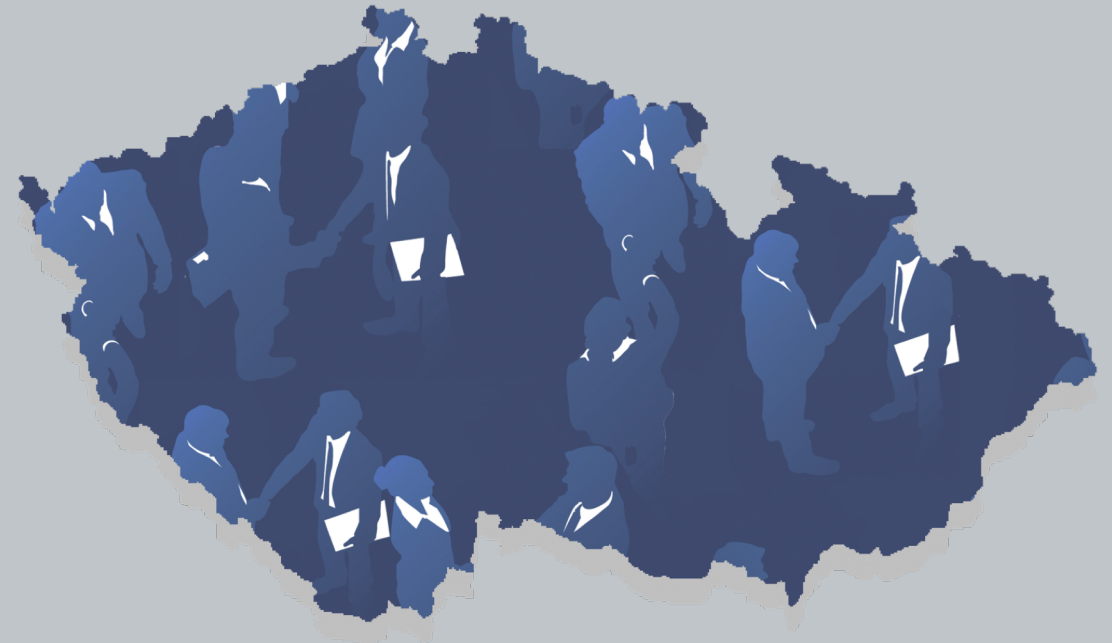


# State of University- Business Cooperation

## CZECH REPUBLIC

### Business Perspective

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





## The State of Czech 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) in the Czech Republic. Examining the perceptions of a wide range of businesses shows an important momentum for UBC and positive signs for the future, with 98% of businesses that cooperate with universities planning to maintain or increase their cooperation in the future.

In recent years, the conditions for UBC have stabilised and are gradually improving in the Czech Republic. It is evident from a development of a more supportive environment, including legislative and financial initiatives. Yet, more still can be done in assisting businesses with the development of further mechanisms and activities that can facilitate their cooperation efforts.

## About the study

The results presented in this report reflect the perceptions of business people in the Czech Republic with respect to cooperation between universities and business. Data was collected by means of an online survey sent out via email to a European business database that was developed from publicly available information for 33 countries during October-November 2016, leading to a total of 55 Czech business responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

## University-Business Cooperation

Czech businesses engage mostly in research UBC activities, such as joint R&D (81,7%) and consulting (67,3%). As for UBC in education, students mobility is the most developed collaborative activity. All other activities are considerably less developed. Thus, over 50% of businesses do not undertake any management or valorisation related collaboration. Particularly low are the activities of curriculum co-design, academic entrepreneurship and student entrepreneurship as well as all governance types.

Just like Czech businesses perceive themselves as the main actors reaching out for collaboration, they also see university alumni and academics as proactive initiators of UBC. On the contrary, Czech business representatives identify internal and external intermediaries as well as government as those stakeholders that less often initiate UBC.

## It is them, not us

The main barriers hindering UBC identified by respondents relate to the well recognised cultural differences between businesses and universities, such as differing motivations between universities and business. Moreover, business respondents point towards the universities, including a lack of people with business knowledge within HEIs and the difficulty of finding the appropriate collaboration partner.

**NOTE:** 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, relationship related factors still play more prominent role. It is the existence of a shared goal and mutual trust alongside prior relations with a partner that facilitate cooperation. These results indicate that any effort towards enabling cooperation between businesses and universities should focus on relationship development as one of the most important success factors.

## **Innovation first**

Czech businesses see themselves profiting from UBC to a high extent. Yet, they perceive for themselves less positive outcomes from UBC than for students, whom they see as the main UBC beneficiary. But what motivates Czech businesses to cooperate with universities? The main motivators for Czech businesses to undertake UBC are mainly related to innovation and competitiveness, including their ultimate willingness to improve their innovation capacity through accessing new technologies and knowledge. This aligns with the results reporting joint R&D as the most developed UBC activity.

## **More mechanisms to be developed**

Compared to the European average, the Czech business managers are significantly less devoted to UBC than their European counterparts. Notably, one

third (36%) of Czech business respondents report that the filling of 'professors in practice' positions within a university is quite common mechanism. Employment fairs and recognition of UBC activities are also recognised as supporting mechanisms by another third (33% each) of Czech businesses.

The most underdeveloped supporting UBC mechanisms in the Czech Republic include presentations, lectures or mentoring within university, student projects with business and networking for employees. Yet, Czech businesses can adopt a range of mechanisms in their interaction with universities, but much still needs to be done to provide them with this support.

## **More to learn**

Czech businesses perceive themselves as supportive towards cooperation with universities, facilitated by the support they get within their organisations to undertake UBC. In particular, they identified their strengths in the ability to absorb the knowledge and technology coming from HEIs, whereas universities can in turn also play a crucial role in their innovation efforts.

Yet, Czech businesses find themselves least inclined towards taking the responsibility to collaborate with universities in both education and research.

# 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

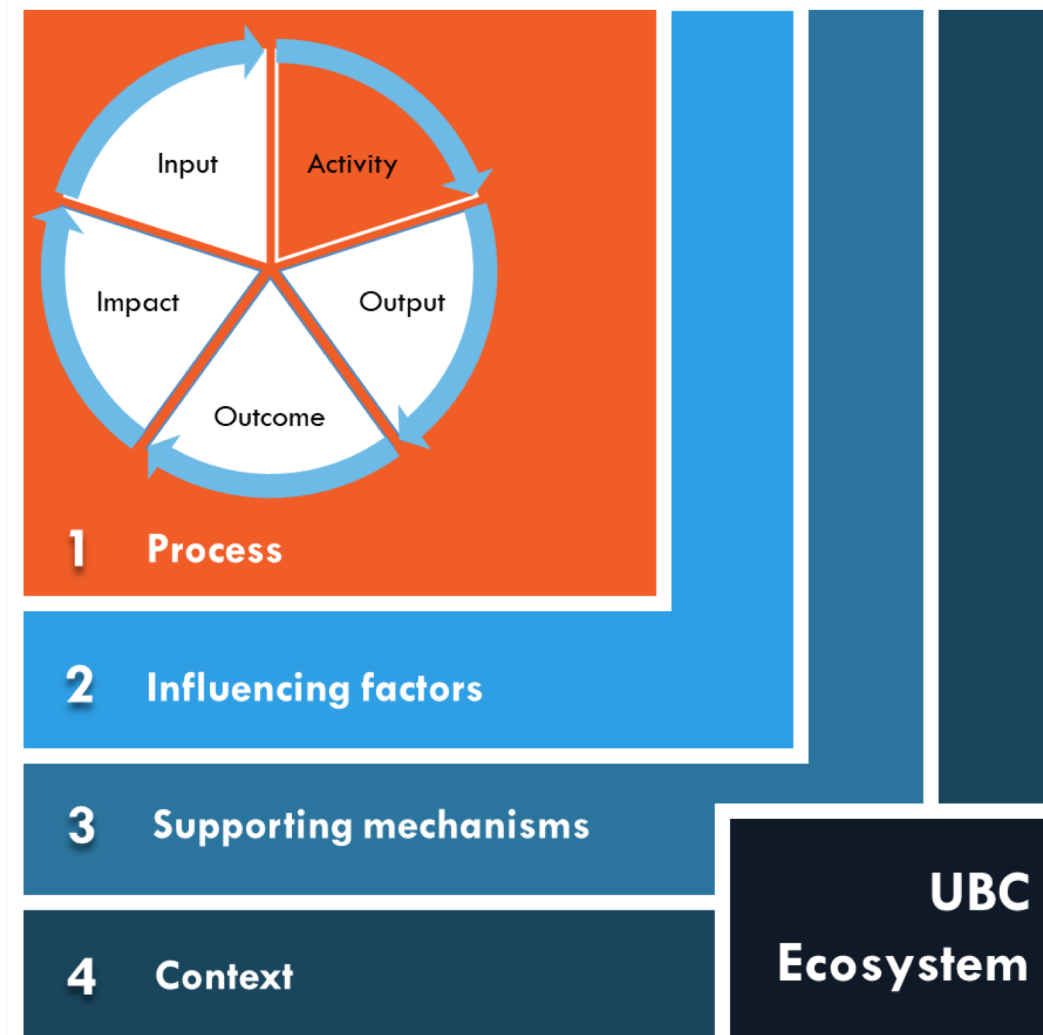
# UBC activities

## 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
<b>Education</b>	<ol style="list-style-type: none"><li>1. curriculum co-<u>design</u></li><li>2. curriculum co-<u>delivery</u> (e.g. guest lectures)</li><li>3. mobility of students (i.e. student internships/placements)</li><li>4. dual education programmes (i.e. part theory, part practical)</li><li>5. lifelong learning for people from business (e.g. executive education, industry training and professional courses)</li></ol>
<b>Research</b>	<ol style="list-style-type: none"><li>6. joint R&amp;D (incl. joint funded research)</li><li>7. consulting to business (incl. contract research)</li><li>8. mobility of professionals (i.e. temporary mobility of academics to business and vice versa)</li></ol>
<b>Valorisation</b>	<ol style="list-style-type: none"><li>9. commercialisation of R&amp;D results (e.g. licencing/patenting)</li><li>10. academic entrepreneurship (e.g. spin offs)</li><li>11. student entrepreneurship (e.g. start-ups)</li></ol>
<b>Management</b>	<ol style="list-style-type: none"><li>12. governance (e.g. participation of academics on business boards and business people participation in university board)</li><li>13. shared resources (e.g. infrastructure, personnel, equipment)</li><li>14. industry support (e.g. endowments, sponsorship and scholarships)</li></ol>

# Development of UBC activities

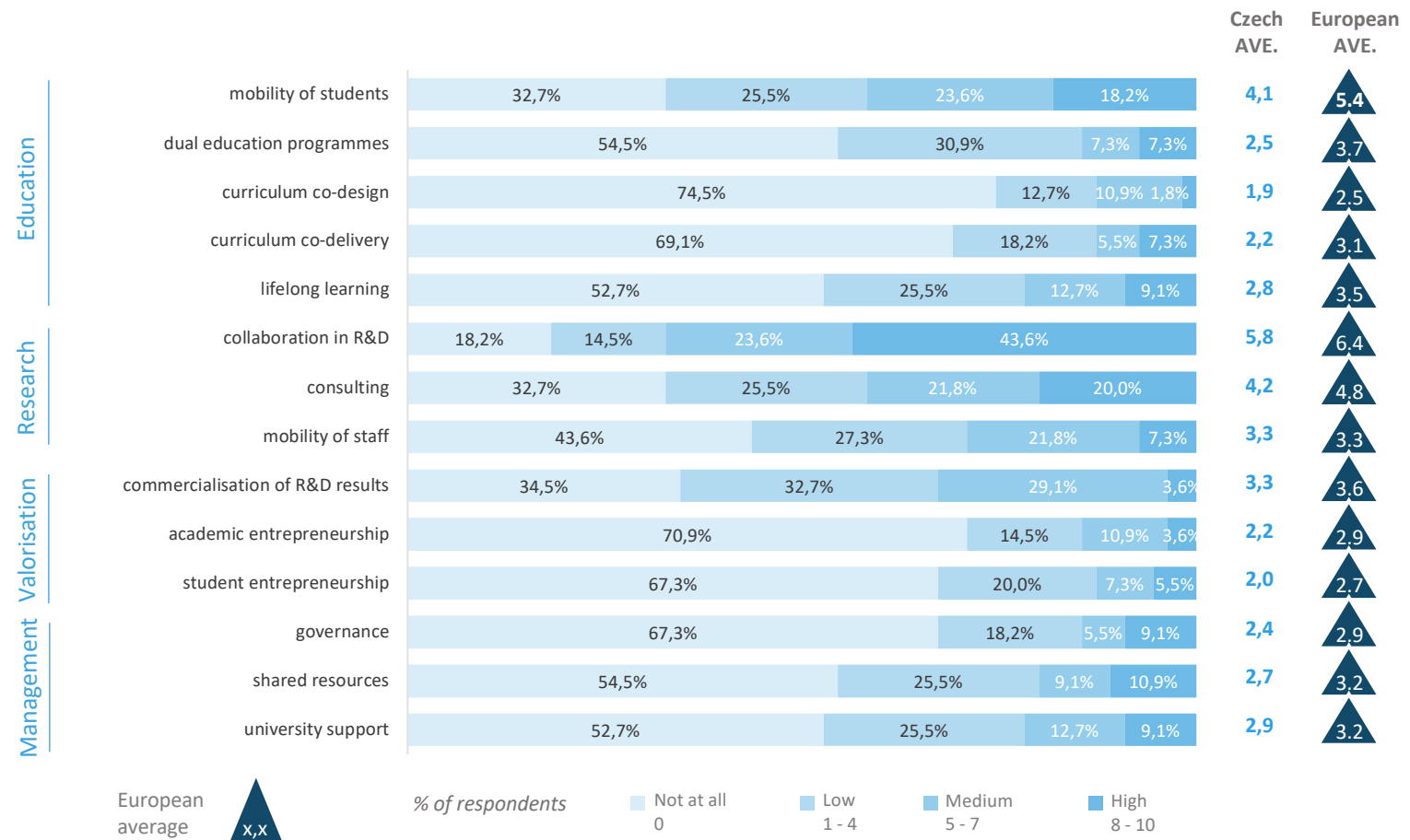
Czech businesses engage mostly in research UBC activities, like joint R&D (5.8) and consulting (4.2). As for education related UBC, mobility of students (4.1) is the most developed UBC activity.

Over 50% of businesses do not undertake any management or valorisation related collaboration (with the exception of commercialisation of R&D results). Particularly low are the activities of curriculum co-design, academic entrepreneurship and student entrepreneurship, and governance.

In comparison with the development of the UBC activities for European business, the Czech UBC lags behind.

## UBC activities development

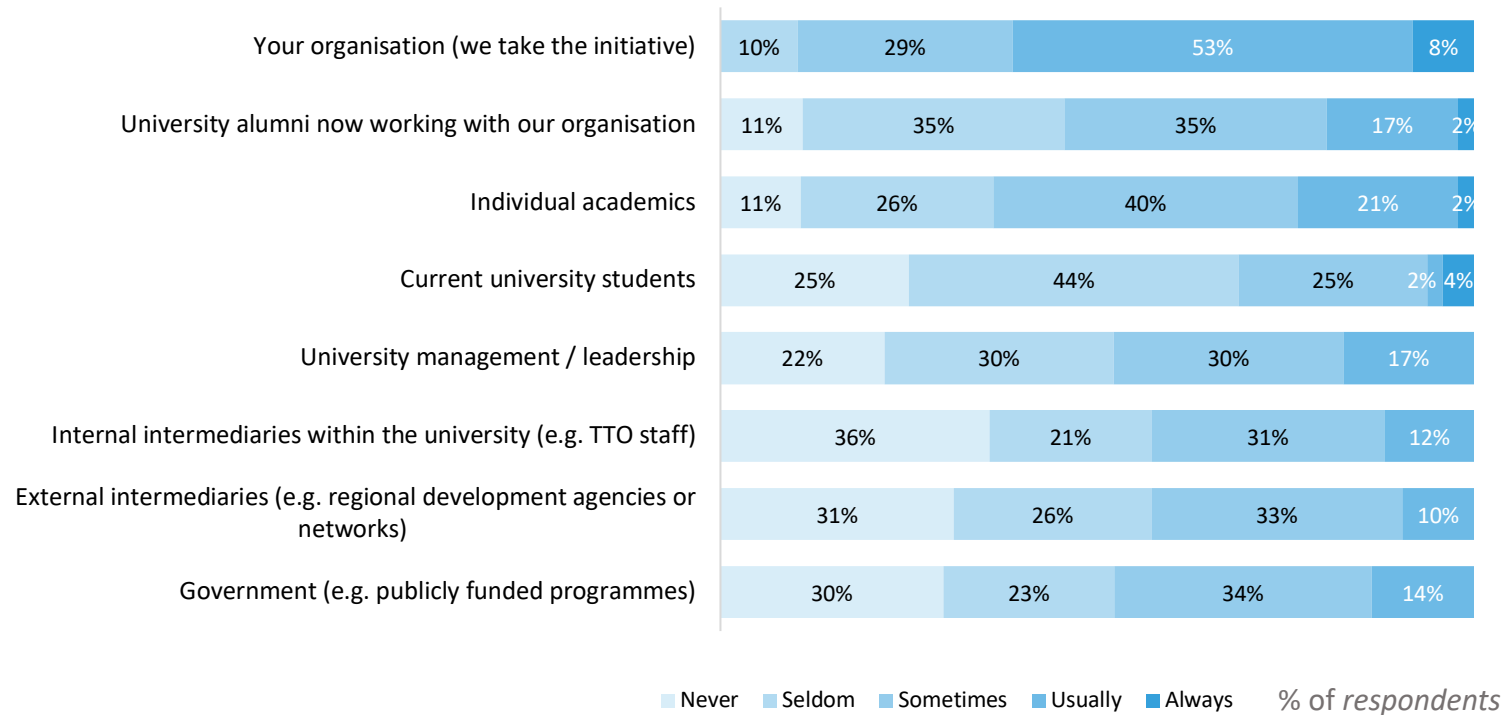
*'Which UBC activities do you collaborate with universities in?'*



# Initiation of UBC

## How UBC is initiated

*'How often various stakeholders initiate UBC activities'*



Czech businesses clearly see themselves as the major initiator of cooperation with universities. 61% of them state that their organisation always or usually initiate UBC.

Czech businesses see university alumni now working with their organisation as well as individual academics also to some extent active in initiating cooperation.

Both internal and external intermediaries are perceived as passive in UBC initiation. 57% of the businesses report that they never or seldom undertake any first actions towards UBC initiation.

Similarly, 52% of businesses state that government does never or seldom initiate UBC in the Czech context.

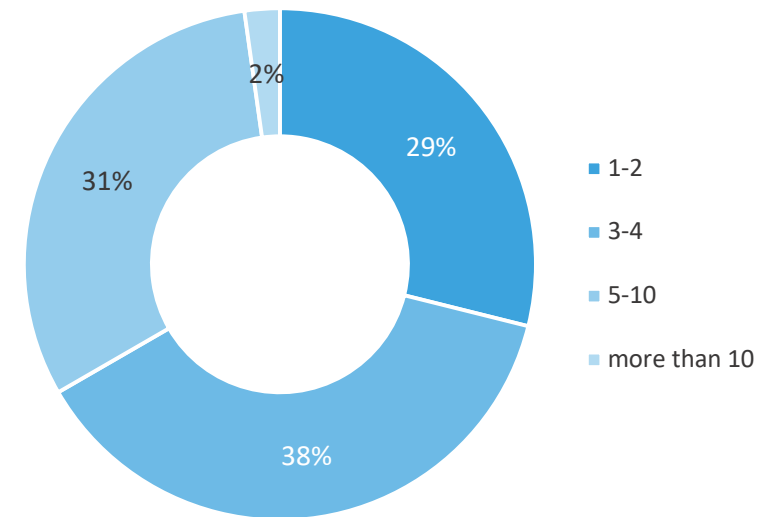
# Geographical location still matters

## Location of university partners

Percentage of cooperating businesses with...	
universities in their region	91%
universities in their country	98%
universities outside their country	80%

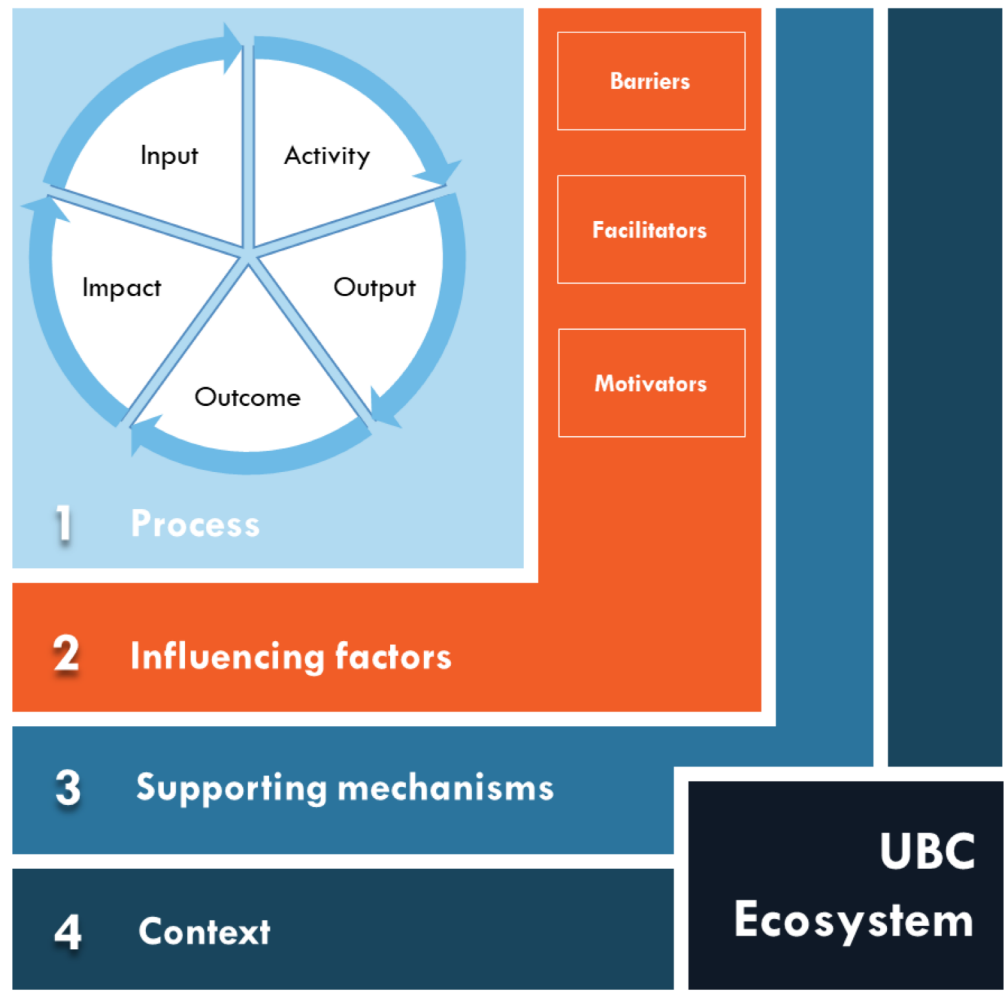
While most Czech businesses cooperate with Czech universities (98%), they also undertake collaboration with university partners from the region and outside the Czech Republic (91% and 80% respectively).

## Number of university partners



Over two third (68%) of Czech businesses cooperate with less than 4 university partners. While 31% have established relations with 5-10 universities and only 2% has 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

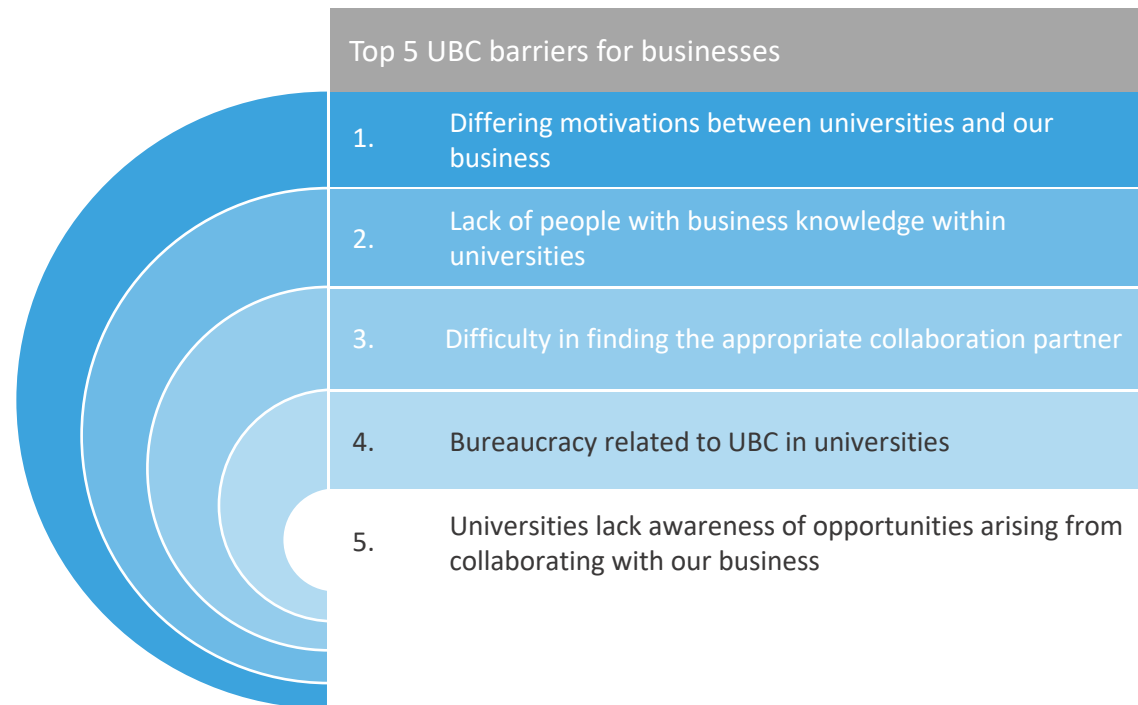
The main five factors inhibiting Czech businesses to cooperate with universities are diverse.

The main one is related to cultural issues expressed in differing motivations between universities and our business. Lack of people with business knowledge within universities and difficulty in finding the appropriate collaboration partner are further important barriers for businesses.

The bureaucracy related to UBC in universities is also perceived as a barrier, alongside the universities' lack of awareness of opportunities arising from UBC. Thus, the study on "Collaboration of firms with universities and research institutions" conducted in the Czech Republic in 2014 also report that businesses themselves significantly lack awareness of universities' offerings<sup>1</sup>.

## Barriers

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

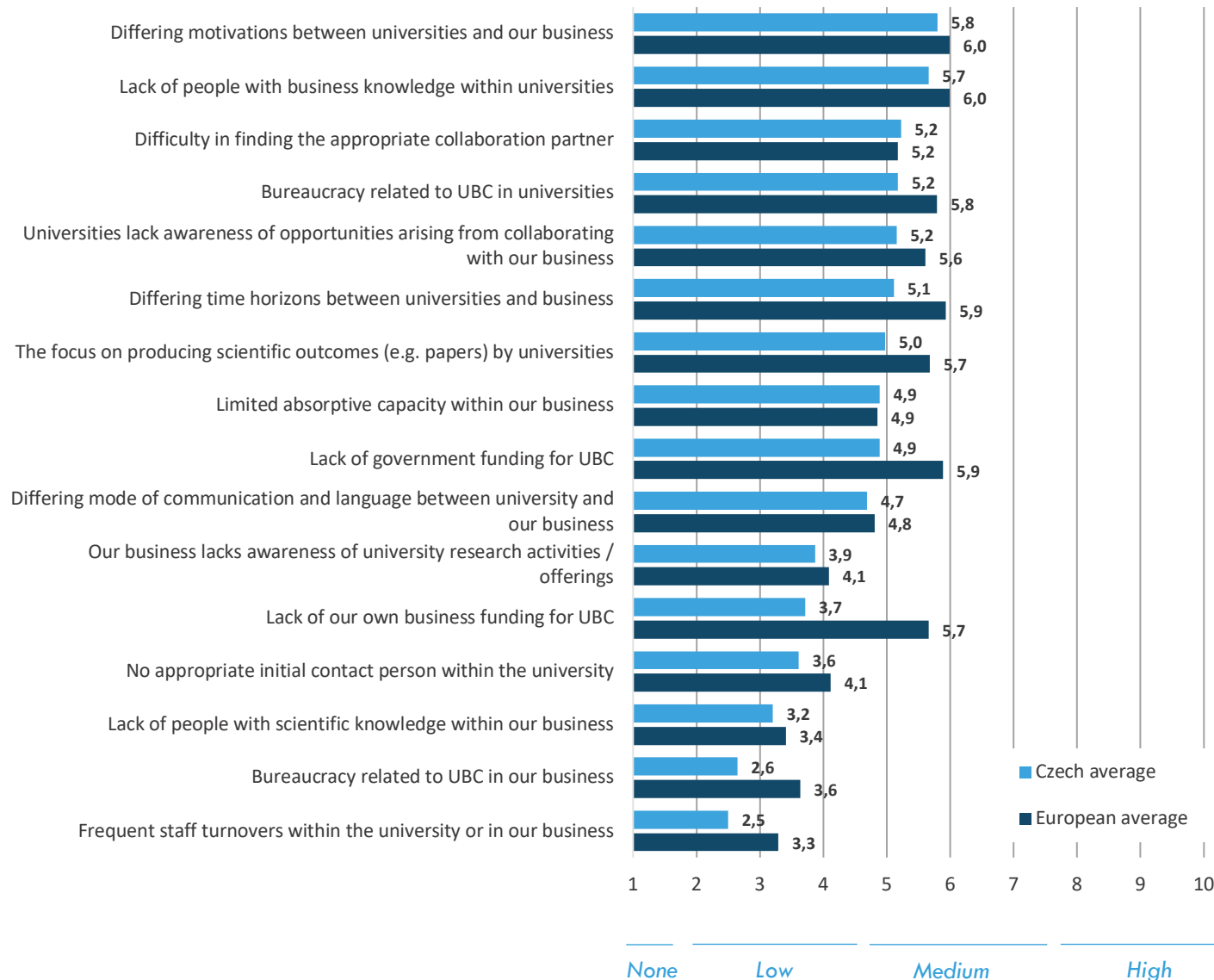


<sup>1</sup> Šolcová, L. (2014). DTIHK-Umfrage: Zusammenarbeit zwischen Wirtschaft und Forschung. Retrieved from URL: [http://tschechien.ahk.de/fileadmin/ahk\\_tschechien/Presse/PM\\_2014/Umfrageergebnisse\\_Zusammenarbeit\\_zwischen\\_Wirtschaft\\_und\\_Forschung.pdf](http://tschechien.ahk.de/fileadmin/ahk_tschechien/Presse/PM_2014/Umfrageergebnisse_Zusammenarbeit_zwischen_Wirtschaft_und_Forschung.pdf)

# Barriers hindering UBC

## Barriers

'What is inhibiting your cooperation with universities?'



The majority of barriers perceived by Czech businesses that are already involved in UBC and their European counterparts differ. Notably, the Czech businesses perceive most barriers slightly lower.

Funding related factors are significantly higher barriers for European business than they are for Czech business. Almost 90% of companies participated in the study "Collaboration of firms with universities and research institutions" finance their collaboration with universities from their own resources<sup>1</sup>.

The two strongest barriers emerged for both groups are related to differing motivations and lack of people with business knowledge within universities.

For businesses in both the Czech Republic and Europe the frequent staff turnovers is the weakest barrier.

<sup>1</sup> Šolcová, L. (2014). DTIHK-Umfrage: Zusammenarbeit zwischen Wirtschaft und Forschung. Retrieved from URL: [http://tschechien.ahk.de/fileadmin/ahk\\_tschechien/Presse/PM\\_2014/Umfrageergebnisse\\_Zusammenarbeit\\_zwischen\\_Wirtschaft\\_und\\_Forschung.pdf](http://tschechien.ahk.de/fileadmin/ahk_tschechien/Presse/PM_2014/Umfrageergebnisse_Zusammenarbeit_zwischen_Wirtschaft_und_Forschung.pdf)

# Drivers stimulating UBC

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

A relationship based on trust, prior history, shared goal and flexibility highly facilitate cooperation for Czech businesses, resulting in a smoother and more successful UBC.

The existence of funding to undertake UBC is also likely to play an important role in facilitating cooperation.

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

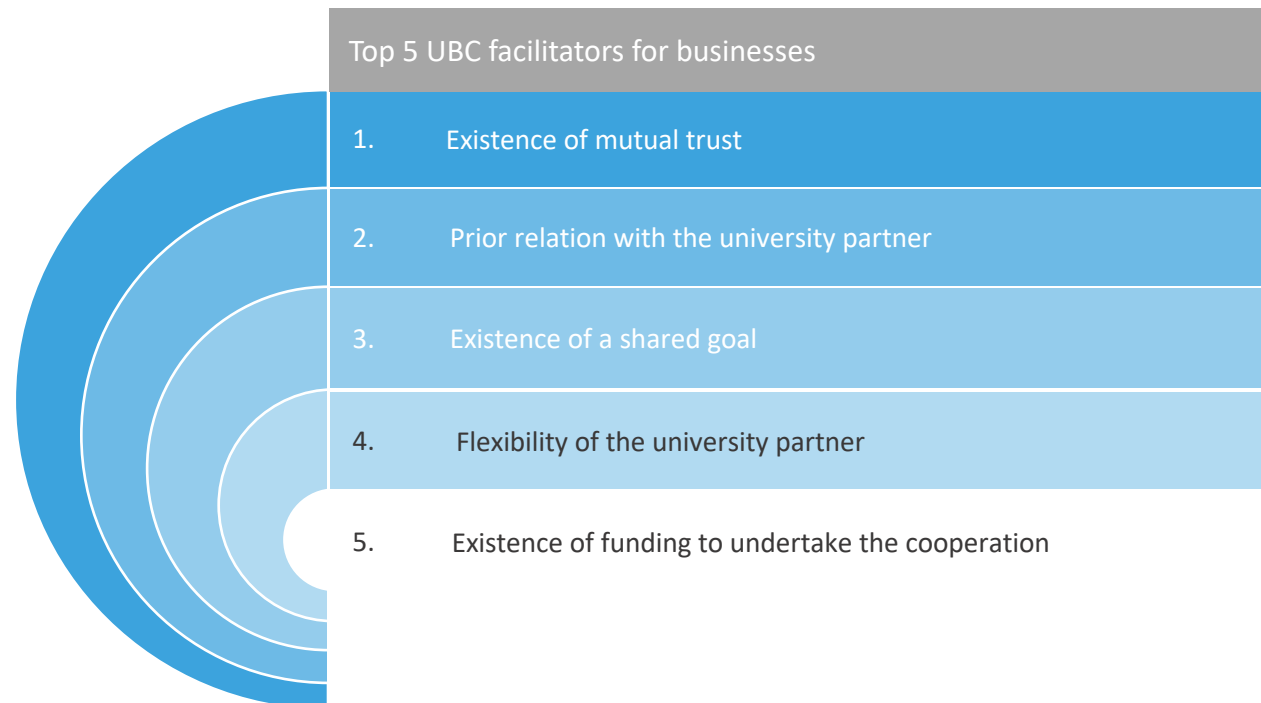
1. **Facilitators** – factors that enable or ease cooperation
2. **Motivators** – incentives or benefits that the respective stakeholders would like from the cooperation

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?'*

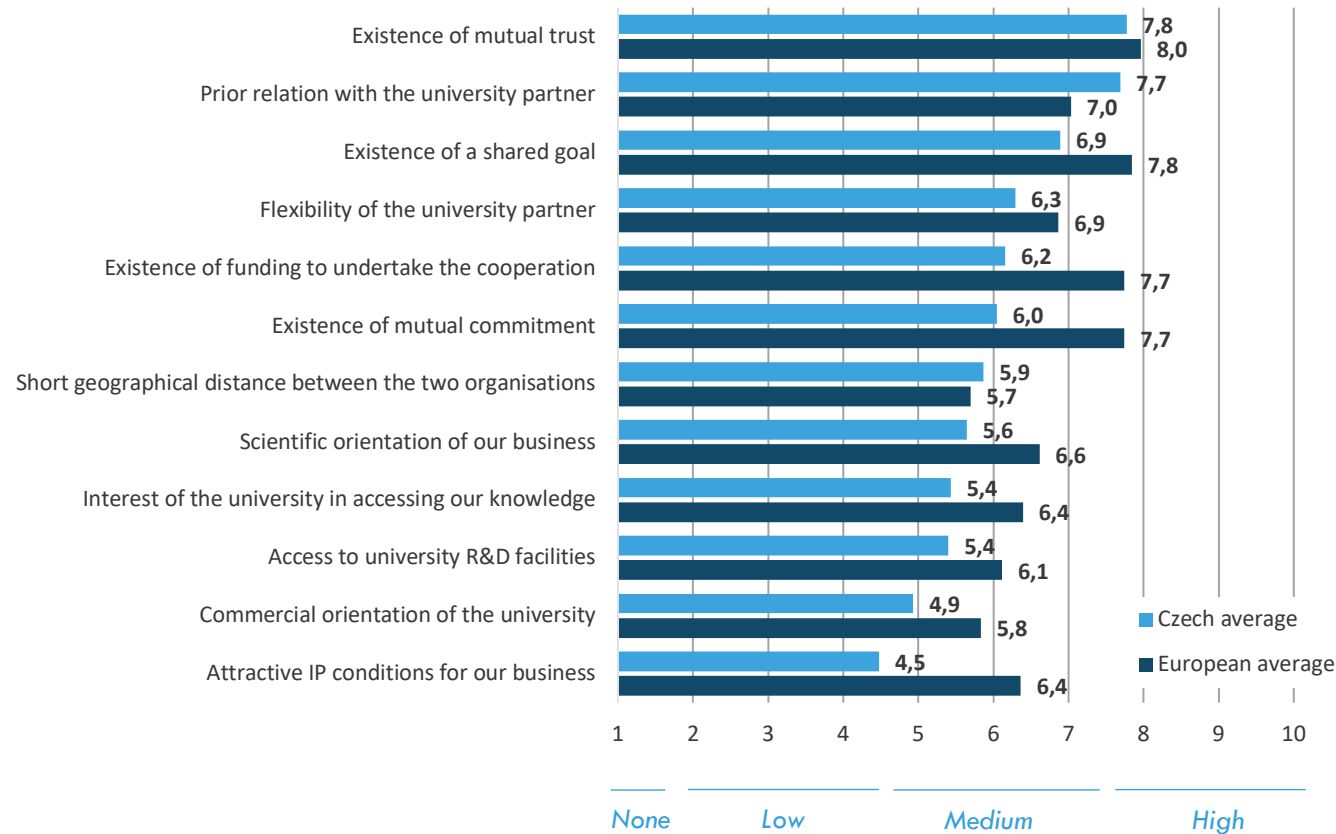




# Drivers stimulating UBC

## Facilitators

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



Most facilitators are perceived higher by European businesses than by their Czech counterparts.

For both groups personal relationship facilitators bear great importance, although they are perceived lower in the Czech Republic.

The funding and attractive IP conditions also facilitate UBC for Czech businesses to a considerably lower extent.

Alongside IP conditions, the access to universities' R&D facilities and their commercial orientation are the weakest barriers for Czech businesses.

# Drivers stimulating UBC

The main motivators for Czech businesses to undertake UBC are related to innovation and competitiveness.

Businesses cooperate with universities primarily to improve their innovation capacity through accessing new technologies and knowledge and to obtain customised solutions.

The willingness to gain access to better qualified graduates and funding are less important but still relevant motivations.

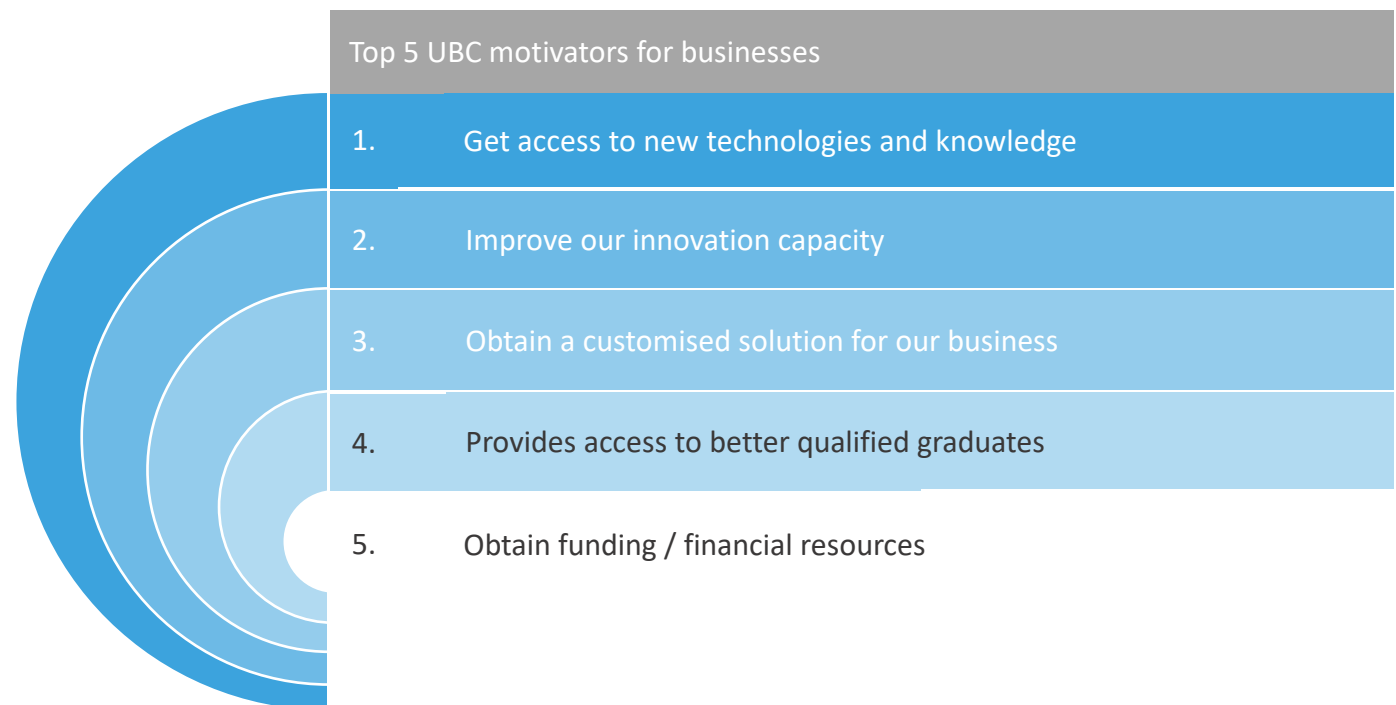
*Motivations for UBC* are the reasons why businesses collaborate with university.

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

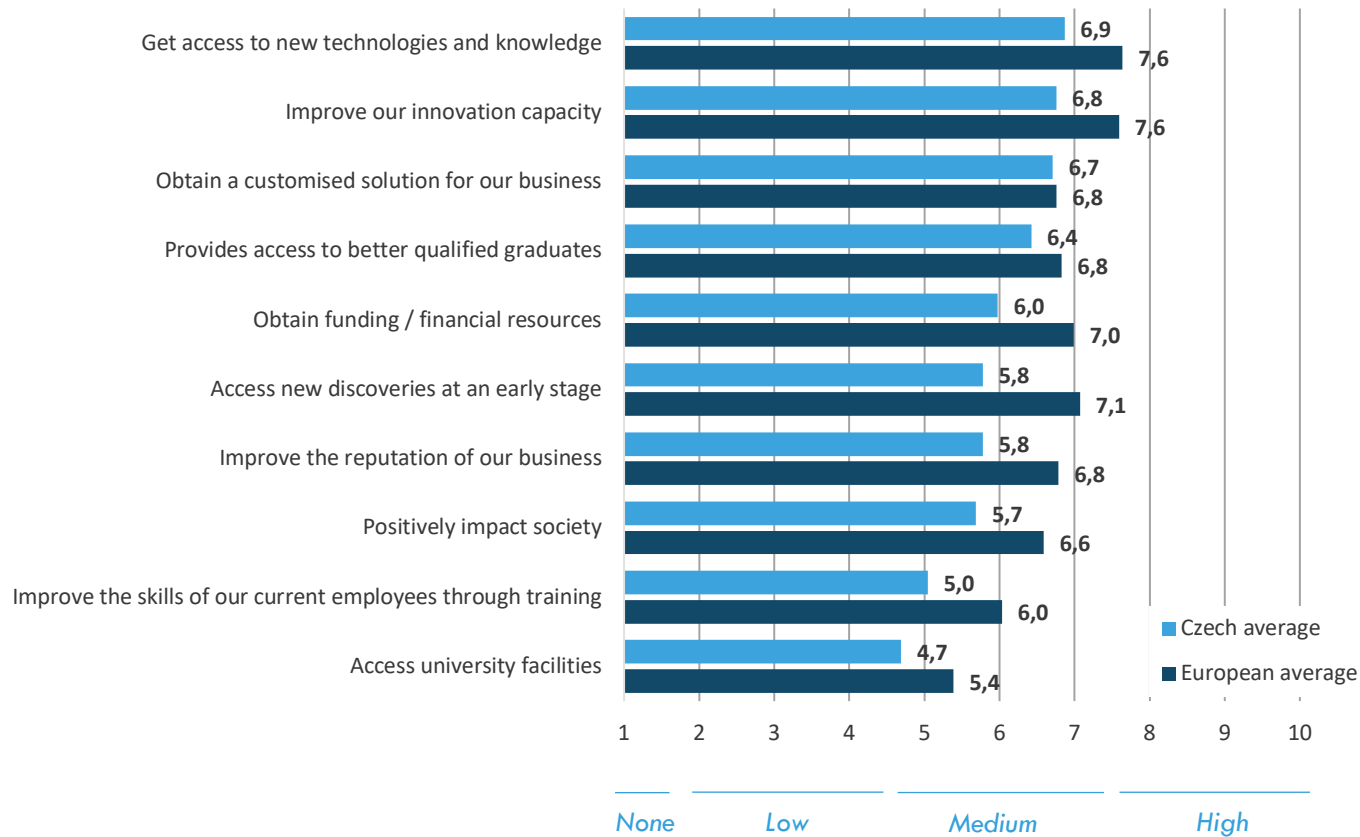
*'What motivates you to cooperate with universities?'*



# Drivers stimulating UBC

## Motivators

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



Most motivators are perceived higher by European than Czech businesses.

Like their European counterparts, Czech businesses are not highly motivated to collaborate in training with universities.

Both Czech and European businesses are motivated to cooperate with universities to get access to new technologies and knowledge and to improve their innovation capacity.

# Benefits of UBC

Both Czech and European businesses have rather different perceptions with respect to which stakeholder groups benefit more or less from UBC.

Hence, both groups see students as the primary beneficiaries of UBC. The lowest benefits are perceived by them to be for government.

Notably Czech businesses perceived themselves also as beneficiary but to a lower 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?'*

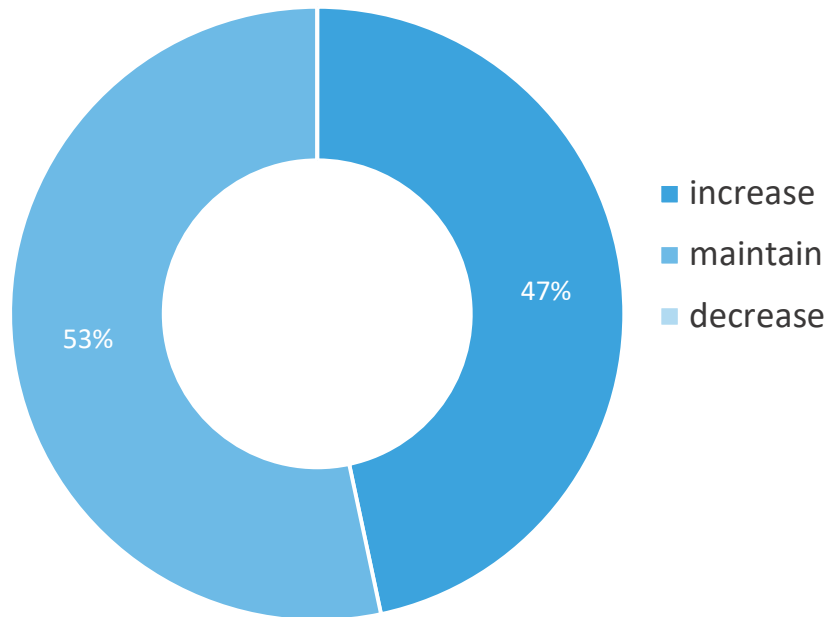


	Czech businesses	European businesses
1.	Students	Students
2.	Businesses	Universities
3.	Society	Businesses
4.	Universities	Academics
5.	Academics	Society
6.	Government/public authorities	Government/ public authorities

# Future intentions

## Future UBC intentions – CZECH REPUBLIC

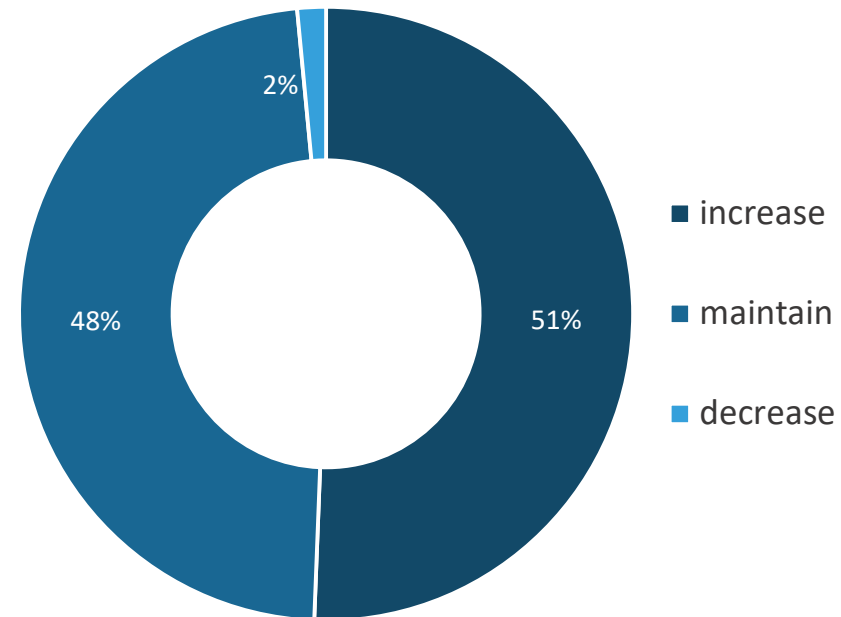
*As answered by Czech businesses*



100% of Czech businesses that currently cooperate with universities plan to maintain or increase their cooperation. This shows an important momentum for UBC in Czech industry.

## Future UBC intentions – EUROPE

*As answered by European businesses*



European businesses also seem to be confident in terms of their future intention towards UBC as over half (51%) of them plan to increase their cooperation activities and only 2% to reduce them.

# Willingness to recommend UBC

The willingness of Czech cooperating business representatives to recommend to a colleague to engage in UBC highly varies depending on whether this cooperation is in research or in education.

Czech businesses are equally satisfied with UBC in research as their European counterparts (NPS=33). While 45% of them will promote it positively, 13% would do it negatively.

Contrary, Czech businesses are considerably less satisfied with their cooperation in education (NPS= -22). Only 22% would highly recommend it and as much as 46% will not recommended it at all. This is also more negative compared to the European 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

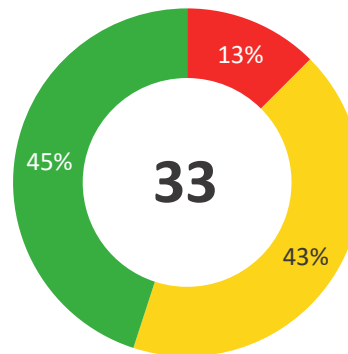
education and training (E&T). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

## 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%	43%	45%	33%
Business cooperating with universities in E&T	46%	32%	22%	-24%

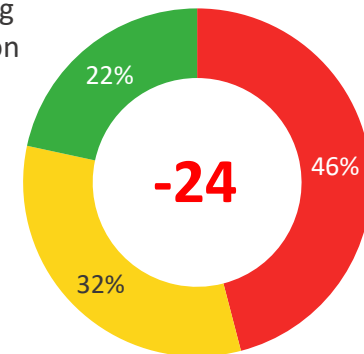
## Satisfaction with cooperation with universities (net promoter score)

Business cooperating in research



■ Detractors ■ Passives ■ Promoters

Business cooperating in education

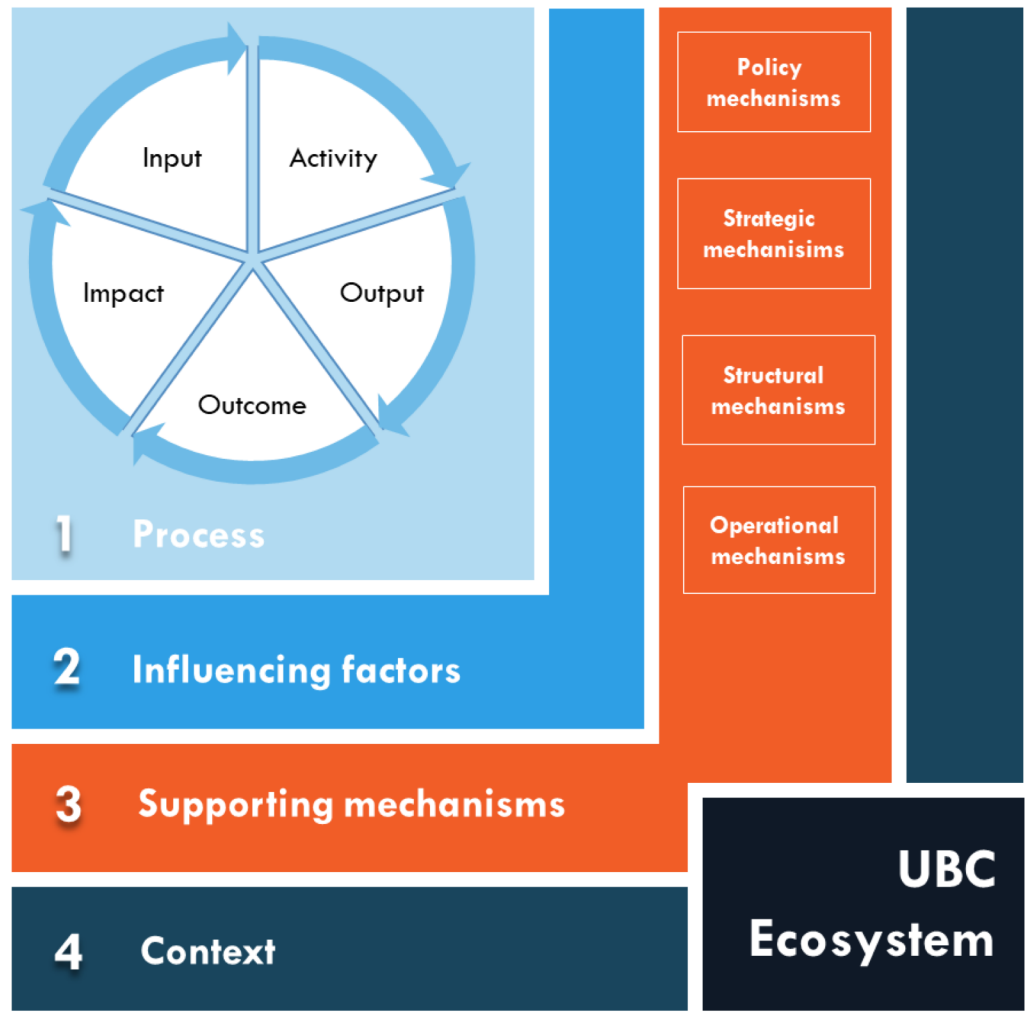


■ Detractors ■ Passives ■ Promoters

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

Czech businesses can adopt a range of supporting mechanisms in their interaction with universities, but they are present only in under a third the businesses.

Compared to the European average, the development of UBC supporting mechanisms in the Czech Republic drastically differs from the current situation in Europe.

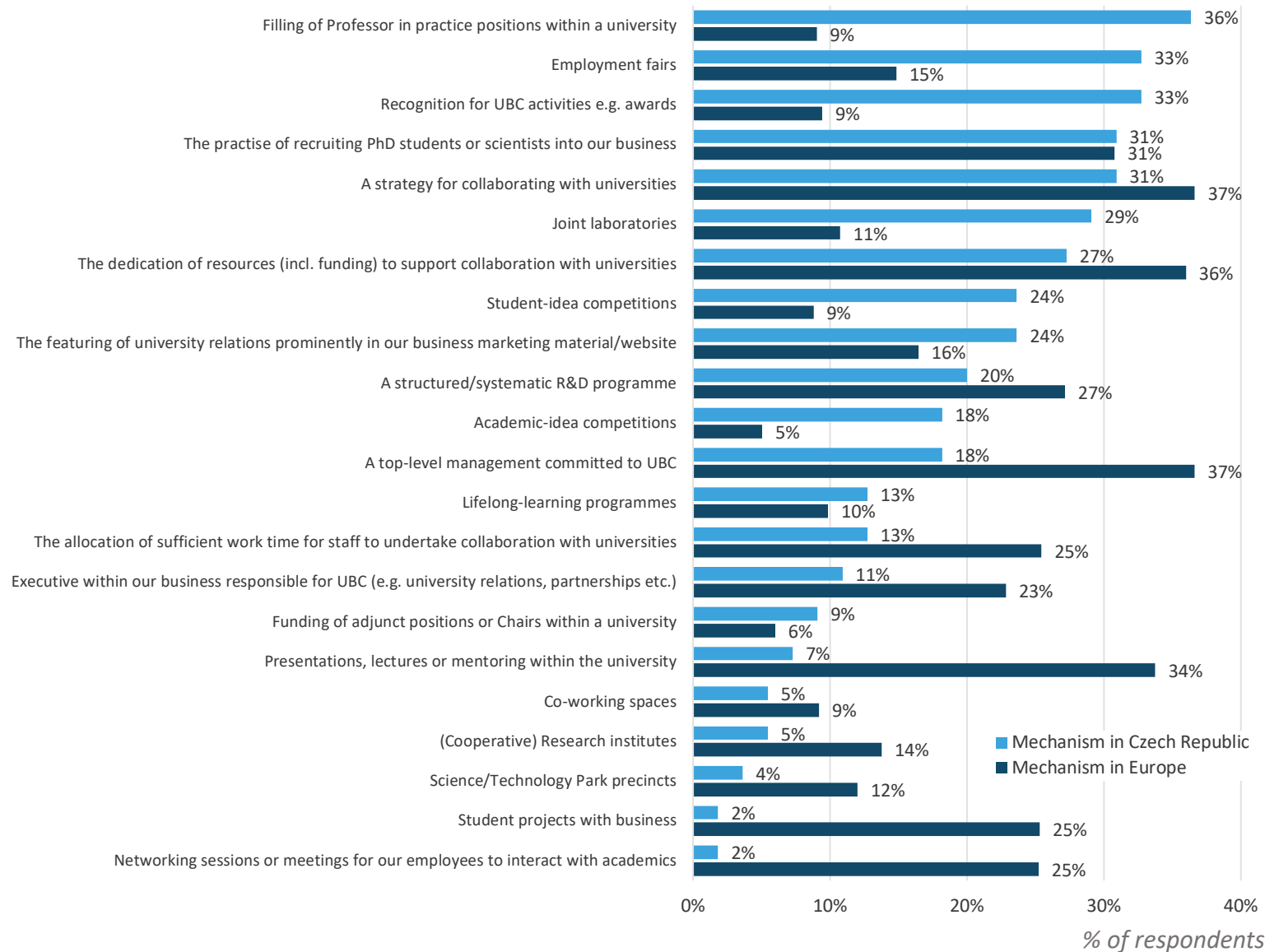
The most developed mechanism is a filling of 'professor in practice' positions within a university (36%). The employment fairs (33%) and recognition for UBC activities (33%) are the further mechanisms present. Those mechanisms are significantly better developed in the Czech Republic than in Europe.

Contrary, the Czech business managers are significantly less devoted to UBC than their European counterparts.

Additionally, the most underdeveloped supporting UBC mechanisms in the Czech Republic include presentations, lectures or mentoring within university, student projects with business and networking for employees (compared to European average).

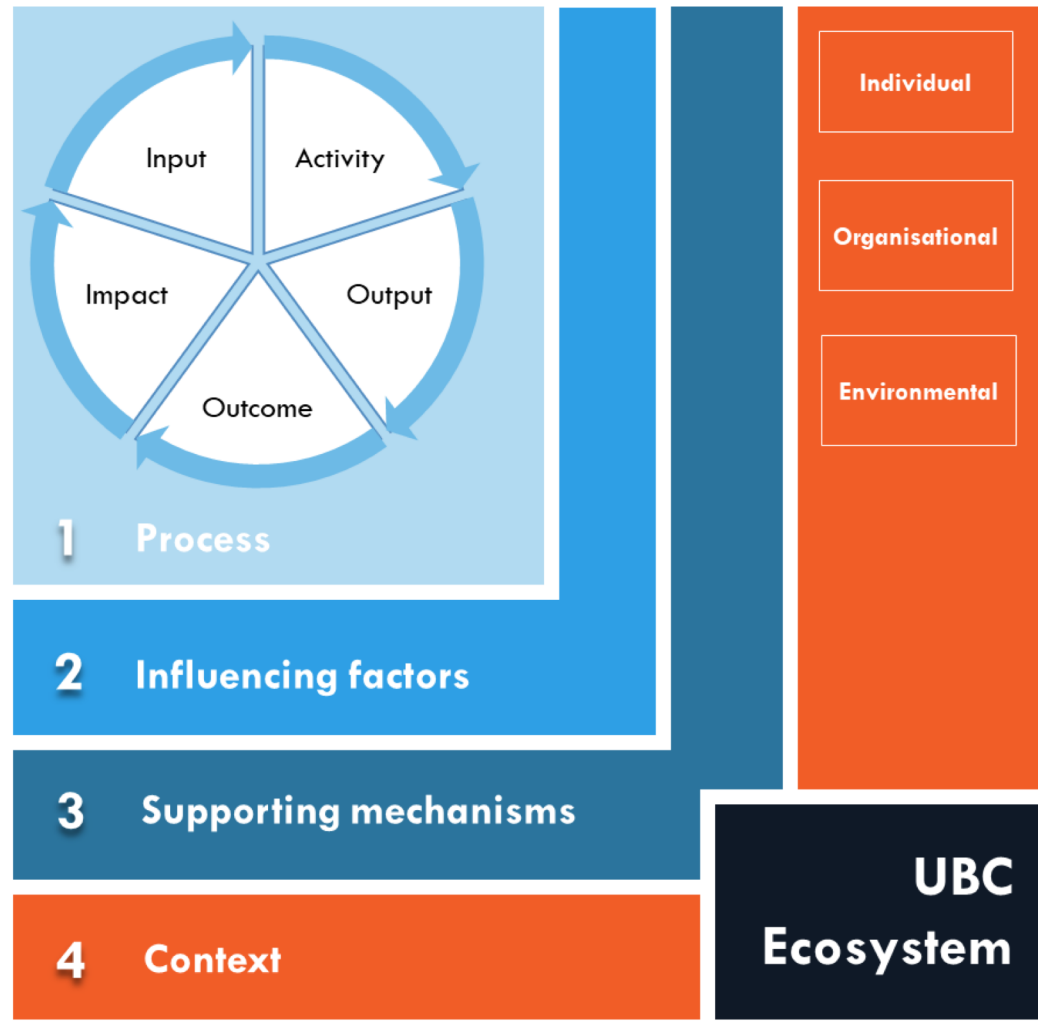
## Mechanisms supporting UBC

*'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

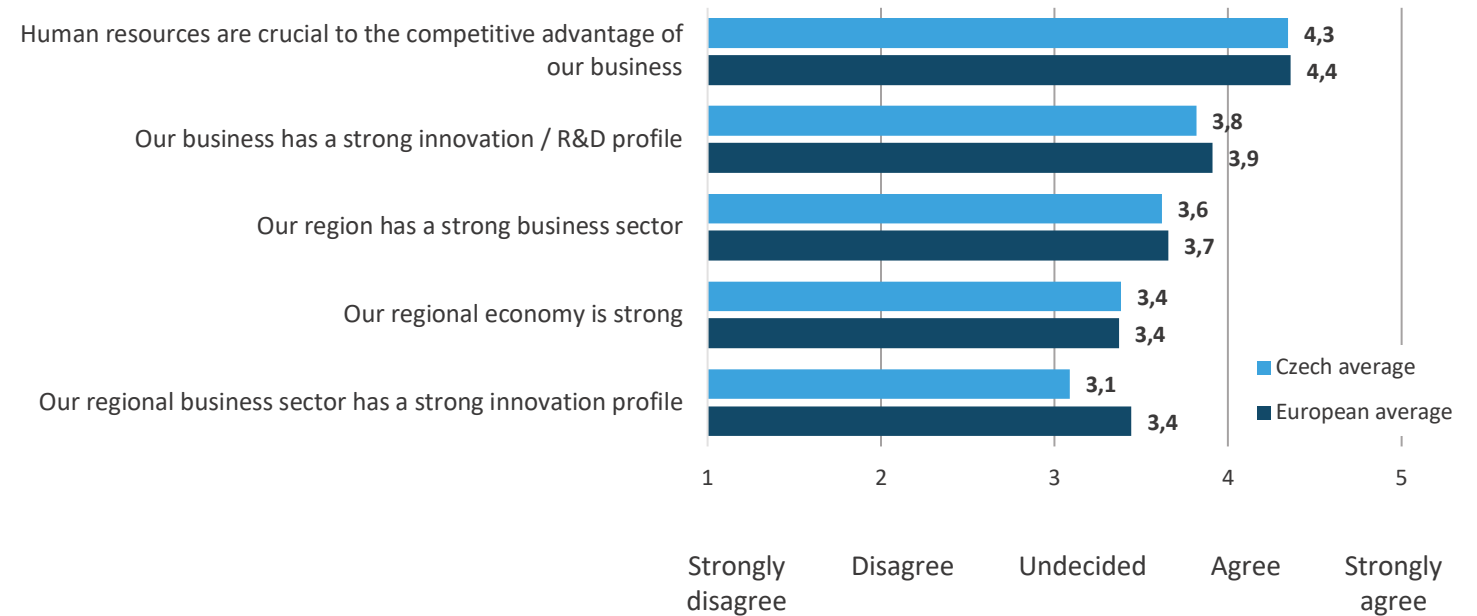
Czech business cooperating with universities perceive their context similarly to European cooperating businesses.

Human resources are essential for their competitiveness and the business innovation or 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

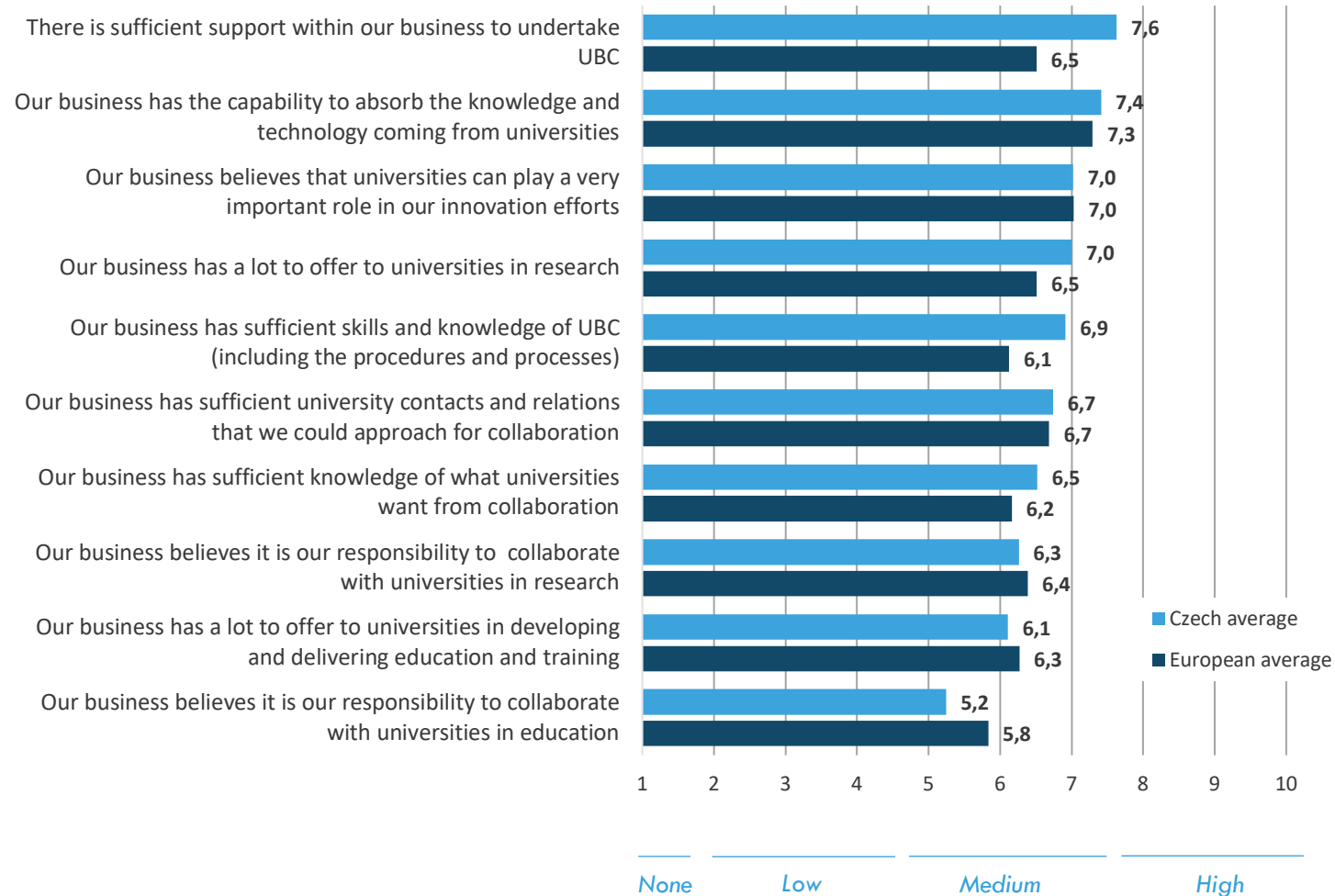
*'To what extent do you agree with the following statements?'*



# UBC capabilities and beliefs

## Supportive UBC environment

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



Czech businesses perceive themselves as supportive towards cooperation with universities.

They get enough support within their organisations to undertake UBC.

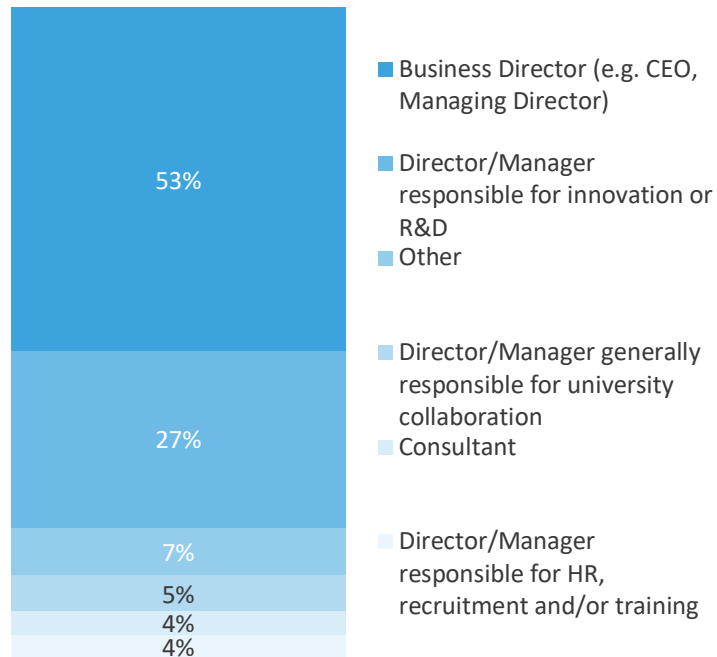
Furthermore they have the capability to absorb knowledge and technology from universities, whereas universities in turn can play an important role in the innovation efforts.

Yet, Czech businesses are less supportive towards UBC in education and training.

Overall, Czech businesses perceive themselves differently in comparison to the European average.

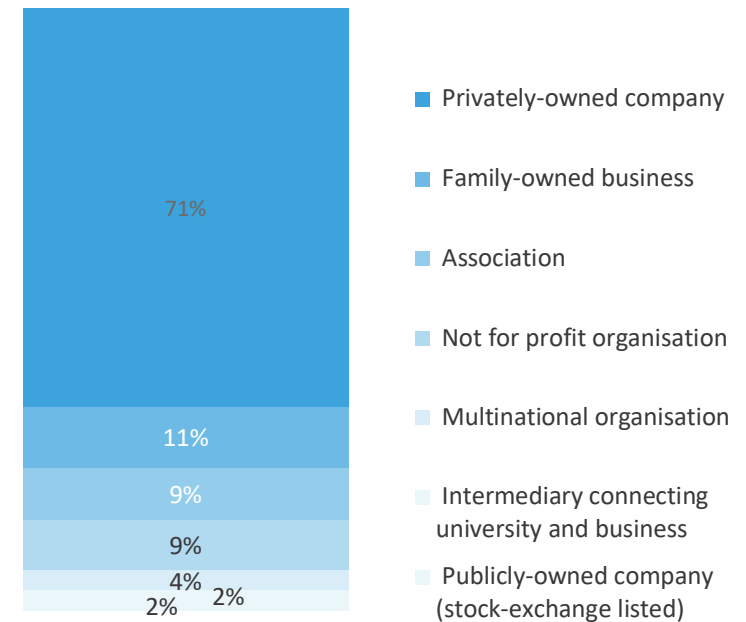
# Respondents profile

## Position of respondent



More than a half of the Czech business sample (53%) are business directors, which represent the largest group. It is followed by directors responsible for innovation or R&D (27%). The remaining respondents identified themselves as directors responsible for university collaboration (5%), consultants (4%), and directors of HR, recruitment and training (4%).

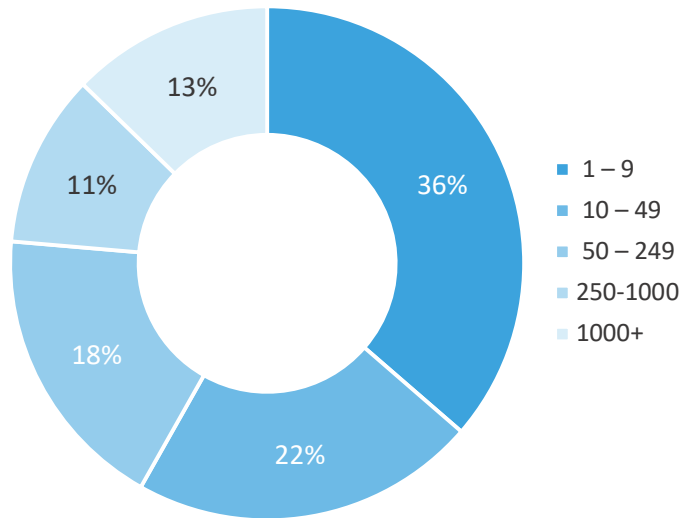
## Type of business



A wide variety of businesses were represented in the Czech sample, with privately-owned companies forming the largest group (71%). It is followed by family owned businesses (11%), associations (9%) and not for profit organisations (9%).

# Respondents profile

## Business size



Sample Size	
Czech business representatives	n = 55
European business representatives	n = 3.113

Half of the Czech business sample is comprised by small firms (1 to 49 employees). Business representatives indicating that they work for medium-sized companies accounted for 18%. Larger companies with more than 250 employees are represented with 24%.

# Contact us

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