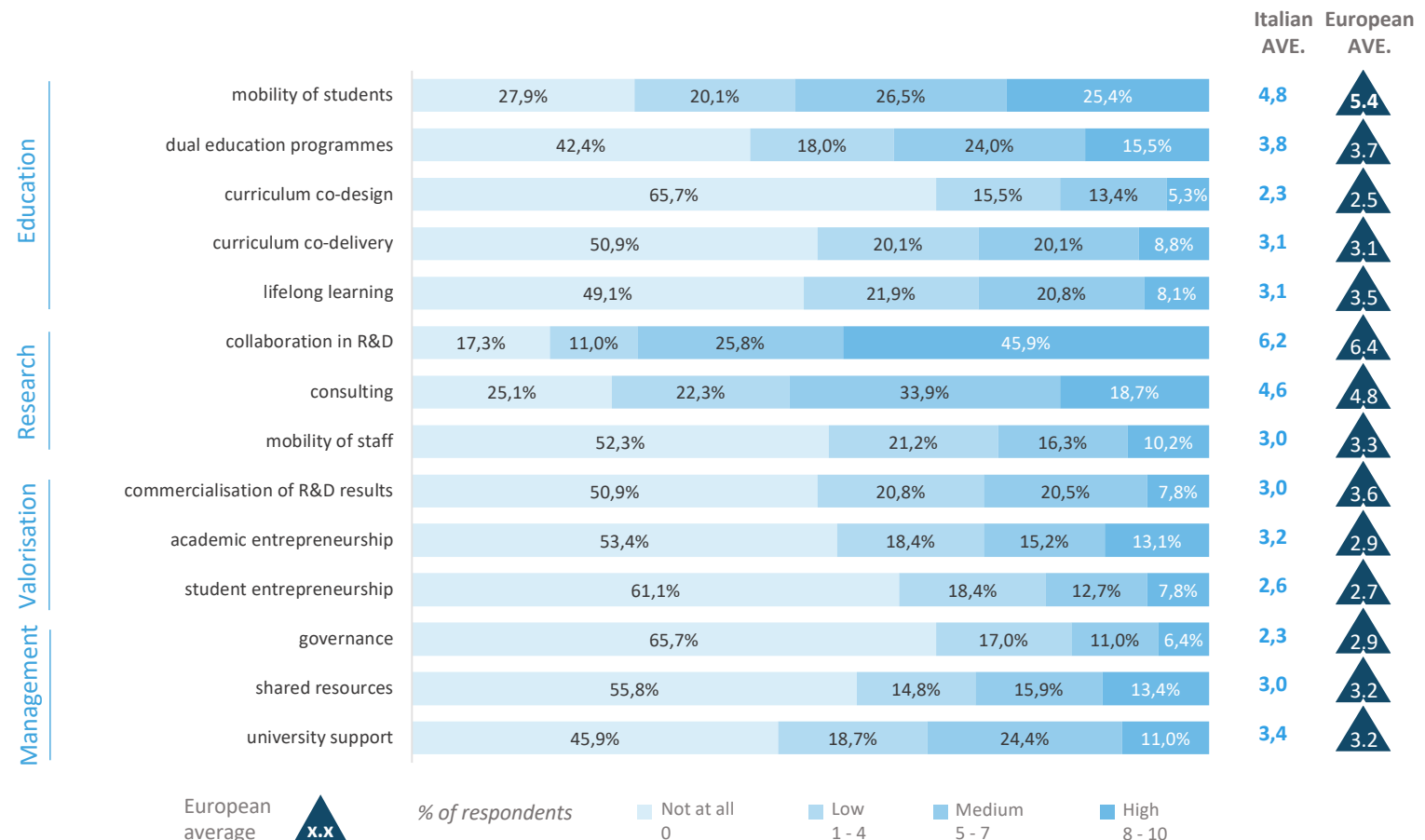
UBC activities development

'Which UBC activities do you collaborate with universities in?'

Italian businesses tend to engage in research UBC activities, such as joint R&D (6.2) and consulting (4.6) more frequently. As for education-related UBC, mobility of students (4.8) is the top developed activity. This pattern is dictated by national policies that support the work-based learning practices between the universities and enterprises. It generally follows the European trends.

On average, a half of surveyed businesses do not undertake any management or valorisation related collaboration with universities. The literature has proposed various explanatory factors, such as the prevalent orientation toward traditional sectors and the relatively small size of Italian companies, which complicates financing of internal research¹. Some scholars defined this informal and non-certified system as "researchless innovation"² - a model that has suffered from the introduction of new technologies and from the competition of emerging countries in international markets³.

Particularly undeveloped are the UBC activities related to curriculum co-design, governance and student entrepreneurship. It is aligned with still present disconnection of the business world and academia in Italy.



¹ Bugamelli, M., Cannari, L., Lotti, F., & Magri, S. (2012). The innovation gap of Italy's production system: roots and possible solutions.

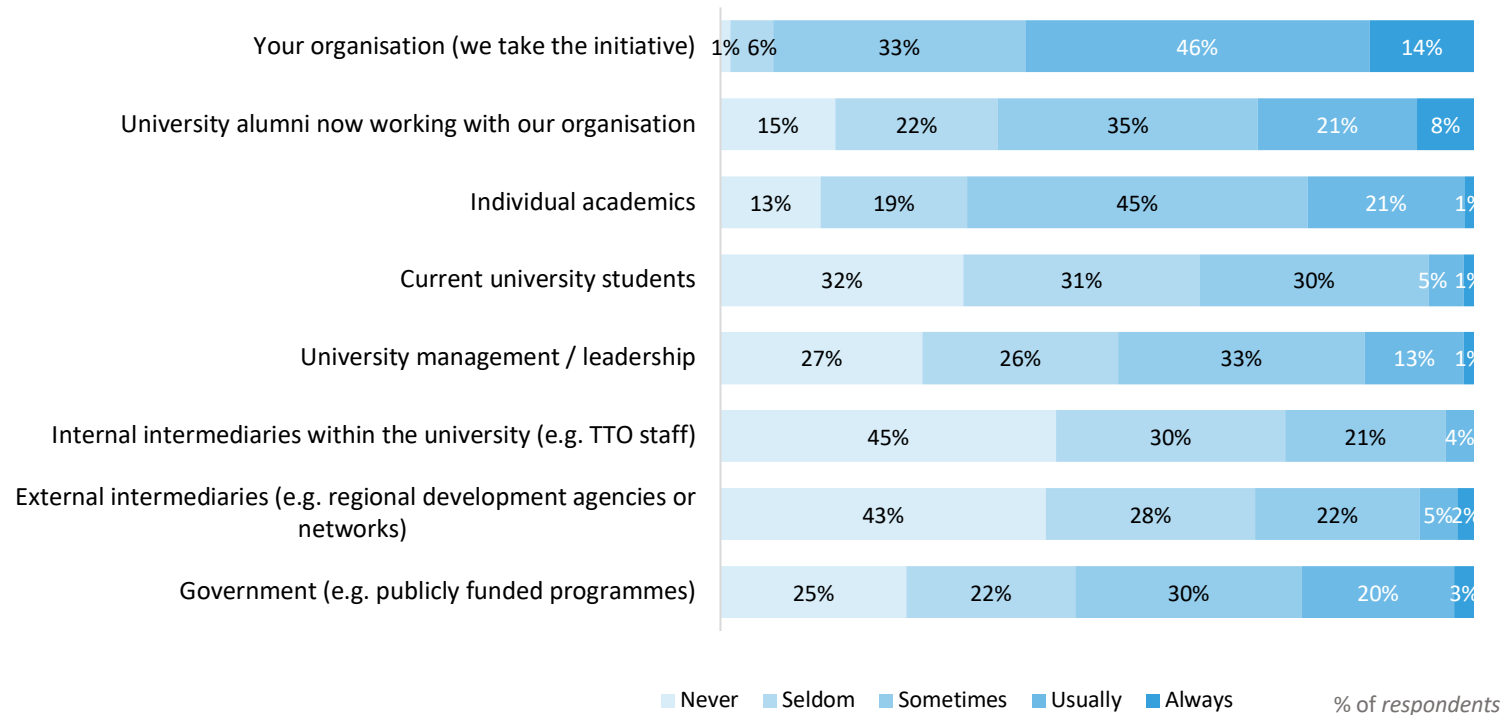
² Bonaccorsi, A., & Granelli, A. (2005). L'intelligenza s'industria. *Creatività e innovazione per un nuovo modello di sviluppo*, Bologna: il Mulino.

³ Kleinknecht, A. (1987). Measuring R&D in small firms: How much are we missing?. *The Journal of Industrial Economics*, 253-256.

Initiation of UBC

How UBC is initiated

'How often various stakeholders initiate UBC activities'



Italian businesses clearly see themselves as the main initiator of cooperation with universities. 70% of business representatives state that their organisations always or usually initiate UBC.

Italian businesses also point out that university alumni, individual academics and government can be active in initiating cooperation.

Internal intermediaries within the university and external intermediary bodies are perceived as passive in encouraging UBC activities. 75% and 71% of the businesses report that those actors never or seldom undertake any first actions towards UBC initiation respectively. In Italy, the majority of these intermediaries are still general administrative bodies without a real focus on technology transfer.

Additionally, 63% and 53% of business state that current university students and university managers seldom or never initiate UBC. In Italy, students and university managers are not explicitly stimulated and incentivised to be proactive in UBC.

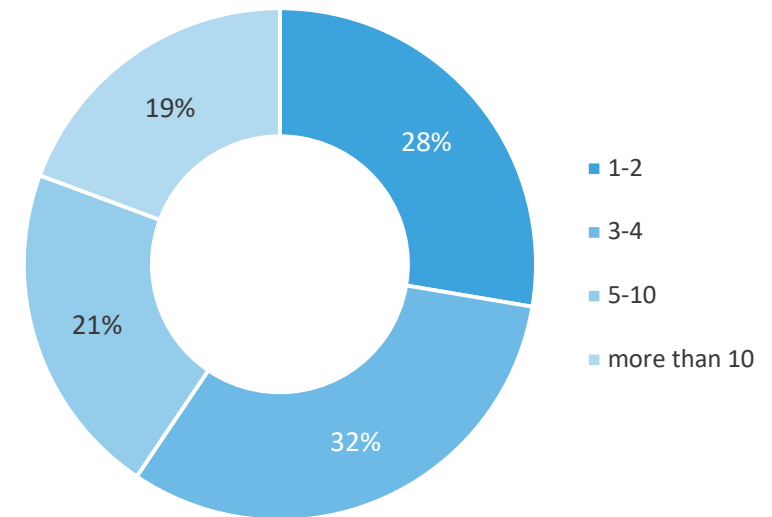
Geographical location still matters

Location of university partners

Percentage of cooperating businesses with...	
universities in their region	94%
universities in their country	93%
universities outside their country	85%

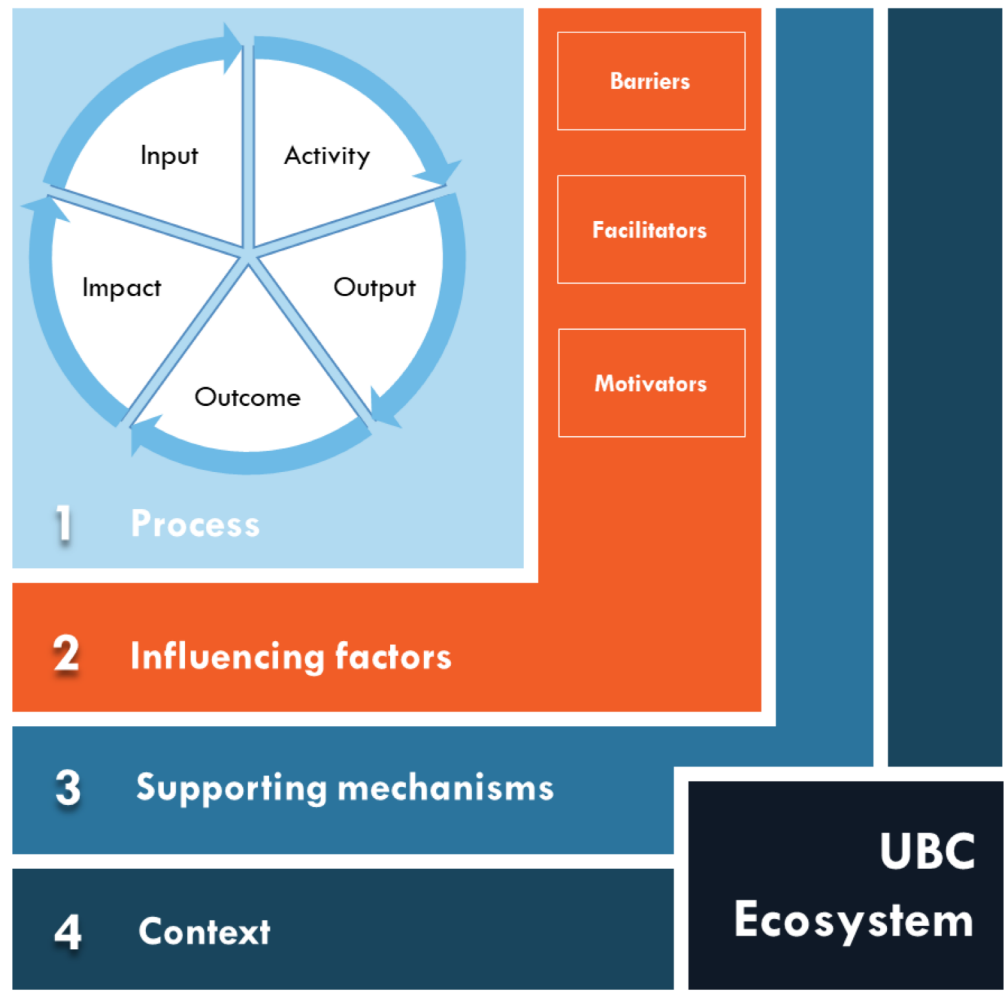
While most Italian businesses cooperate with Italian universities (93%), they also cooperate with university partners from the region and outside Italy (94% and 85% respectively). In a search for relevant competences, Italian companies are not restricted by geographical barriers.

Number of university partners



Almost two thirds (60%) of Italian businesses cooperate with less than 4 university partners. While 21% have established relations with 5-10 partners, only 19% cooperate with over 10 universities.

Factors influencing UBC



This section outlines the extent to which various factors affect 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 sufficient.

Barriers hindering UBC

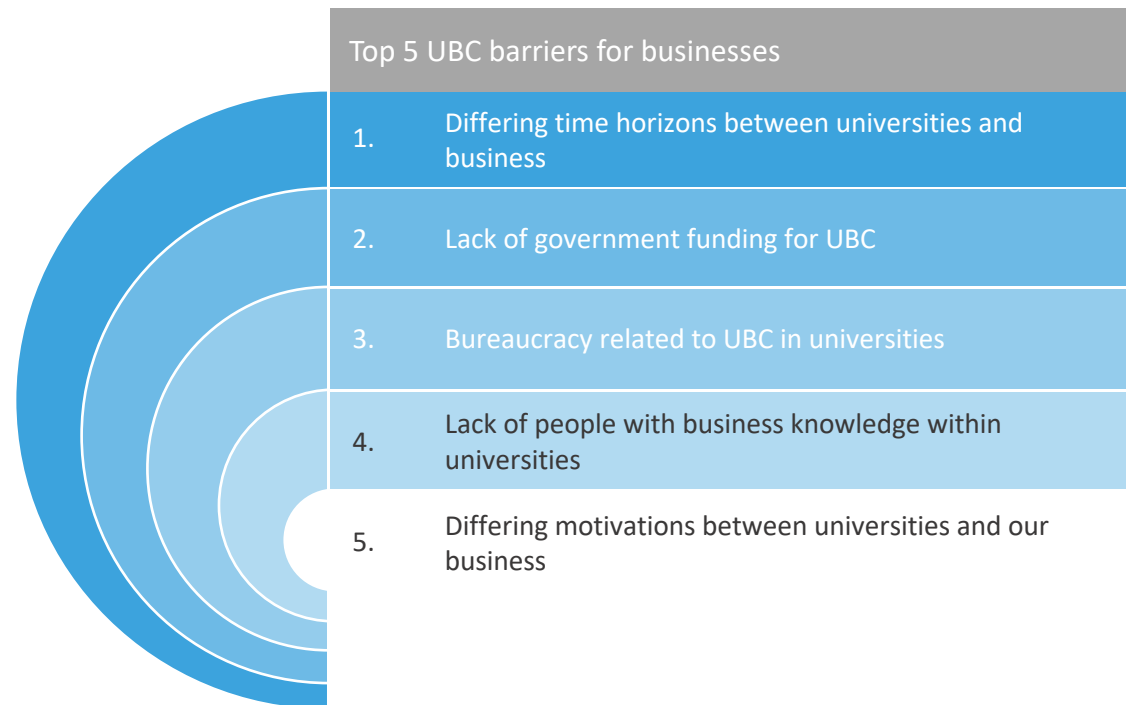
The major five factors inhibiting the cooperation between Italian businesses and universities are diverse.

The biggest barrier is related to the differing time horizons for universities and business. The lack of government funding and bureaucracy related to UBC in universities are also important barriers for business engagement with universities. Thus, limited budgets, the size of the company and the lack of fiscal incentives also do not support the cooperation.

Italian businesses representatives are hindered by the lack of people with business knowledge within universities and differing motivations between two organisations. A widespread misperception that academic research is restricted to basic research and is not suitable for business use reflects in lack of interest from business side and probable motivation differences.

Barriers

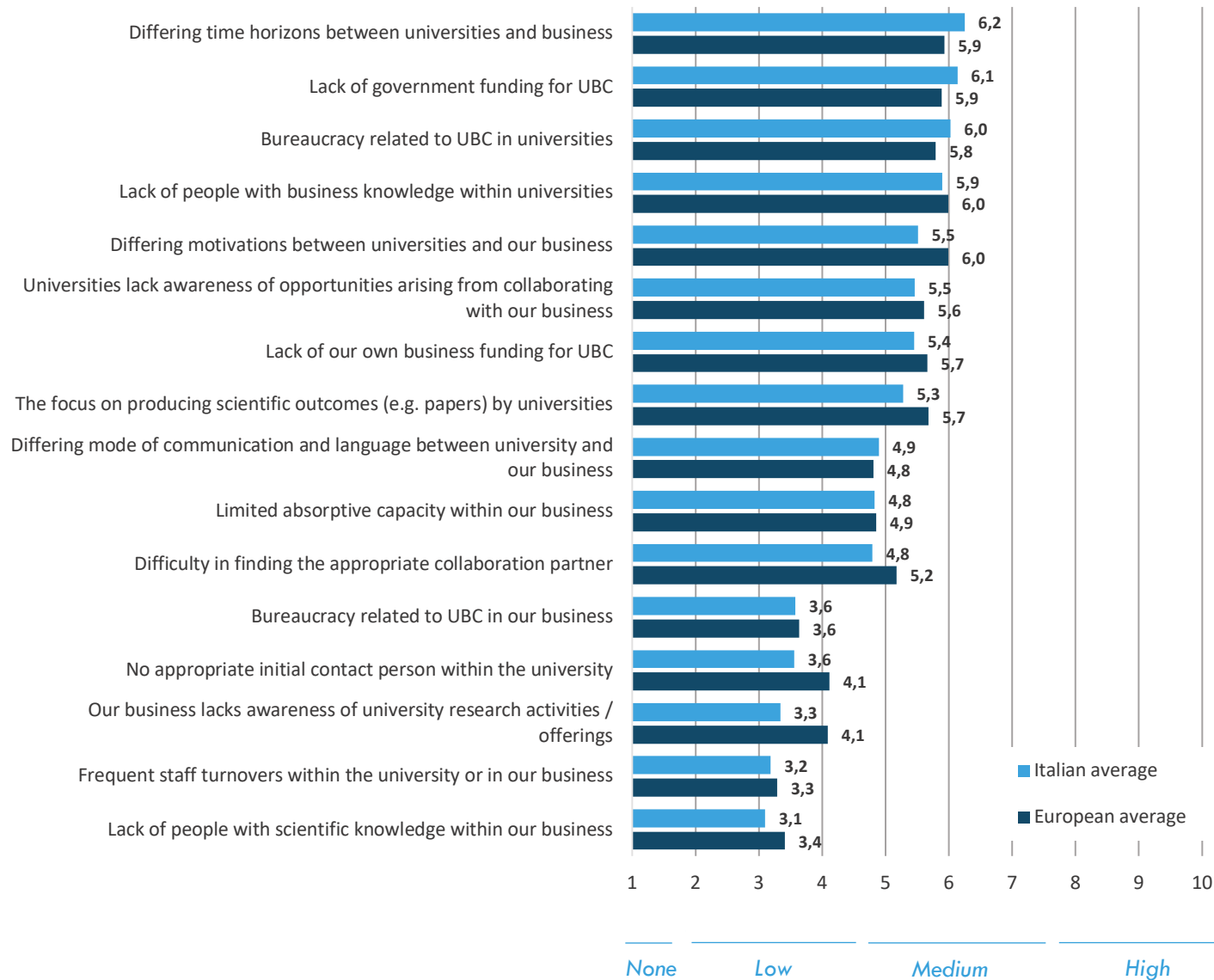
'What is inhibiting your cooperation with universities?'



Barriers hindering UBC

Barriers

'What is inhibiting your cooperation with universities?'



Italian business representatives identify rather similar barriers to successful UBC as their European counterparts. However, Italian businesses perceive the presence of most barriers slightly lower than their European counterparts.

The most prominent barriers reported by both European and Italian business representatives are related to the differing time horizons and lack of government funding for UBC.

Interestingly, the lack of appropriate initial contacts within the university and the lack of business' awareness of university research activities are less frequently reported as limiting factors to UBC by Italian business representatives (compared to the European average).

Italian businesses report that frequent staff turnovers and lack of people with scientific knowledge within their own organisations hinder the potential for UBC the least.

Drivers stimulating UBC

The major facilitator of Italian businesses' cooperation with universities is the existence of funding to undertake this UBC.

A relationship based on trust, commitment, flexibility and a shared goal also stimulate the interaction, resulting in more successful and sustainable collaboration.

A prior relations with the university partner is likely to play an important role in facilitating UBC as well as reported by Italian business representatives.

Drivers are those factors that encourage businesses, academics or HEIs to engage in UBC. Drivers of UBC are divided into two factors:

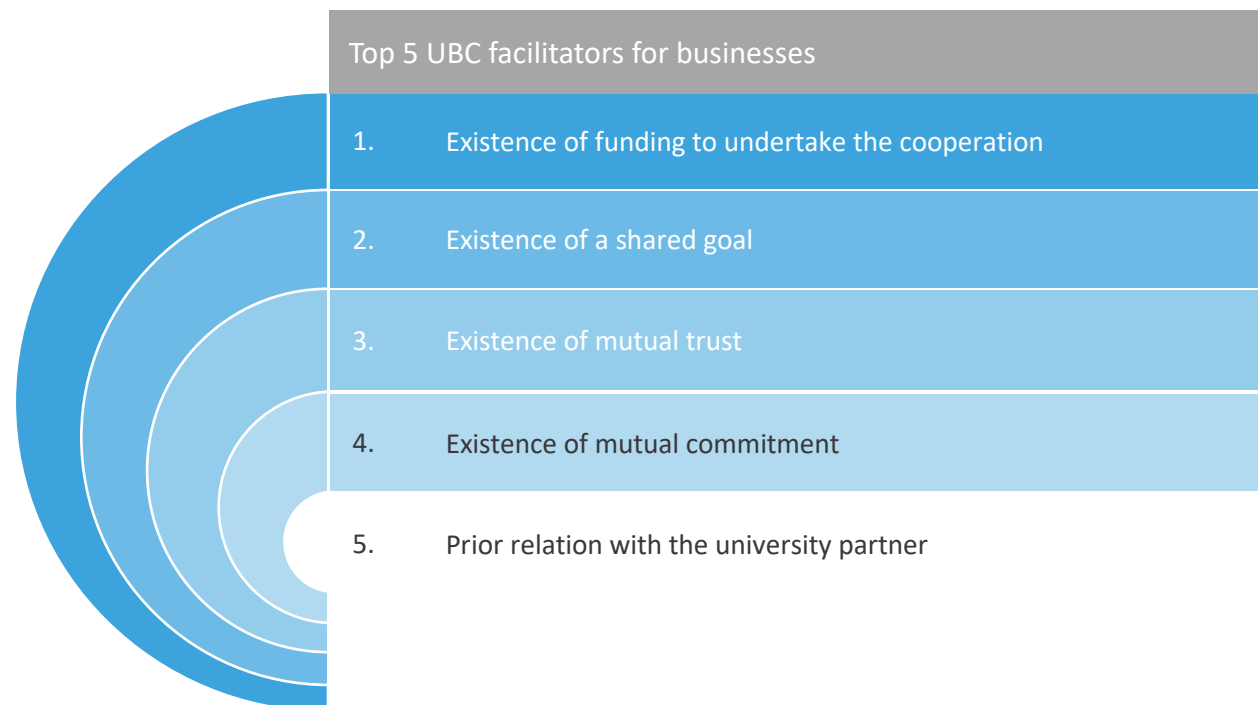
1. **Facilitators** – factors that enable or ease cooperation
2. **Motivators** – incentives or benefits that the respective stakeholders would like from the cooperation

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 enabling UBC

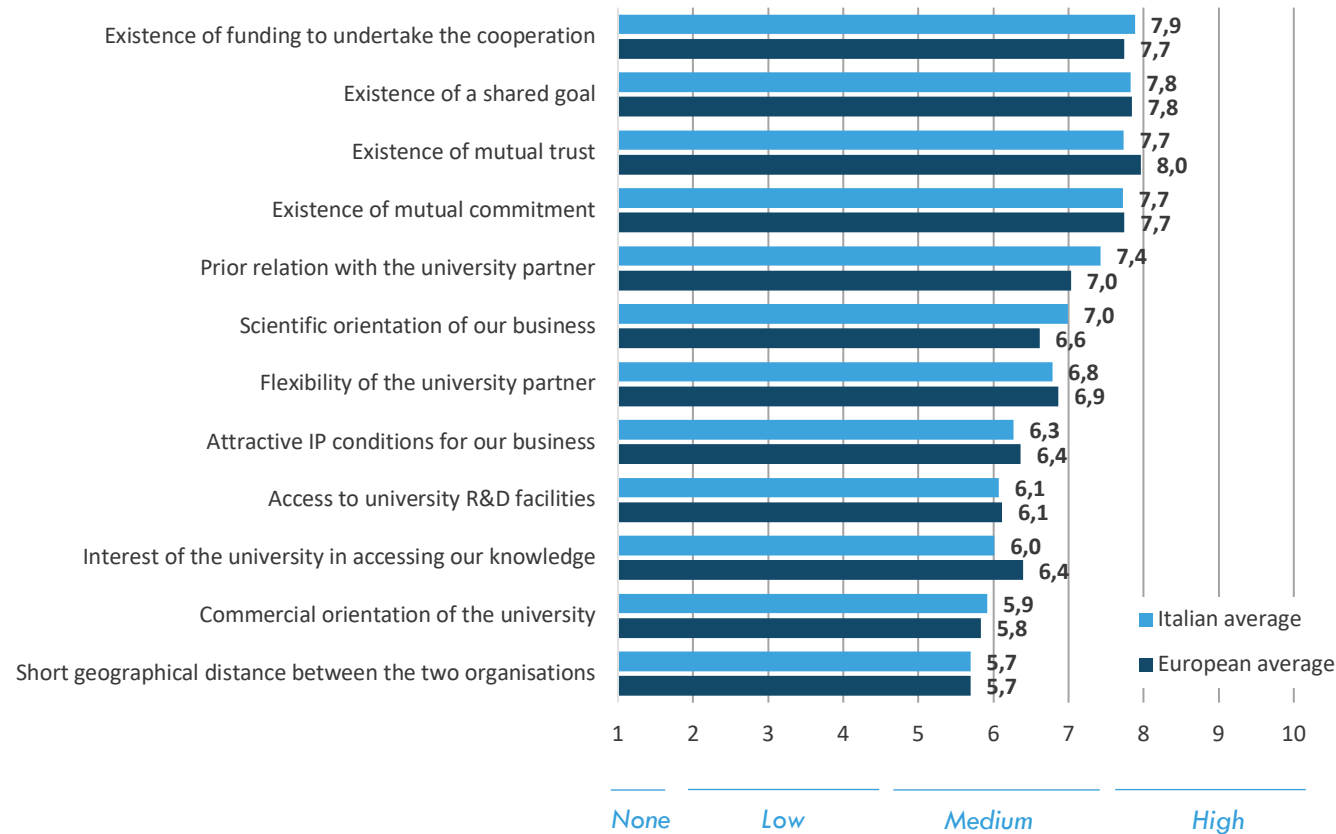
'What is facilitating your cooperation with universities?'



Drivers stimulating UBC

Facilitators

'What is facilitating your cooperation with universities?'



Italian and European businesses' perspectives regarding the major facilitators of UBC align.

Existence of funding, shared goal, mutual trust and commitment bear great importance in the advancement of UBC in Italy and in Europe in general.

Prior relations with the university partner and scientific orientation of businesses also facilitate UBC to a larger extent.

However, commercial orientation of the university and close geographical proximity between the two organisations are seen as the weakest facilitators of UBC by Italian businesses. Geographical proximity might, certainly, facilitate the relationship between the universities and smaller enterprises. Yet, the larger companies tend to cooperate with universities that are able to exploit their research potential regardless of the location.

Drivers stimulating UBC

The main motivation for Italian businesses to undertake UBC is related to innovating, obtaining funding and accessing talents.

Italian businesses cooperate with universities primarily to improve their own innovation capacity and obtain funding/financial resources. Some national and regional funding mechanisms financially incentivise the UBC in Italy. There are specific that are focused on SMEs, given that Italy is the second largest manufacturer in Europe, with the largest share of SMEs.

There is apparent inclination to maintain and expand Italian international manufacturing profile, that requires SMEs to innovate to withstand the competition. Therefore, Italian businesses are also motivated to undertake UBC to access new knowledge and technologies as well as better qualified graduates.

A less important but relevant motivation for Italian businesses to cooperate is the possibility to improve their reputation. From marketing point of view, UBC can increase the visibility of all partners involved.

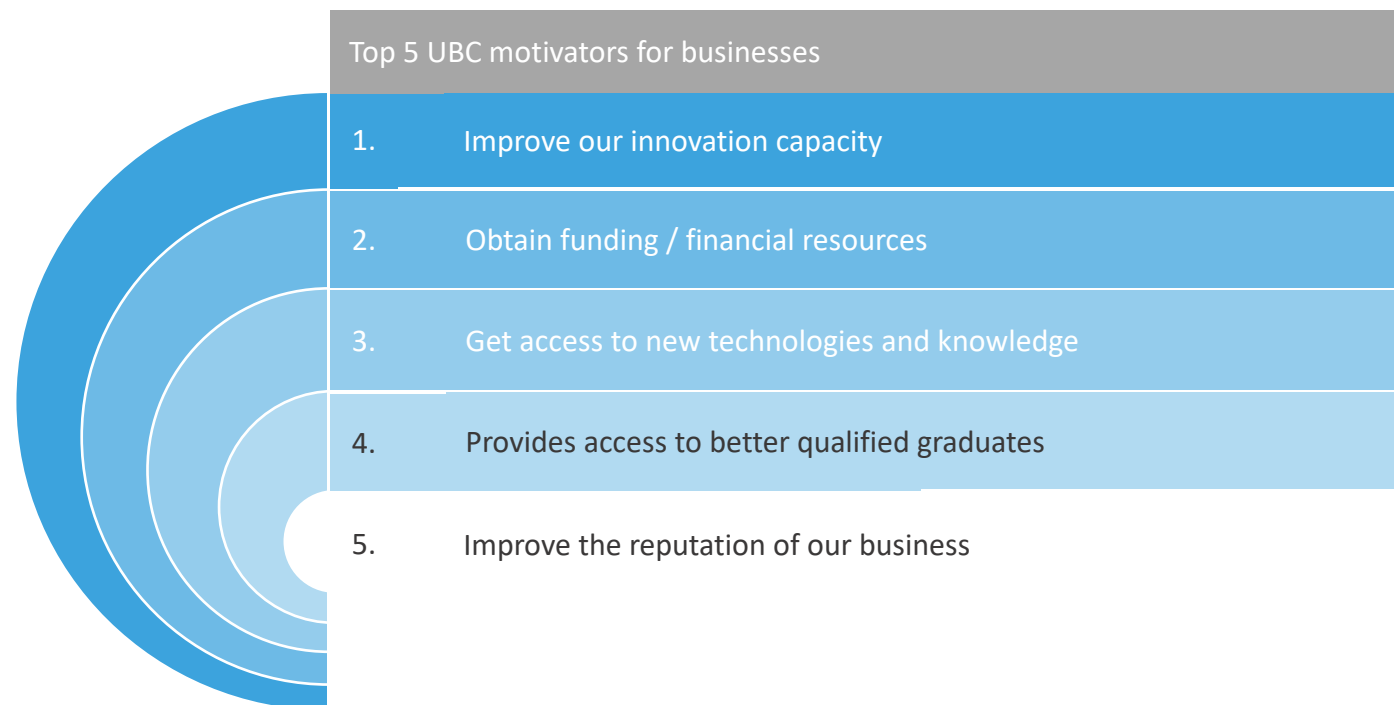
Motivations for UBC are the reasons why businesses collaborate with university.

They provide key information about the outcomes that the businesses seek from their collaborative activities relating to education, research, valorisation and management.

Motivators

'What motivates you to cooperate with universities?'

The ability of the collaboration to achieve these outcomes will have a substantial influence on the businesses' assessment of the success of their collaboration.

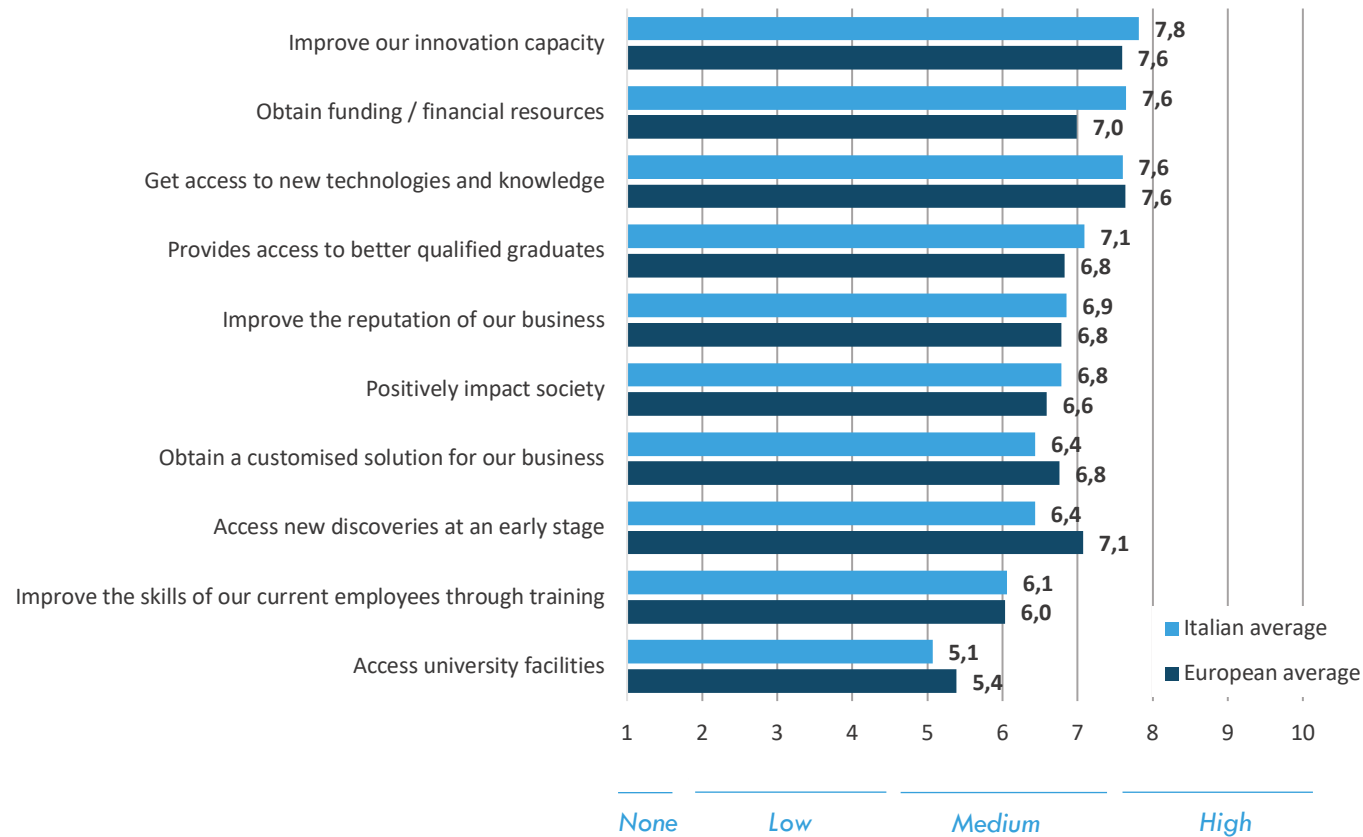


¹ Eurostat. Value added by enterprise size class, Manufacturing (NACE Section C), 2014. Retrieved [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Value_tab6b_added_by_enterprise_size_class_Manufacturing_\(NACE_Section_C\)_2014.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Value_tab6b_added_by_enterprise_size_class_Manufacturing_(NACE_Section_C)_2014.png)

Drivers stimulating UBC

Motivators

'What motivates you to cooperate with universities?'



Perspectives of Italian and European business representatives regarding motivators to engage in UBC mostly align.

Italian businesses are more driven to obtain funding/financial resources from UBC than their European counterparts.

On the other hand, Italian businesses are significantly less motivated to access new discoveries at an early stage than the European average shows. It is related to generally smaller size of the Italian companies and the extended length of the time for new discoveries to enter the market. Italian SMEs prioritise to activate positive cash flow immediately, and they are not able to support a long term investment into early stage innovations.

Similar to European average, Italian businesses are not highly motivated to access university facilities.

Benefits of UBC

Italian and European businesses share rather similar perceptions of the stakeholders that benefit from UBC.

Both Italian and European businesses see students as the group that benefits from UBC the most. Yet, Italian businesses clearly see more benefits for society than their European counterparts do.

Italian businesses place themselves as the third major beneficiary of UBC, which is similar to the position of the European businesses on average.

The least benefiting stakeholder of UBC is the government in the eyes of both European and Italian business representatives.


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 of UBC

'Who receives the benefits of UBC?'

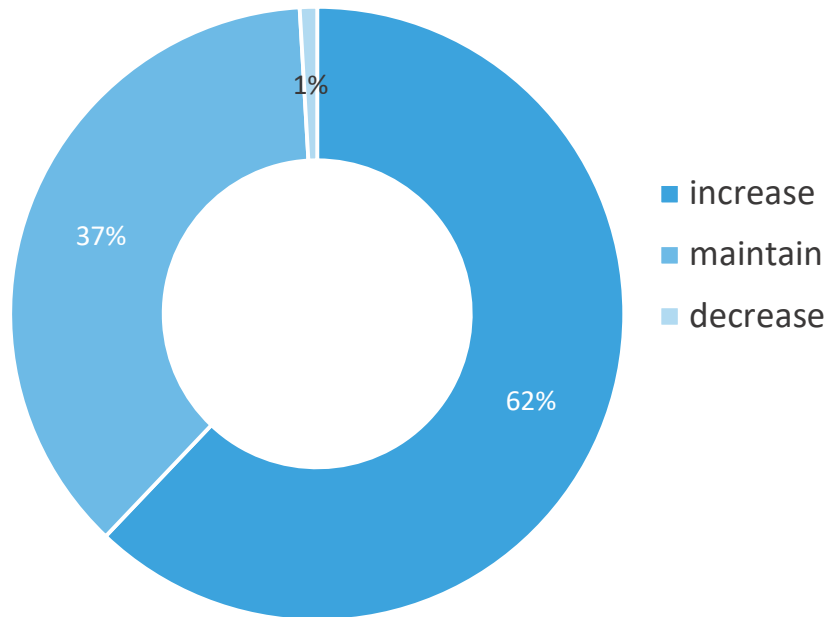


	Italian businesses	European businesses
1.	Students	Students
2.	Society	Universities
3.	Businesses	Businesses
4.	Universities	Academics
5.	Academics	Society
6.	Government/public authorities	Government/public authorities

Future intentions

Future UBC intentions – Italy

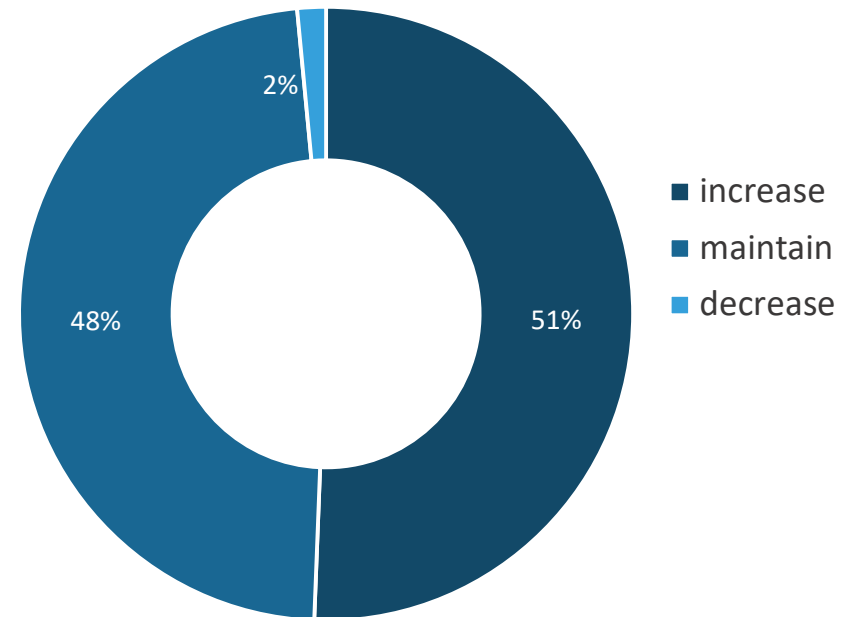
As answered by Italian businesses



99% of Italian businesses that currently cooperate with universities plan to maintain or increase their cooperation, with only 1% intending to reduce it. This shows an important momentum for UBC in Italian industry.

Future UBC intentions – EUROPE

As answered by European businesses



European businesses also seem to be confident in their future intentions towards UBC, with half (51%) of European businesses planning to increase their cooperation.

Willingness to recommend UBC

The willingness of Italian cooperating businesses to recommend engaging in UBC varies depending on whether this cooperation is in research or in education.

Like their European counterparts, Italian businesses are also satisfied with UBC in research (NPS=35). While 47% of Italian business representatives will promote it, only 13% of them will not recommend it at all.

On contrary, Italian businesses are less satisfied with their UBC in education (NPS=1). 33% would highly recommend it and as much as 32% will not promote it at all. This is, however, slightly higher than the satisfaction rates of European businesses on average (NPS = -2).

Respondents were asked how likely it would be that they recommend to a business colleague to engage in UBC in the areas of R&D and

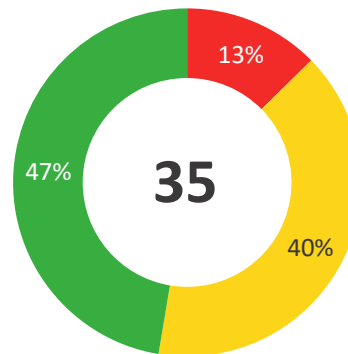
education and training (E&T). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

Willingness to recommend cooperation with universities in R&D or E&T

	Detractors	Passives	Promoters	Net promotor score
Business cooperating with universities in R&D	13%	40%	47%	34
Business cooperating with universities in E&T	32%	35%	33%	1

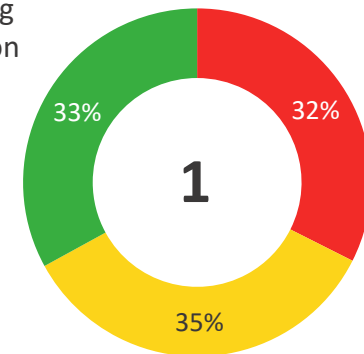
Satisfaction with cooperation with universities (net promoter score)

Business cooperating in research



■ Detractors ■ Passives ■ Promoters

Business cooperating in education

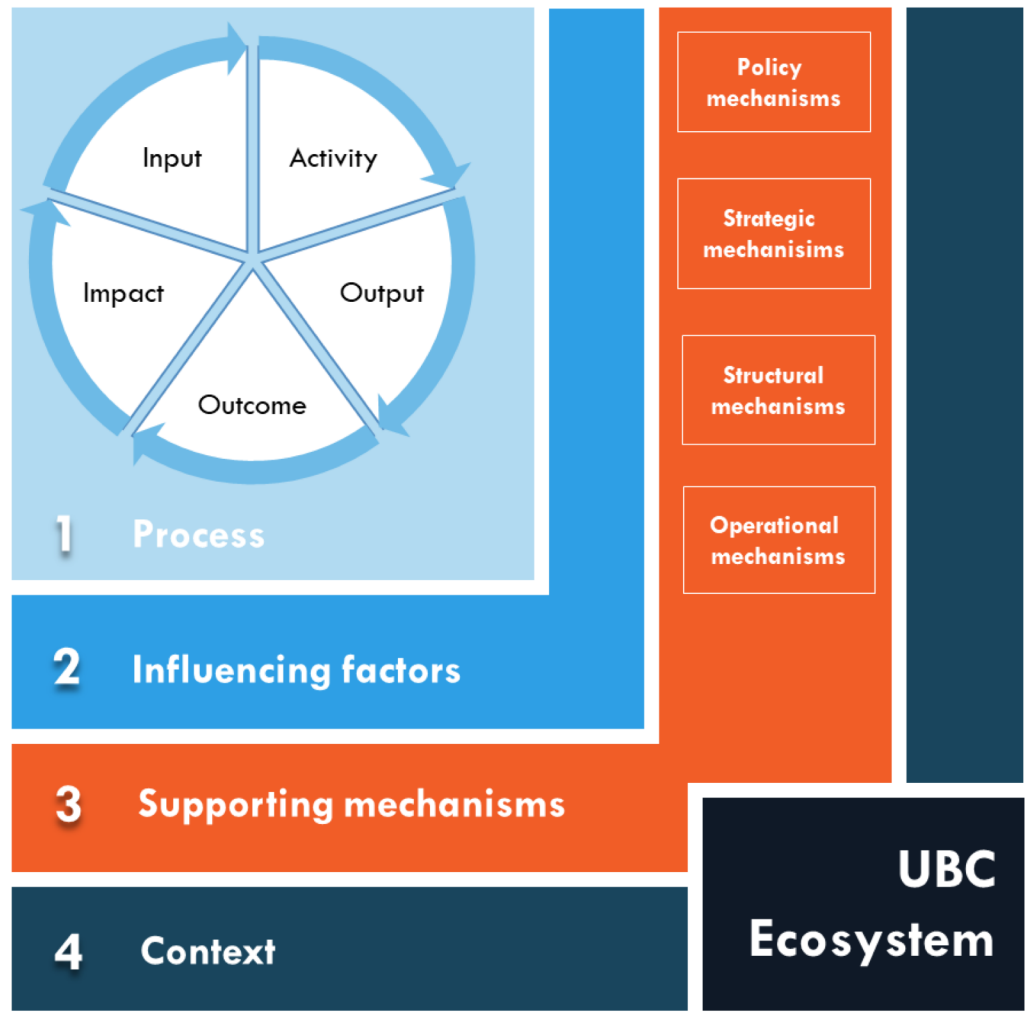


■ Detractors ■ Passives ■ Promoters

European business NPS result: 28.2

European business NPS result: -2.1

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.

Supporting mechanisms for UBC

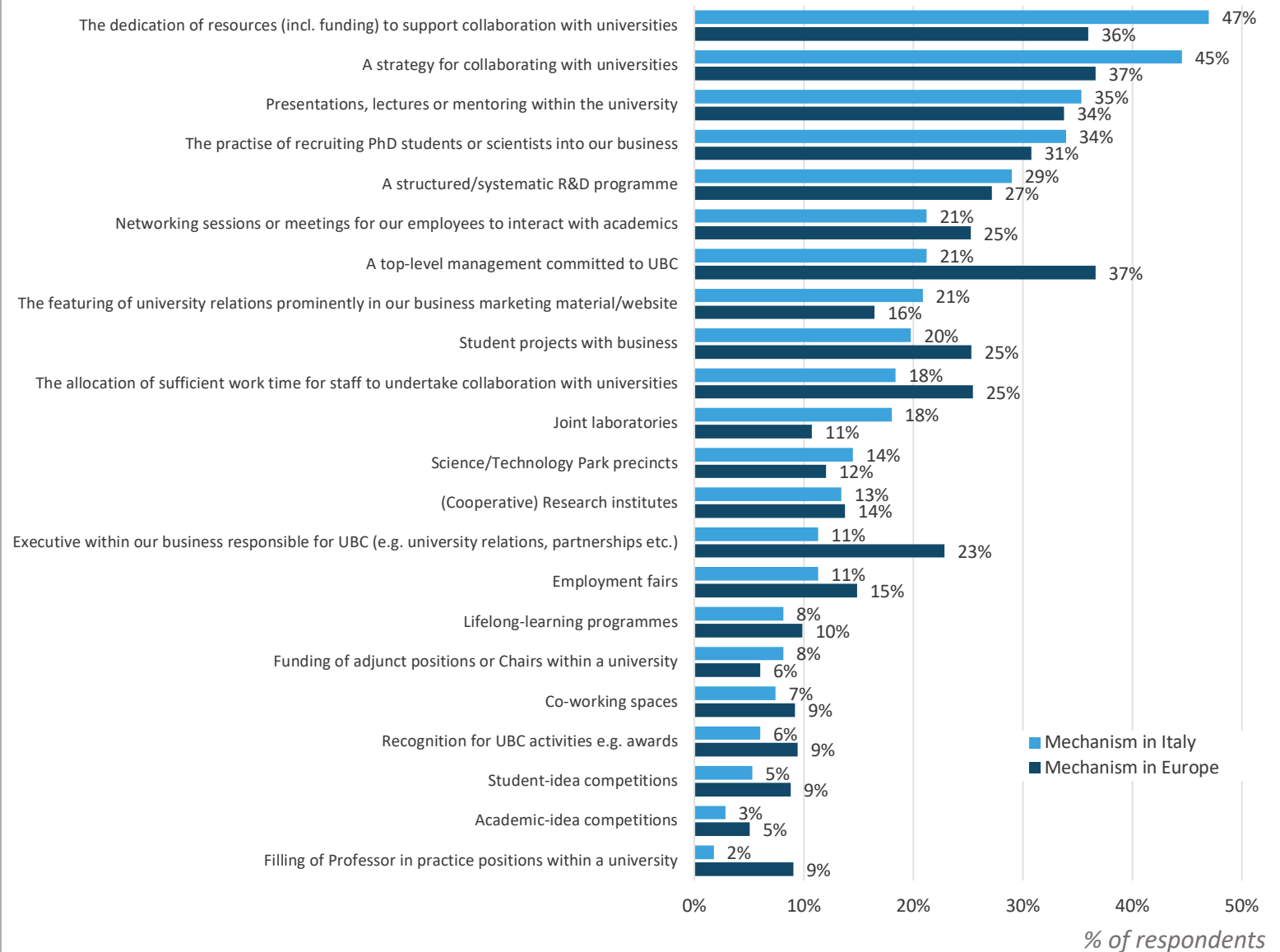
Italian businesses can adopt a range of supporting mechanisms in their interaction with universities, but only a third of surveyed businesses do it.

The most developed UBC supporting mechanism is the 'dedication of resources to support collaboration' (47%). The 'strategy for collaborating with universities' (45%) and 'presentations, lectures and mentoring' (35%) are the mechanisms, developed further. The mentioned mechanisms are also those, to which Italian business are significantly more devoted than the European businesses on average.

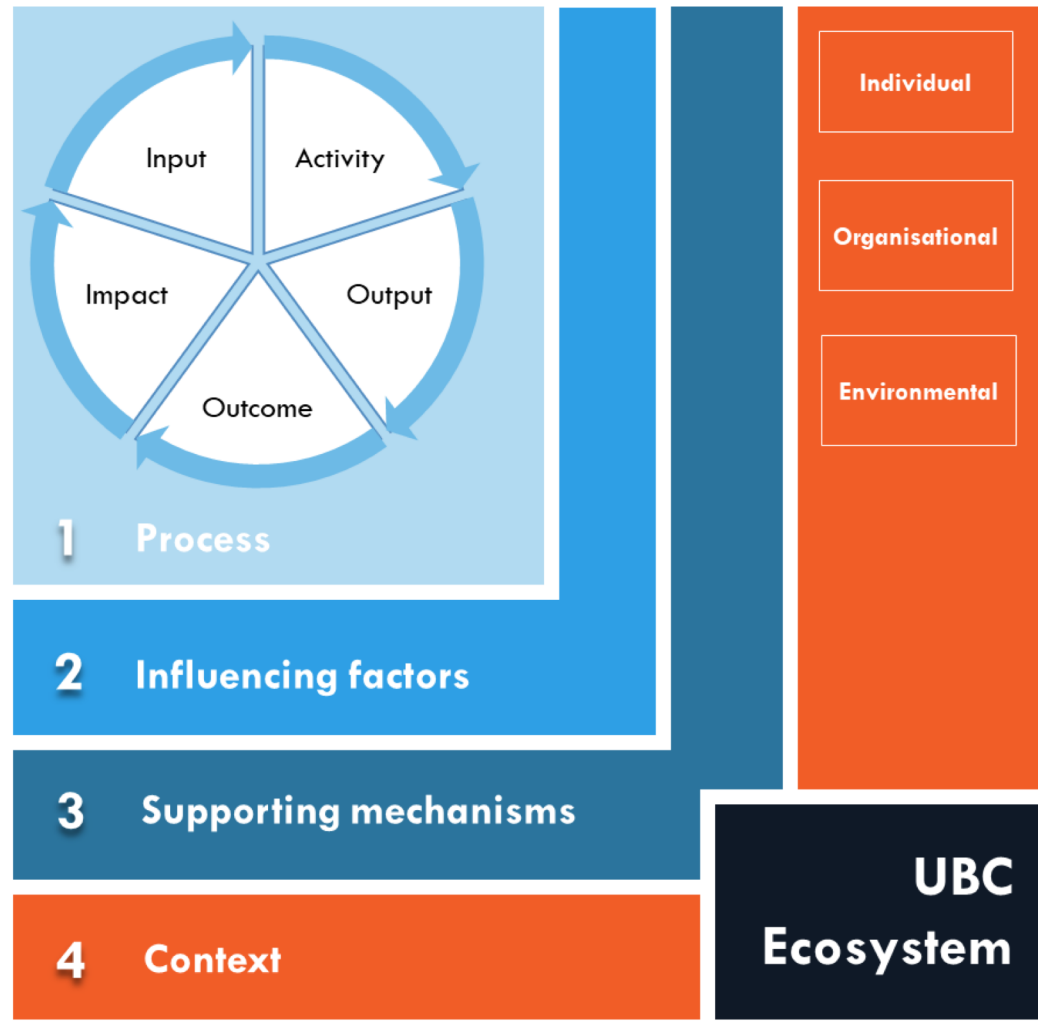
On the other hand, in comparison with European average, Italian businesses report that their top-level management is less committed to UBC and there is a lack an executive personnel responsible for UBC. The structures of most Italian companies often lack well-defined internal organisation.

Mechanisms supporting UBC

'Do these supporting mechanisms for UBC exist in your business?'



Context



The degree to which UBC takes place is influenced by a set of elements present in the context of the organisation that cannot be changed in short 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

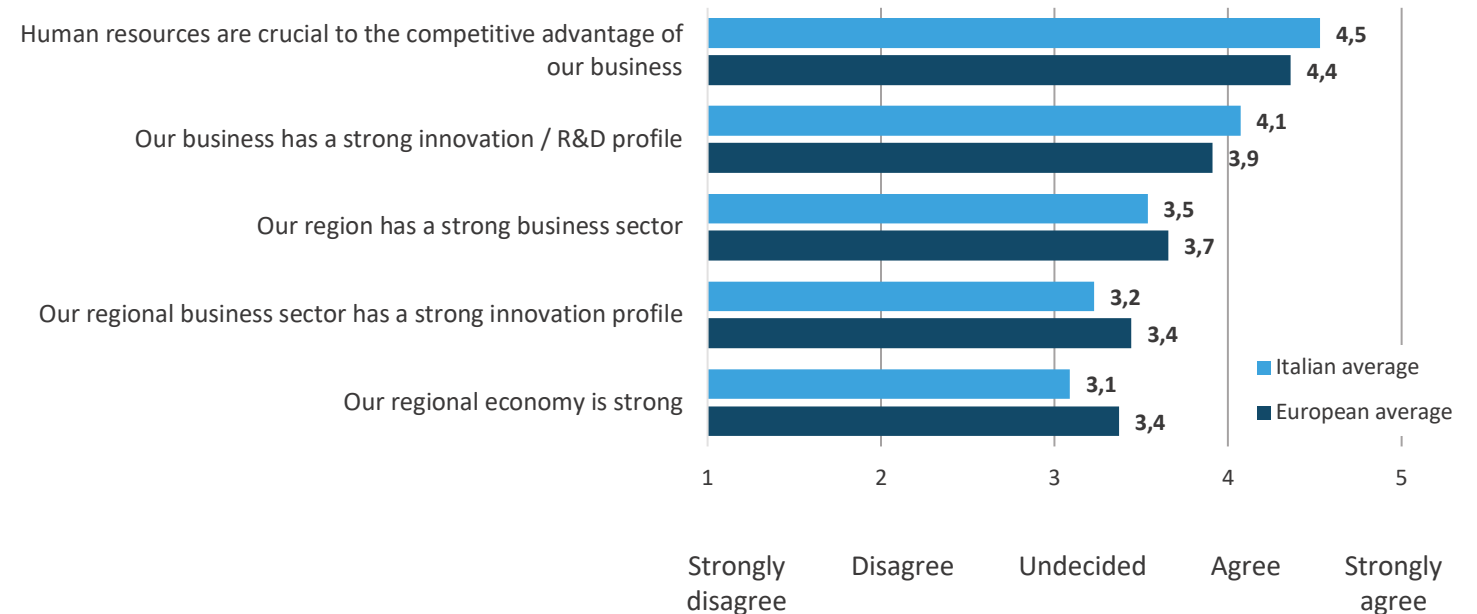
Italian businesses cooperating with universities perceive their context similarly to European cooperating businesses.

Human resources are essential for the competitiveness of Italian businesses. They also see their innovation and R&D profile as strong on average.

On contrary, Italian businesses representatives see regional business sector and regional economy weaker than European average. It is connected with the lack of efficient regional policies and specific organizations able to support the development of the entire regional ecosystem.

Contextual factors affecting UBC

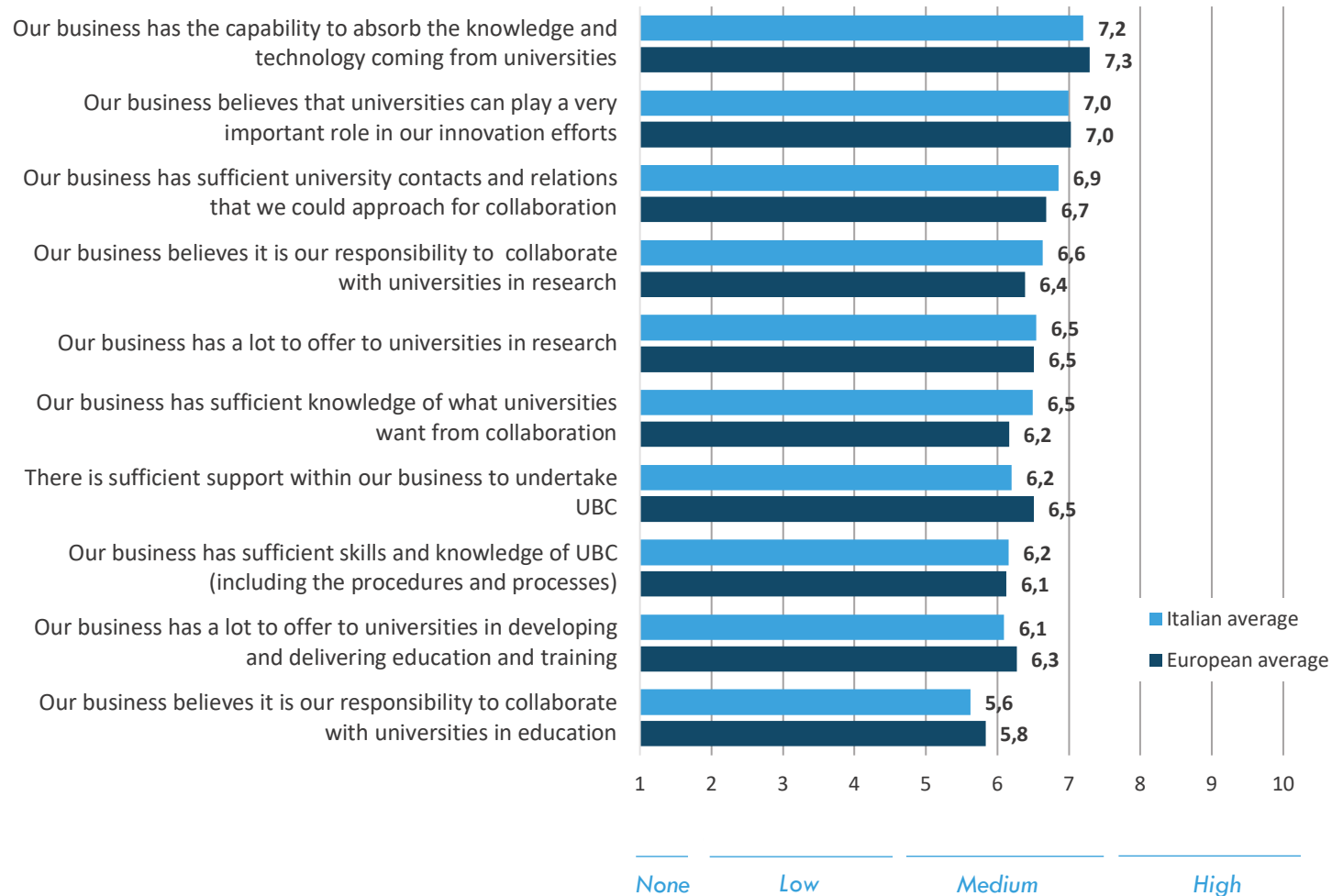
'To what extent do you agree with the following statements?'



UBC capabilities and beliefs

Supportive UBC environment

How supportive are your organisation and environment for UBC?'



In general, Italian businesses show support towards cooperation with universities. In particular, they believe to demonstrate the capability to absorb knowledge and technology from universities, when the latter play an important role in the regional and national innovation efforts.

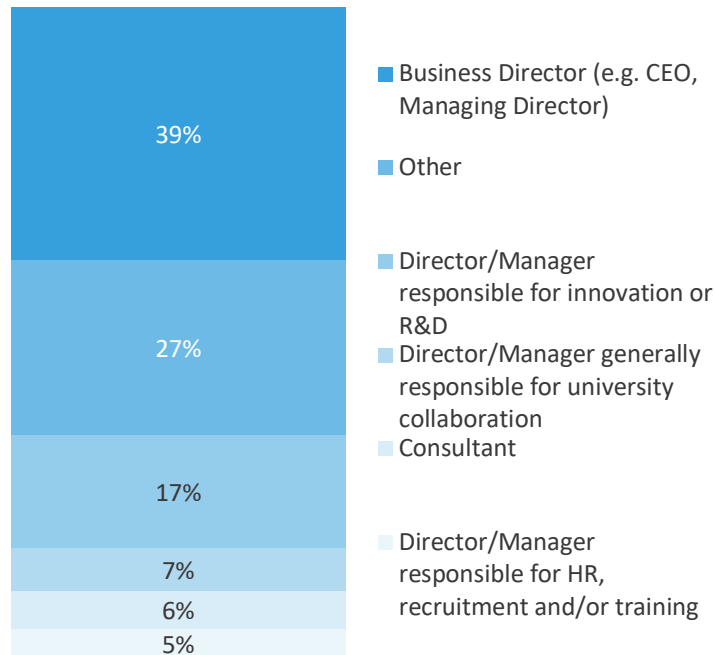
Yet, Italian businesses seem less supportive towards UBC in education and training. The focus of Italian businesses revolves more around production, where the research and development are seen more financially rewarding than educational activities.

Italian businesses state that they have sufficient university contacts, skills and knowledge of UBC, and general understanding and knowledge of what universities want. They are also to some extent supported within their organisations to undertake UBC.

Overall, Italian businesses have a similar perception of themselves in UBC in comparison to the European average.

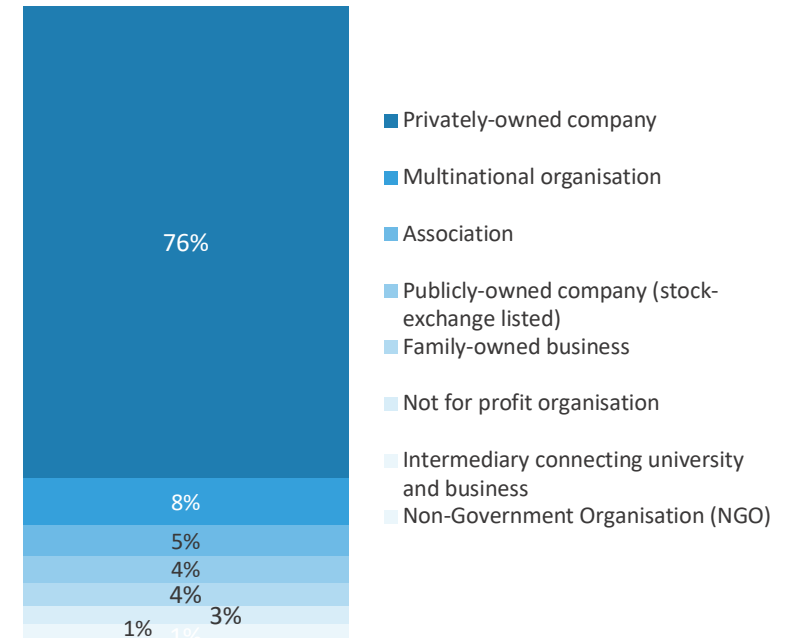
Respondents profile

Position of respondent



Around a third of the Italian business sample (39%) are business directors, who represent the largest group. It is followed by directors responsible for innovation or R&D (17%) and directors responsible for university collaboration (7%). The remaining businesses identified themselves as consultants (6%), and directors of HR, recruitment and training (5%). 27% of Italian respondents hold 'other' positions.

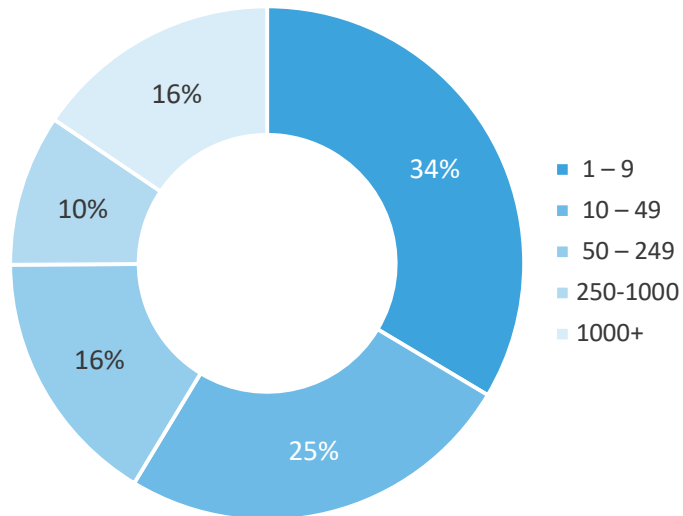
Type of business



More than two thirds (76%) of the business representatives are employed by privately-owned companies. The types of businesses with less than 10% of representation include: multinational organizations, associations, publicly-owned company, family-owned businesses, not for profit organisations, NGOs and intermediaries connecting universities and businesses.

Respondents profile

Business size



Sample Size	
Italian business representatives	n = 283
European business representatives	n = 3.113

More than half (59%) of Italian business sample is comprised by either micro-sized or small companies (1 to 49 employees). 16% of business managers work for medium-sized companies. Larger companies (250 to 1000+ employees) are represented by 26% of the business managers in the sample.

Contact us

Todd Davey - davey@uiin.org

Arno Meerman - meerman@uiin.org

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 www.ub-cooperation.eu

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