UNIVERSITY-BUSINESS COOPERATION IN EUROPE

# State of University-Business Cooperation

# GREECE

## Business Perspective

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

European Commission

Science Marketing
Science-to-Business Marketing Research Centre

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EURASHE
European Association of Institutions in Higher Education

UIIN
University Industry Innovation Network

**The State of Greece University-Business Cooperation: the business perspective**

Partners

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# Executive summary


**Summary**

This report seeks to contribute to our understanding of the business perspective on university-business cooperation (UBC). Examining the perceptions of a wide range of businesses provides positive signs for the future, with 99% of businesses that cooperate 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, as well as in developing (actual and perceived) capabilities, particularly of those businesses not currently engaged in cooperation.


**About the study**

The results presented in this report reflect the perceptions of business people in Australia with respect to cooperation between universities and business. 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 81 responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

**University-Business Cooperation**

Greek businesses engage with universities mainly in activities in the research area, namely consulting (46%) and joint R&D (52%).

They also undertake cooperation in education, and particularly high is the cooperation in mobility of students (64%). Yet, the activities such as curriculum co-design are considerably less developed with more 60% of respondents not cooperating at all.

The cooperation in valorisation (e.g. academic and student entrepreneurship) is limited with nearly 50% of business respondents on average not undertaking any of these activities.

**Funding and culture main obstacles**

Primary barriers identified by respondents relate to funding obstacles and hindrances they perceive within universities. Lack of government and business funding and lack of university awareness of opportunities arising from collaborating with businesses people with business pose as top three barriers to UBC. The existence of these barriers can be explained by academic scientific orientation and differing priorities of universities and businesses. Businesses also mention lack of people with business knowledge within universities.

This report provides a business perspective 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

**Relationships matter**

While funding to undertake cooperation emerges as one of the top five facilitators (fourth in the ranking), relational factors are much more prominent. Existence of a shared goal, mutual trust and mutual commitment alongside flexibility of the partner are those factors that facilitate cooperation. These relational parameters are universally valid and build the essence of any cooperation. Any effort towards enabling cooperation between businesses and universities should therefore focus on relationship development as a key success factor.

**Innovation is a driver**

Greek businesses see for themselves less benefits than for university stakeholders, including universities and students. The lowest benefits are perceived to be for society, government and academics.

But what motivates Greek businesses to cooperate with universities? They are significantly driven by the possibilities of improving the reputation and willingness to gain access to technologies and knowledge. Another important motivator is a positive impact on the society and an improvement of the innovation capacity.

**Students first**

Strong emphasis has been placed on the development of UBC supporting mechanisms by universities; yet, little is known about such mechanisms in the business sector. This study indicates that student projects with business, with around 40% are the most developed mechanisms supporting UBC. As Greek UBC is still in its infancy, some supporting mechanisms are however less common and developed compared to the European average.

**More to learn**

Greek businesses perceive themselves as supportive towards cooperation with universities. In particular, they identified their strengths in the ability to absorb the knowledge and technology coming from HEIs and believe that they have a lot to offer to universities in education and training. In comparison to the European average, Greek businesses are more certain about their responsibility to collaborate with universities in education.

# 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 consider to be the engine towards knowledge-based societies and economies
- UBC is specially needed in the European context, threaten 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.

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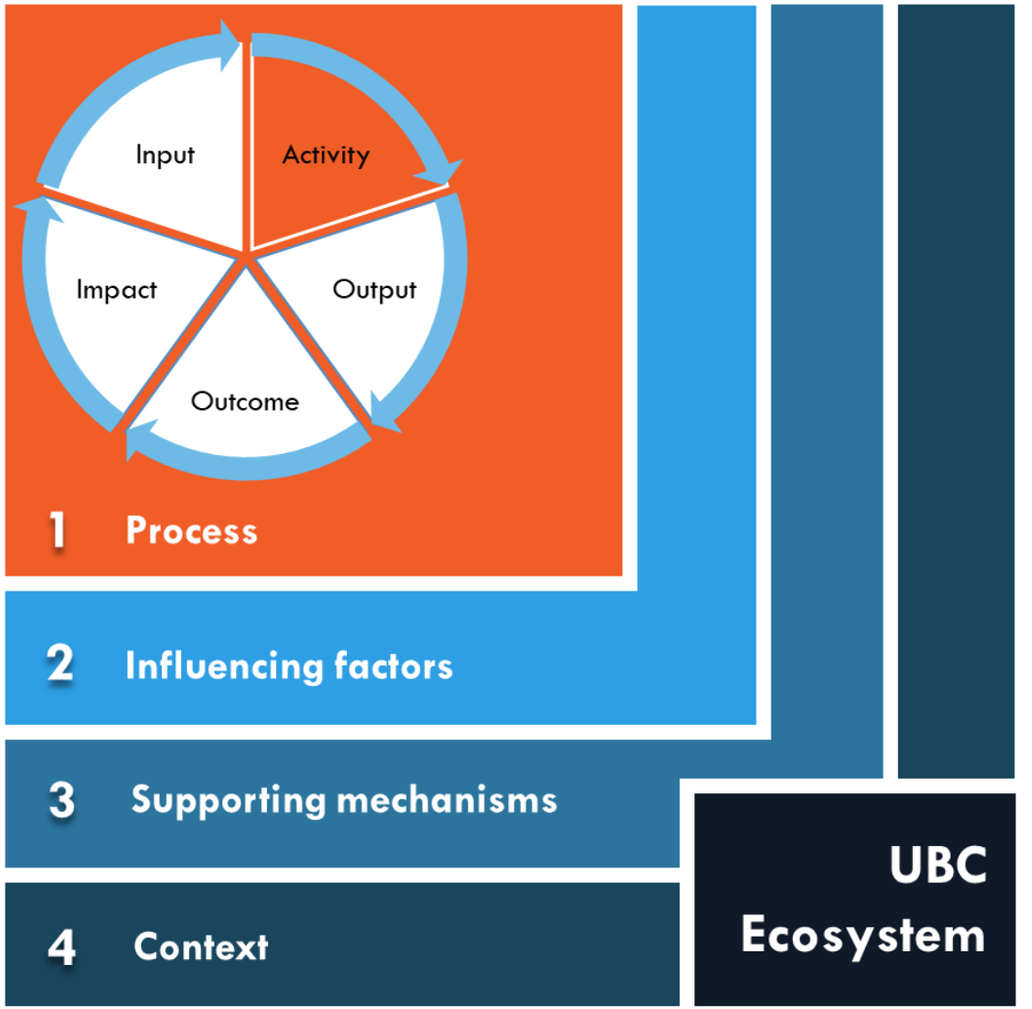
# UBC activities

**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-design<br>2. curriculum co-delivery *(e.g. guest lectures)*<br>3. mobility of students *(i.e. student internships/placements)*<br>4. dual education programmes *(i.e. part theory, part practical)*<br>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)*<br>*7. consulting* to business *(incl. contract research)*<br>*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)*<br>10. academic entrepreneurship *(e.g. spin offs)*<br>11. student *entrepreneurship (e.g. start-ups)* |
| **Management** | 12. governance *(e.g. participation of academics on business boards and businesspeople participation in university board)*<br>13. shared resources *(e.g. infrastructure, personnel, equipment)*<br>14. industry support *(e.g. endowments, sponsorship and scholarships)* |

# Development of UBC activities

The extent of Greek UBC is presented in a range of diverse types, on four different levels of development: None, Low, Medium and High.

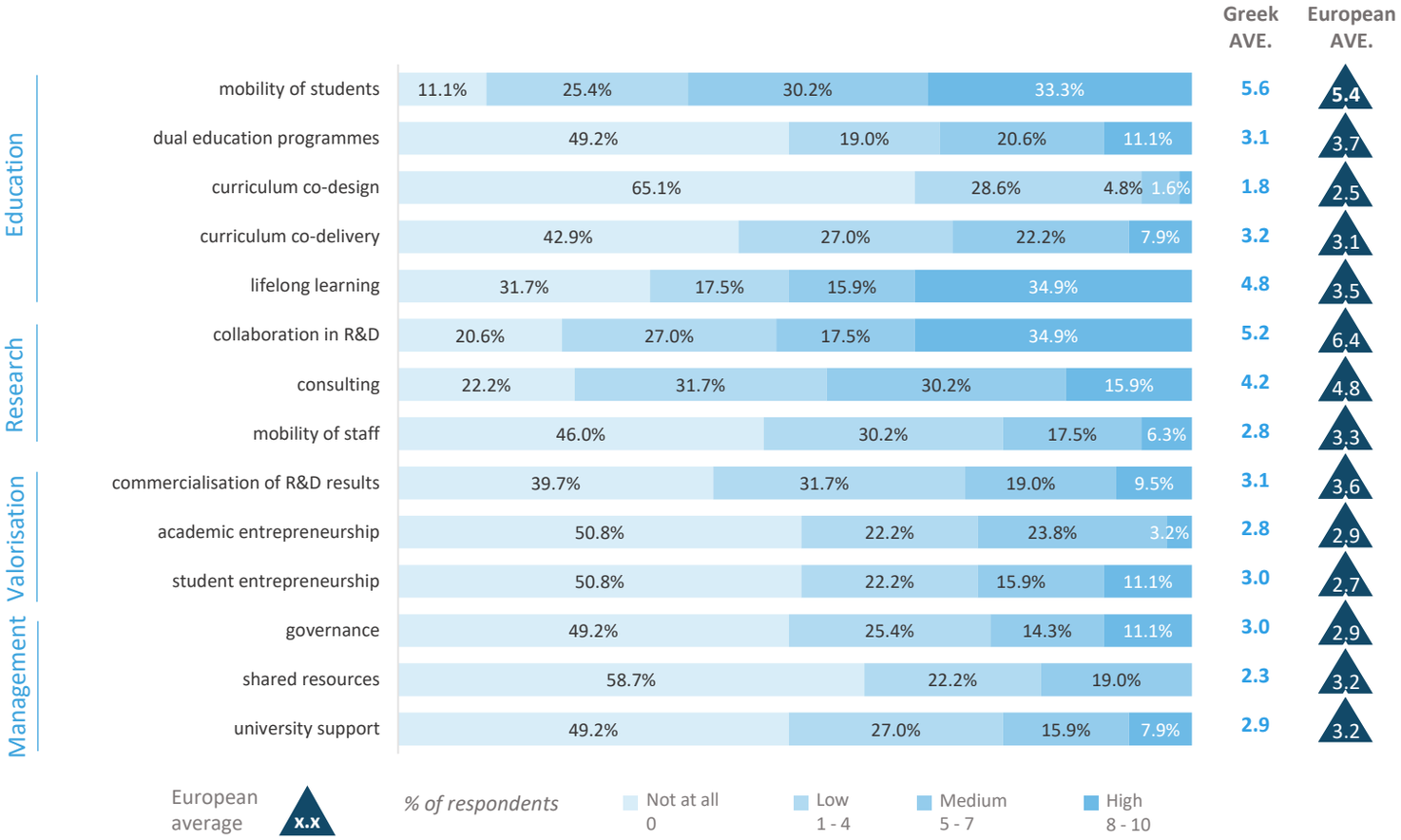
Within the different UBC modalities, based on national average education related modalities such as 'mobility of students' (5.6), 'lifelong learning' (4.8) and 'curriculum co-delivery' (3.2) are indicated as the most developed types of cooperation.

In a similar vein, research-oriented indicators are also quite developed. The most prominent ones are collaboration in R&D (5.2) and consulting (4.2).

On the other end of the scale, around 50% of businesses indicated that they do not undertake any management and valorisation related collaboration with universities.

## UBC activities development

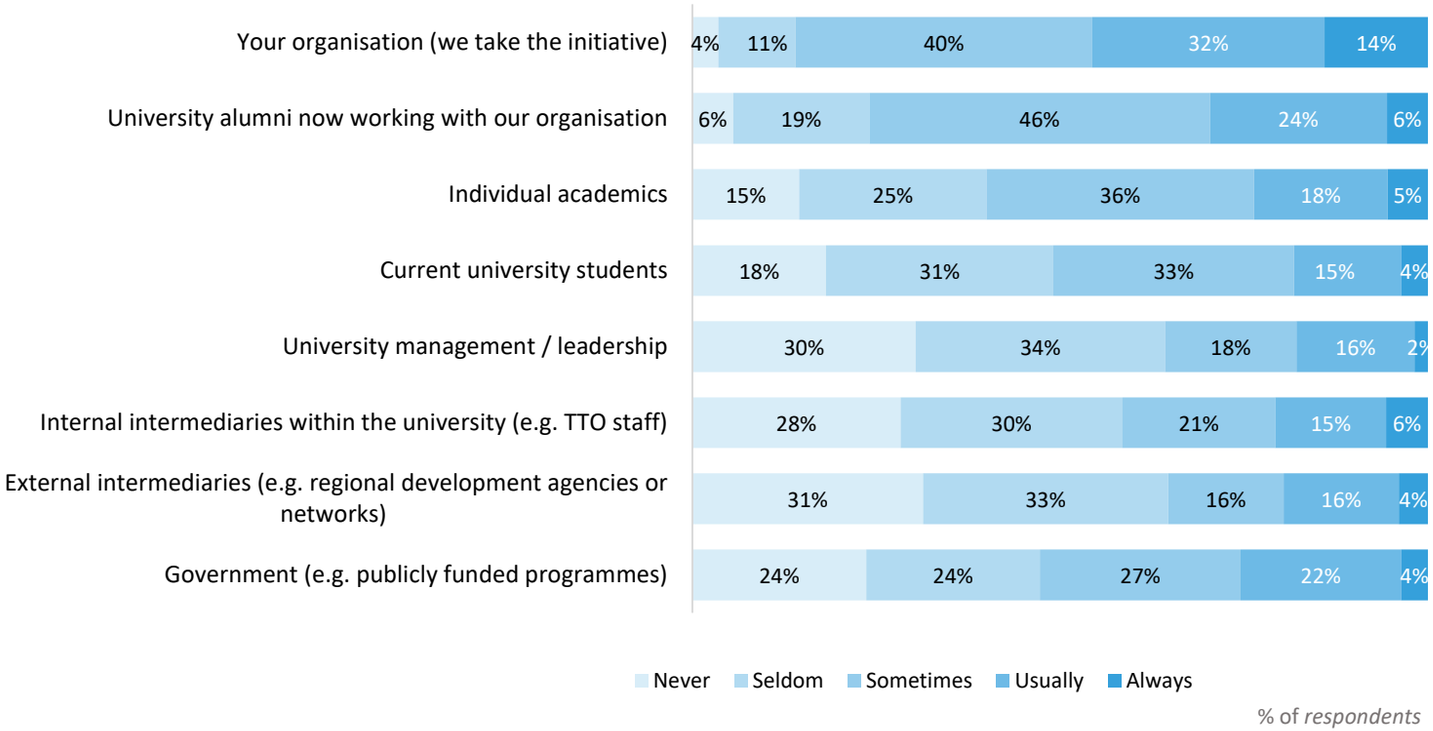
*'Which UBC activities do you collaborate with universities in?'*



# Initiation of UBC

**How UBC is initiated**

*'How often various stakeholders initiate UBC activities'*




Greek businesses see themselves as the major initiator of cooperation with universities, with 46% of respondents indicating that they 'always' or 'usually' initiate cooperation, followed by the 'university alumni' and 'government' emerging as further stakeholders initiating collaboration with 30% and 26% respectively.

The lowest rated stakeholders are 'university management' with 64% of the respondents reporting that they 'never' or 'seldom' undertake any first actions towards UBC initiation.

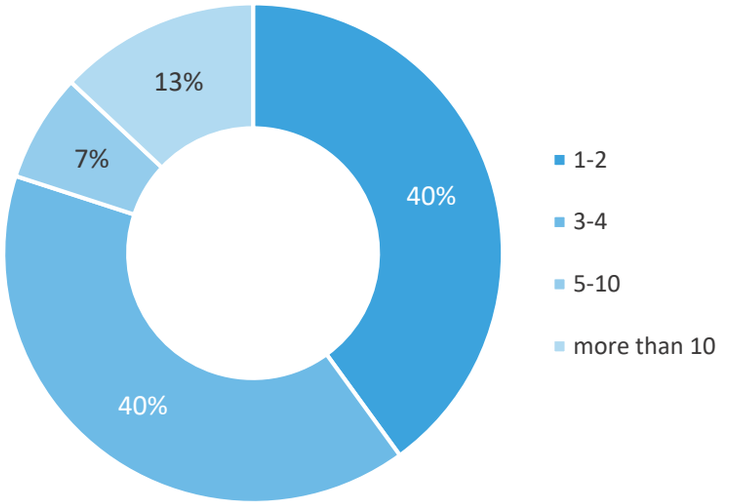
# Geographical location still matters

## Location of university partners

| Percentage of cooperating businesses with… | |
|---|---|
| universities in their region | 95% |
| universities in their country | 94% |
| universities outside their country | 72% |

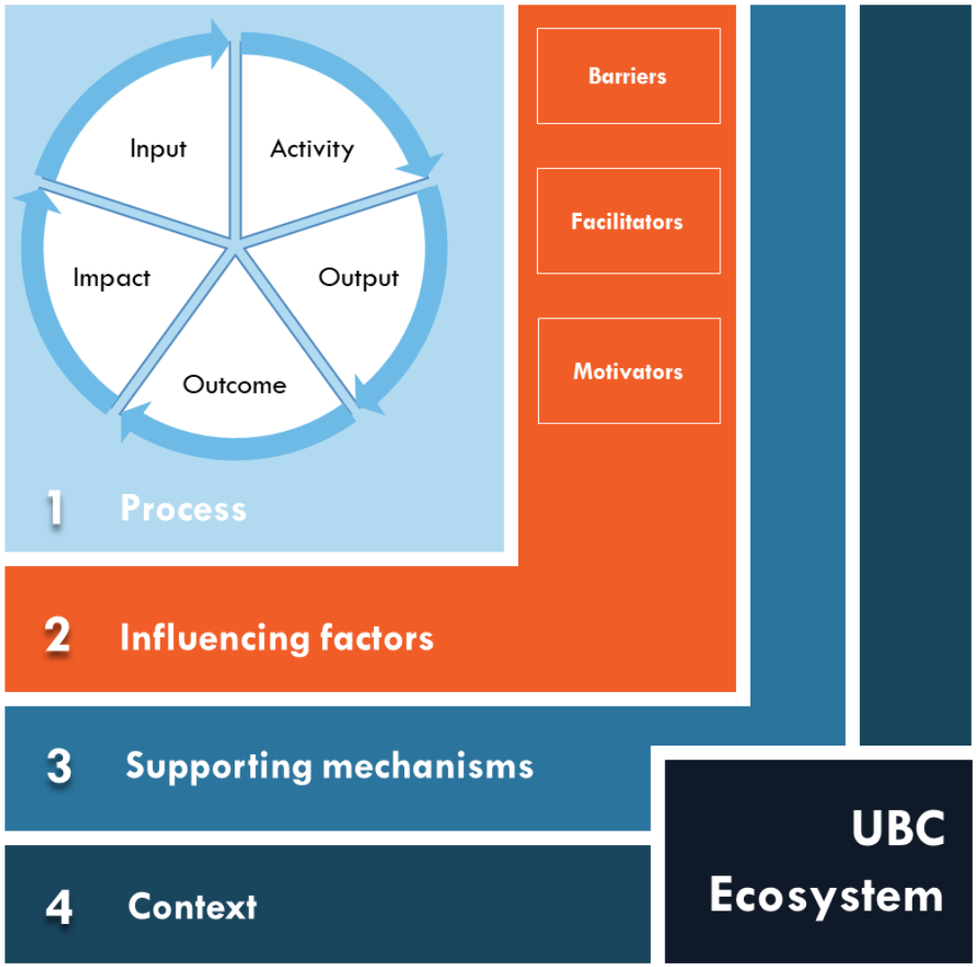
While most Greek businesses cooperate with Greek universities (94%), the results also report high percentages for universities from the region 95%. On the other hand, cooperation with international universities is significantly less developed (72%).

## Number of university partners




With respect to the number of university partners, 80% of Greek business respondents cooperate with 1 to 4 HEI partners. While 7% of businesses cooperate with 5 or 10 partners, 13% have established relations more than 10 partners.

# 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

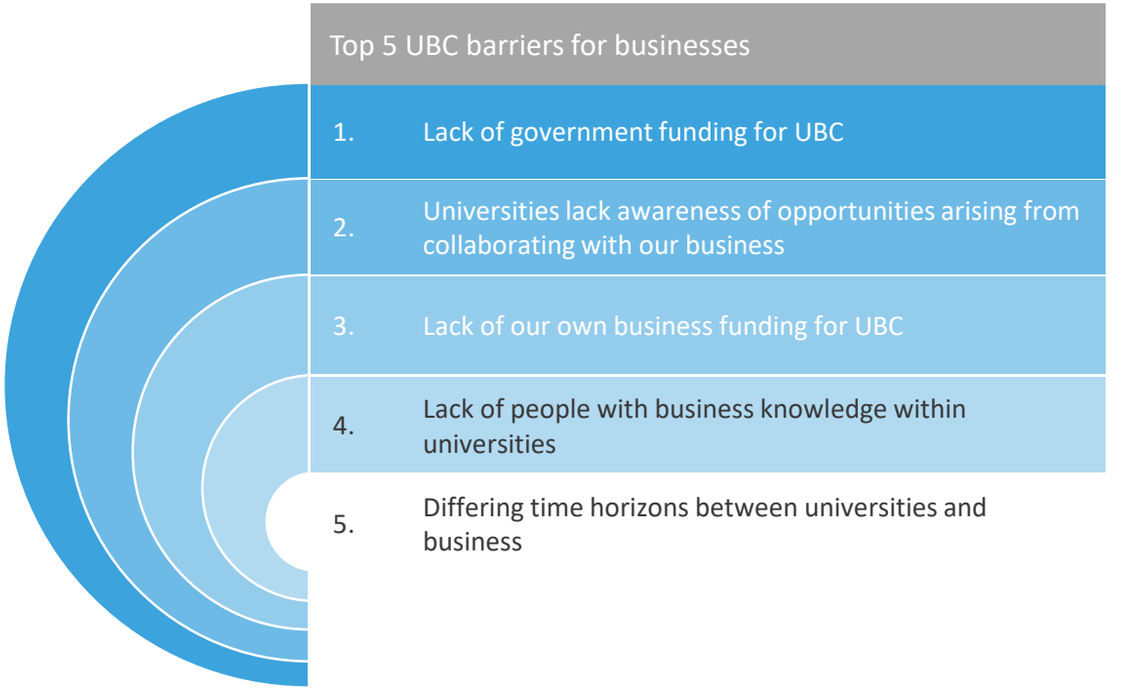
For Greek businesses the top five factors inhibiting their cooperation with universities relate to differing culture, administration and resources.

Lack of government funding for UBC emerges as the top barrier for Greek business representatives. This is followed by lack of university awareness on UBC opportunities.

Two further barriers in the top five are lack of business funding for UBC and people with business knowledge within university.

**Barriers**

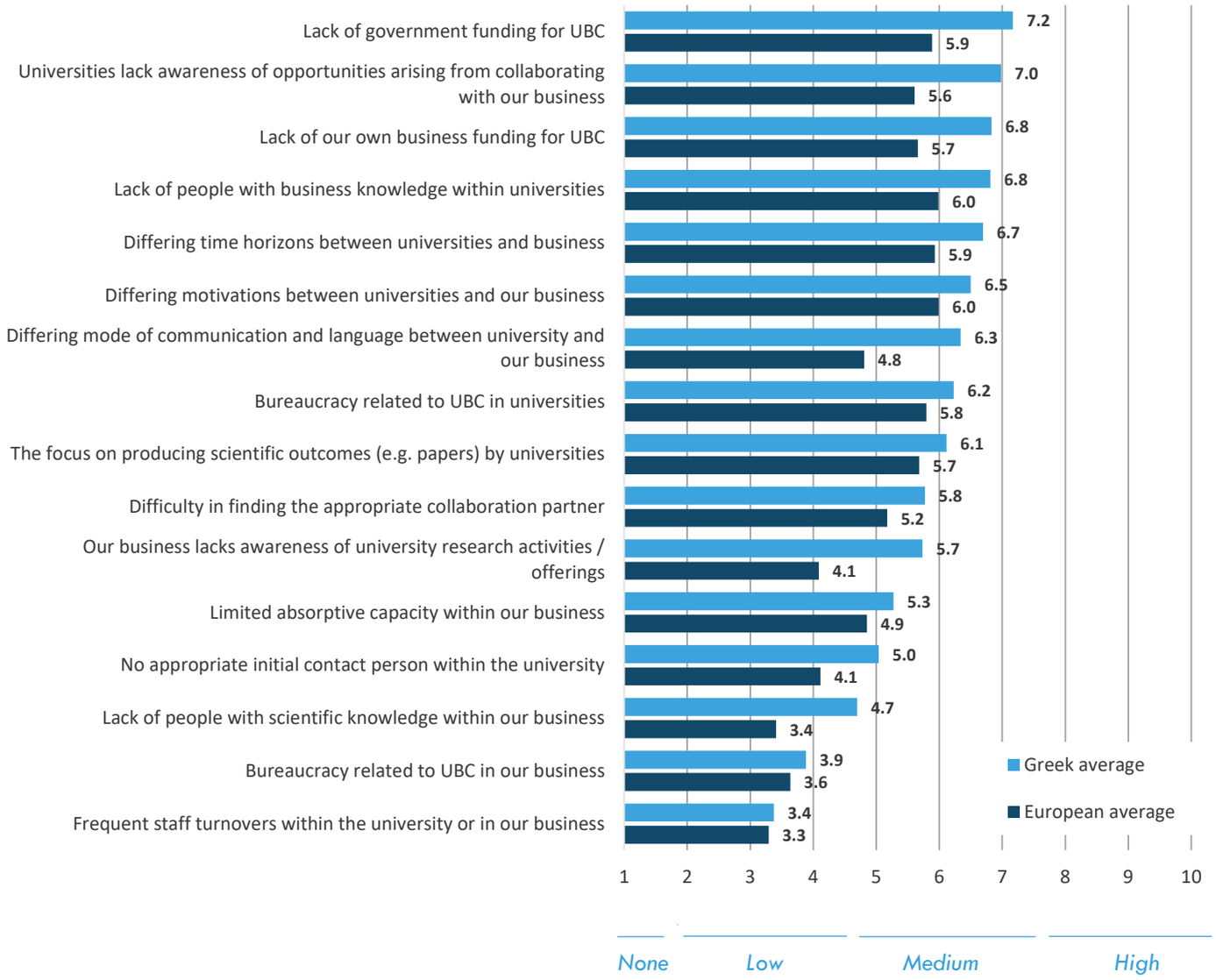
*'What is inhibiting your cooperation with universities?'*



# Barriers hindering UBC

**Barriers**

'What is inhibiting your cooperation with universities?'




All barriers perceived by Greek business representatives are higher than the EU average.

The primary barrier is related to funding – namely lack of government funding for UBC (7.2). Closely following is the assumption that universities lack awareness of opportunities arising from collaborating with businesses (7.0). The third most prevalent barrier is lack of business funding (6.8).

Similarly to EU business representatives, the frequent staff turnovers within university or business pose as the smaller barrier (3.4).

# Drivers stimulating UBC

The top five UBC facilitators perceived by Greek businesses cooperating with HEIs are found to be related to the relationship factors and one funding related driver.

Thus, the existence of mutual trust, mutual commitment and a shared goal are mentioned as the most prominent facilitators.

Existence of funding and flexibility of the university partner are also likely to play an essential role in facilitating UBC from the business perspective.

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

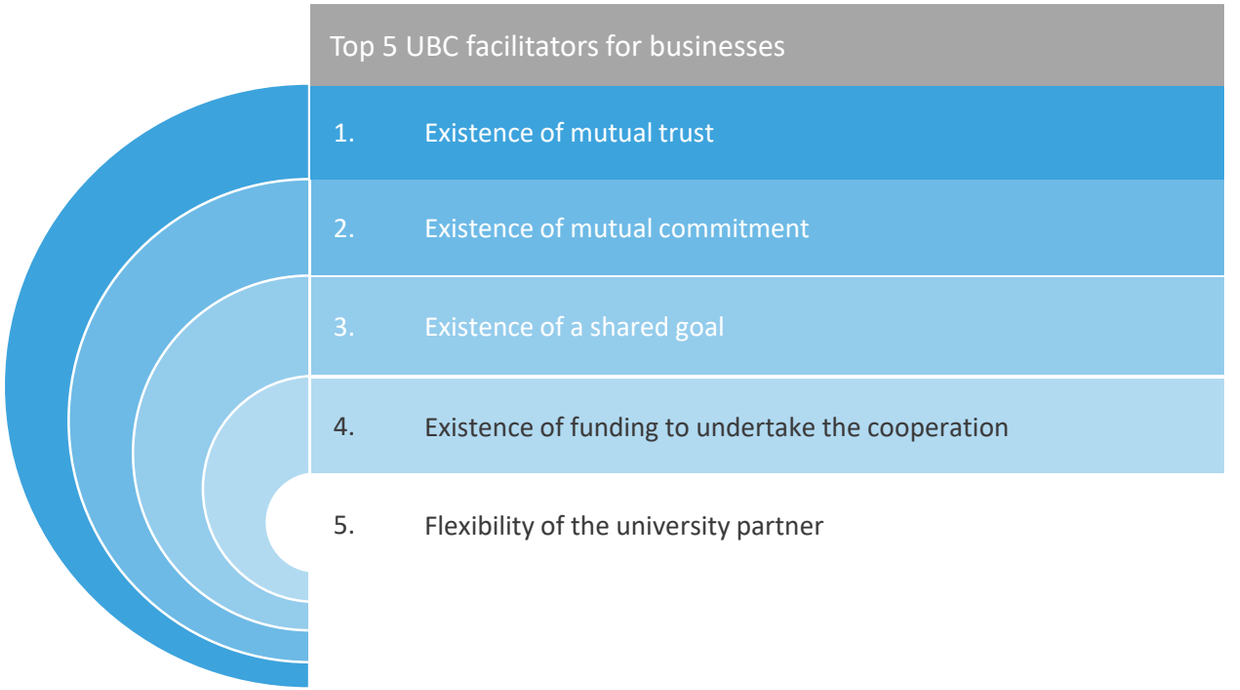
1. ***Facilitators*** – factors that enable or ease cooperation
2. ***Motivators*** – incentives or benefits that the respective stakeholders would like from the cooperation

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**

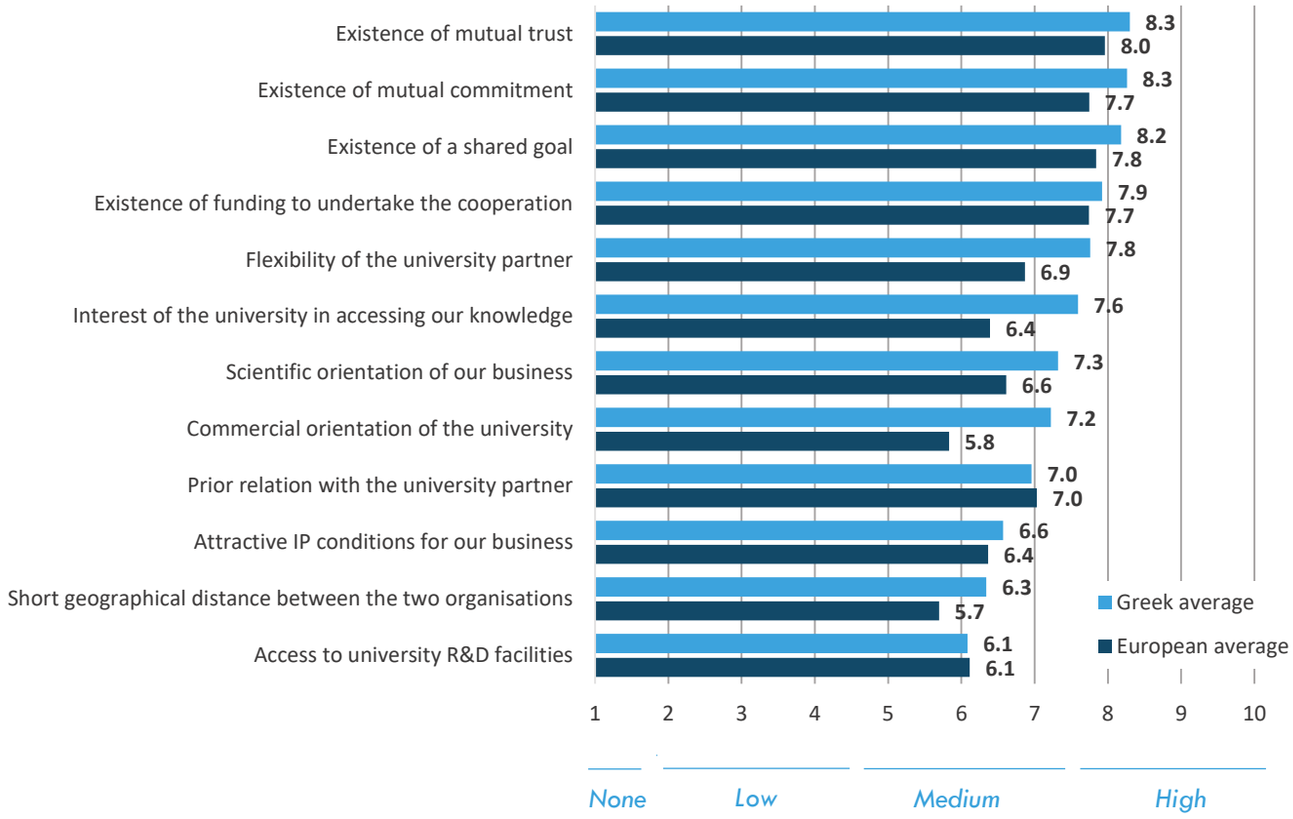
*'What is facilitating your cooperation with universities?'*



# Drivers stimulating UBC

## Facilitators

*'What is facilitating your cooperation with universities?'*




Personal relationship facilitators bear considerable importance in the development of UBC for both Greek and European businesses. Top three indicators refer to the relationship dimension (mutual trust, shared commitment and goal).

Relationship factors are closely followed by the existence of funding (7.9).

Similarly to EU counterparts, access to university R&D facilities and short geographical distance bear the least importance when it comes to UBC.

# Drivers stimulating UBC

The UBC motivators rated most highly by Greek business respondents can be classified into four meta-groups, namely innovation, reputation, society and funding.

The results show that businesses cooperate with universities primarily to improve their reputation and gain access to new technologies.

This is followed by the motivation to positively impact society and improve innovation capacity.

Another relevant driver for businesses cooperating with universities is the possibility of obtaining funding.

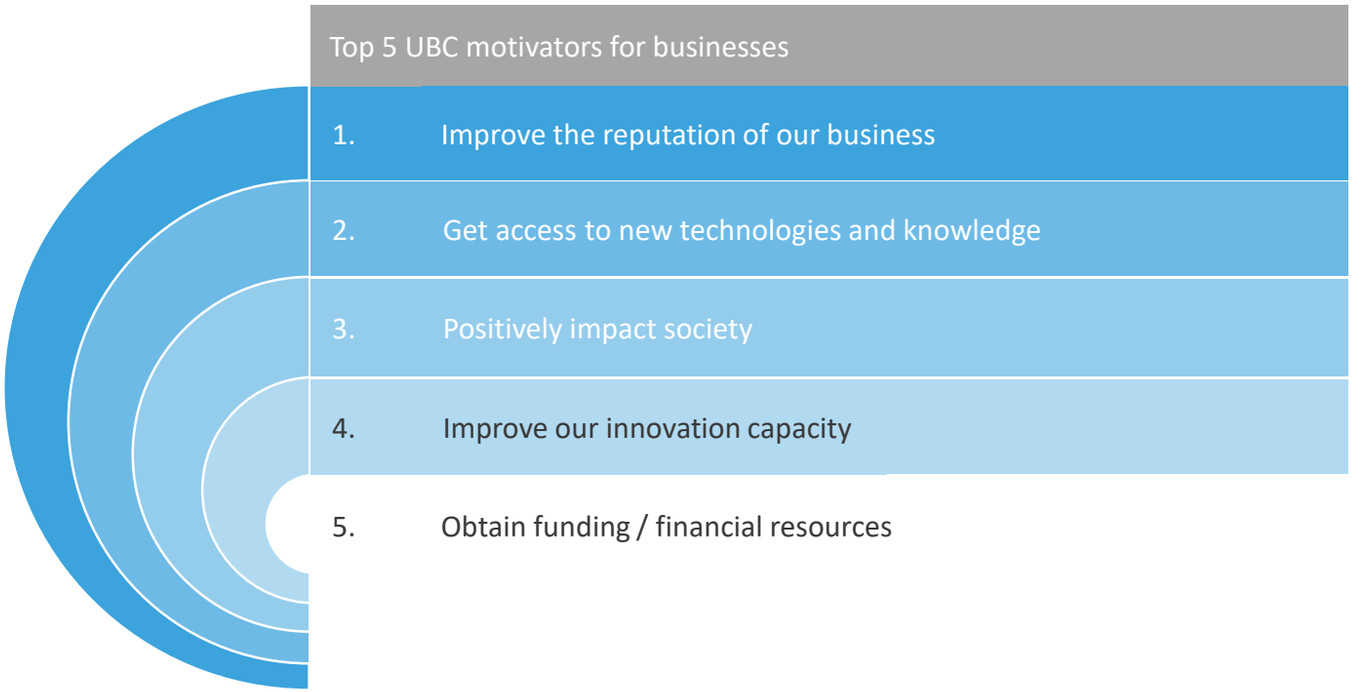
*Motivations for UBC* are the reasons why businesses collaborate with university.

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**

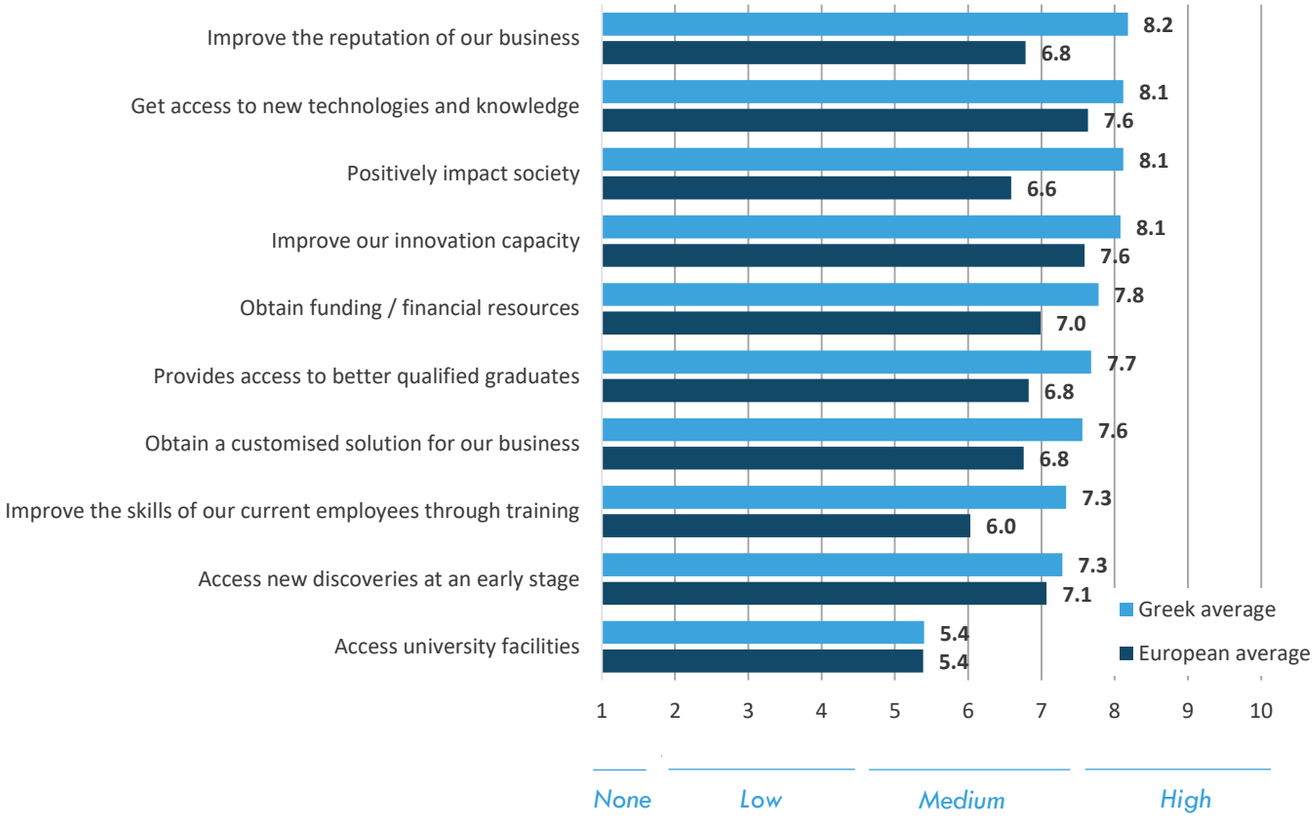
*'What motivates you to cooperate with universities?'*



# Drivers stimulating UBC

**Motivators**

*'What motivates you to cooperate with universities?'*




On average, Greek businesses have higher drivers to cooperate with universities than it is the case with their European counterparts.

The highest driver is the possibility to improve business reputation (8.2), with the average significantly exceeding the European one.

Further driving forces behind Greek UBC are the possibility to gain access to new technologies and knowledge and to impact society positively (8.1 each).

On the other hand, factors such as accessing university facilities and new discoveries at an early stage prove to be the least strong motivators.

# Benefits of UBC

Greek businesses have been asked to what extent various stakeholders receive benefits from UBC. According to the results, students are considered to be the main beneficiaries by both Greek and European respondents.

Conversely, Greek businesses consider universities as the second group of beneficiaries followed by themselves and society which mirrors the outlook of European businesses.

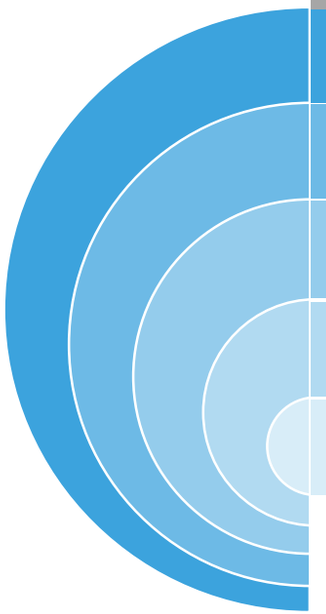
Both groups perceive government/public authorities as being a UBC beneficiary to a low extent.

*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?'*

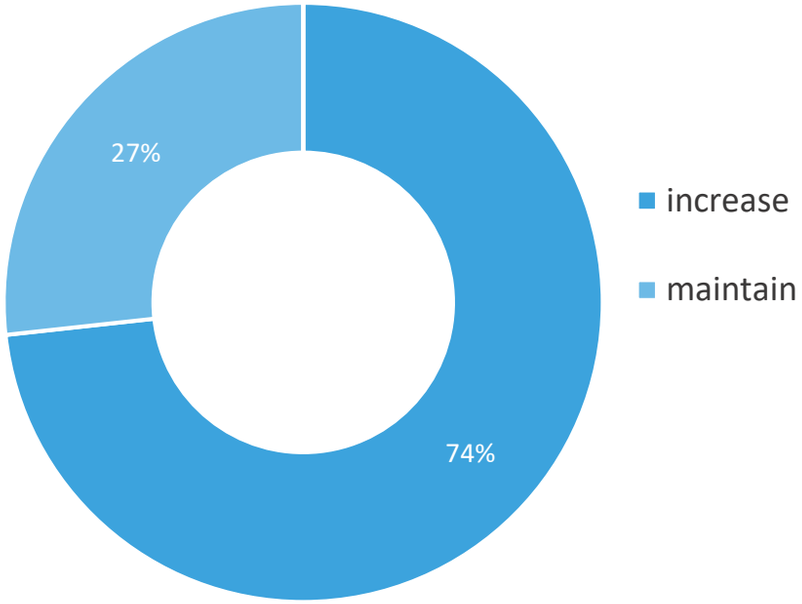


| | Greek businesses | European businesses |
|---|---|---|
| 1. | Students | Students |
| 2. | Universities | Universities |
| 3. | Business | Businesses |
| 4. | Society | Academics |
| 5. | Academics | Society |
| 6. | Government/ public authorities | Government/ public authorities |

# Future intentions

**Future UBC intentions – Greece**

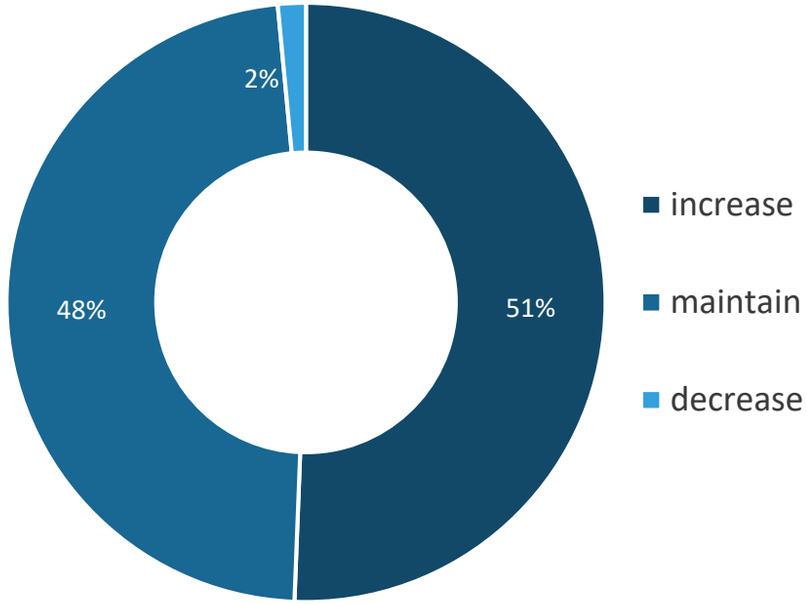
*As answered by Greek businesses*




In a vote of confidence in UBC, 74% of businesses in the Greek sample that cooperate with universities indicate that they plan to increase while 27% will maintain their cooperation with universities.

**Future UBC intentions – EUROPE**

*As answered by European businesses*




European businesses seem to be even more confident in terms of their future intention towards UBC as it can be observed through a higher percentage of business respondents (51%) that plan to increase cooperation activities.

# Willingness to recommend UBC

Greek businesses active in UBC were questioned about their willingness to recommend other businesses to cooperate with universities in R&D and Education and Training (E&T).

Cooperation experience matters, as businesses with experience in cooperation are more likely to promote R&D and E&T cooperation with universities. Using the *Net Promoter Score (NPS)* metric, a proxy for customer satisfaction, it can be seen that there is a wide gap in the level of support towards UBC between Greek businesses engaged in R&D versus E&T, with research cooperation receiving a higher score of 31% than education related UBC with 27%.

While a high percentage of businesses engaging in R&D indicate themselves as 'promoters' (51%), there is a slightly lower number for education related cooperation (44%). On the other hand, only 17% of respondents nominate themselves as 'detractors' in E&T and 20% in R&D.

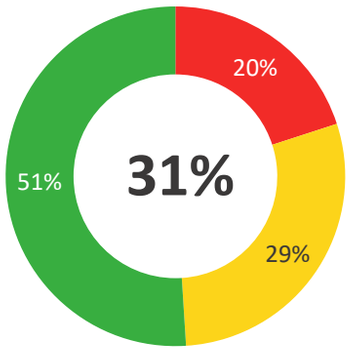
Respondents were asked how likely it would be that they recommend to a business colleague to engage in UBC in the areas of R&D and education and training (E&T,). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

### 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 | *20%* | *29%* | *51%* | 31% |
| Business cooperating with universities in E&T | *17%* | *39%* | *44%* | 27% |

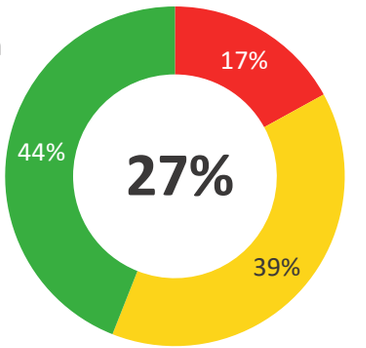
### Satisfaction with cooperation with universities (net promoter score)

Business cooperating in research



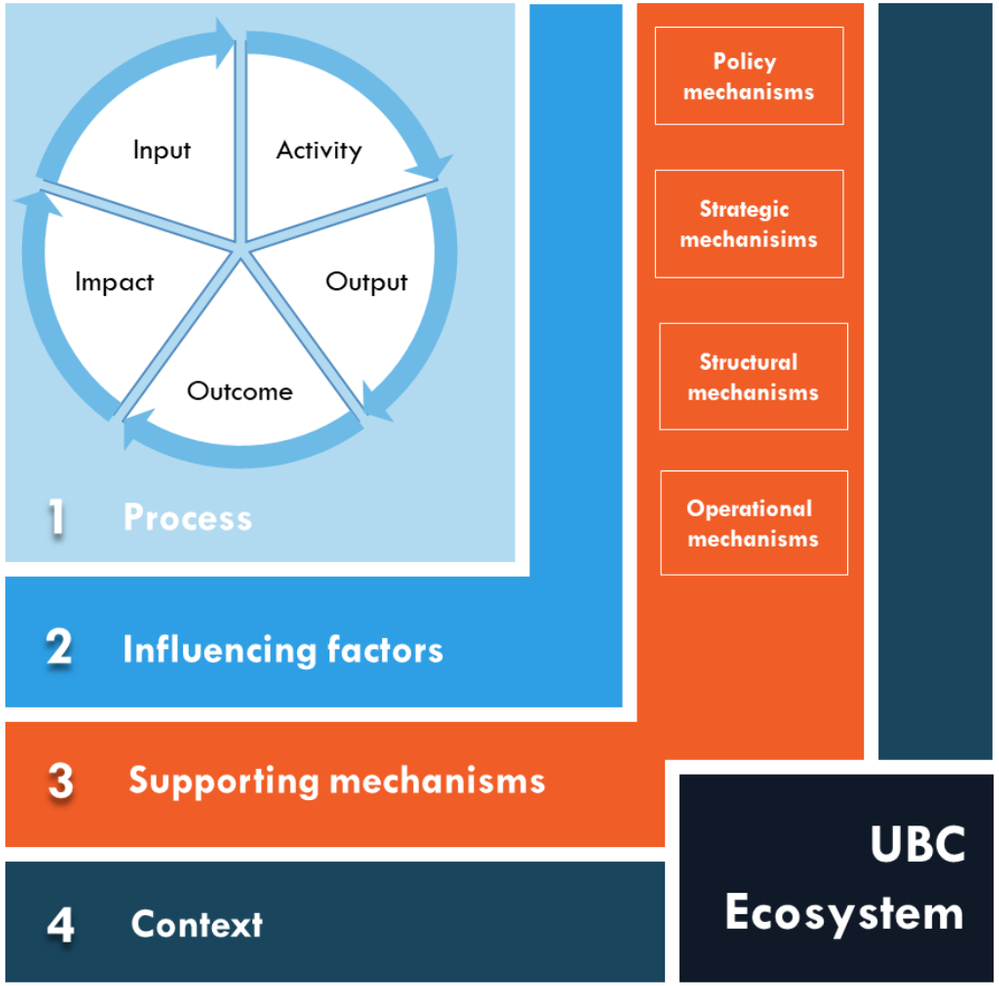

**European business NPS result: 28.2**

Business cooperating in education




**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

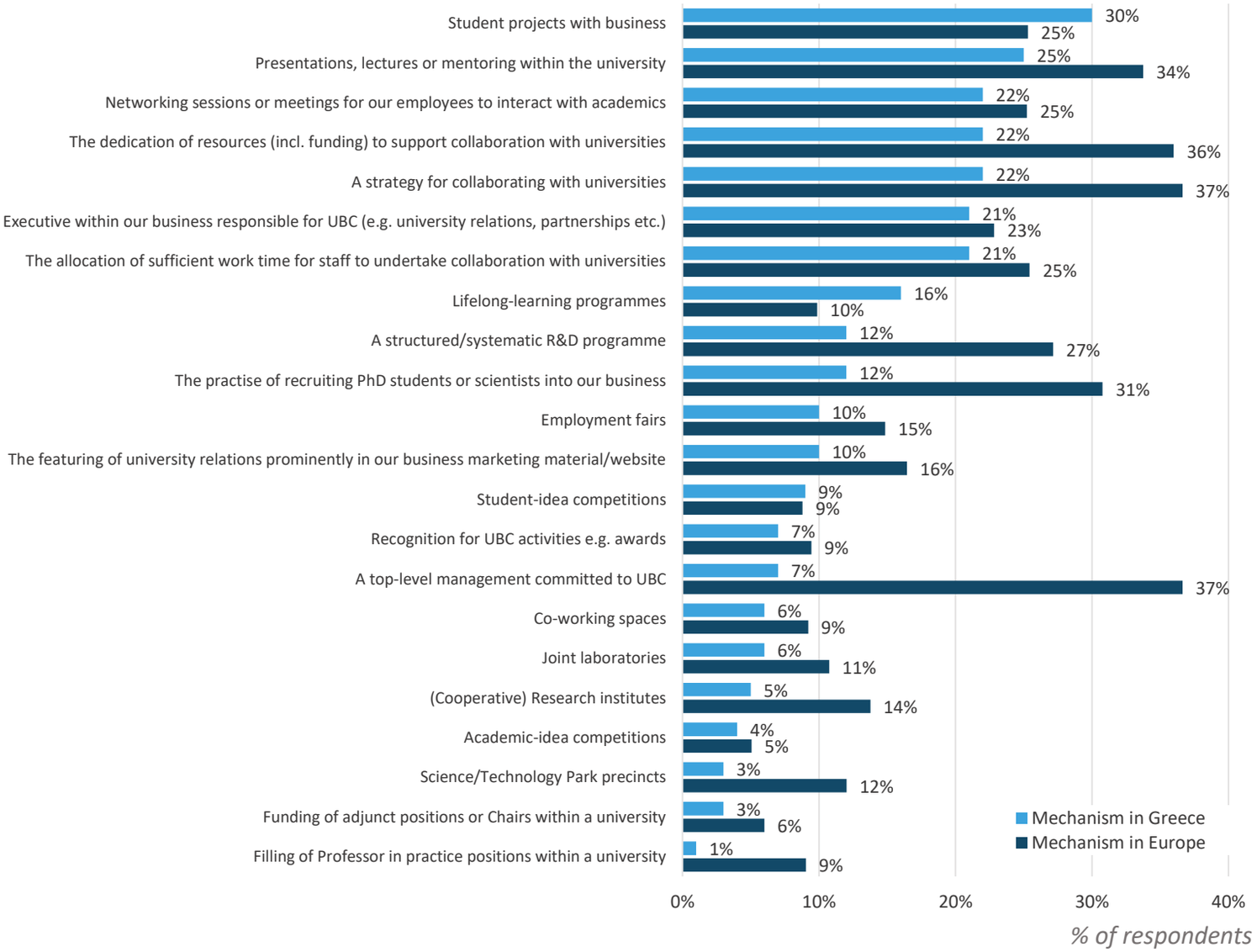
Majority of Greek supporting mechanisms for UBC are underdeveloped compared to EU counterparts.

Among the most developed ones are student projects with business (30%) and presentations, lectures or mentoring within the university (25%).

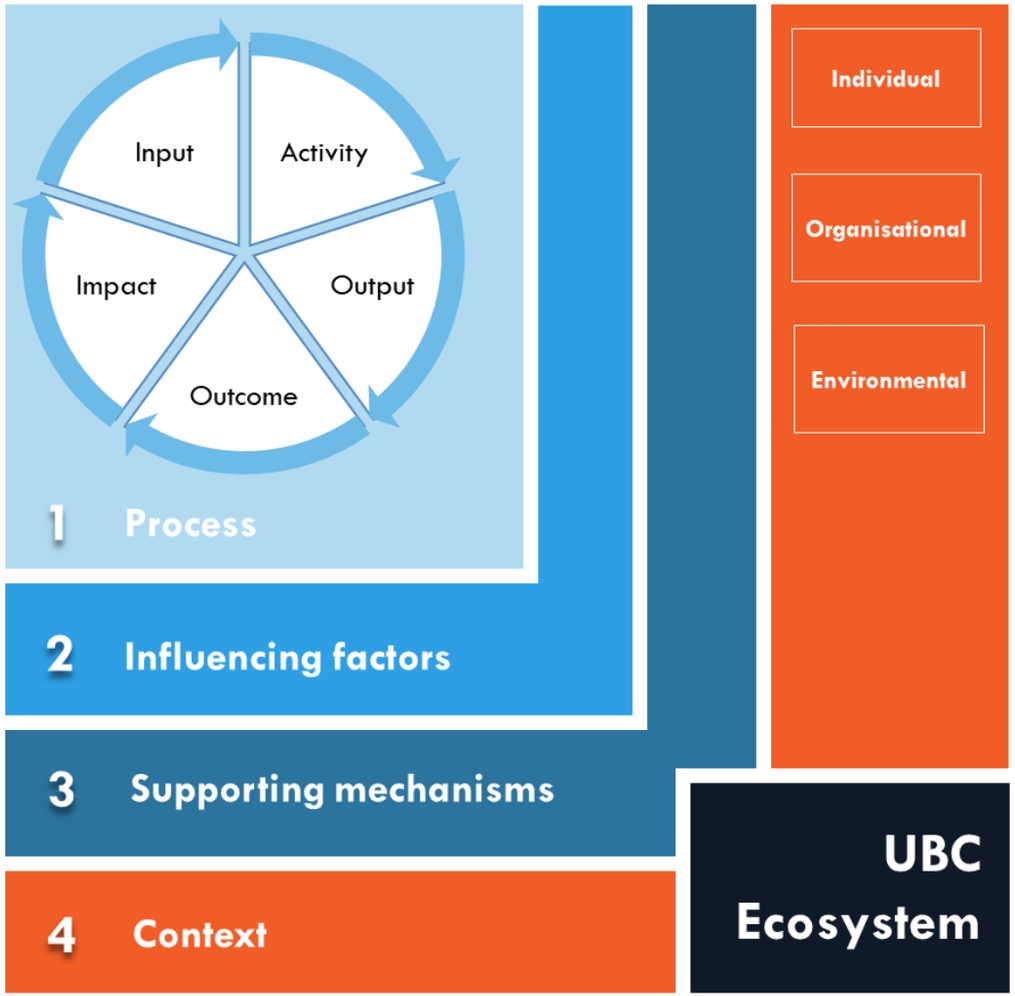
The least developed ones are science parks, funding adjunct positions (3% each) and filling professor in practice positions within university (1%).

## 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 element 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

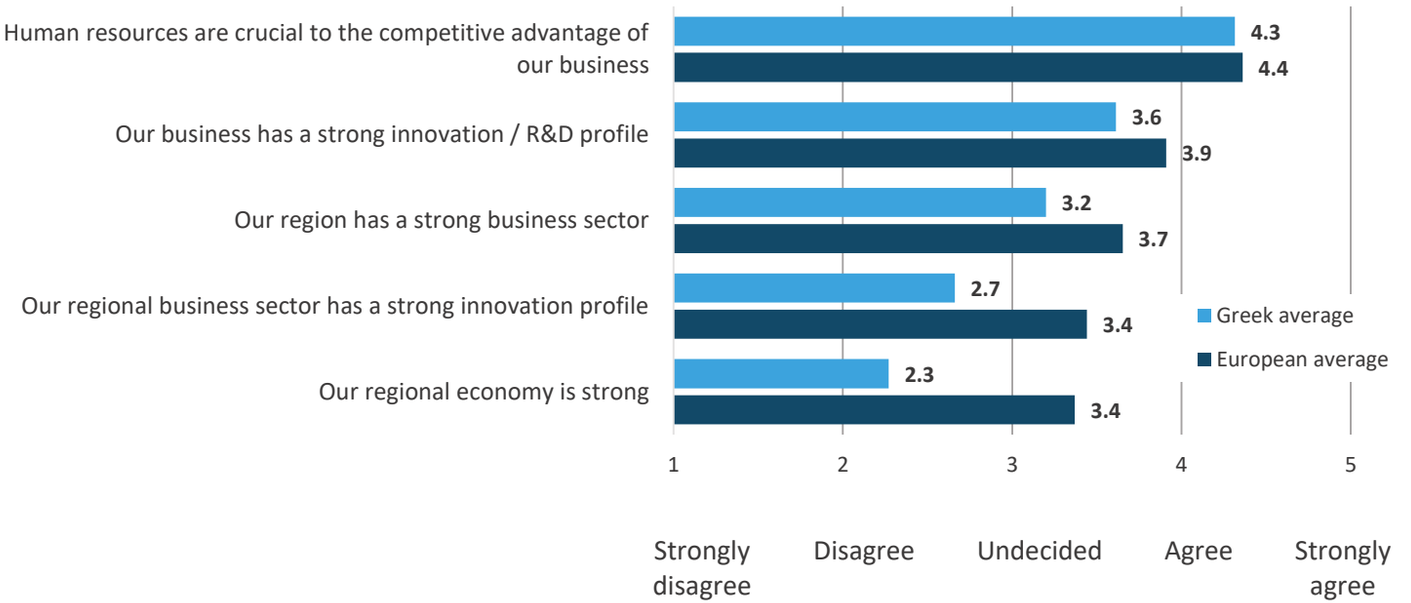
Greek businesses were asked to indicate their level of agreement with a range of statements related not only to the UBC context, but also to their business profile.

Greek business cooperating with universities consider the factor 'human resources' to be essential for their competitiveness (4.3 on 5-point scale) and qualify their 'business sector' as having strong innovation profile (3.6).

Similarly to EU counterparts, the perception that the regional economy is strong bears the least importance (2.3).

**Contextual factors affecting UBC**

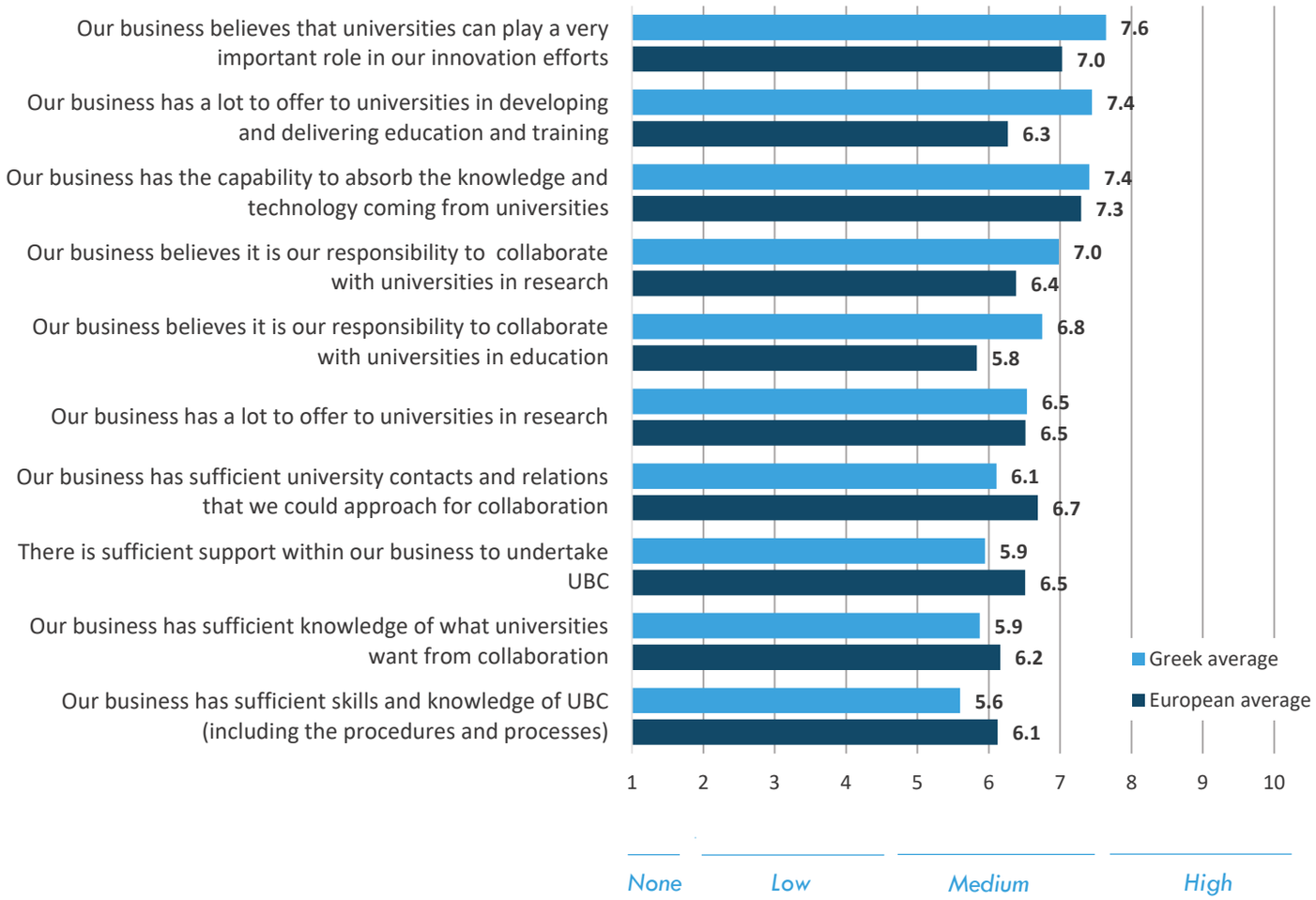
*'To what extent do you agree with the following statements?'*



# UBC capabilities and beliefs

**Supportive UBC environment**

*How supportive are your organisation and environment for UBC?'*




Overall, Greek businesses perceive most of their UBC capabilities to be in the medium range.

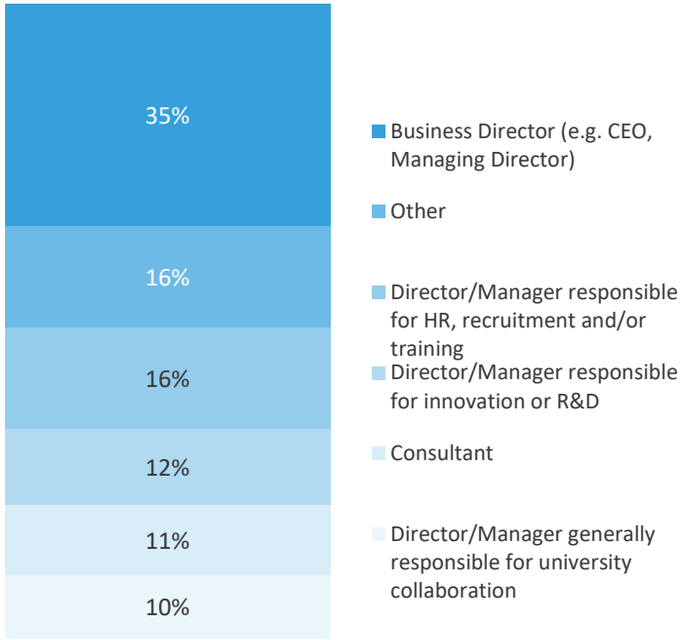
In particular, cooperating businesses strongly believe that universities play an important role in their innovation efforts (7.6) and believe they have a lot to offer to universities in education and training (7.4).

Businesses see for themselves a clear supportive role for UBC, with the three highest statements relating to the existence of 'sufficient support within the business to undertake UBC' (mean of 7.6 on 10-point scale), the 'capability to absorb knowledge and technology from universities' (7.4), and the 'belief that universities can play a very important role in innovation efforts' (7.0).

Yet, the results indicate that the perceived belief in their own skills and knowledge of UBC is the lowest with a score of 5.6.

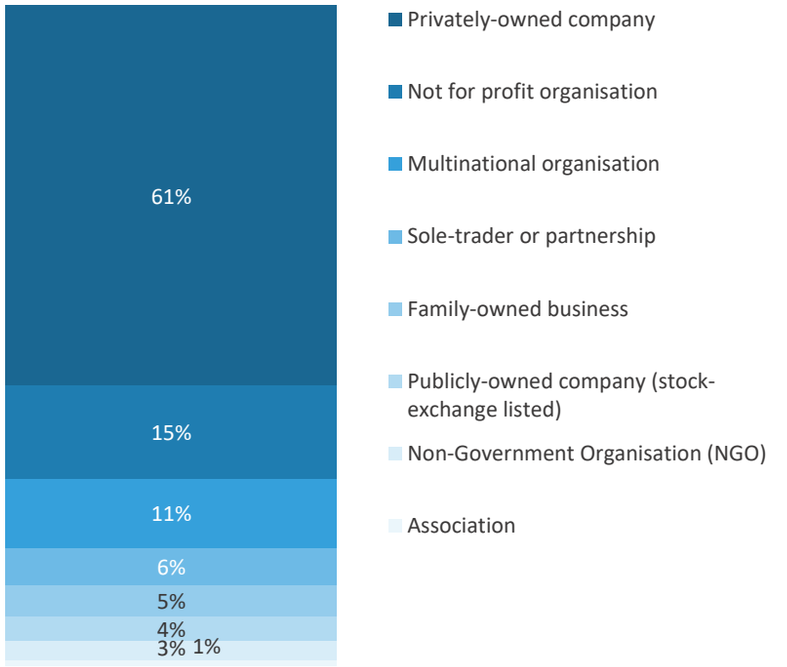
# Respondents profile

## Position of respondent




'Business directors' represent the largest group of Greek respondents (35%), followed by 'directors responsible for HR, recruitment and training' (16%). The remaining respondents identified themselves as 'directors responsible for innovation or R&D' (12%), 'consultants' (11%), and 'directors responsible for university collaboration' (10%). 16% of Greek business respondents indicated that they hold 'other' positions.

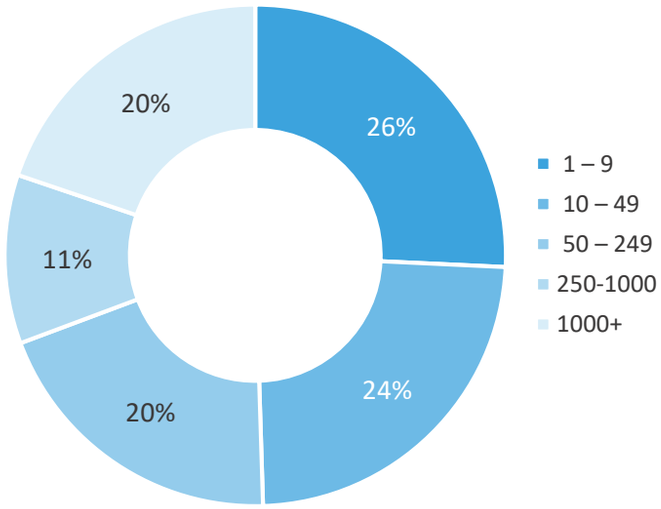
## Type of business




A wide variety of businesses were represented in the Greek sample, with privately-owned companies forming the largest group (61%), followed by not for profit (15%) and multinational organisations (11%). The type of businesses with less than 10% representation included associations, sole traders, family-owned business and publicly-owned companies.

# Respondents profile

## Business size




| Sample Size | |
|---|---|
| Greek business representatives | n = 81 |
| European business representatives | n = 3.113 |

Businesses are clustered into five groups according to the number of staff they employ. Half of the Greek sample is comprised of small firms with 1 to 49 employees. Respondents indicating that they work for medium-sized companies accounted for 20%. Large companies with 250 to more than 1000 employees are represented with 31%.

UNIVERSITY-BUSINESS COOPERATION IN EUROPE

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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.ubc-monitor.com

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