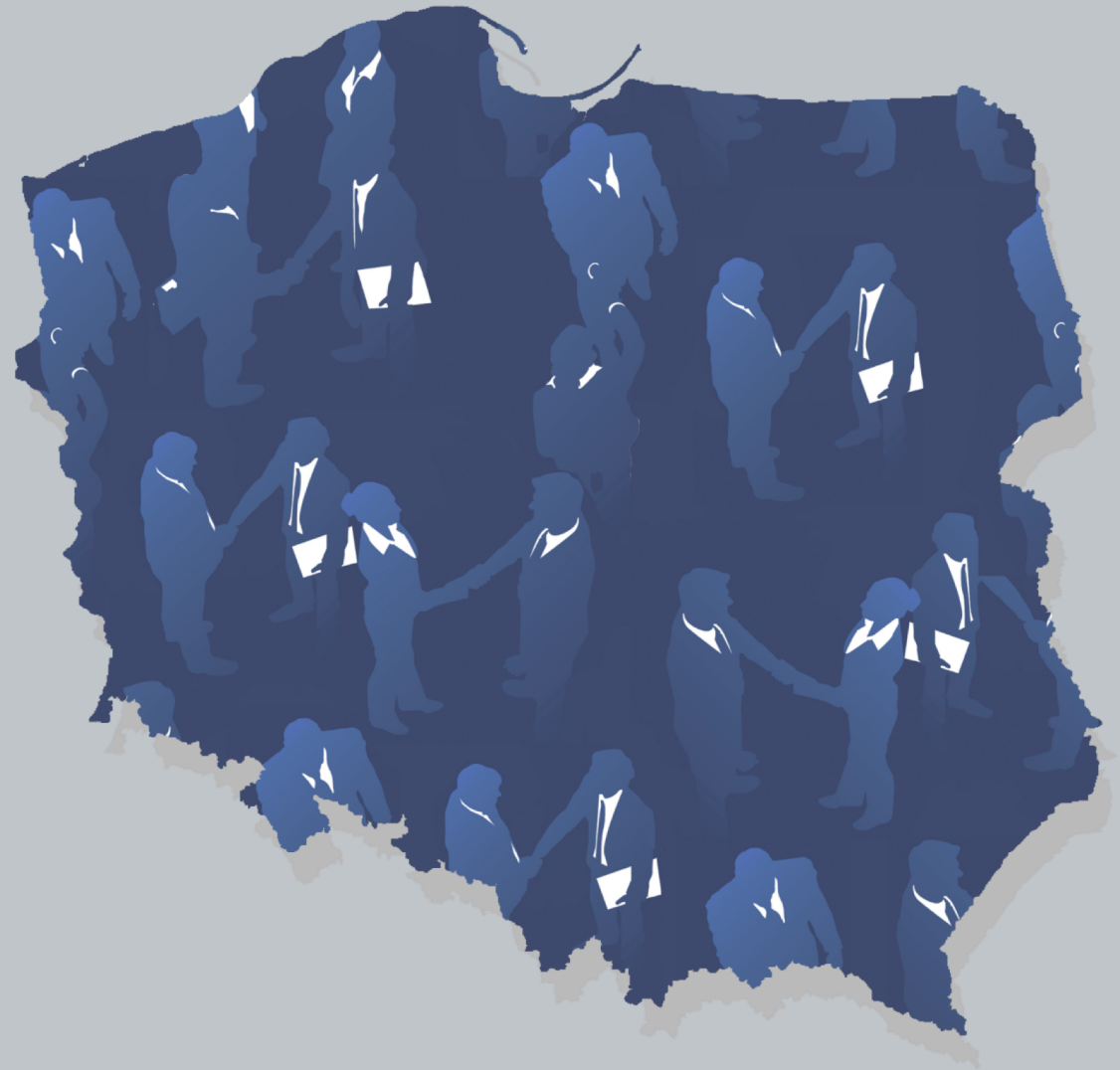


State of University- Business Cooperation

POLAND

Business Perspective

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



The State of Poland 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 Poland. Examining the perceptions of a wide range of businesses provides positive signs for the future, with 98% of Polish businesses that already established relationships with universities planning to maintain or increase their cooperation in the future. Yet, more can be done, especially in supporting businesses with the development of strategical, structural and operational mechanisms to support their cooperation efforts as well as providing additional funding sources to further develop the nascent UBC activities.

About the study

The results presented in this report reflect the perceptions of business representatives in Poland 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 63 Polish business responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

University-Business Cooperation

Polish businesses engage mainly in education and research UBC activities with mobility of students, lifelong learning, collaboration in R&D and consulting being the most developed. The remaining activities are considerably less developed with over 50% of businesses in Poland not undertaking any valorisation and management activities. Particularly low are the activities related to student and academic entrepreneurship.

Polish businesses perceive themselves as the main actors reaching out for collaboration. In the same way, they also see university alumni as well as government as proactive initiators of UBC. On the contrary, Polish businesses identify internal and external intermediaries as the stakeholders that less often initiate UBC.

It is them, not us

Polish business respondents point towards the universities, reporting their focus on producing scientific outcomes along with their lack of people with business as the major barriers for UBC.

The cultural differences between businesses and universities, such as differing time horizons and differing motivations also represent significant barriers. Moreover, a high level of bureaucracy within universities is a further hindering factor negatively affecting collaboration efforts.

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.

Relationships matter

While funding to undertake cooperation emerges as one of the top five facilitators for French businesses, relational factors are much more prominent. It is the existence of trust, a shared goal, and commitment 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 a key to successful UBC.

Benefits for business as UBC drivers

Polish businesses engage in cooperation with HEIs driven by the willingness to obtain funding and financial resources as well as by the motivations related to innovation and competitiveness. Thus they are motivated to get an access to new technologies, knowledge and better qualified graduates. Furthermore they seek to improve their own reputation as well as to obtain a customised solution for their business. Generating societal impact or benefiting other stakeholders through collaboration are not considered as motivating factors for Polish businesses when cooperating with universities.

Underdeveloped supporting mechanisms

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 most supporting mechanisms present in business are scarce or underdeveloped in Poland. The most developed mechanism relates to presentations, lectures or mentoring within a university. The further mechanisms are present in only under a third of the Polish businesses. Thus, a structured R&D programmes, co-working spaces and joint R&D institutes are among the least developed mechanisms and present in less than 10% of the businesses. This demonstrates a clear need for strategies and structures to direct the efforts of Polish businesses towards UBC.

Not our responsibility

Polish businesses see themselves as supportive towards UBC and they have a positive perception of their own abilities in undertaking cooperation. In particular, they state they have the capability to absorb knowledge and technology from universities. Furthermore, they believe that they have the sufficient university contacts and relations to undertake collaborative activities.

Yet, although claiming to be the initiator of UBC in Poland, businesses find themselves least inclined towards taking the responsibility to collaborate with universities in both education and 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

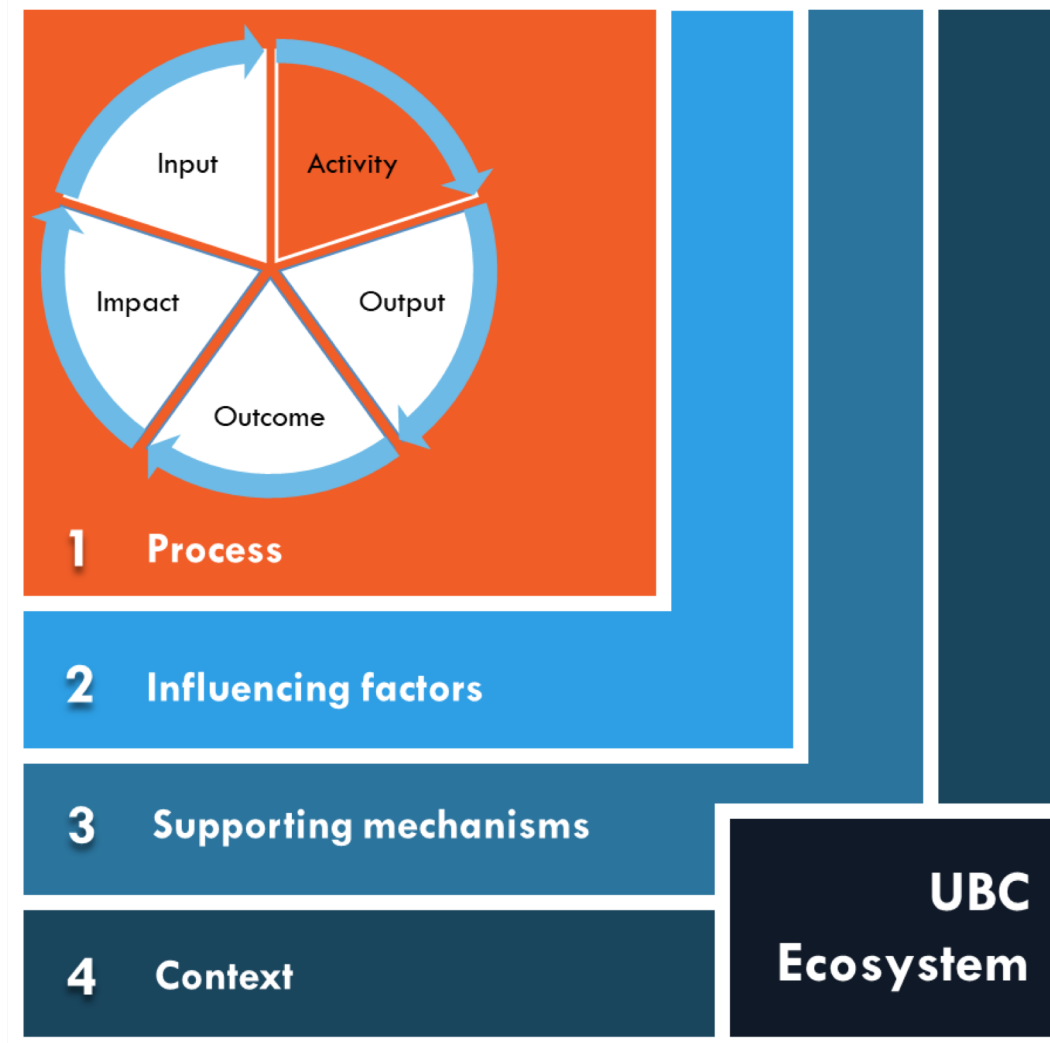
UBC activities

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	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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

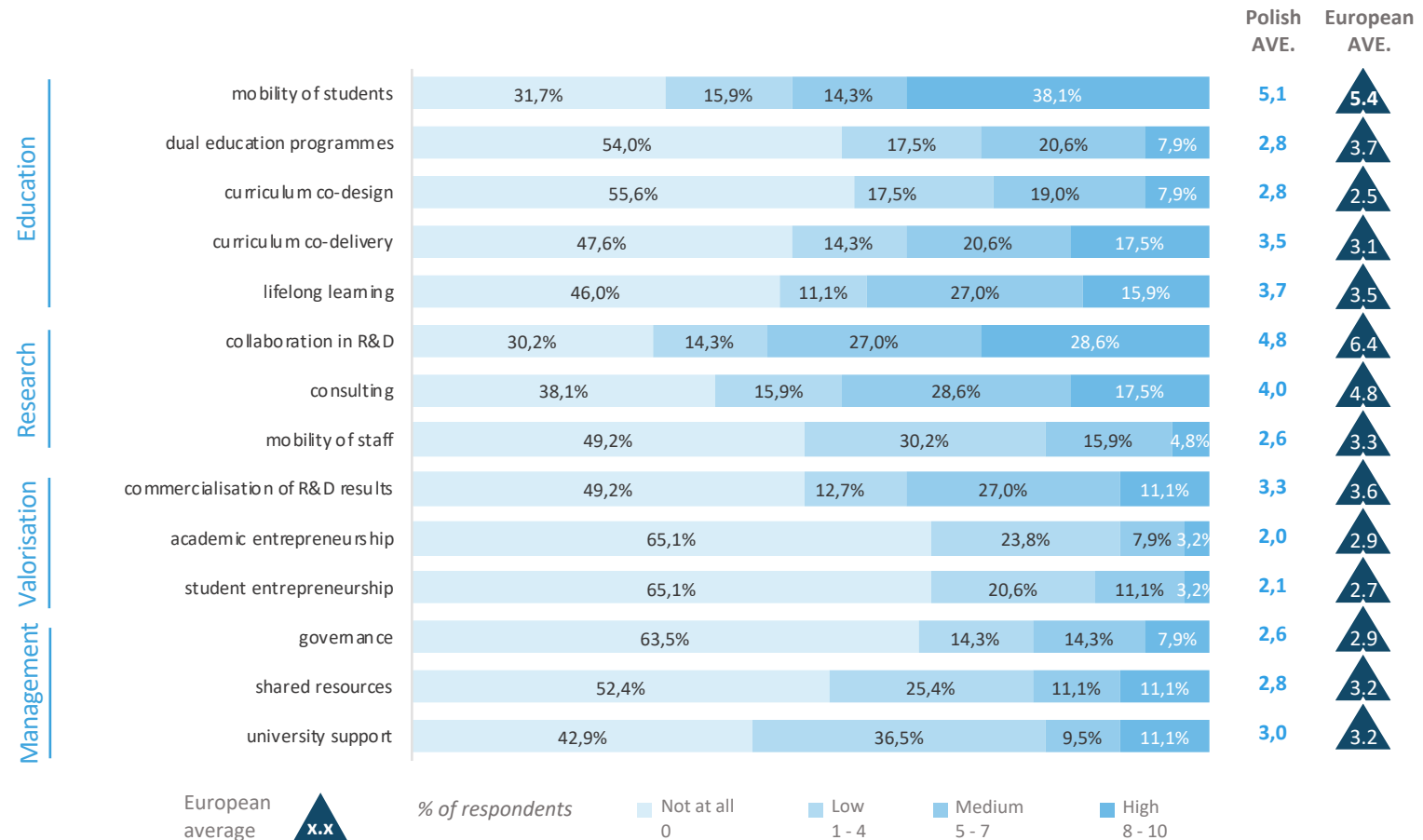
'Which UBC activities do you collaborate with universities in?'

Polish businesses engage mainly in education and research UBC activities such as mobility of students (5.1), lifelong learning (3.7), collaboration in R&D (4.8) and consulting (4.0). These areas of cooperation are the most common from the historical perspective. Yet, around 30% businesses do not engage in these activities at all.

Particularly low are the activities related to student (2.1) and academic entrepreneurship (2.0). Although there is a high interest of students and academics in setting up companies, various financial, organisational and legal barriers still inhibit entrepreneurship.

Almost 50% of businesses do not undertake any management or valorisation related collaboration.

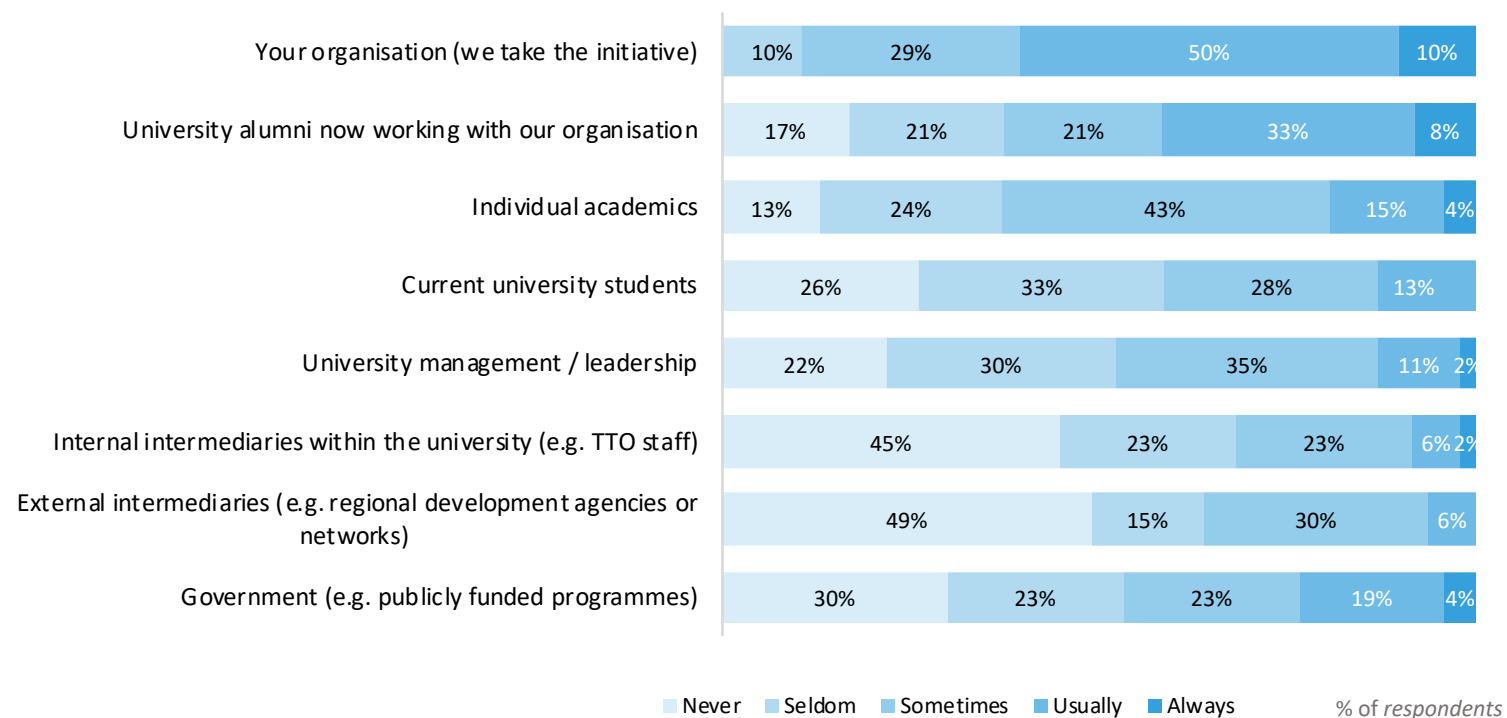
Overall, most UBC activities are more advanced in Europe than in Poland (with the exception of curriculum co-design, curriculum co-delivery and lifelong learning).



Initiation of UBC

How UBC is initiated

'How often various stakeholders initiate UBC activities'



Polish businesses clearly see themselves as the major initiator of cooperation with universities. 60% of businesses state that their organisation always or usually initiates UBC. In fact Polish businesses seek for cooperation as they undertake EU funded projects that require building partnerships with universities and research institutes.

Businesses also perceive university alumni now working with their organisations and government as active in initiating cooperation with universities. In particular, alumni are seen as the driving force for UBC initiation as they have sufficient and up to date knowledge on how the cooperation can be started.

Both internal and external intermediaries are perceived as passive in UBC initiation. 68% of the businesses report that they never undertake any first actions towards UBC initiation respectively. Similarly, 59% and 52% of business state that current university students and university managers do never or seldom initiate UBC.

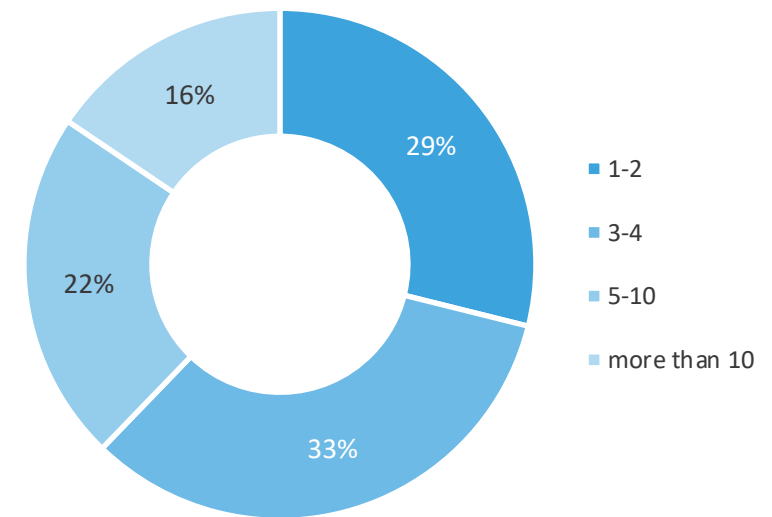
Geographical location still matters

Location of university partners

Percentage of cooperating businesses with...	
universities in their region	95%
universities in their country	86%
universities outside their country	62%

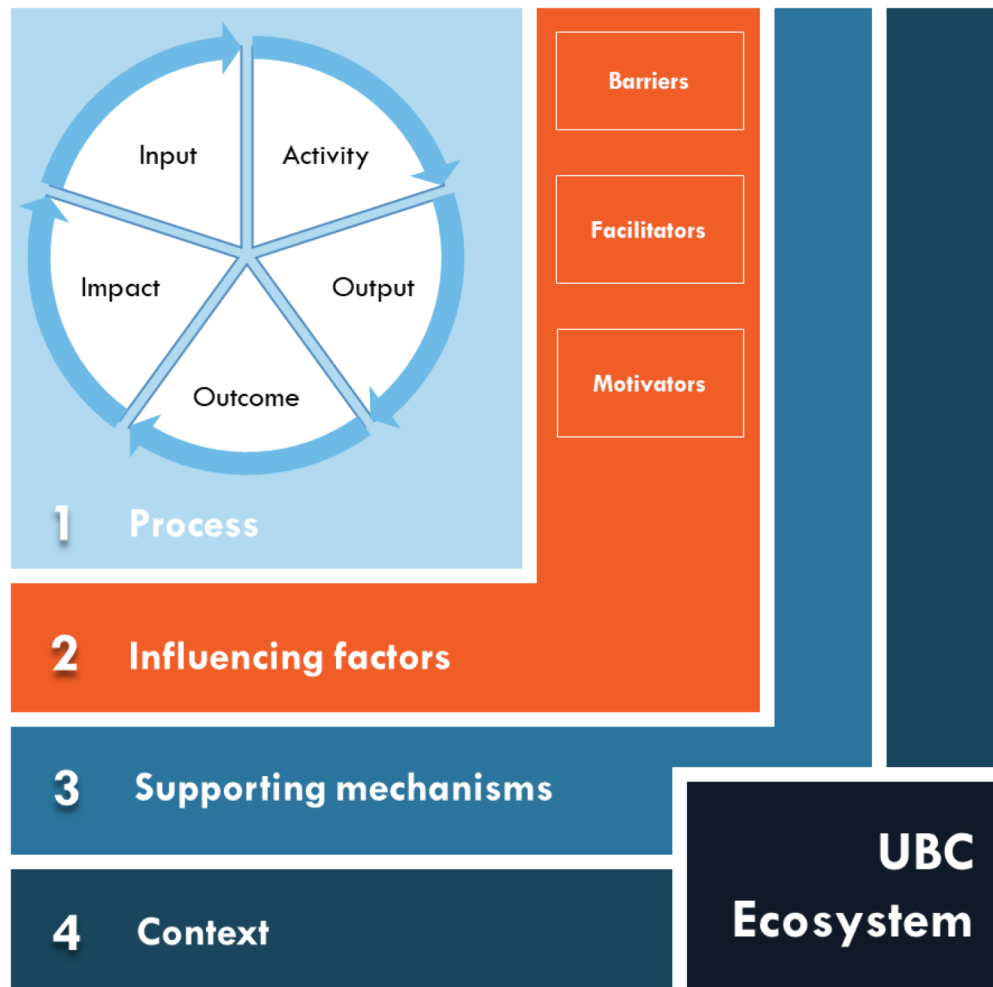
While most Polish businesses cooperate with universities within the region (95%), the results also report a high percentage for national universities (86%). 62% of Polish businesses cooperate with international universities.

Number of university partners



Almost two thirds (62%) of the Polish businesses cooperate with less than 4 university partners. 22% have established relations with 5-10 partners and 16% 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

Barriers

'What is inhibiting your cooperation with universities?'

The top five factors inhibiting Polish businesses to cooperate with universities relate to differing culture, and administrative issues.

The main barrier is the university focus on producing scientific outcomes, followed by the lack of people with business knowledge within universities. In Polish realm, only cooperating academics usually possess business knowledge, but there are minority and not always perceived positively by their university colleagues.

Cultural differences, such as differing motivations and differing time horizons between universities and business are also important barriers for Polish businesses. While objectives of the companies are of a for-profit nature, universities have a clear non-profit orientation. The building of a culture of mutual understanding in this context requires time and more UBC at large.

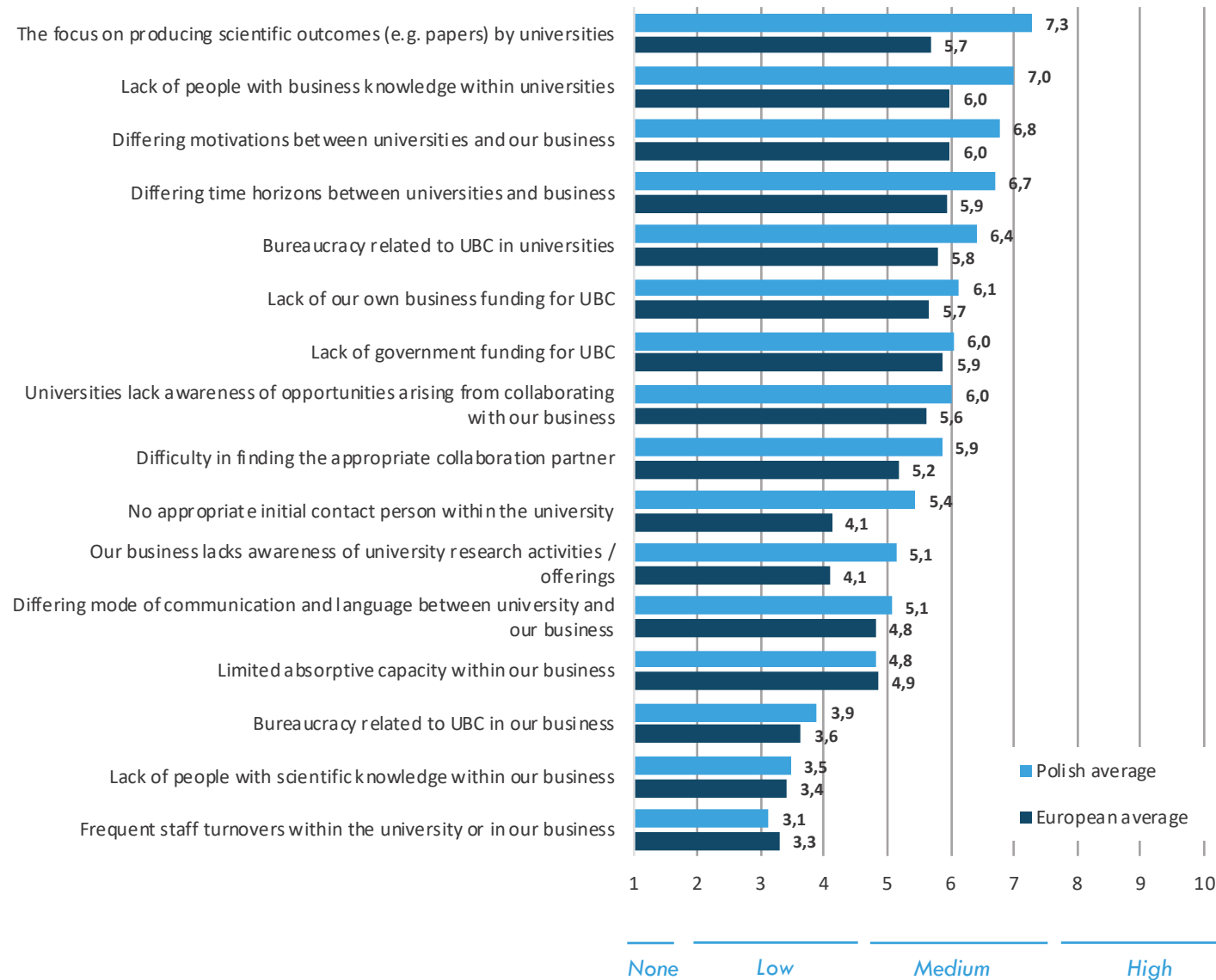
When cooperating with HEIs, Polish businesses are furthermore hindered by bureaucracy related to UBC, in particular by complicated administration and time-consuming procedures present at universities.

Top 5 UBC barriers for businesses	
1.	The focus on producing scientific outcomes (e.g. papers) by universities
2.	Lack of people with business knowledge within universities
3.	Differing motivations between universities and our business
4.	Differing time horizons between universities and business
5.	Bureaucracy related to UBC in universities

Barriers hindering UBC

Barriers

'What is inhibiting your cooperation with universities?'



Overall, Polish businesses perceive the barriers stronger than their European counterparts.

The focus on producing scientific outcomes and the lack of people with business knowledge within universities, are significantly higher barriers for Polish businesses than they are for European businesses. Generally there is a small number of Polish academics cooperating with business in comparison to the European average.

Contrary, limited absorptive capacity and lack of people with scientific knowledge within the business are slightly less inhibiting for UBC in Poland than in Europe, which positively indicates the existence of potential for further UBC development in Poland.

Frequent staff turnovers within the university or business is the weakest barrier for both groups.

Drivers stimulating UBC

The main factors facilitating Polish business cooperation with universities are related to personal relationship and funding.

A relationship based on a shared goal, commitment and trust highly facilitates cooperation for Polish businesses, resulting in a more successful collaboration with universities. The factors as drivers have a clear eliminating potential to remove the barriers to UBC.

Funding is also believed to play a very important role in driving UBC for Polish businesses, along with the existence of a prior relations with the universities. Financial resources in Polish companies are primarily used for direct investments with low risk. Higher risk investments for commercialisation of R&D results from universities are less favourably perceived.

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

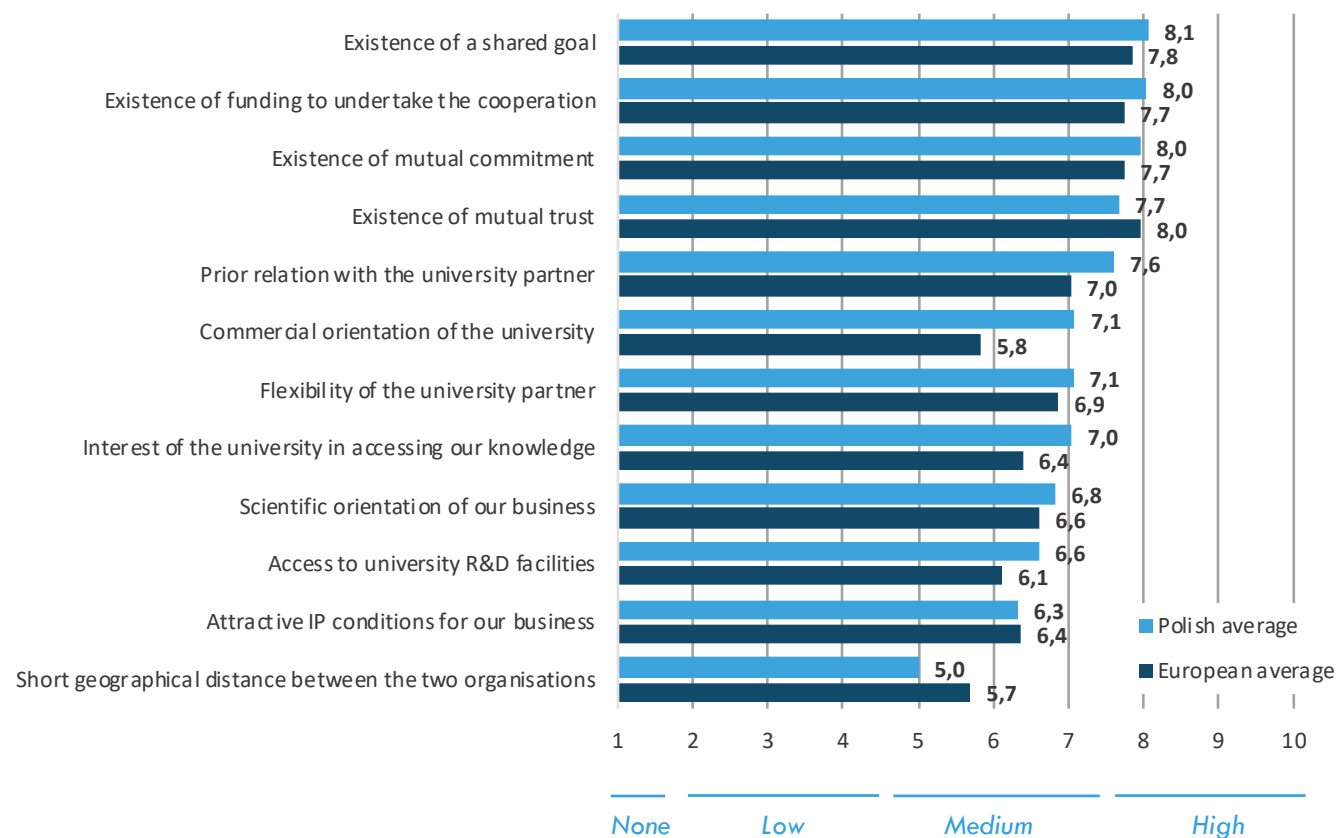
'What is facilitating your cooperation with universities?'

Top 5 UBC facilitators for businesses	
1.	Existence of a shared goal
2.	Existence of funding to undertake the cooperation
3.	Existence of mutual commitment
4.	Existence of mutual trust
5.	Prior relation with the university partner

Drivers stimulating UBC

Facilitators

'What is facilitating your cooperation with universities?'



Polish businesses have slightly stronger perception of most facilitators compared to European average.

This is also the case for the personal relationship facilitators, which bear great importance for both Polish and European businesses, confirming that both Polish and European business perceptions of cultural differences are sourced in people.

The commercial orientation of the university and the interest in accessing each other knowledge also facilitates UBC for Polish businesses to a larger extent.

However, the attractive IP conditions, the scientific orientation of the business and the short geographical distance between the two organisations have lower importance for Polish than for European businesses.

Drivers stimulating UBC

The main motivators for Polish businesses to undertake UBC are related to financial resources and competitiveness.

Businesses cooperate with universities primarily to obtain funding and to access new technologies and knowledge. HEI's participation is often obligatory or strongly demanded when building consortia for EU funded projects. Besides, universities are able to provide strong research contribution.

Polish businesses are also motivated to improve their reputation and obtain a customised solution for their organisations. Solutions being invented strictly according to the needs of companies are only possible by focused research, which can be provided by universities.

A less important but still relevant motivation is to access to better qualified graduates. Direct cooperation with universities focused on obtaining the first contact with qualified graduates is often materialised in the form of 'business academies'. These are the courses offered by universities with participation of business. It allows companies a direct access to future employees.

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

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

Motivators

'What motivates you to cooperate with universities?'

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

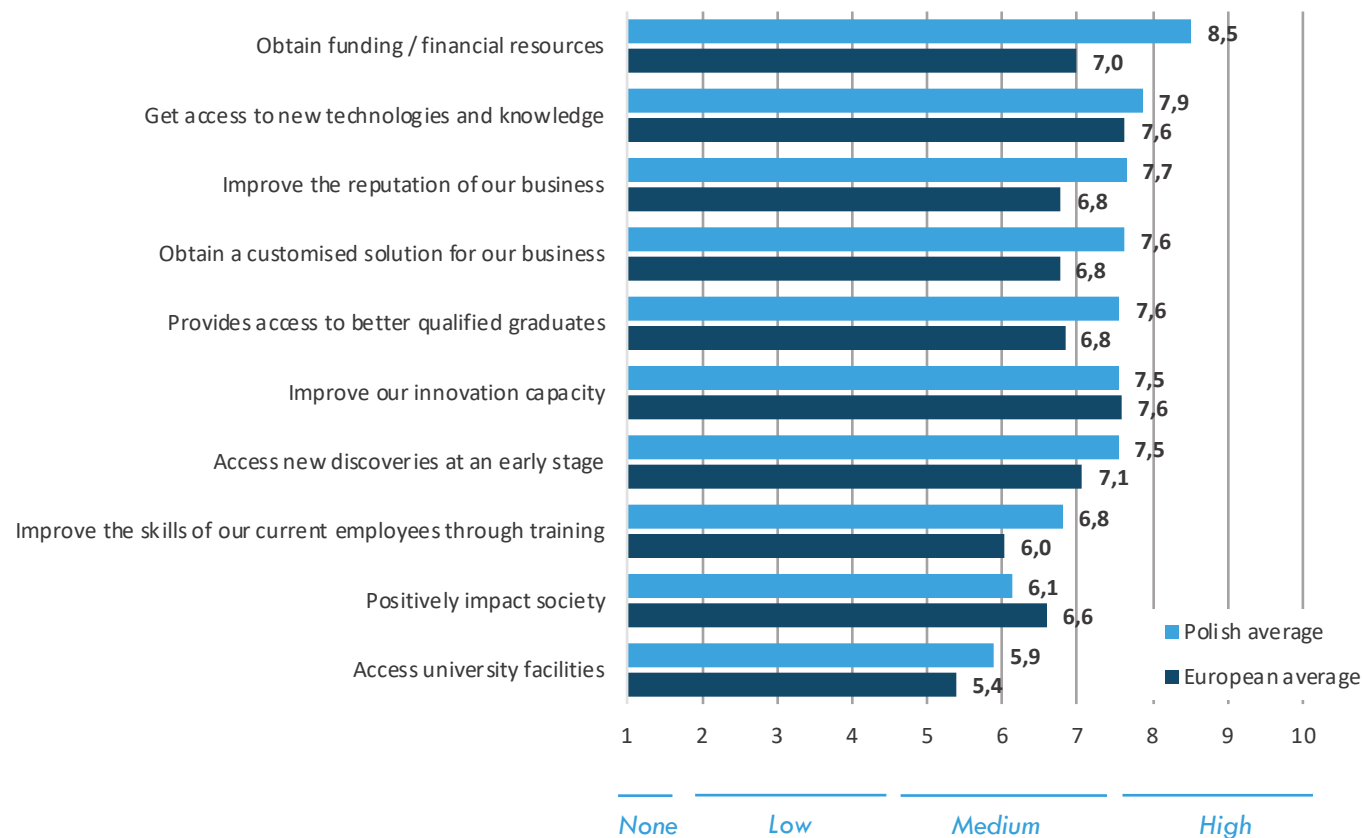
Top 5 UBC motivators for businesses

1. Obtain funding / financial resources
2. Get access to new technologies and knowledge
3. Improve the reputation of our business
4. Obtain a customised solution for our business
5. Provides access to better qualified graduates

Drivers stimulating UBC

Motivators

'What motivates you to cooperate with universities?'



Overall, Polish businesses perceive most motivators higher than European businesses.

The motivation to obtain funding is considerably higher for Polish businesses than for European ones. In fact, it is considerably higher than all the other motivations for businesses in Poland.

Polish businesses are less motivated than their European counterparts by the willingness to positively impact the society.

Like their European counterparts, Polish businesses are not highly motivated to access university facilities. Most of the Polish universities do not have any specific regulations addressing commercial access of their facilities. Furthermore, it is more frequent that companies have better equipment.

Benefits of UBC

Polish and European businesses have a rather similar perception in respect to which stakeholder groups benefit more or less from UBC.

Both groups see students as the primary beneficiaries of UBC, as they are seen by companies as the target group of potential future employees in the context of education-related UBC. When it comes to the research, the innovative solutions and services created through cooperation can also contribute to the development of new jobs for future graduates.

Polish businesses see more benefits for academics and universities than for themselves. This evidences the lacking awareness of UBC advantages in the Polish context. The lowest benefits are perceived to be for 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

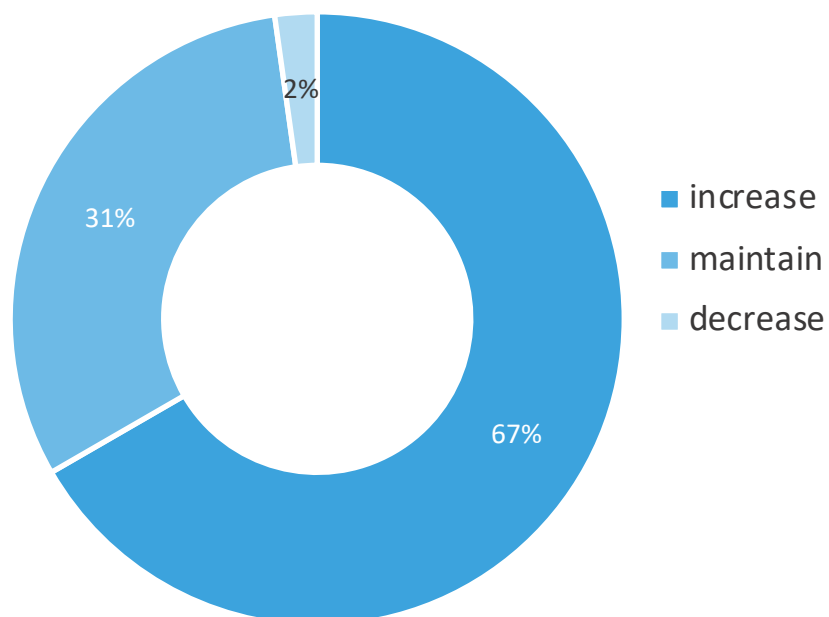
'Who receives the benefits of UBC?'

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

Future intentions

Future UBC intentions – Poland

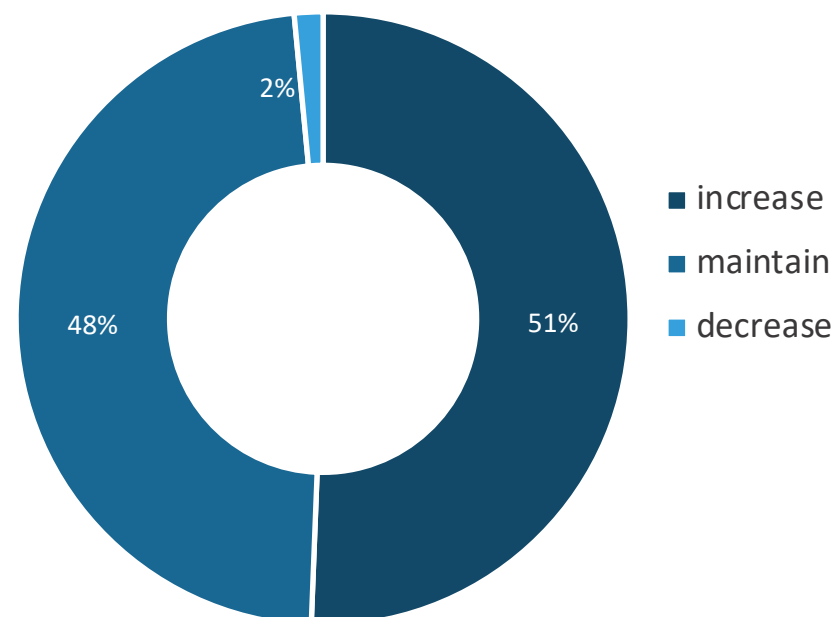
As answered by Polish businesses



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

Future UBC intentions – EUROPE

As answered by European businesses



European businesses also seem to be confident in their future intentions 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 Polish cooperating businesses to recommend to a colleague to engage in UBC does not vary much depending on whether this cooperation is in research or in education.

Polish businesses are equally satisfied with UBC in research as their European counterparts (NPS=28). While 46% of them will promote it positively, 18% would do it negatively.

Regarding cooperation in education, Polish businesses are more satisfied than their European counterparts (NPS=11). 40% would highly recommend it and 29% will not recommended it.

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

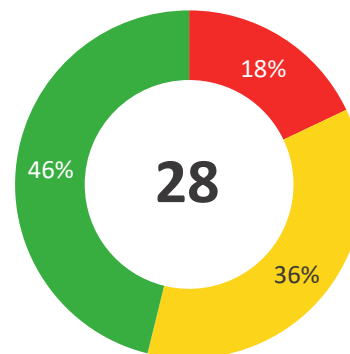
education and training (E&T). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

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	18%	36%	46%	28
Business cooperating with universities in E&T	29%	31%	40%	11

Satisfaction with cooperation with universities (net promoter score)

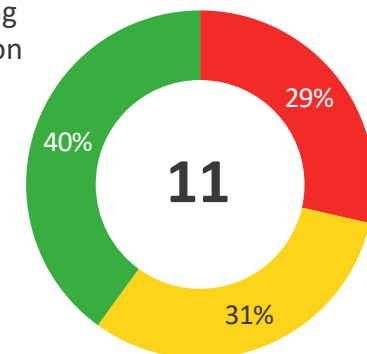
Business cooperating in research



■ Detractors ■ Passives ■ Promoters

European business NPS result: 28.2

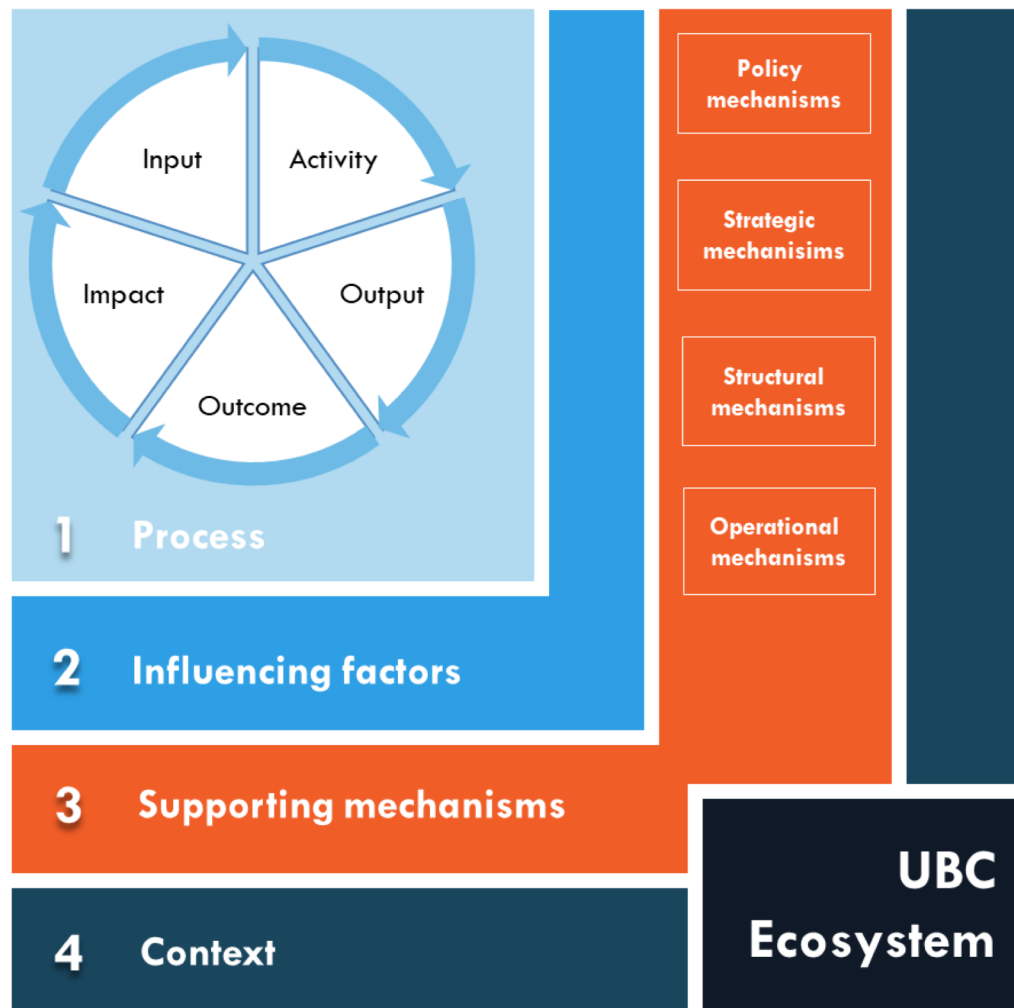
Business cooperating in education



■ 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.

Polish 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 mechanism relates to presentations, lectures or mentoring within the university (41%). A top-level management committed to UBC (32%) and a business executive responsible for UBC (25%) are the further mechanisms present. The top-level or middle-level managers might be alumni with still existing linkages with the universities they graduated from.

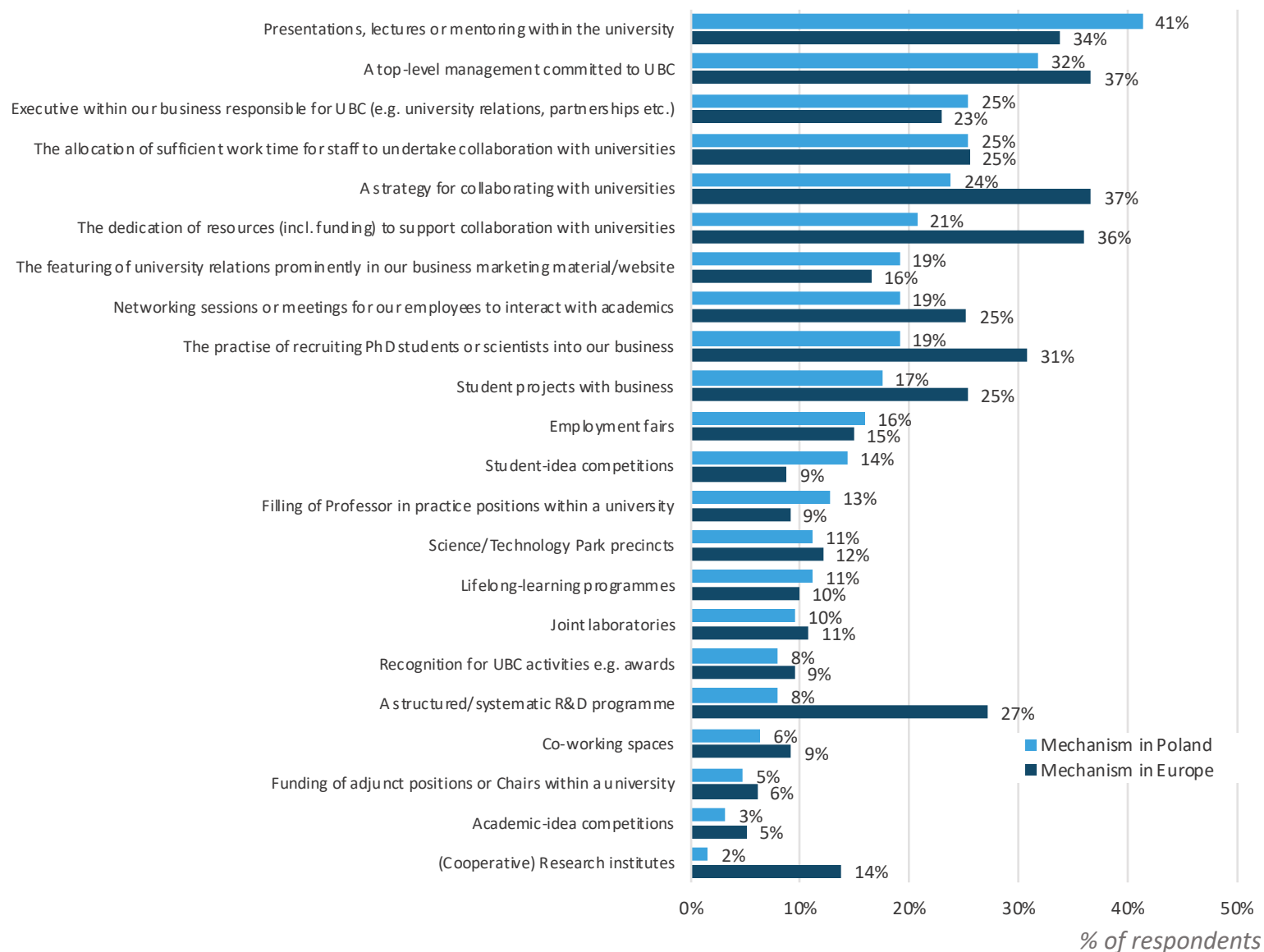
Compared to the European average, UBC supporting mechanisms in Poland are less common. Particularly, the existence of a strategy and resources for collaboration, along with a structured R&D programme and the practise of recruiting PhD students into business is significantly less common in Polish businesses than in European ones. The institutionalisation of UBC in the form of a strategy or dedication of resources is rather scarce in the Polish context.

Academic-idea competitions and cooperative research institutes almost do not exist in Poland.

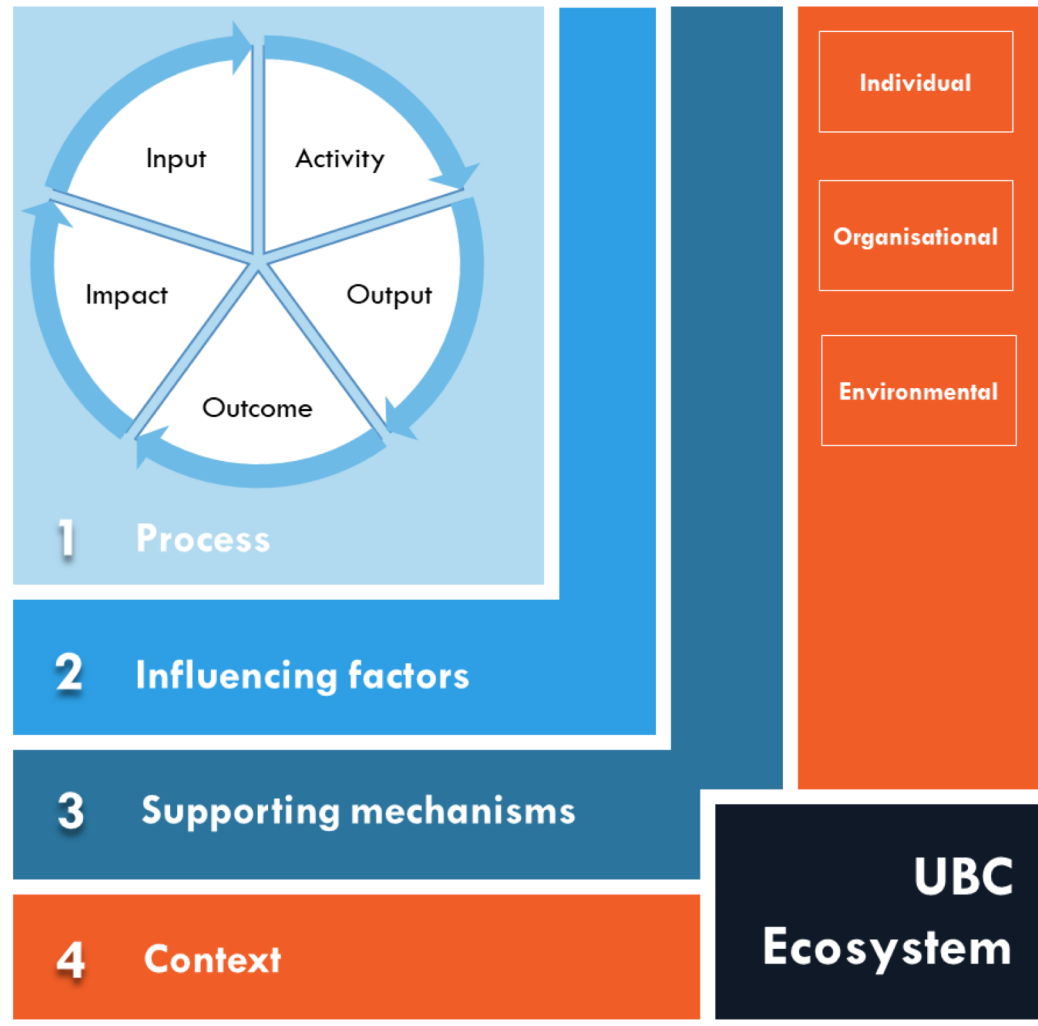
Supporting mechanisms for UBC

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

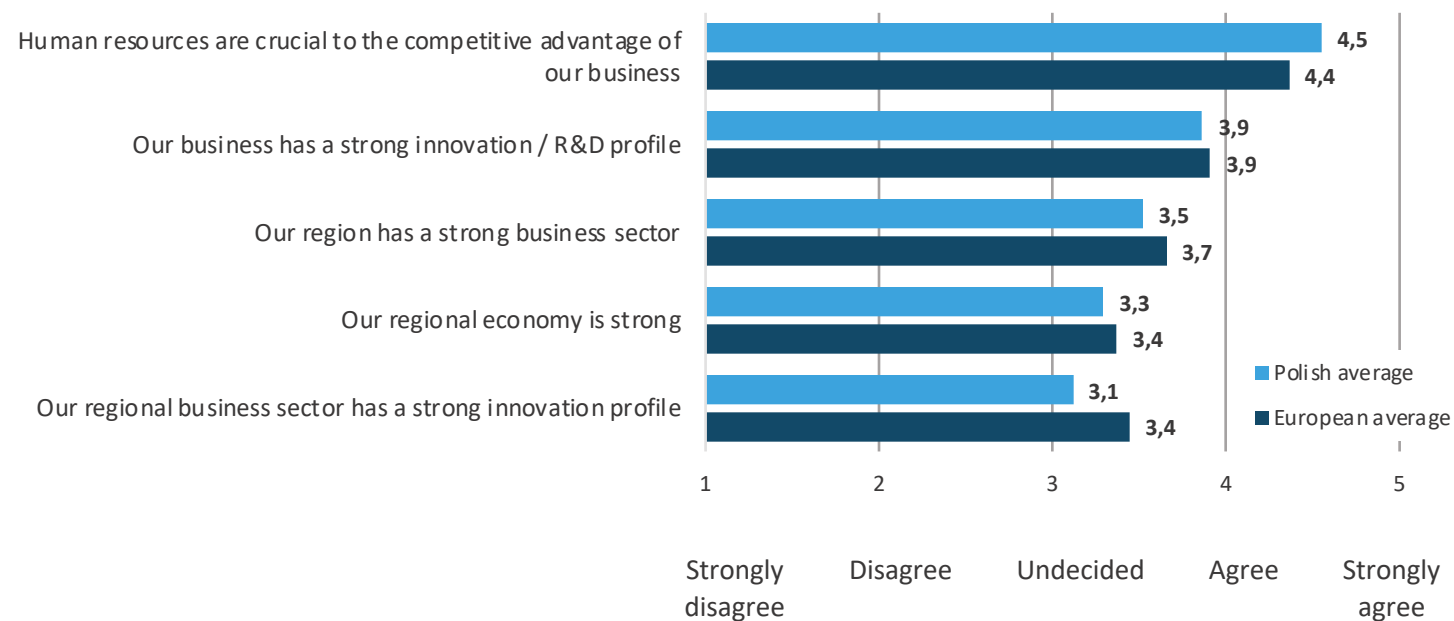
Polish businesses cooperating with universities perceive their context similarly to European cooperating businesses.

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

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

Contextual factors affecting UBC

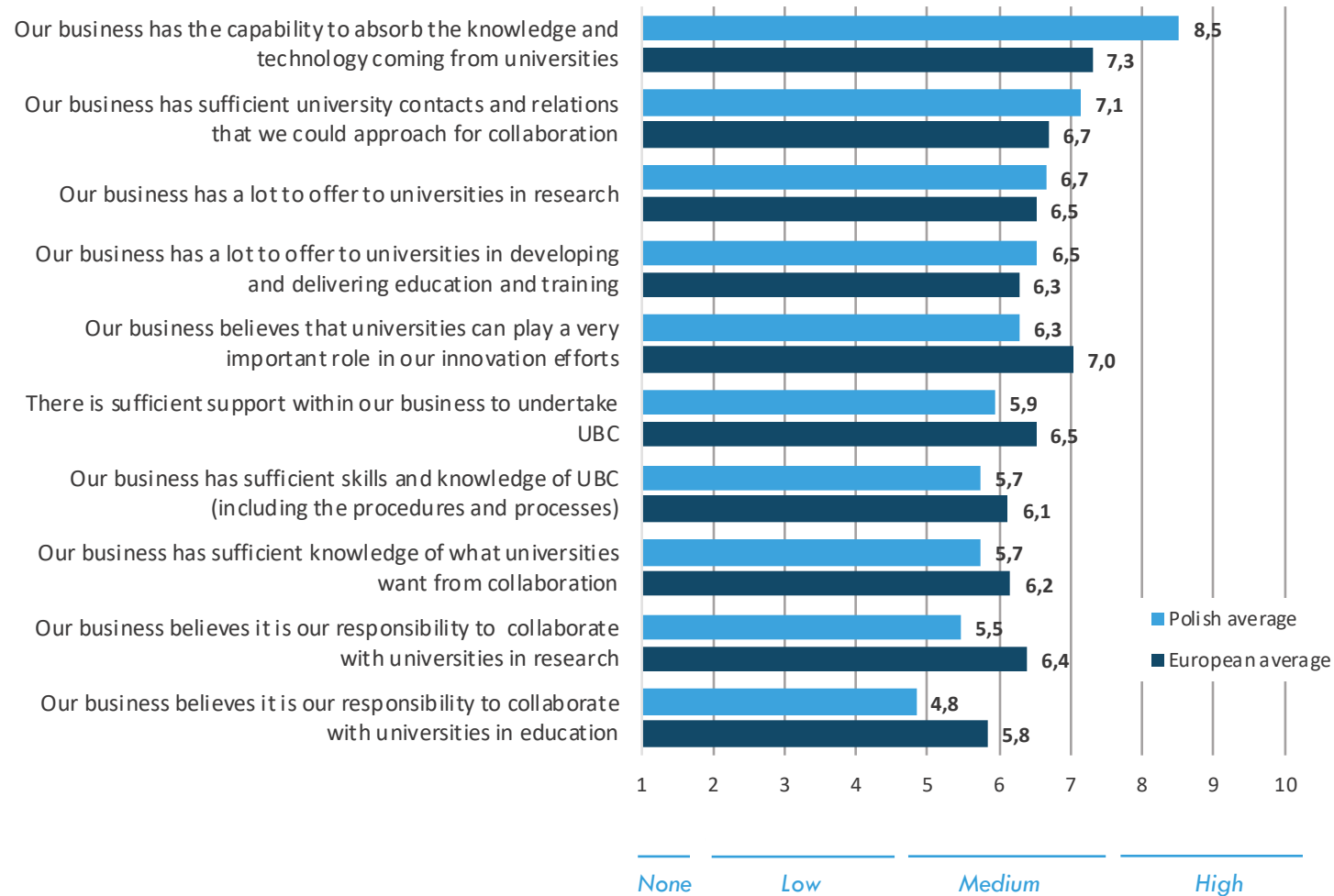
'To what extent do you agree with the following statements?'



UBC capabilities and beliefs

Supportive UBC environment

How supportive are your organisation and environment for UBC?'



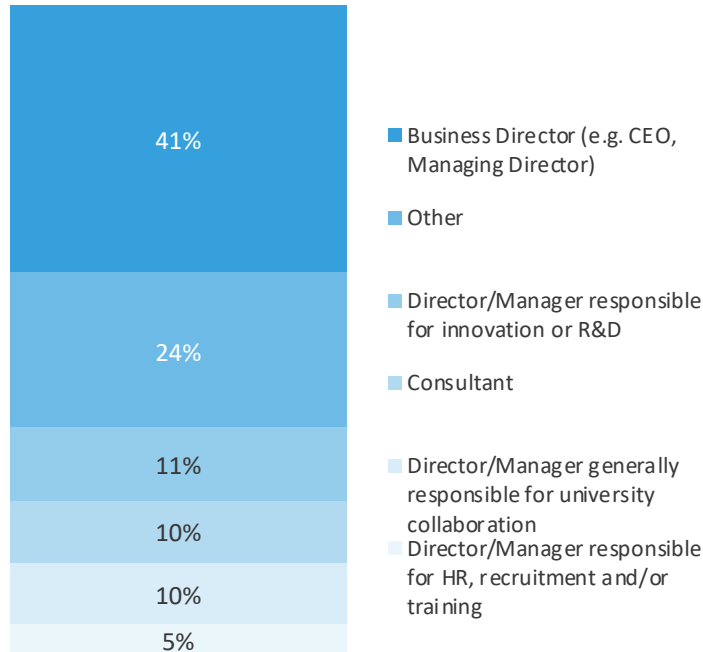
Polish businesses perceive themselves as supportive towards cooperation with universities. In particular, they have the capability to absorb knowledge and technology from universities as well as the sufficient university contacts and relations to undertake UBC.

Yet, Polish businesses are significantly less supportive towards UBC in education and research although they consider that they have a lot to offer to university in both fields. Although the education and research UBC activities take place in Poland, they are not yet highly advanced.

Overall, Polish businesses perceive themselves in a less positive way in comparison to European average.

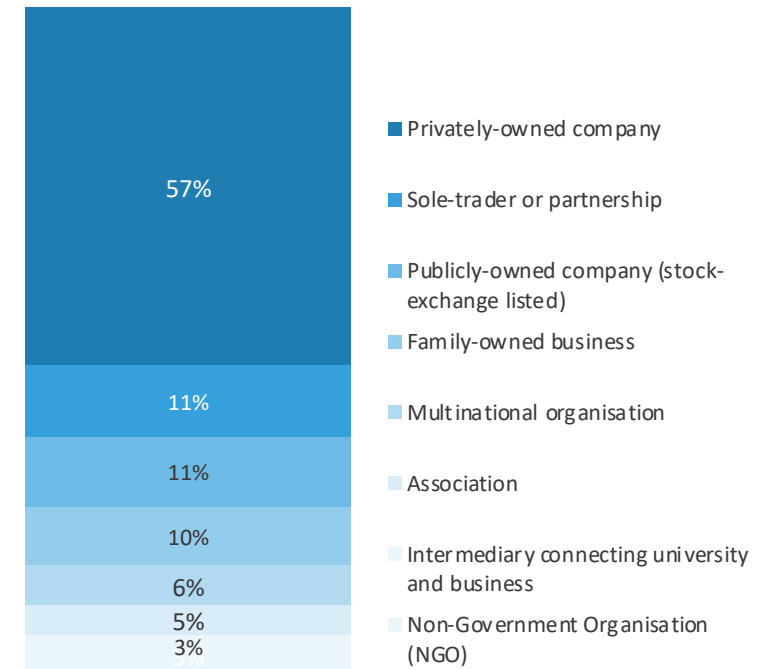
Respondents profile

Position of respondent



41% of the Polish sample are business directors, which represent the largest group. They are followed by directors responsible for innovation or R&D (11%), consultants and directors responsible for university collaboration (10% each), and directors of HR, recruitment and training (5%). 24% of Polish business respondents hold 'other' positions.

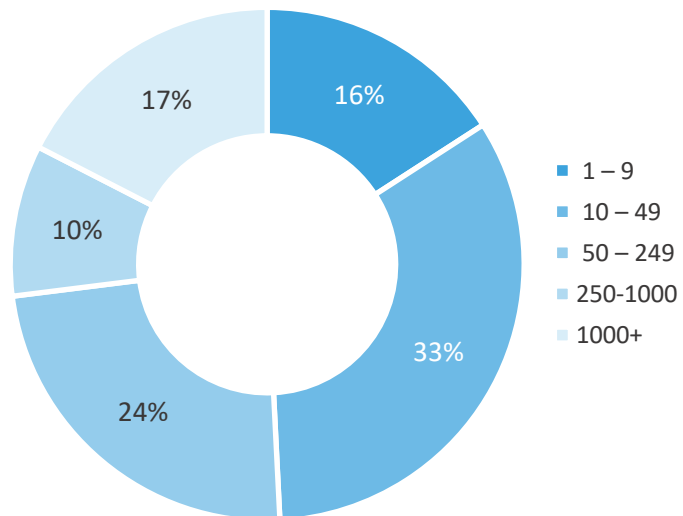
Type of business



A wide variety of businesses were represented in the Polish sample, but over half of them (57%) are privately-owned companies. Less represented type of businesses include sole traders (11%), publicly-owned companies (11%), family owned businesses (10%), multinational organisations (6%), associations (5%) and intermediaries connecting university and businesses (3%).

Respondents profile

Business size



Sample Size	
Polish business representatives	n = 63
European business representatives	n = 3.113

Half of the Polish business sample is comprised by either small firms (10 to 49 employees) or micro-companies (less than 9 employees). 24% of business managers work for medium-sized companies and large companies (250 to 1000+ employees) are represented by 27% of the business representatives in the sample.

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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