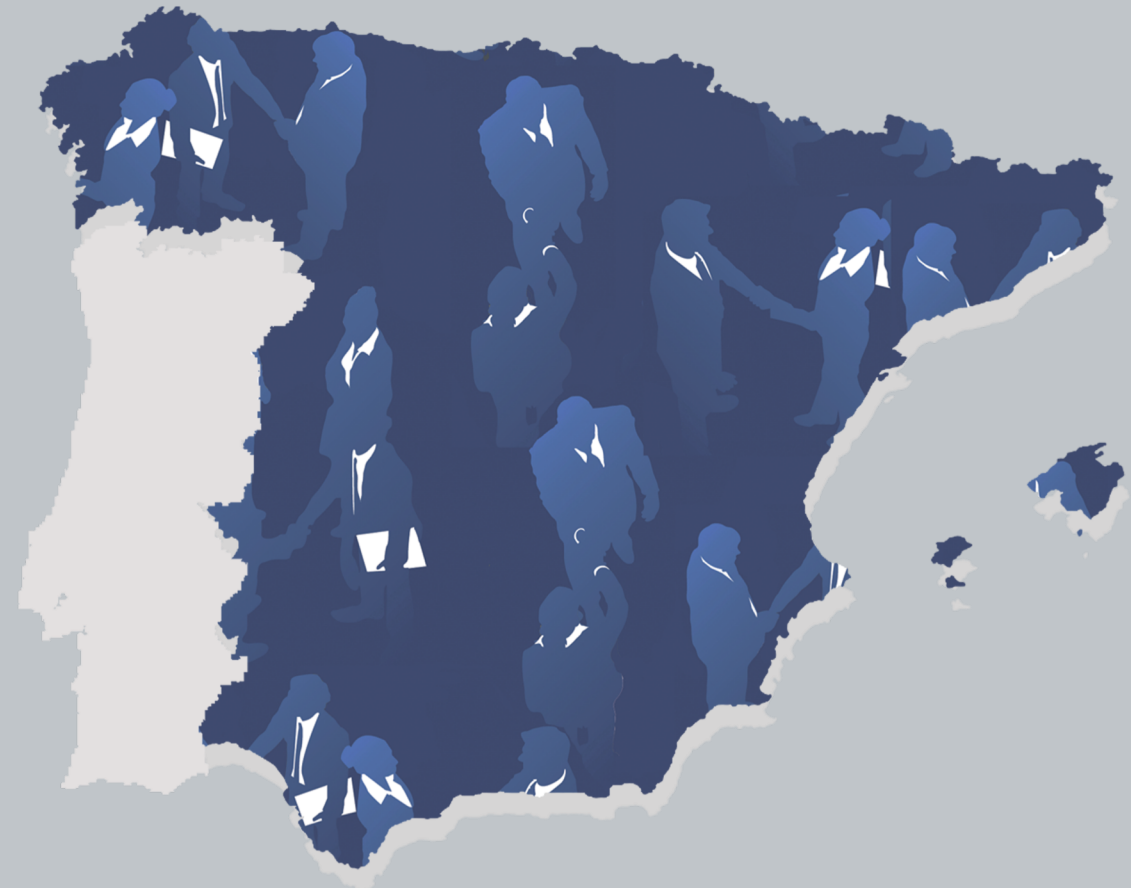


State of University- Business Cooperation SPAIN

Business Perspective

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



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

Partners



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Executive summary

Summary

This report aims at contributing to our understanding of the business perspective on university-business cooperation (UBC) in Spain. Examining the perceptions of a wide range of businesses provides positive signs for the future, with 98% of Spanish businesses that already established relationships with universities planning to maintain or increase their cooperation in the future. Yet, more can be done, for example in supporting businesses with the development of initiatives and activities that can support their cooperation efforts. Furthermore, there is still room for improvement with respect to perceived and actual capabilities, particularly of those businesses not currently engaged in cooperation.

About the study

The results presented in this report reflect the perceptions of business representatives in Spain 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 327 Spanish responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

University-Business Cooperation

Spanish businesses show a relatively high engagement in research related cooperation.

Thus, 72% of business respondents cooperate to a medium-high extent with universities in joint R&D, and 47% in consulting. Fewer businesses are involved in mobility of staff. Education related cooperation also shows significant engagement, with two thirds of the businesses participating in mobility of students.

Valorisation and management activities are considerably less developed with more than 40% of businesses not undertaking these types of cooperation at all. Particularly low are also the educational activities of curriculum co-design, co-delivery and student entrepreneurship.

Spanish businesses perceive themselves as the main actors reaching out for collaboration. They also see current university students, alumni and government as proactive UBC initiators. On the contrary, Spanish representatives identify internal and external intermediaries as well as university management as those stakeholders that less often initiate UBC.

It is them, not us

Primary barriers identified by respondents relate to a lack of people with business knowledge within universities and missing financial support mechanisms from government. Moreover, business respondents point towards cultural differences between the two organizations (e.g time horizons and motivations) as well as the universities' high level of bureaucracy.

NOTE: This report provides a business on university-business cooperation UBC, 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 key

While funding to undertake cooperation is indicated as one of the top five facilitators for Spanish UBC, factors related to the individual relationships emerge to be of even higher importance. It is the existence of trust, a shared goal, and commitment alongside prior relations with a partner that facilitate cooperation for Spanish businesses. These results indicate that any effort towards enabling cooperation between businesses and universities should focus on relationship development as a basis for successful collaboration.

Driven by competitiveness

Spanish businesses cooperate with universities principally to improve their own innovation capacity and to get access to new technologies and knowledge and to. Further motivations to engage in UBC include positively impacting society, getting access to better qualified graduates and obtaining funding.

Generally, Spanish businesses perceive themselves as UBC beneficiaries but they see for themselves less benefits than for students and HEIs.

Strategy first

Strong emphasis has been placed on the development of UBC supporting mechanisms by universities, and yet little is known about such mechanisms in the business realm.

This study indicates that the strategies are those mechanisms that have the highest development, with almost half of the respondents indicating the existence of resources to support cooperation, a committed top-level management and a defined strategy for collaborating with universities. Additionally, more than a third of the respondents report the existence of student projects within their business and a systematic R&D programme.

The most underdeveloped supporting UBC mechanisms in Spain include joint laboratories, academic-idea competitions and the funding of adjunct positions or chairs within a university.

Room for improvement in education activities

Spanish businesses perceive themselves to be supportive towards UBC. They report having the capability to absorb knowledge and technology from universities and sufficient support to undertake UBC. Spanish businesses recognise the important role played by HEIs in their innovation efforts. They also state that they have the and that they have a lot to offer to universities regarding research.

However, Spanish businesses are less supportive towards UBC in education and find themselves least inclined towards taking the responsibility to collaborate with universities in this field. Generally, they are less satisfied with collaboration in education than in research.

Introduction

About the study

The study focusses 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

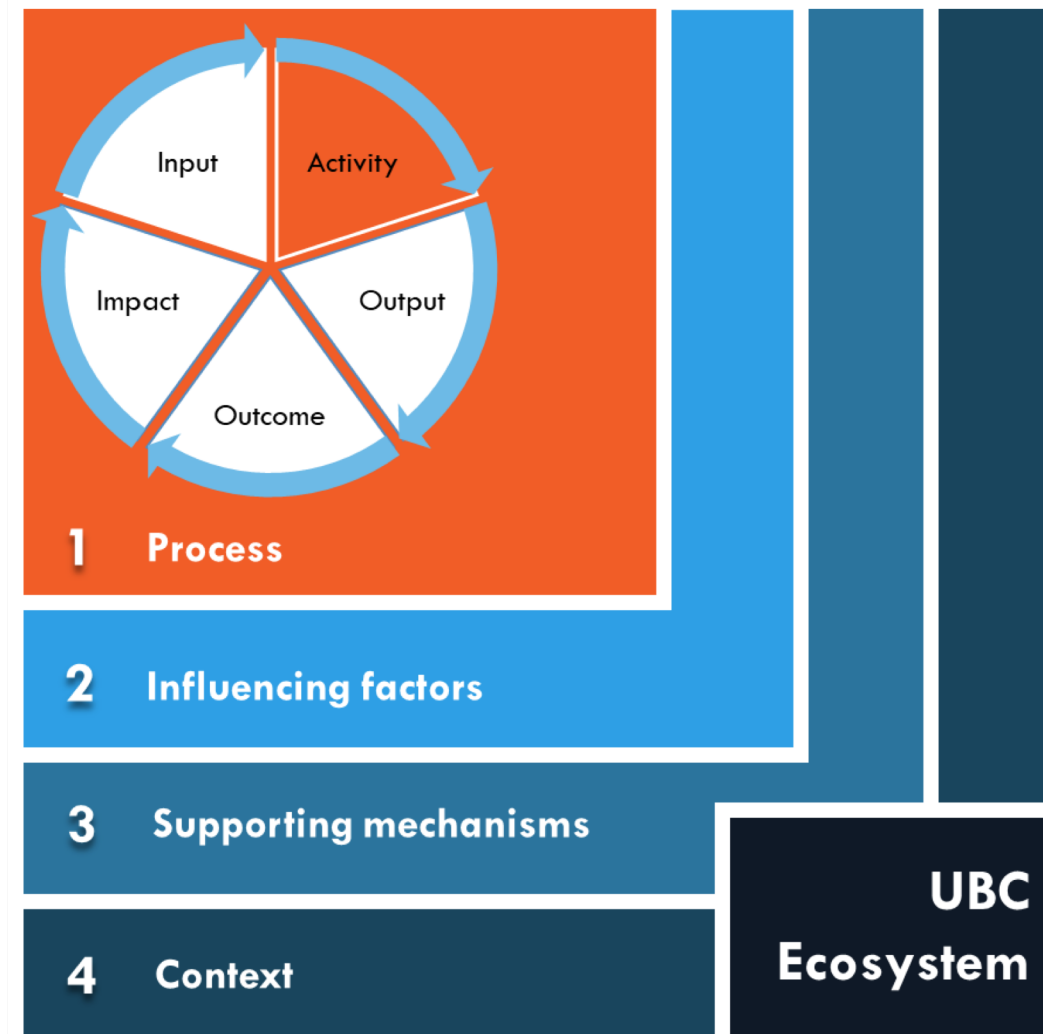
UBC activities

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

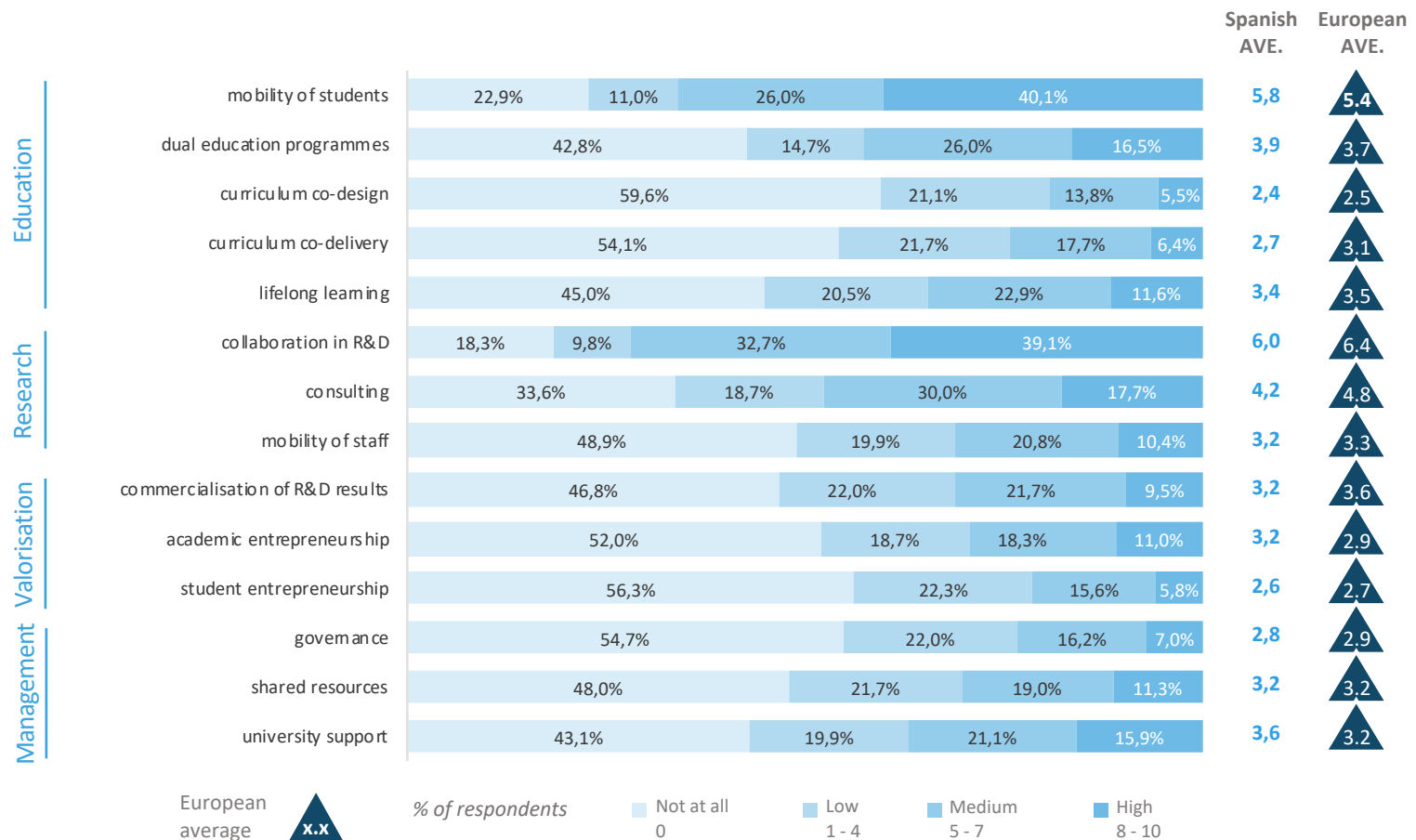
Fourteen UBC activities are recognised, commonly categorised into the areas of education, research, valorisation and management.

Area	Activities
Education	1. curriculum co- <u>design</u>
	2. curriculum co- <u>delivery</u> (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)
Research	6. joint R&D (incl. joint funded research)
	7. consulting to business (incl. contract research)
	8. mobility of professionals (i.e. temporary mobility of academics to business and vice versa)
Valorisation	9. commercialisation of R&D results (e.g. licencing/patenting)
	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)

Development of UBC activities

UBC activities development

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



Spanish businesses engage mostly in research UBC activities, like joint R&D (6.0) and consulting (4.2). As for education related UBC, mobility of students (5.8) is the most developed UBC activity.

More than 40% of businesses do not undertake any management or valorisation related collaboration.

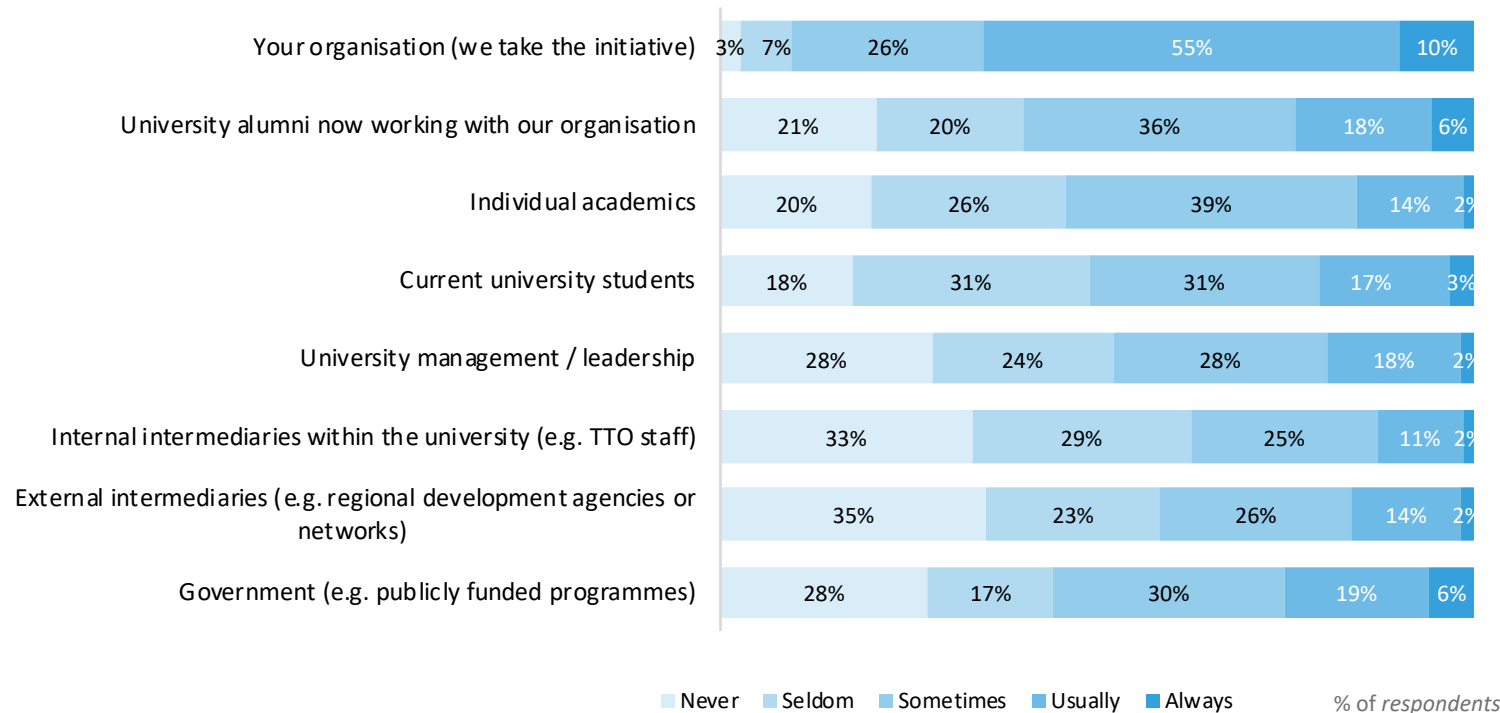
Particularly low are also the activities of curriculum co-design and co-delivery and student entrepreneurship.

In comparison with the development of the UBC activities for European business, the Spanish UBC extent is very similar.

Initiation of UBC

How UBC is initiated

'How often various stakeholders initiate UBC activities'



Spanish businesses clearly see themselves as the main initiators of cooperation with universities. 65% of business state that their organisation always or usually initiates UBC.

Spanish businesses see the current university students, university alumni and government also active in initiating cooperation, although to a lesser extent.

Internal and external intermediaries are perceived as passive in UBC initiation. 62% and 58% of the businesses report that they never or seldom undertake any first actions towards UBC initiation respectively.

Similarly, 52% of business state that university managers do never or seldom initiate UBC.

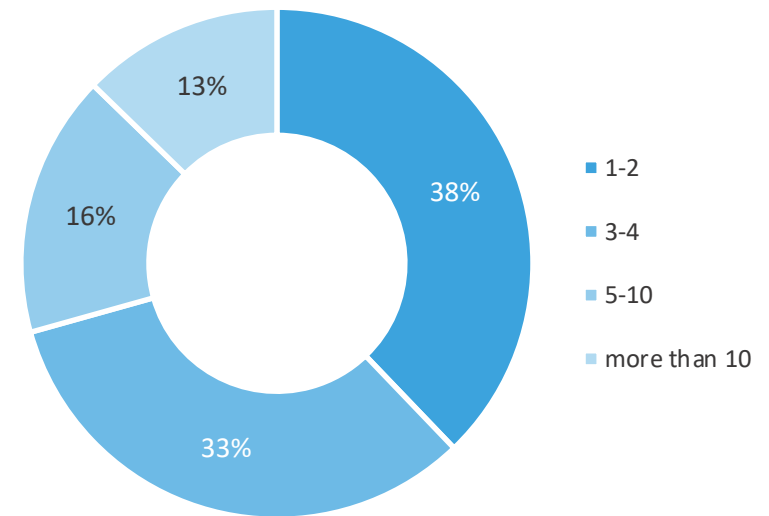
Geographical location still matters

Location of university partners

Percentage of cooperating businesses with...	
universities in their region	97%
universities in their country	91%
universities outside their country	72%

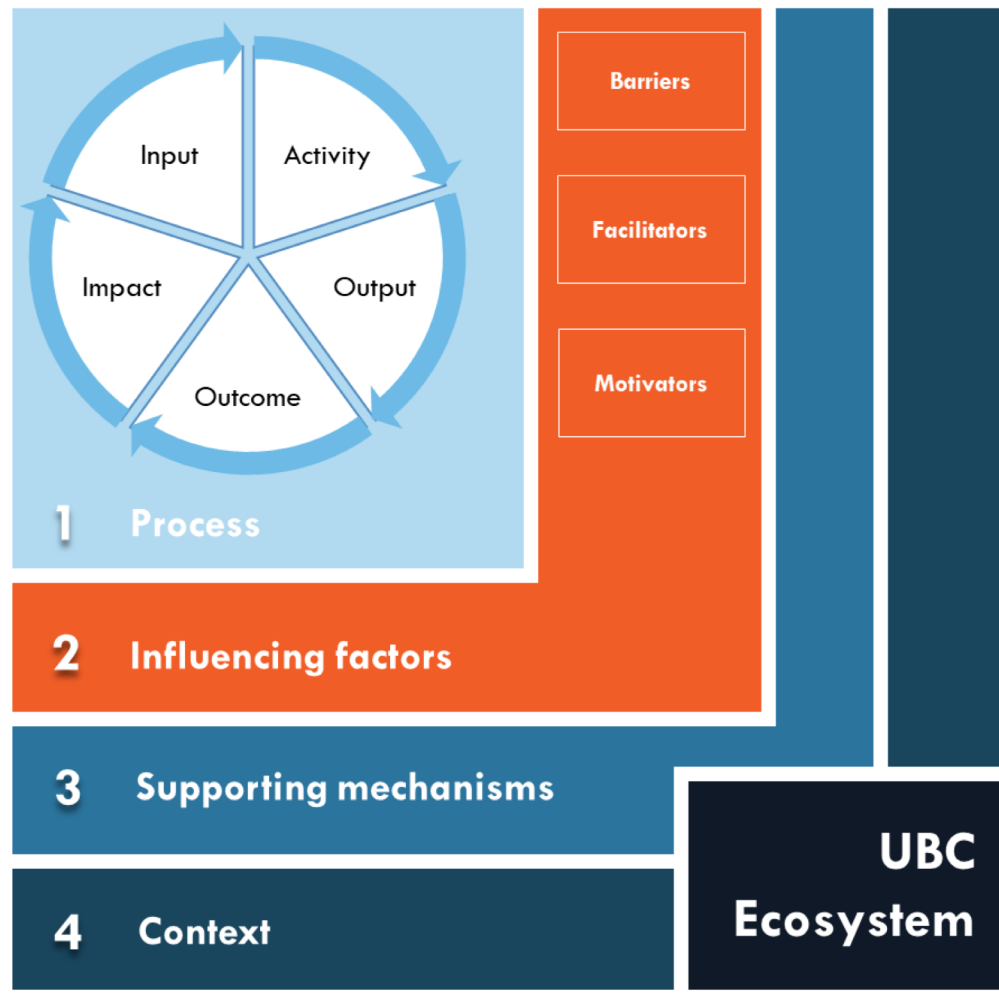
While most Spanish businesses cooperate with national universities (97%) and universities from the region (91%), they also cooperate with university partners outside of Spain (72%). WHY?

Number of university partners



More than 70% of Spanish businesses cooperate with 4 or less university partners. 16% have established relations with 5-10 partners and only 13% 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 main five factors inhibiting Spanish businesses to cooperate with universities are diverse.

The main one is related to the lack of people with business knowledge within universities.

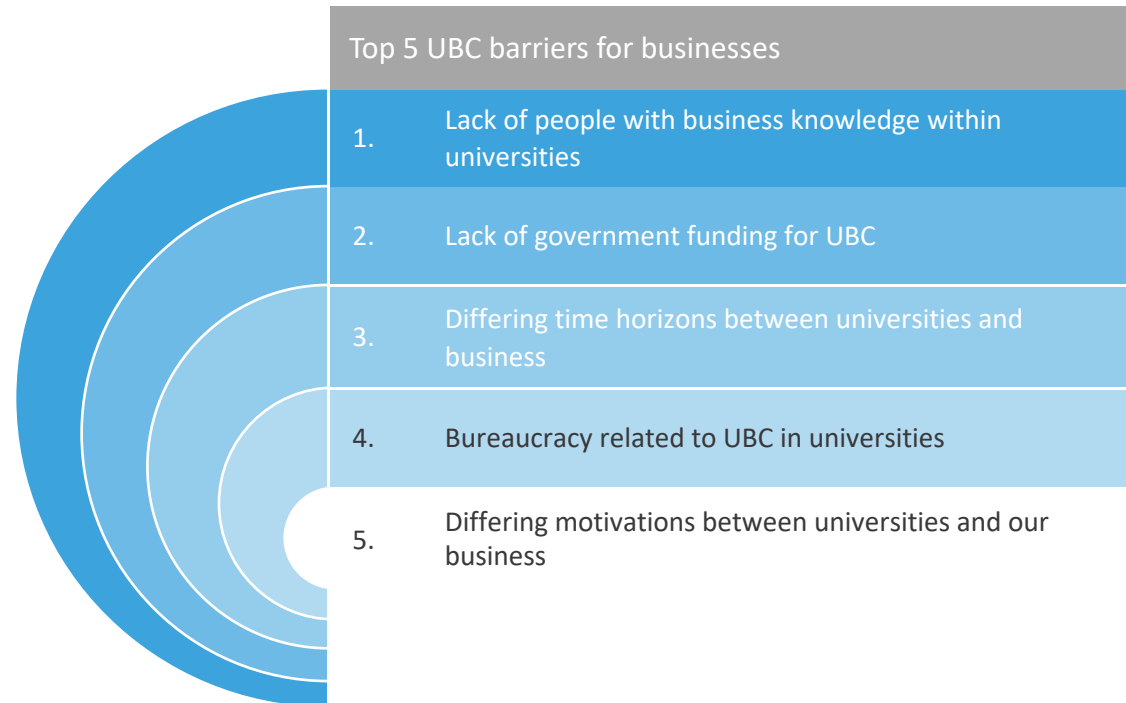
The differing time horizons as well as differing motivations between universities and business are also seen as important barriers for Spanish businesses .

Spanish businesses are also hindered by the bureaucracy related to UBC.

The lack of government funding for UBC is the only financial barrier.

Barriers

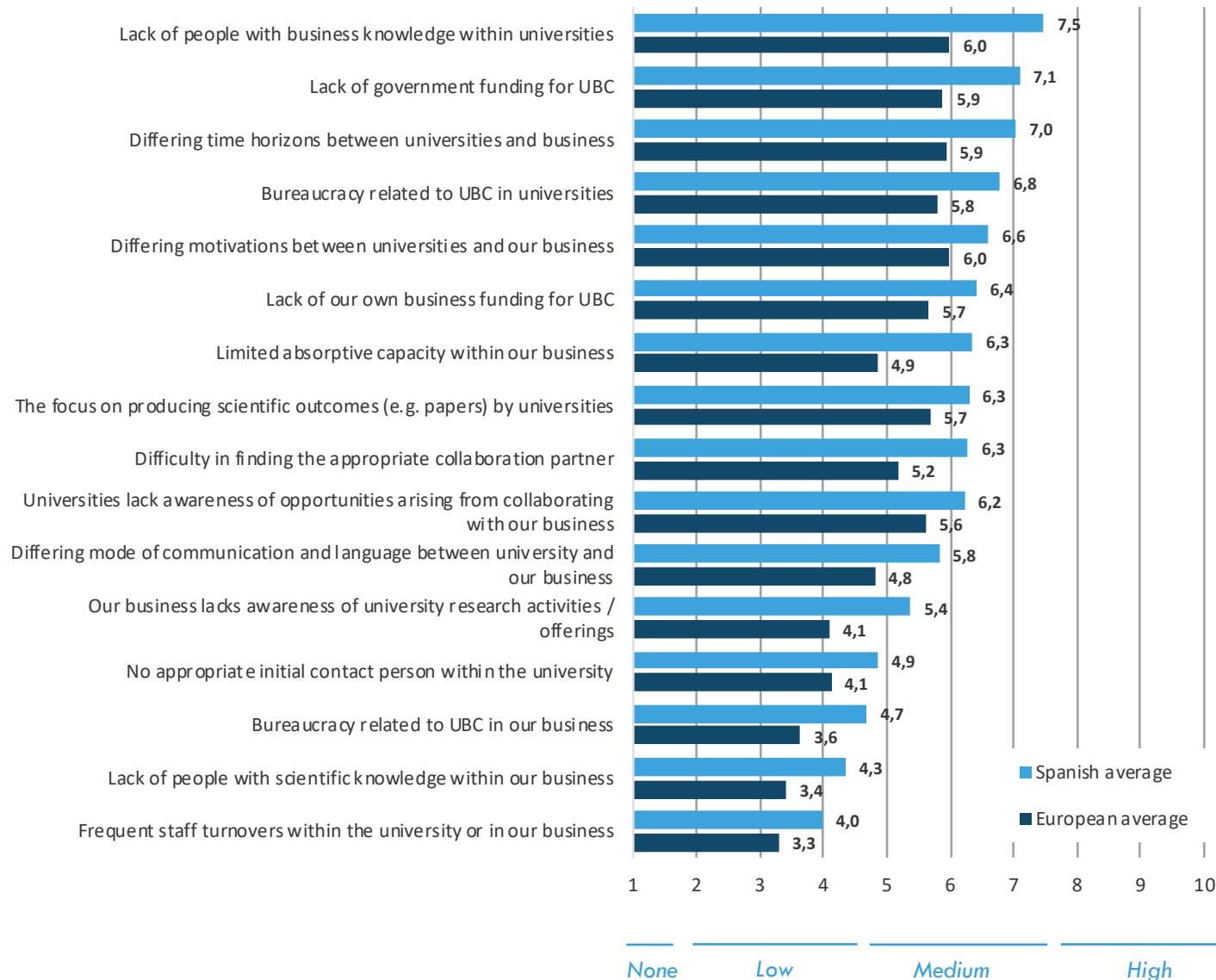
‘What is inhibiting your cooperation with universities?’



Barriers hindering UBC

Barriers

‘What is inhibiting your cooperation with universities?’



The majority of barriers perceived by cooperating Spanish businesses and their European counterparts are to some extent similar. However, Spanish businesses perceive all barriers.

The limited absorptive capacity within businesses and their limited awareness of university research activities are considerably stronger barriers for Spanish business than they are for European business.

The two strongest barriers emerged for both groups are related to the lack of people with business knowledge within universities and lack of government funding for UBC.

Frequent staff turnover is the weakest barrier for both groups.

Drivers stimulating UBC

The main factors that facilitate Spanish business cooperation with universities are related to their personal relationships.

A relationship based on trust, commitment, shared goal and prior history facilitates cooperation for Spanish businesses, resulting in smoother and more successful collaboration with universities.

Existence of funding to undertake the cooperation is also likely to play an important role in facilitating UBC for Spanish businesses.

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

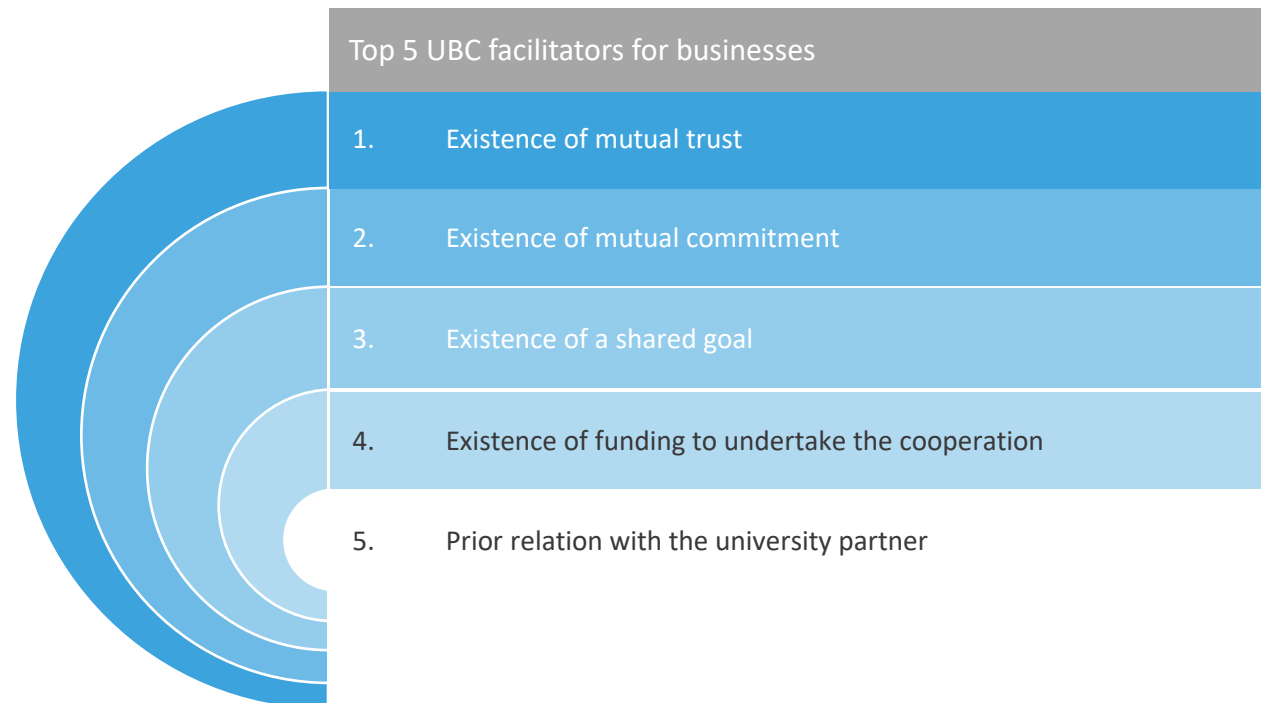
1. **Facilitators** – factors that enable or ease cooperation
2. **Motivators** – incentives or benefits that the respective stakeholders would like from the cooperation

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

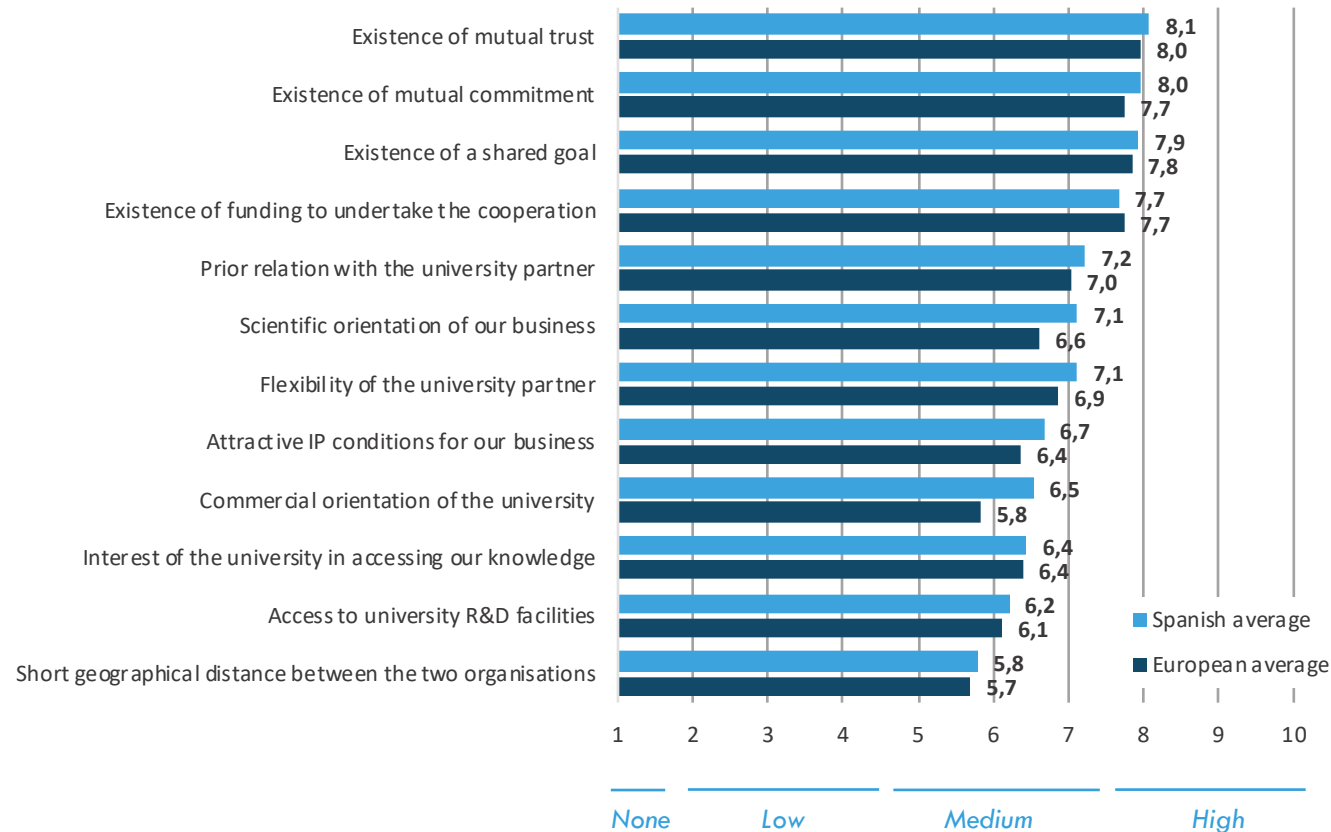
'What is facilitating your cooperation with universities?'



Drivers stimulating UBC

Facilitators

'What is facilitating your cooperation with universities?'



Spanish and European perspectives regarding facilitators almost align.

Existence of shared goal, mutual trust and commitment bear great importance in the advance of UBC for both Spanish and European businesses.

The prior relation with the university partner and existence of funding to undertake the cooperation also facilitates UBC.

The access to university R&D facilities and short geographical distance between two organisations are the weakest facilitators.

Drivers stimulating UBC

The main motivators for Spanish businesses to undertake UBC are related to the improvement of innovation capacity and access to the technologies and knowledge. WHY?

Spanish businesses are also motivated by the willingness to positively impact society and access better qualified graduates.

A less important but still relevant motivation is related to financial resources.

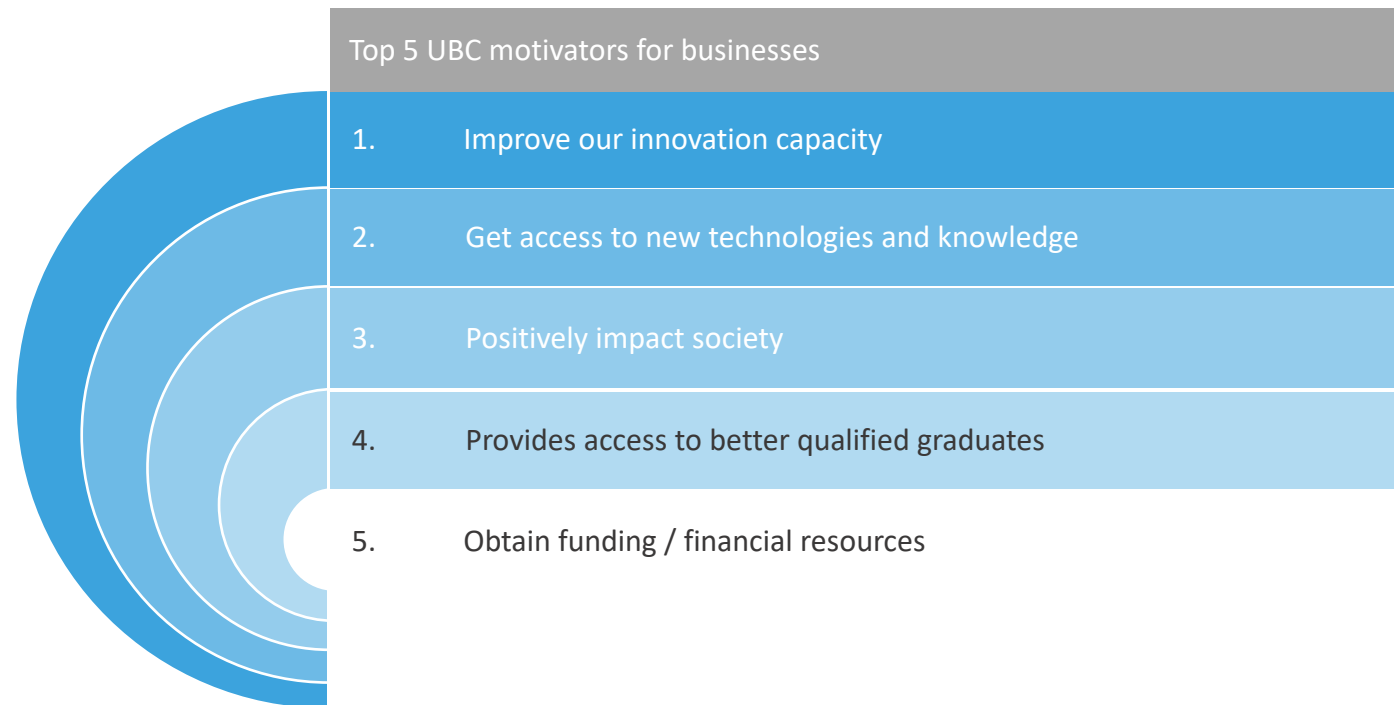
Motivations for UBC are the reasons why businesses collaborate with university.

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

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

Motivators

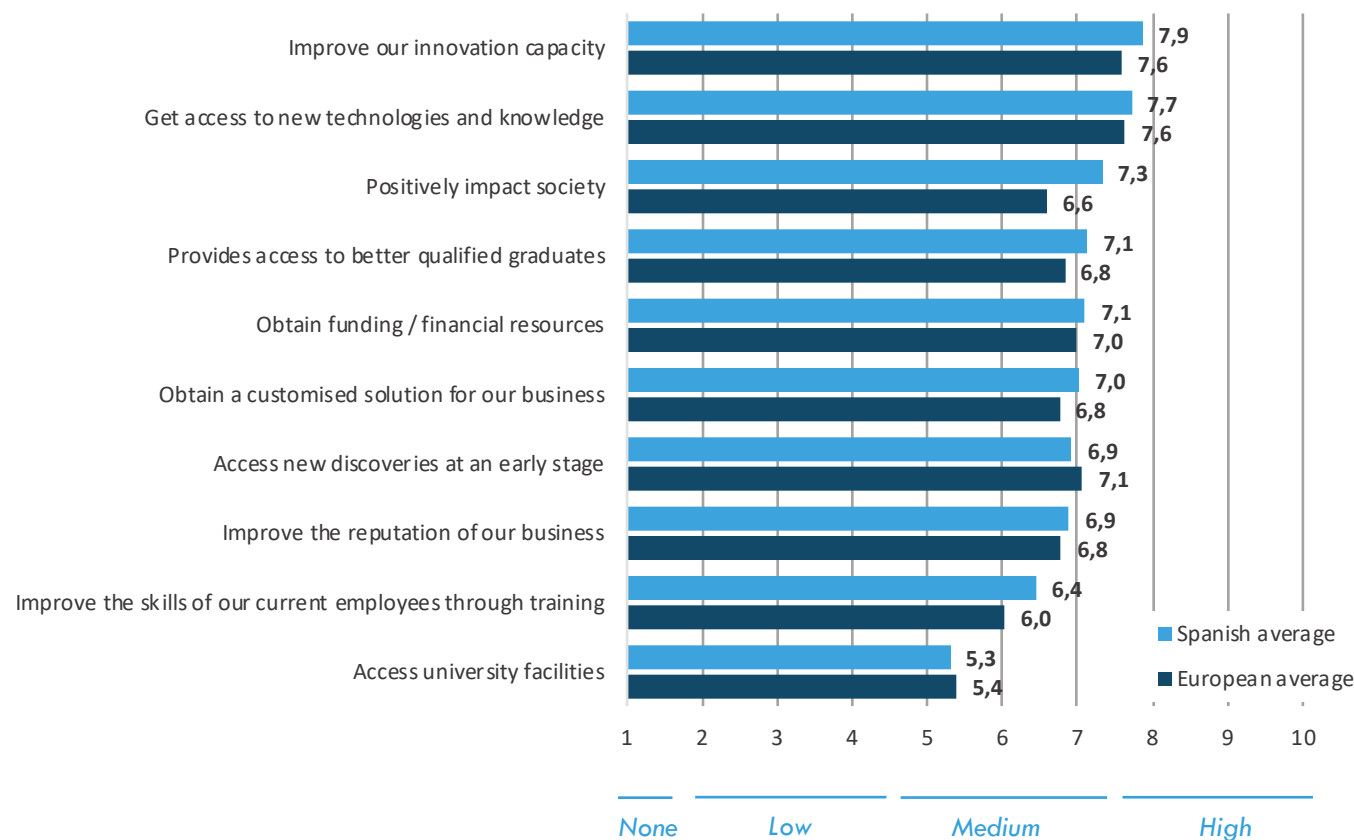
'What motivates you to cooperate with universities?'



Drivers stimulating UBC

Motivators

'What motivates you to cooperate with universities?'



Overall, Spanish and European businesses have slightly different perceptions of UBC motivators.

The motivation to positively impact society and access better qualified graduates is higher for Spanish businesses than for European businesses.

Like their European counterparts, Spanish businesses are highly motivated to improve their innovation capacity and access new technologies.

On the other end, both groups are considerably less motivated to access university facilities.

Benefits of UBC

Both Spanish and European businesses have very similar perceptions in respect to which stakeholders groups benefit more or less from UBC.

Both groups see students and universities as the primary beneficiaries of UBC.

Notably they perceived themselves also as beneficiary but to a slightly lower extent.

The lowest benefits are perceived to be for academics, society and government.

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?'

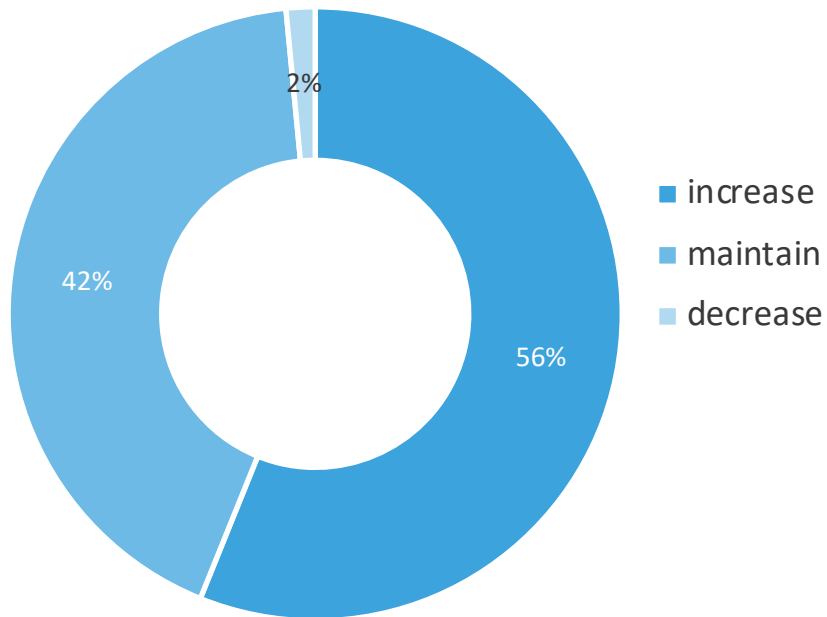


	Spanish businesses	European businesses
1.	Students	Students
2.	Universities	Universities
3.	Businesses	Businesses
4.	Society	Academics
5.	Academics	Society
6.	Government/public authorities	Government/ public authorities

Future intentions

Future UBC intentions – Spain

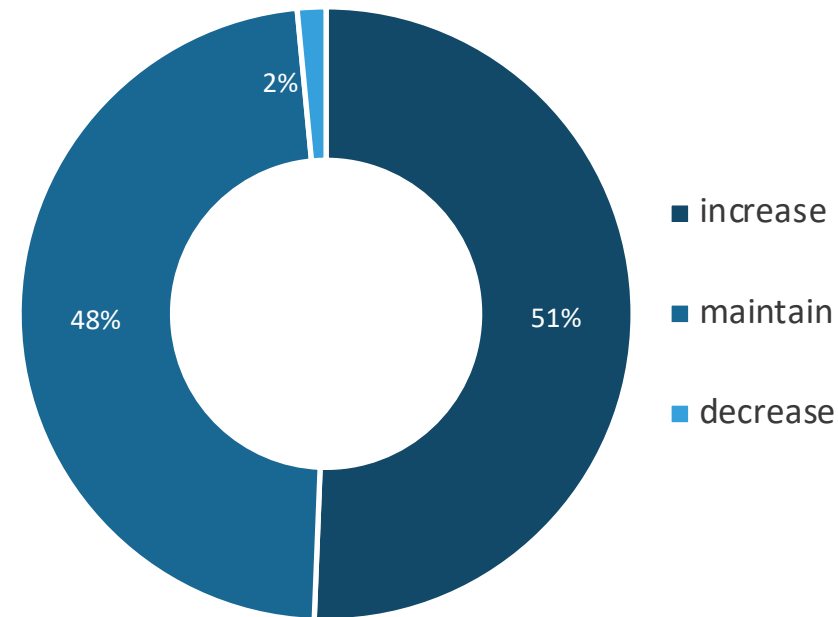
As answered by Spanish businesses



98% of Spanish businesses that currently cooperate with universities plan to maintain or increase their cooperation, with only 2% intending to reduce it. This shows an important momentum for UBC in Spanish industry.

Future UBC intentions – EUROPE

As answered by European businesses



European businesses also seem to be confident in their future intentions towards UBC than Europeans. Half of them plan to increase their cooperation activities.

Willingness to recommend UBC

The willingness of Spanish cooperating businesses to recommend to a colleague to engage in UBC varies depending on whether this cooperation is in research or in education.

Spanish businesses are more satisfied with UBC in research than their European counterparts (NPS=37). While 52% of them will promote it positively, 15% would do it negatively.

Spanish businesses are also more satisfied with their cooperation in education (NPS=16). 39% would highly recommend it and 27% will not recommended it. This is, however, much higher than the satisfaction level of their European counterparts (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

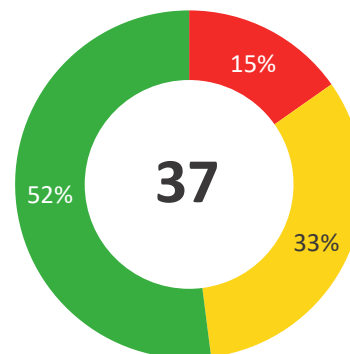
education and training (E&T). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

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	15%	33%	52%	37%
Business cooperating with universities in E&T	23%	37%	39%	16%

Satisfaction with cooperation with universities (net promoter score)

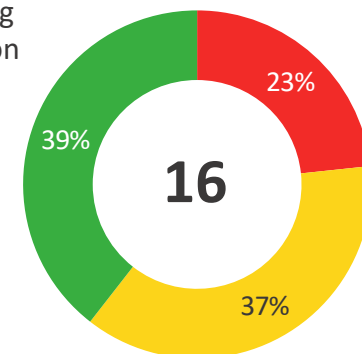
Business cooperating in research



■ Detractors ■ Passives ■ Promoters

European business NPS result: 28.2

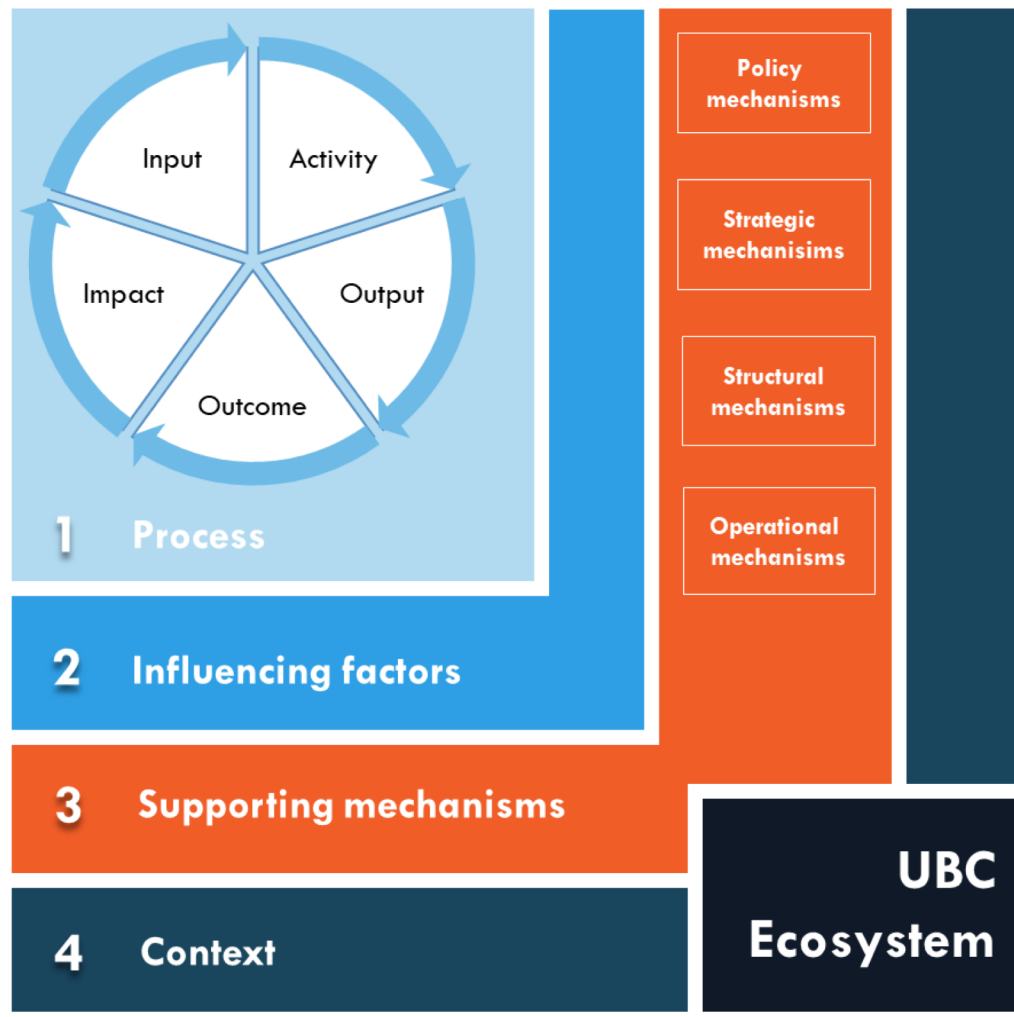
Business cooperating in education



■ Detractors ■ Passives ■ Promoters

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

Spanish businesses can adopt a range of supporting mechanisms in their interaction with universities, but most of them are present in under a third of the businesses.

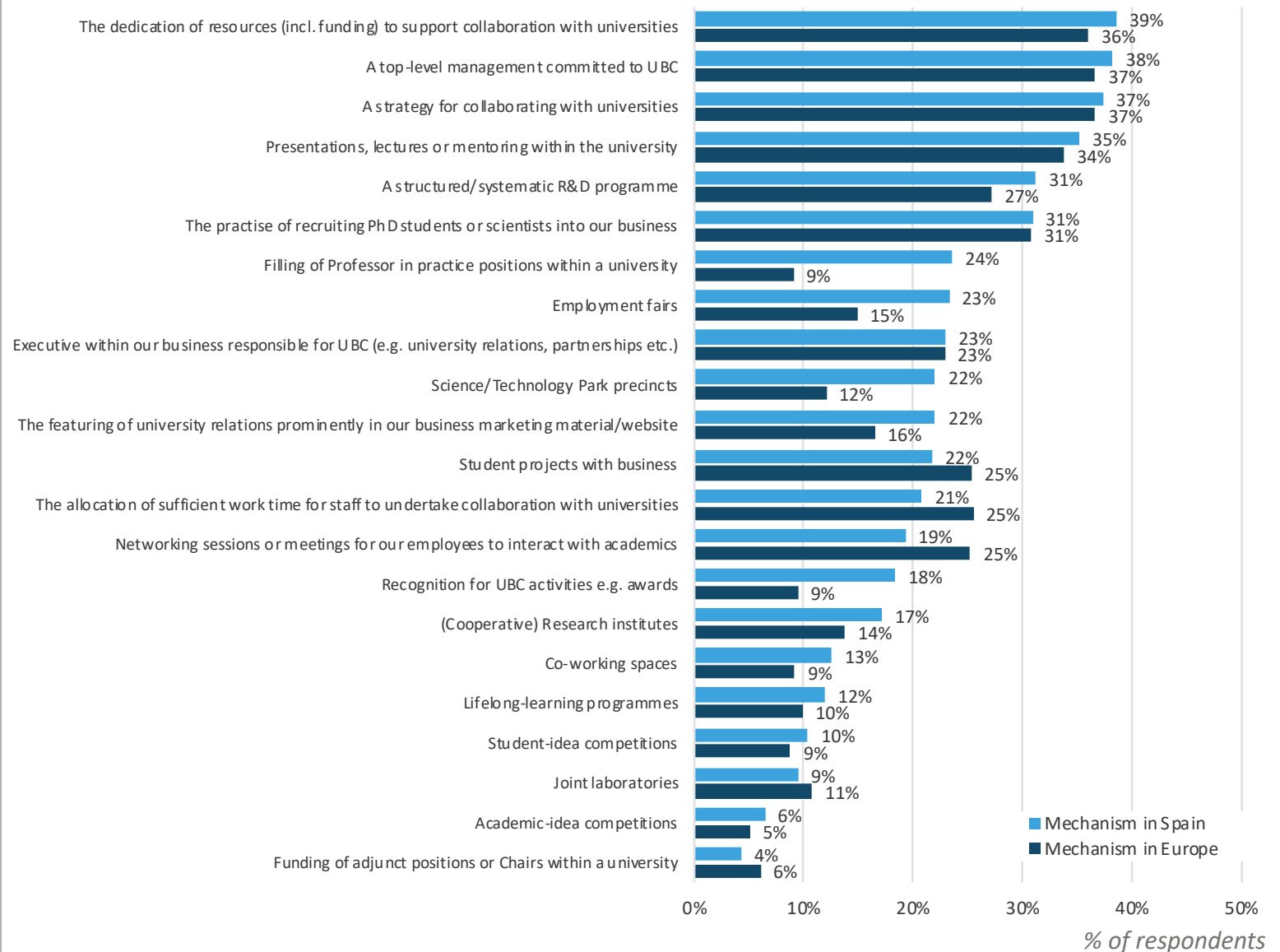
The most developed one is the dedication of resources to support collaboration (39%). Top-level management commitment (38%) and a strategy for collaborating (37%) are the further mechanisms present in Spain.

Compared to the European average, UBC supporting mechanisms in Spain are generally more common. Particularly, the filling of professor in practice positions within university is significantly higher than the European average.

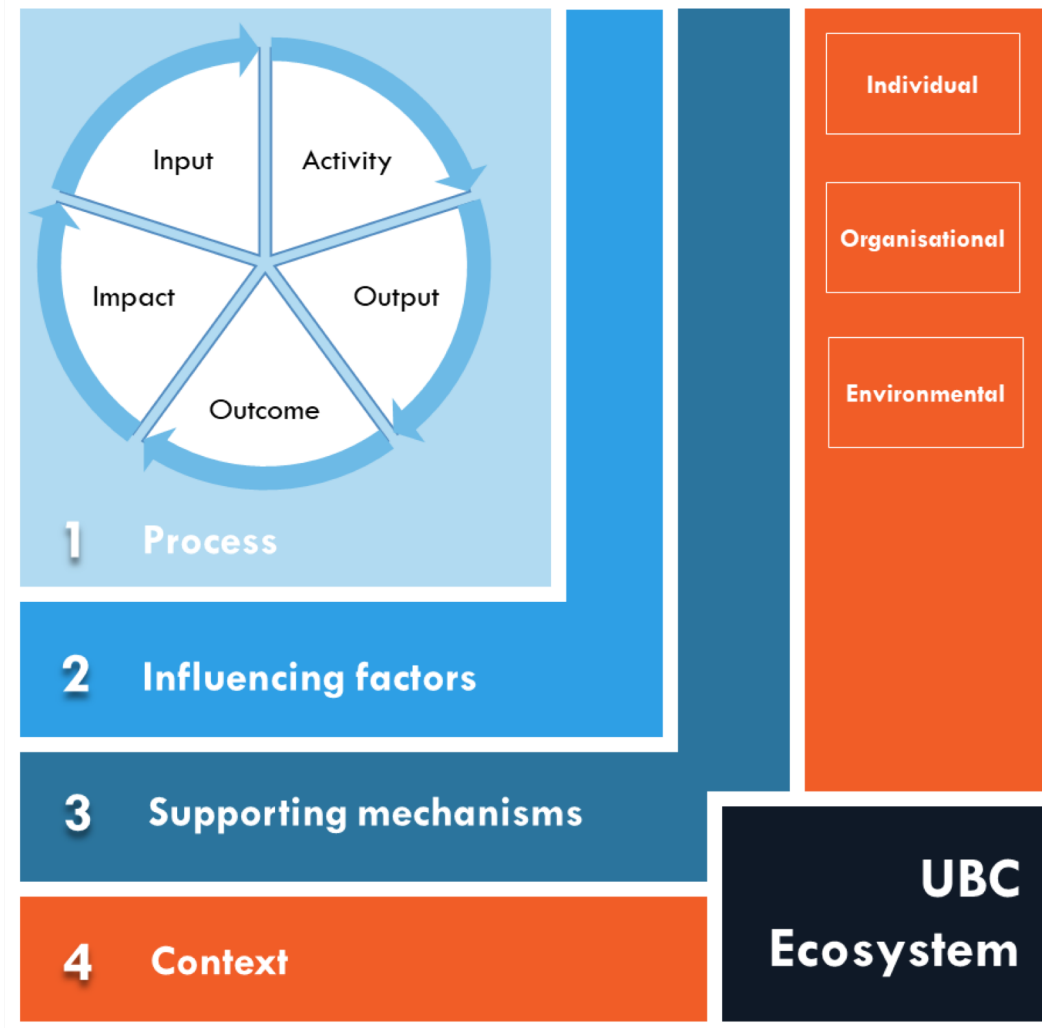
On the other hand, student projects, the allocation of sufficient time for staff to undertake collaboration with universities and networking sessions for employees to interact with academics are mechanisms which are significantly less developed for businesses in Spain than in Europe.

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

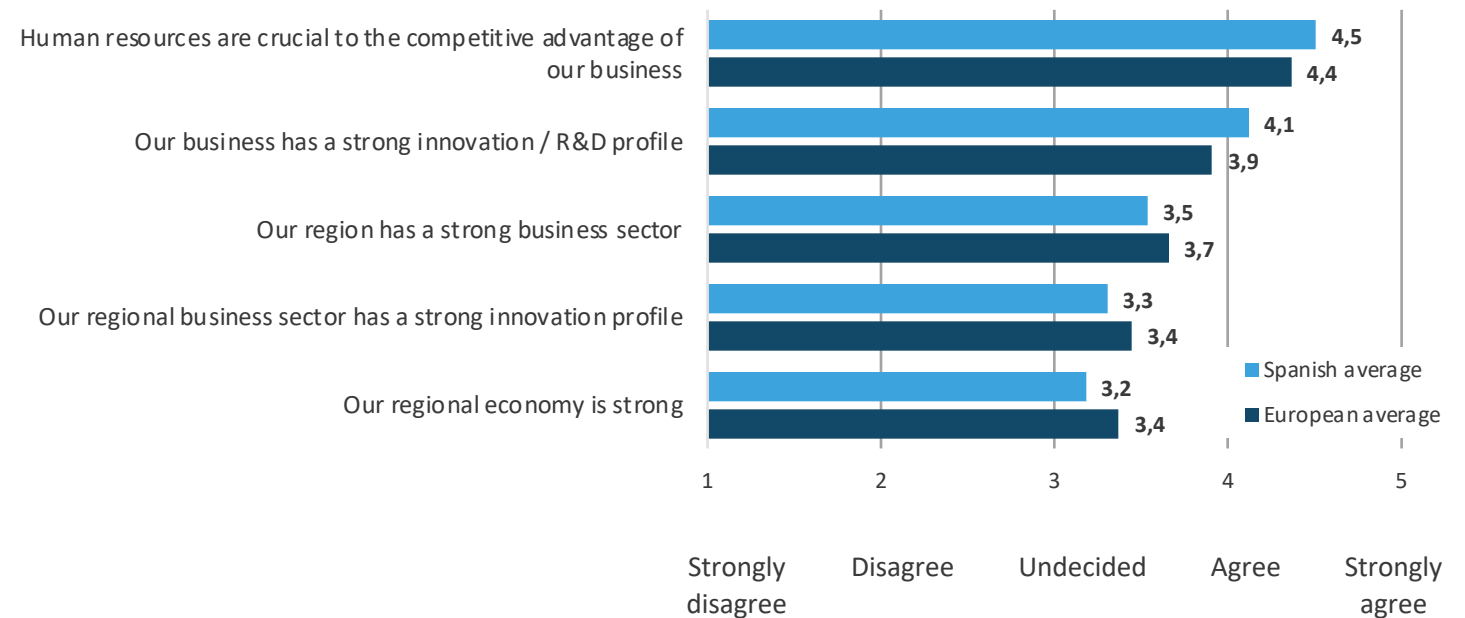
Spanish business cooperating with universities perceive their context similarly to European businesses.

Human resources are essential for their competitiveness and the business innovation and R&D profile is seen as strong.

A lower perception emerges regarding the characteristics of the regional business sector and economy.

Contextual factors affecting UBC

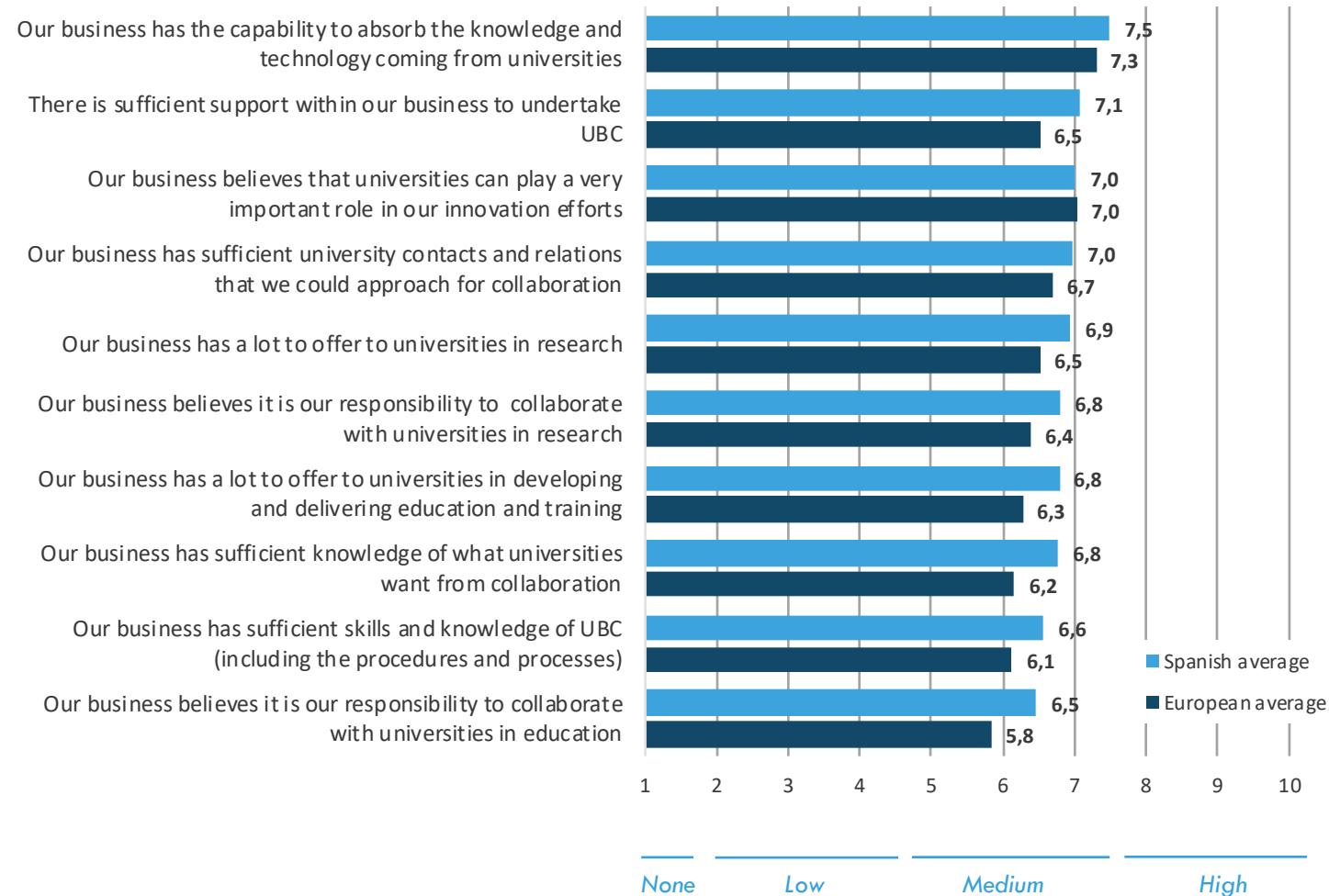
'To what extent do you agree with the following statements?'



UBC capabilities and beliefs

Supportive UBC environment

How supportive are your organisation and environment for UBC?'



Spanish businesses perceive themselves as supportive towards cooperation with universities.

In particular they have the capability to absorb knowledge and technology from universities and believe there is sufficient support within the company to undertake UBC .

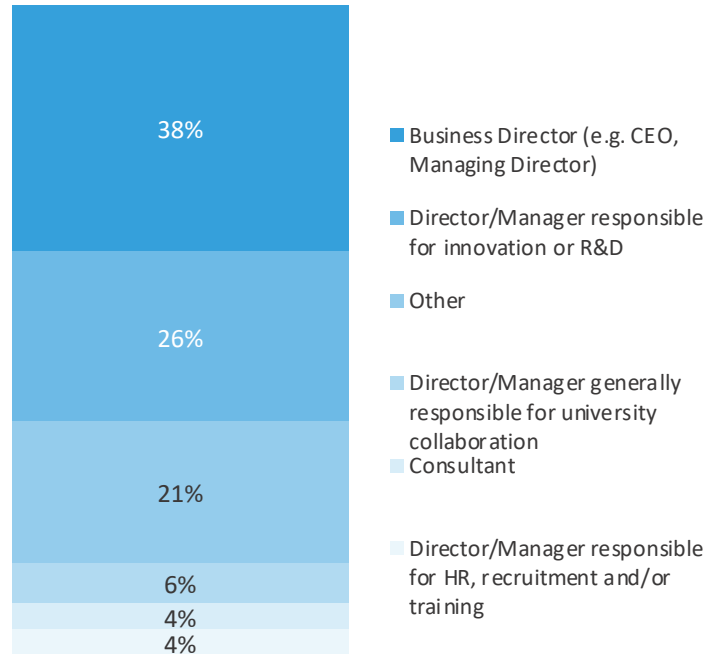
Spanish business state that they have sufficient university contacts and relations, and believe that universities can play a very important role in their innovation efforts.

Yet, Spanish businesses are less certain about their beliefs related to their responsibility to collaborate with university in education.

Overall, Spanish and European businesses have a similar perception of their own profile.

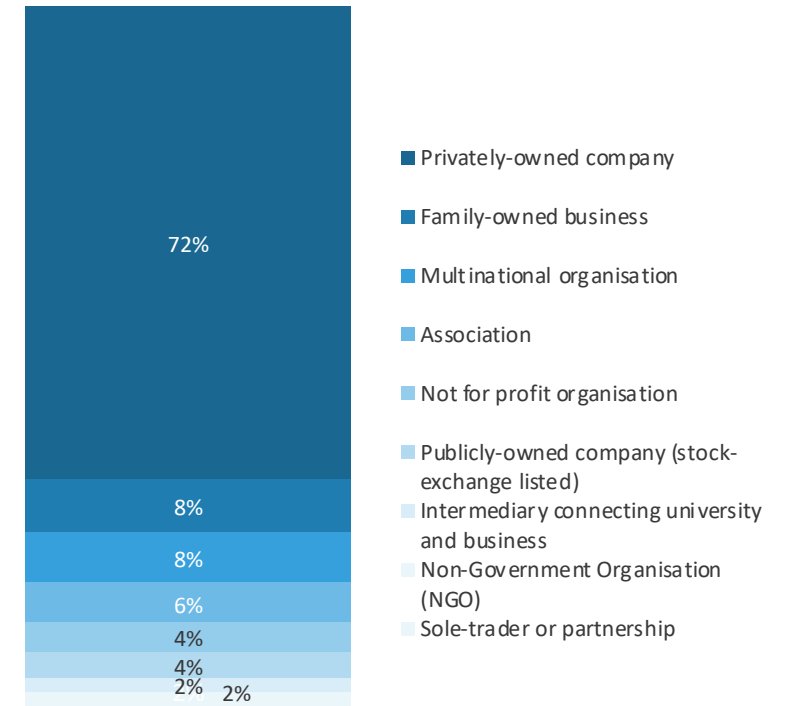
Respondents profile

Position of respondent



A third of the Spanish business sample (38%) is comprised by business directors, who represent the largest group. It is followed by directors responsible for innovation or R&D (21%). The remaining businesses identified themselves as directors responsible for university collaboration (6%), consultants (4%) and directors of HR, recruitment and training (4%). 26% of Spanish respondents hold 'other' positions.

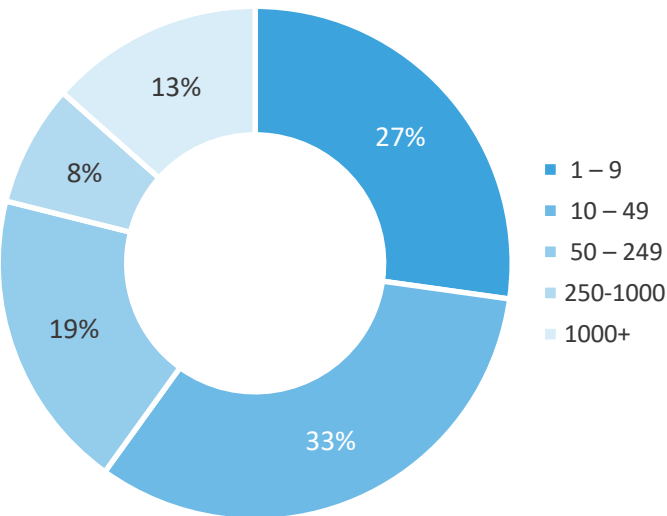
Type of business



A variety of businesses were represented in the Spanish sample. Yet more than two thirds (72%) are privately-owned companies. The type of businesses with less than 10% of representation include family-owned businesses, multinational organizations, associations, not for profit organisations, publicly-owned company, NGOs and sole-traders.

Respondents profile

Business size



More than half (60%) of Spanish business sample is comprised by either micro-sized or small companies (1 to 49 employees). 19% of business managers work for medium-sized companies. Larger companies (250 to 1000+ employees) are represented by 21% of the business managers in the sample.

Sample Size	
Spanish business representatives	n = 327
European business representatives	n = 3.113

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 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