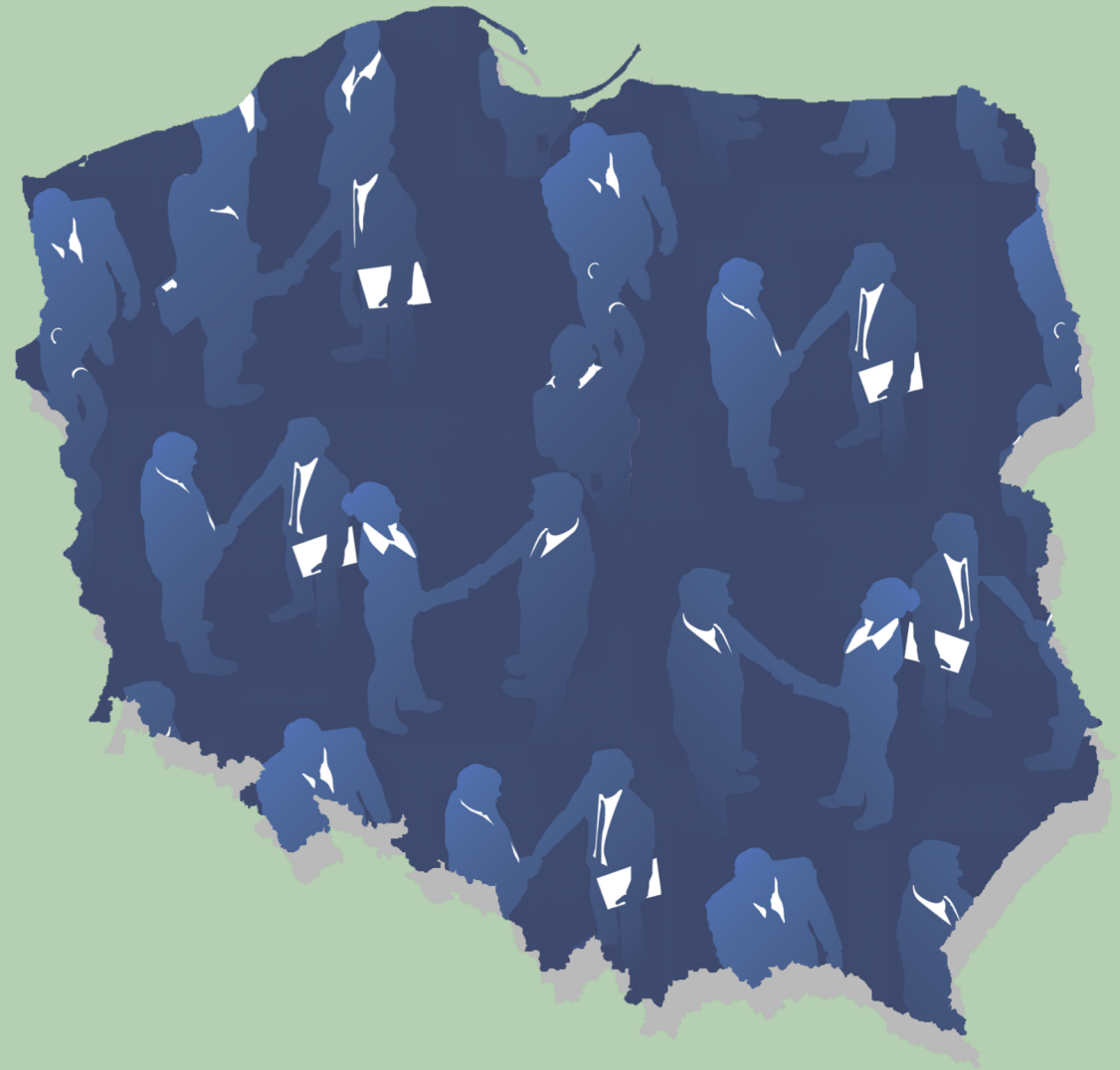# UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

State of University-Business Cooperation
POLAND
University Perspective

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

Science Marketing
Science-to-Business Marketing Research Centre

UIIN
University Industry Innovation Network

CRACOW UNIVERSITY OF ECONOMICS
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EUROCHAMBRES

EURASHE
European Association of Institutions in Higher Education

University of Ljubljana

European Commission

The State of Polish University-Business Cooperation: the university perspective

Partners

Authors: Thomas Baaken, Arno Meerman, Tomasz Kusio, Todd Davey, Balzhan Orazbayeva, Victoria Galán-Muros, María Paula Troutt and Mihai Melonari.

Executive summary

Summary

This report provides the findings of a study on the university-business cooperation (UBC) in Poland from the perspective of higher education institutions (HEIs). Examining the perceptions of academics, HEI managers and knowledge transfer professionals (KTP) provides positive signs for the future, with all most 100% of respondents currently cooperating with businesses planning to maintain or increase their cooperation in the future. In this sense, Poland proves to be an attractive country for UBC.

Yet, currently the Polish UBC is significantly less developed compared to the European average. Therefore, there is room for improvement, specifically in supporting academics in their cooperation efforts by allocating additional resources (time and funding) for collaborative activities, promoting cooperation beyond research and developing incentive and performance measurement systems for UBC.

About the study

The results presented in this report reflect the perceptions of academics, HEI managers and KTPs in Poland with respect to cooperation between HEIs and business. Data was collected by means of an online survey distributed via email to all registered European HEIs in 33 countries during October-November 2016, leading to a total of 1.253 Polish HEI responses. The study measured the perceptions of respondents with respect to their cooperation efforts, barriers, drivers, supporting mechanisms and perceived capabilities.

University-Business Cooperation

Polish academics responding to this survey are involved mainly in joint R&D and business consulting. Yet, 65% of academics do not engage in these activities at all. Management and valorisation activities are not developed for over 75% of the Polish academics, ranking below the European average. UBC activities are still at an early stage of development in Poland.

Academics see themselves as proactive initiators of UBC, with almost 50% of them stating that they usually or always initiate such cooperation. Contrary, academics perceive that external intermediaries and current students are those stakeholders that less often initiate UBC in Poland.

Resourcing is key

Independent of whether academics are currently cooperating with business or not, bureaucracy along with lack of university funding are considered by all academic respondents as the major barriers to UBC. While cooperating academics identify limited resources of SMEs as a significant barrier, non-cooperating academics are concerned with the differing motivations between universities and businesses.

Aligned with the perception of cooperating academics, the most strongly perceived barrier by HEI management relates to the limited resources of SMEs. They also rate lack of funding (university, business and government) along with differing time horizons between university and business as the most hindering barriers.

Funding and relationships matter

While the interest of business in accessing scientific knowledge emerges as one of the top five facilitators, funding to undertake cooperation still plays the biggest role as a facilitator. Relational factors also bear great importance. The existence of a shared goal, mutual commitment and mutual trust facilitate and thus drive cooperation, from the perspective of all HEI respondents. These results confirm that any effort dedicated to enable and increase cooperation between businesses and universities should target not only at funding, but also at relationship development.

Different motivations for UBC

What motivates Polish HEI respondents to engage in university-business cooperation? While cooperating academics highlight research and teaching motivations, non-cooperating academics are motivated by the willingness to improve graduate employability, contribute to the mission of the university and address societal challenges. Thus, they rate motivators related to other stakeholders more strongly, whereas HEI representatives are driven by the benefits that their HEIs can get from UBC including financial resources or contributing to the university's mission.

Strategy first

Universities in Poland are seen to place a strong emphasis on the development of paper strategies for UBC. As evident in the data, high-level strategic developments such as existence of top-level management commitment for UBC, a documented mission/vision embracing UBC, a documented strategy supporting UBC as well as a coordinated approach for UBC are the most developed mechanisms. Yet, their development is below the European average. The least advanced mechanisms are related to UBC performance measurement and the reduction of teaching time for undertaking UBC.

Most highly developed structural mechanisms in the given sample include career offices and agencies dedicated to UBC. However, the existence of joint research institutes and adjunct positions for business people within the HEI are less common in Poland.

Positive attitude towards UBC

Academic respondents already cooperating with business recognise that it is their role to collaborate in both research and education. Yet, they perceive they have insufficient knowledge about companies' needs and lack skills and support to undertake UBC.

Notwithstanding, like their European counterparts, Polish academics have a positive attitude towards UBC and perceive their own and the HEI educational and research profile as strong. This indicates a positive momentum for UBC in a country, at the same signalling that there is still room for improvement.

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 by creating innovation and solutions,
  - increasing the relevance and future orientation of research and teaching in HEIs,
  - improving the future job prospects of students and graduates,

  which can in the longer term:
  - Create and sustain jobs,
  - stimulate and support economic growth,
  - increase living standards,
  - lead to prosperous and healthy societies.

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.
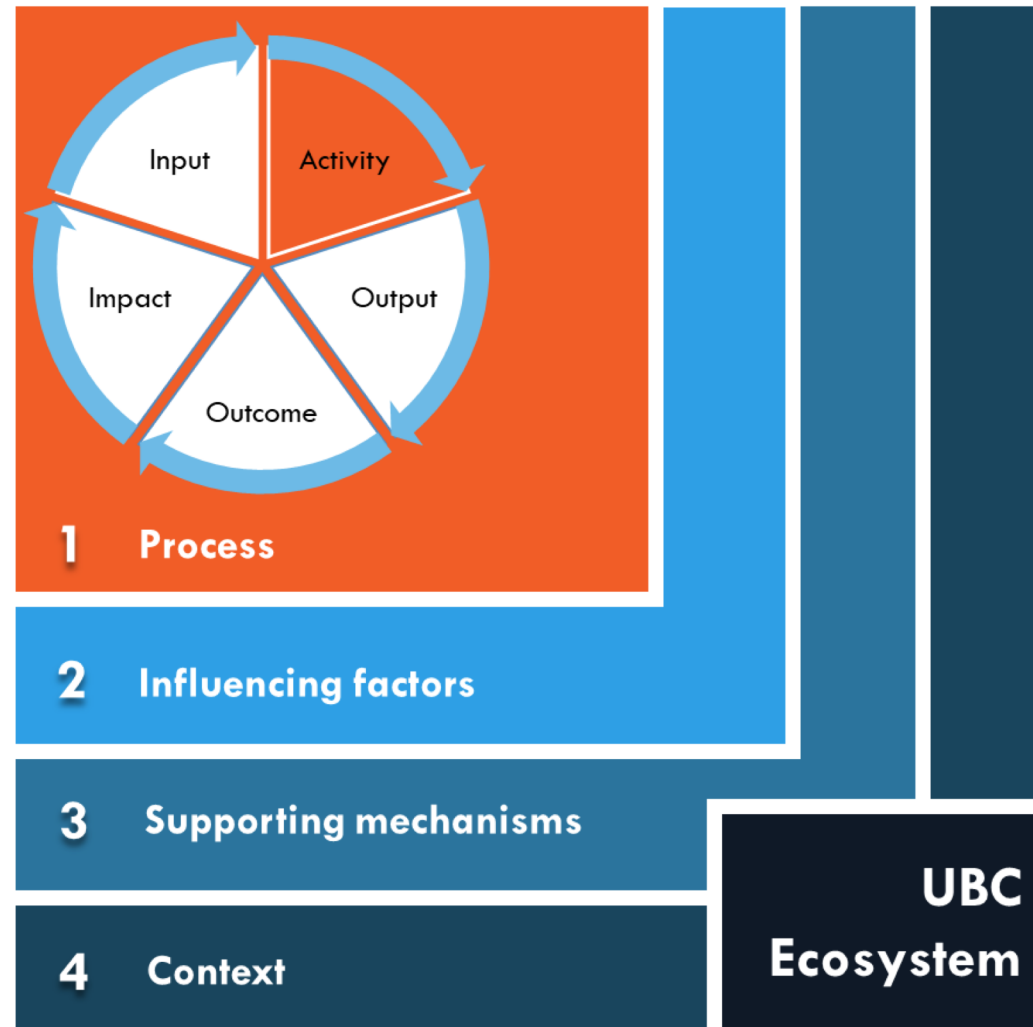
Source: Galán-Muros, V.; Davey, T. (2017) The UBC Ecosystem: Putting together a comprehensive framework for university-business cooperation. Journal of Technology Transfer. https://doi.org/10.1007/s10961-017-9562-3

UBC Activities

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

Area	Activity
Education	1. curriculum co-<u>design</u> 2. curriculum co-<u>delivery</u> *(e.g. guest lectures)* 3. mobility of students *(i.e. student internships/placements)* 4. dual education programmes *(i.e. part theory, part practical)* 5. lifelong learning for people from business *(e.g. executive education, industry training and professional courses)*
Research	6. joint R&D *(incl. joint funded research)* 7. consulting to business *(incl. contract research)* 8. mobility of professionals *(i.e. temporary mobility of academics to business and vice versa)*
Valorisation	9. commercialisation of R&D results *(e.g. licencing/patenting)* 10. academic entrepreneurship *(e.g. spin offs)* 11. student entrepreneurship *(e.g. start-ups)*
Management	12. governance *(e.g. participation of academics on business boards and businesspeople participation in university board)* 13. shared resources *(e.g. infrastructure, personnel, equipment)* 14. industry support *(e.g. endowments, sponsorship and scholarships)*

Specifics of Polish UBC Landscape

The situation is characterised by four key impact factors:

There are broadly two types of HEIs in Poland, those that are public and those that are non-public. Public HEIs are state institutions, while non-public institutions are operated by the private sector. In 2015-16, 132 of the 415 HEIs were public HEIs.[3] The first non-public HEIs were established in 1991 and the number increased rapidly to 330 by 2010. Since then, the number of non-public HEIs has declined to 283.[4]

One of few competitive advantages of the Polish economy in the past was its relatively cheap workforce, yet it was also less qualified.

A second weighting disadvantage was identified in the low-level technology only available in the country. High technology though is mainly developed in University-Business Cooperation and the Science-Business Partnerships.[5]
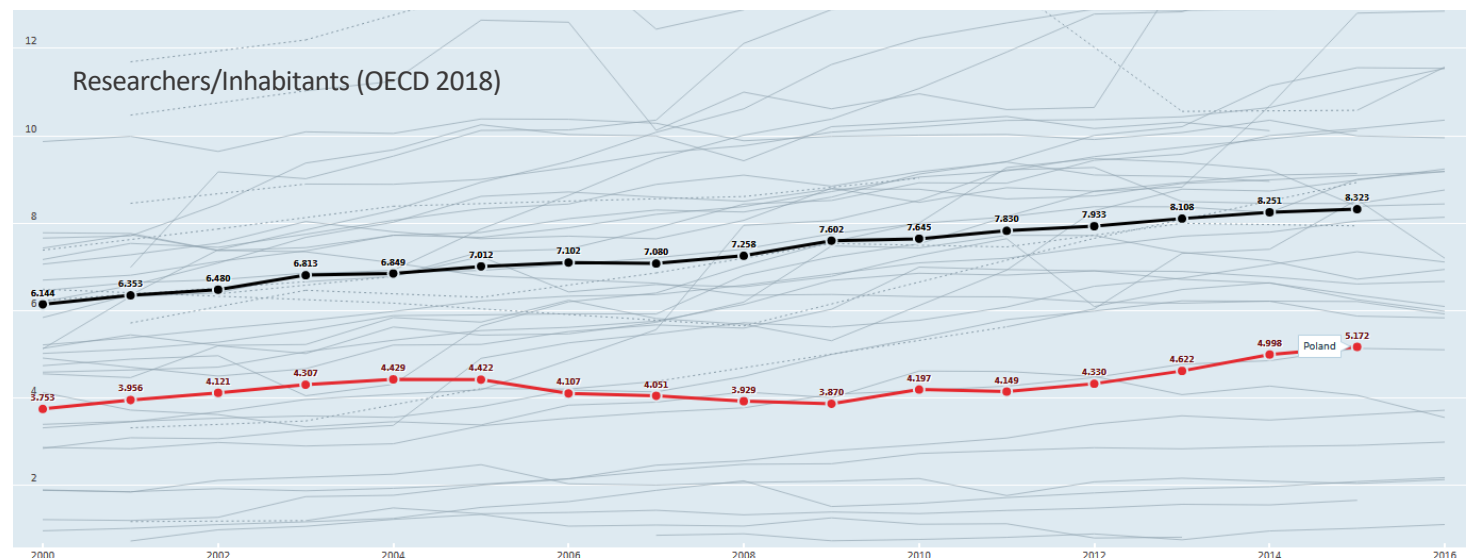
Operations of former society and economy was based on central political control and surveillance, which caused potential distrust from the very beginning of each party.[6]

During the last 25 years the Polish landscape of innovation development has changed dramatically. Poland had and has to overcome this disruptive change and is facing deep transitions. Today it is heading towards a more entrepreneurial way.[1] Since 1990, Polish companies are facing competition with those from far developed countries. But starting to face those multidimensional challenges many Polish companies lost the free market competition.

In order to become more competitive an increased focus on (higher) education and – particularly – in developing UBC and Science-Business Partnerships is required. Regional development is to a great extend depending on UBC. However, Polish universities in the past were never truly used to facilitating the cooperation with industry, but focused more on basic research and theoretical education. Additionally, like other emerging economies, companies have less funds for R&D at their disposal.[2] Therefore, today's task is to start building trust and mutual commitment in cooperation, partnerships and alliances.

A special situation of Poland is based on its recent history. Poland is nowadays a society in transition. Two turning points have caused inconsistency and disruption of the situation 1989: a collapse of a centrally-planned system and 2004: the formal membership in the EU.

1 Baaken, T., Rossano, S., von Hagen, F., Davey, T., & Meerman, A. (2015). University-Business Cooperation and Entrepreneurship at Universities – An empirical based comparison of Poland and Germany; 'Optimum. Studia Ekonomiczne', 77(5), 3-26.

2 Pniewska J., Markowski, M., & Kuźniewski, D. (2014). University-Industry Cooperation in Emerging Economy Context – Case of Poland. In: Meerman, A.; Kliewe, T. (eds): Good Practice Series 2014 - fostering university-industry relationships, entrepreneurial universities and collaborative Innovation, (pp. 198-214), Amsterdam: UIIN.

3 CSOoP Central Statistical Office of Poland (2018.) Information Portal: http://wyszukiwarka-sisk.stat.gov.pl/en

4 OECD/EU (2017). Supporting Entrepreneurship and Innovation in Higher Education in Poland, OECD Publishing, Paris/EU, Brussels. http://dx.doi.org/10.1787/9789264270923-en

5 Teczke J., & Terblanche N. (2013). Management in the Transition Period in South Africa and Poland. Cracow: UEK.

6 Jasinski A.H. (2010). Technology-transfer processes and barriers. In: Jasinski, Andrzej H. (ed.): Innovation in the Polish Economy in Transition: Selected Economic and Managerial Issues. (pp. 87-100), Bialystok.

Researchers/Inhabitants (OECD 2018)

Black line values: 6.144, 6.353, 6.480, 6.813, 6.849, 7.012, 7.102, 7.080, 7.258, 7.602, 7.645, 7.830, 7.933, 8.108, 8.251, 8.323

Poland (red line) values: 3.753, 3.956, 4.121, 4.307, 4.429, 4.422, 4.107, 4.051, 3.929, 3.870, 4.197, 4.149, 4.330, 4.622, 4.998, 5.172

Source: OECD (2018). *OECD Statistics Library*. https://www.oecd-ilibrary.org/statistics

Development of UBC activities

Overall, the UBC activities are less developed for Polish academics than for their European counterparts. The low extent of UBC in the Polish context can be explained by the fact that Poland's transition is still ongoing. The need for UBC ha snot yet been recognised; thus UBC is still in its infinity[1].

Polish academics focus on basic research – if they cooperate and engage with business they also aim for research activities including joint R&D (2.6) and (research based) consulting (2.5). 65% of Polish academics do not engage in these activities at all. Large Polish companies have their own R&D units and they often engage academics as their employees, which reduces the need for institutional cooperation.

The third most developed UBC activity for Polish academics is a mobility of students. While 21.8% of academics report a medium or high level of development, 66.4% are not engaged at all.

As for UBC in management and valorisation, all the activities are not developed for over 75% of the Polish academics.

[1] Makieła, 2017

The extent of development of UBC activities

'Which UBC activities do you collaborate with businesses in?' – as answered by academics

Category	Activity	Not at all (0)	Low (1-4)	Medium (5-7)	High (8-10)	Polish AVE.	European AVE.
Education	mobility of students	66,4%	11,8%	13,7%	8,1%	2,5	5.6
Education	dual education programmes	74,3%	12,5%	9,0%	4,2%	2,0	3.6
Education	curriculum co-design	70,4%	14,1%	8,6%	6,9%	2,2	3.6
Education	curriculum co-delivery	68,3%	14,4%	11,3%	6,0%	2,3	4.3
Education	lifelong learning	73,9%	14,1%	8,5%	3,5%	1,9	3.6
Research	collaboration in R&D	65,4%	13,7%	11,6%	9,3%	2,6	5.4
Research	consulting	65,7%	13,6%	12,7%	8,0%	2,5	4.8
Research	mobility of staff	78,3%	12,4%	6,6%	2,7%	1,8	2.8
Valorisation	commercialisation of R&D results	74,9%	14,2%	6,8%	4,1%	1,9	3.0
Valorisation	academic entrepreneurship	81,5%	11,7%	4,4%	2,4%	1,6	3.0
Valorisation	student entrepreneurship	82,2%	11,1%	4,7%	2,0%	1,6	3.1
Management	governance	79,7%	11,6%	5,5%	3,2%	1,7	3.1
Management	shared resources	81,3%	13,1%	3,5%	2,1%	1,5	3.0
Management	industry support	77,6%	14,5%	5,8%	2,1%	1,7	3.6

European average x,x

% of respondents   ▪ Not at all 0 ▪ Low 1 - 4 ▪ Medium 5 - 7 ▪ High 8 - 10

10

Initiation of UBC

How UBC is initiated

'How often various stakeholders initiate UBC activities' – as answered by academics

	Never	Seldom	Sometimes	Usually	Always
Myself or an academic colleague	3%	23%	35%	32%	7%
Current students	25%	50%	21%	4%	0%
Alumni (former students)	9%	32%	44%	15%	0%
Business (excluding alumni)	6%	37%	39%	17%	2%
University management / leadership	9%	29%	31%	26%	4%
Internal intermediaries	19%	31%	25%	20%	5%
External intermediaries	24%	33%	29%	12%	2%
Government	15%	32%	35%	14%	3%

% Of respondents
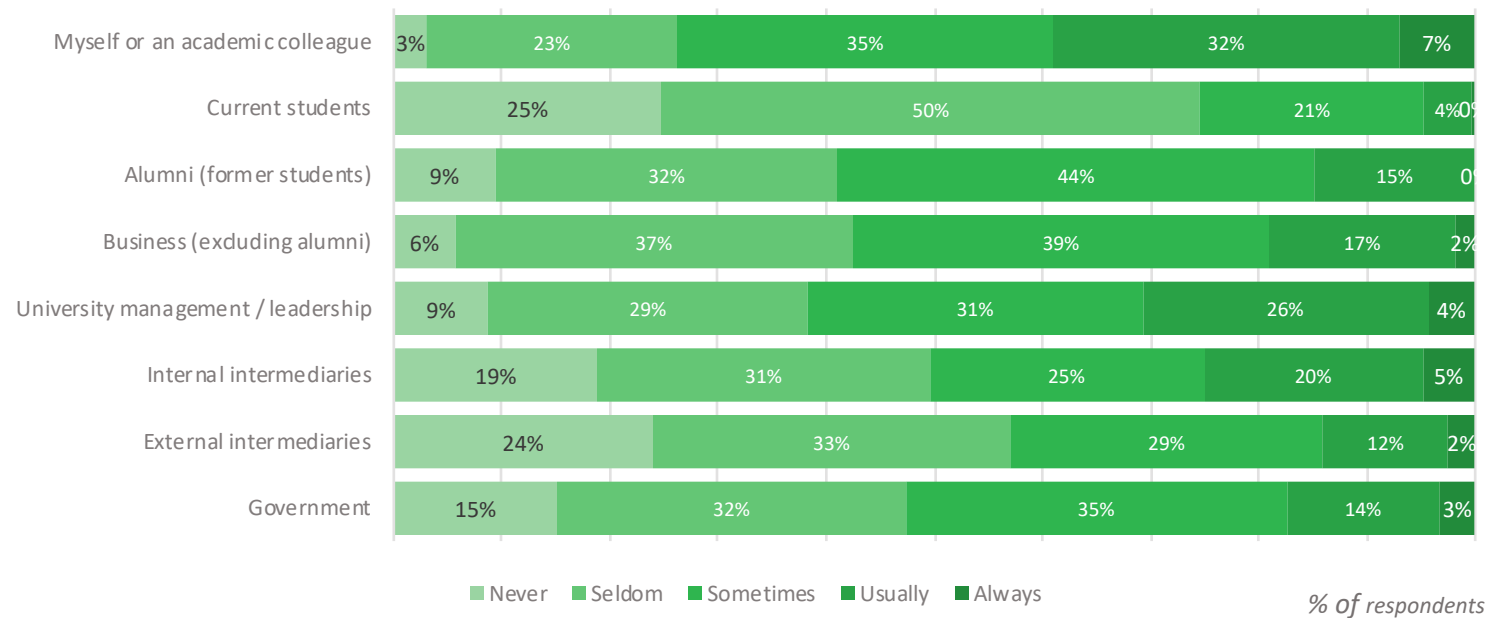
Half of Polish academics (49%) consider that themselves or their colleagues always or usually initiate UBC.

University management (30%) and internal intermediaries (25%) are also considered as initiators. In Polish HEIs there are several UBC initiatives in place managed and organised by the university authorities and intermediaries are often under direct command of the university managers and therefore are engaged in UBC.

Contrary, academics perceive that external intermediaries and current students are those stakeholders that less often initiate UBC.

Intermediate organisations such as liaison and/or technology transfer offices, as a structural element, have been created in Poland, but they are not fully accepted by academia, yet they are not recognised as competent in the technology or knowledge which is component of a cooperation.

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Location of cooperating partners

Location of business partners

business located in your region	7%	19%	30%	26%	19%
business located in your country	15%	27%	32%	15%	11%
business located outside your country	59%		21%	10%	5% 4%

% of respondents

■ Not at all ■ To a minimum extent ■ To a moderate extent ■ To a signficant extent ■ To a large extent

In 2015, value added by Poland's SMEs for the first time exceeded its 2008 level. Compared to the EU generally, Polish SMEs provide a significant contribution to employment — accounting for 69 % of persons employed in the 'non-financial business economy' — and a smaller contribution to value added — 52 %.

SME policy priorities:

Skills & innovation, the application of the 'Think Small First' principle and 'Second chance' emerge as the key SME policy priorities. Some policy measures have now been put in place in these areas, but their results are yet to materialise. Strong support for the development of the knowledge-based economy and the culture change towards becoming more respectful of the needs of small businesses need to become the key features of the business environment. The impact assessment process is still weak and efforts to reduce administrative burden should be pursued. Special focus should be put on the effective transposition of EU law.

Polish academics have cooperation of a significant level mostly with businesses from the region (45%). This cooperation is reduced to 26% with Polish national companies.

The cooperation with international business partners lags considerably behind.

The reason for this might be the difficult access to those companies (lack of proximity) and the missing information lacking acceptance of international companies of polish Universities.

Number of business partners

- 1-2 : 60%
- 3-4 : 24%
- 5-10 : 10%
- more than 10 : 6%

% of respondents
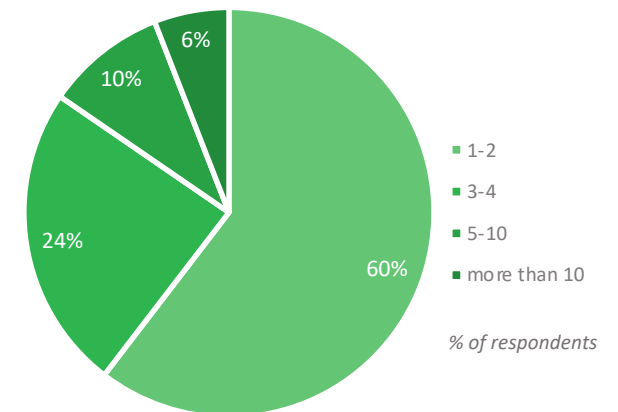
If Polish academics cooperate with companies, the majority cooperate with 1 to 4 businesses (84%). The remaining 16% have partner relations with 5 or more partners.

Size of cooperating partners

Size of cooperating partner

'With whom do you collaborate?' – as answered by academics

	Not at all	To a minimum extent	To a moderate extent	To a significant extent	To a large extent
Entrepreneurs in the process of developing a business	35%	25%	21%	13%	7%
Small and micro-sized business	17%	28%	20%	22%	13%
Medium-sized business	20%	23%	28%	23%	7%
large business		19%	17%	21%	16%

■ Not at all ■ To a minimum extent ■ To a moderate extent ■ To a signficant extent ■ To a large extent
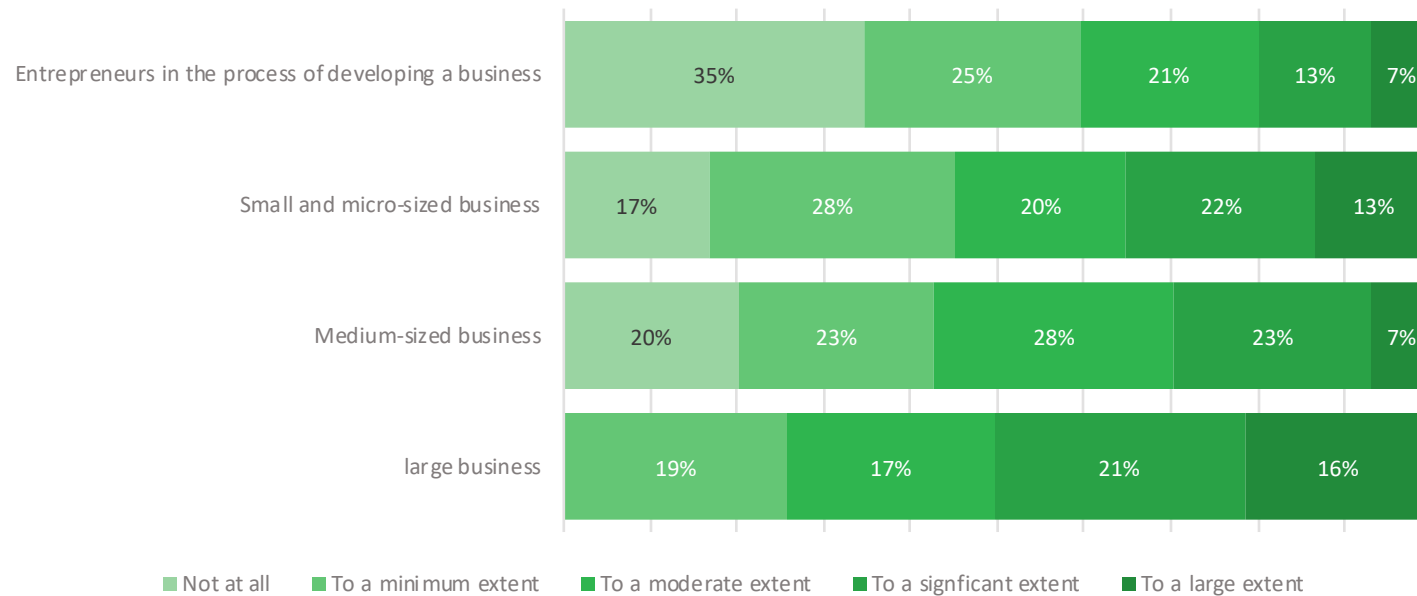
37% of cooperating academics in Poland engage to a significant or large extent with large businesses that have a higher financial capacity and larger network to implement UBC.

This cooperation is reduced to 35% for small and micro-sized businesses and 30% for medium businesses.

The cooperation of Polish academics with entrepreneurs in the process of developing a business lags behind.

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. And if motivation is big, barriers will even be overcome.

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 sufficiently present.
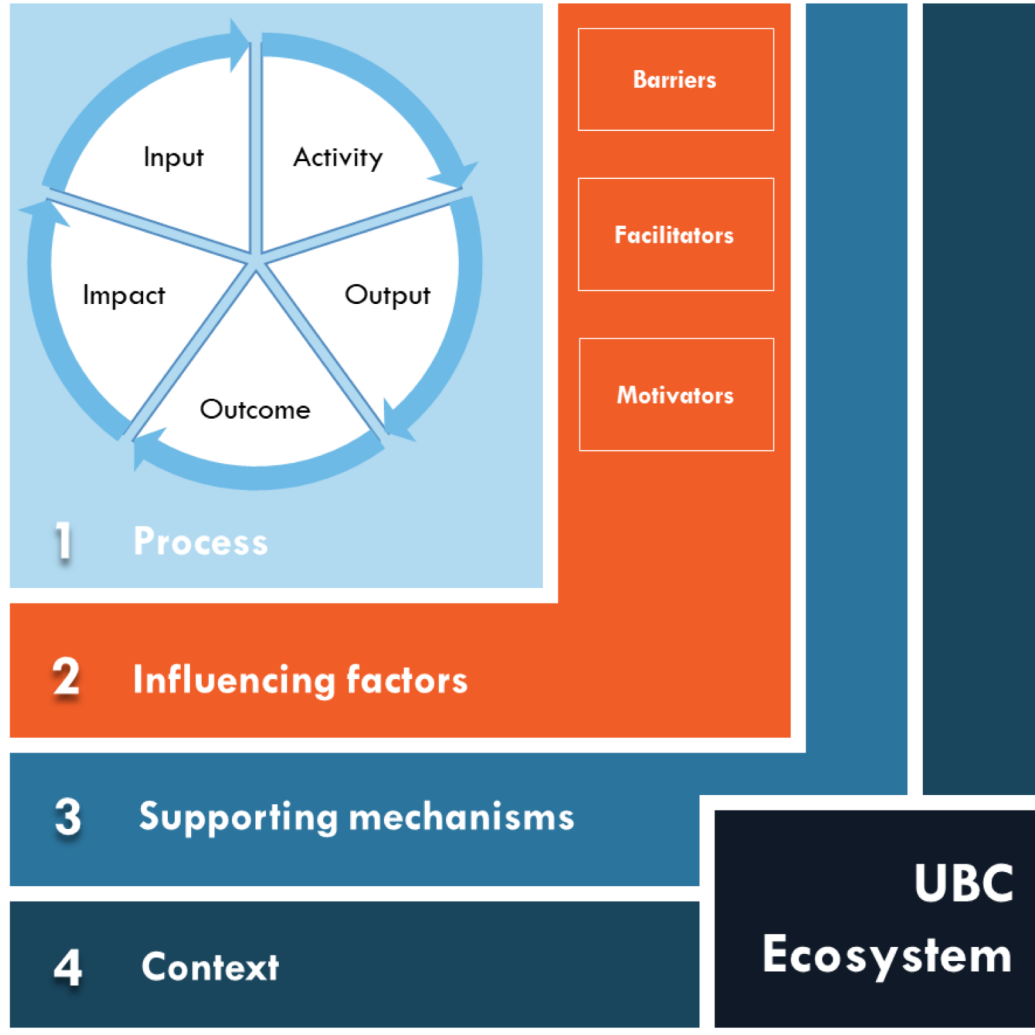
Barriers hindering UBC

Barriers

What is inhibiting your cooperation with business?' – as answered by academics

Academics collaborating with business		Academics not collaborating with business
1.	Bureaucracy related to UBC	Bureaucracy related to UBC
2.	Lack of university funding for UBC	Lack of university funding for UBC
3.	Limited resources of SMEs	Differing motivation / values between university and business
4.	Insufficient work time allocated by the university for academics´ UBC activities	The focus on producing practical results by business
5.	Lack of business funding for UBC	Difficulty in finding the appropriate collaboration partner
Lowest	Frequent staff turnovers within my university or the business	Frequent staff turnovers within my university or the business

The top two barriers for both collaborating and non-collaborating academics in Poland are identical. Bureaucracy in administration related to UBC and lack of university funding are perceived as most relevant barriers to cooperation for both groups.

Collaborating academics are more hindered than their non-collaborating colleagues by limited resources and time issues.

As for academics not engaging in UBC, further relevant barriers for them include factors related to cultural differences and difficulty in finding an appropriate partner. They identify these barriers as inhibiting mostly due to their lack of experience in the UBC.

Barriers hindering UBC

Polish academics perceive most barriers higher or by far higher than their European counterparts.

In Poland academics are more hindered than their European counterparts by bureaucracy related to UBC and the lack of university funding, which are also the biggest barriers for them. High levels of bureaucracy and high complexity of administrative processes are time consuming for Polish academics. As for funding, Polish HEIs lack financial resources to invest in R&D and innovation. Although, Polish research and innovation performance has improved over the last decade[1], a satisfactory level has not yet been achieved.

Polish academics feel considerably more hindered by the fact that UBC conflicts with their job responsibilities as educators / lecturers and researchers.

The lack of initial contacts and business' limited absorption capacity are also more hindering for them compared to European average.

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

Barriers

'What is inhibiting your cooperation with business?' — as answered by academics

Barrier	Poland	Europe
Bureaucracy related to UBC	7,5	6,7
Lack of university funding for UBC	7,5	6,4
Limited resources of SMEs	7,2	6,9
Insufficient work time allocated by the university for academics´ UBC activities	7,1	6,7
Lack of business funding for UBC	7,1	6,5
Differing motivation / values between university and business	7,1	6,3
Lack of government funding for UBC	7,0	6,2
The focus on producing practical results by business	6,9	6,0
UBC conflicts with my teaching and research responsibilities	6,8	5,2
Business lack awareness of university research activities / offerings	6,7	6,0
Differing time horizons between university and business	6,6	6,2
Difficulty in finding the appropriate collaboration partner	6,2	5,7
No appropriate initial contact person within either the university or business	6,1	5,1
Limited absorption capacity of business	6,1	5,1
Universities lack awareness of opportunities arising from UBC	5,9	5,4
Lack of people with scientific knowledge within business	5,6	5,1
Business need for confidentiality	5,6	5,3
Differing mode of communication and language between university and business	5,6	5,2
Frequent staff turnovers within my university or the business	4,1	4,2

Legend: ■ Cooperating academics in Poland ■ Cooperating academics in Europe

Scale: 1 – 10 (None | Low | Medium | High)

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Barriers hindering UBC

Barriers

'What is inhibiting your HEI cooperation with business?' – as answered by HEI representatives

Top 5 Barriers for HEI representatives
1. Limited resources of SMEs
2. Lack of university funding for UBC
3. Lack of business funding for UBC
4. Differing motivation / values between university and business
5. Lack of government funding for UBC

Polish HEI representatives perceive their university mostly inhibited by limited financial resources. Thus, the lack of resources of SMEs and funding from university, business and government are the largest barriers from their point of view. This is - to some extent - consistent with the perception of Polish academics.

At the same time, cultural barrier related to the differing motivations between university and business also significantly inhibits UBC in Poland. The gap of alignment of interests of both sides are seen as crucial barriers.

Barriers hindering UBC

Overall, Polish HEI representatives perceive barriers higher than their European counterparts.

Both groups however agree that resources related factors are the most inhibiting for UBC.

Notably Polish HEI representatives see their academic staff by far much more hindered by the fact that UBC conflicts with their responsibilities.

The frequent staff turnovers within the university or in businesses is the weakest UBC barrier for both groups.

Barriers

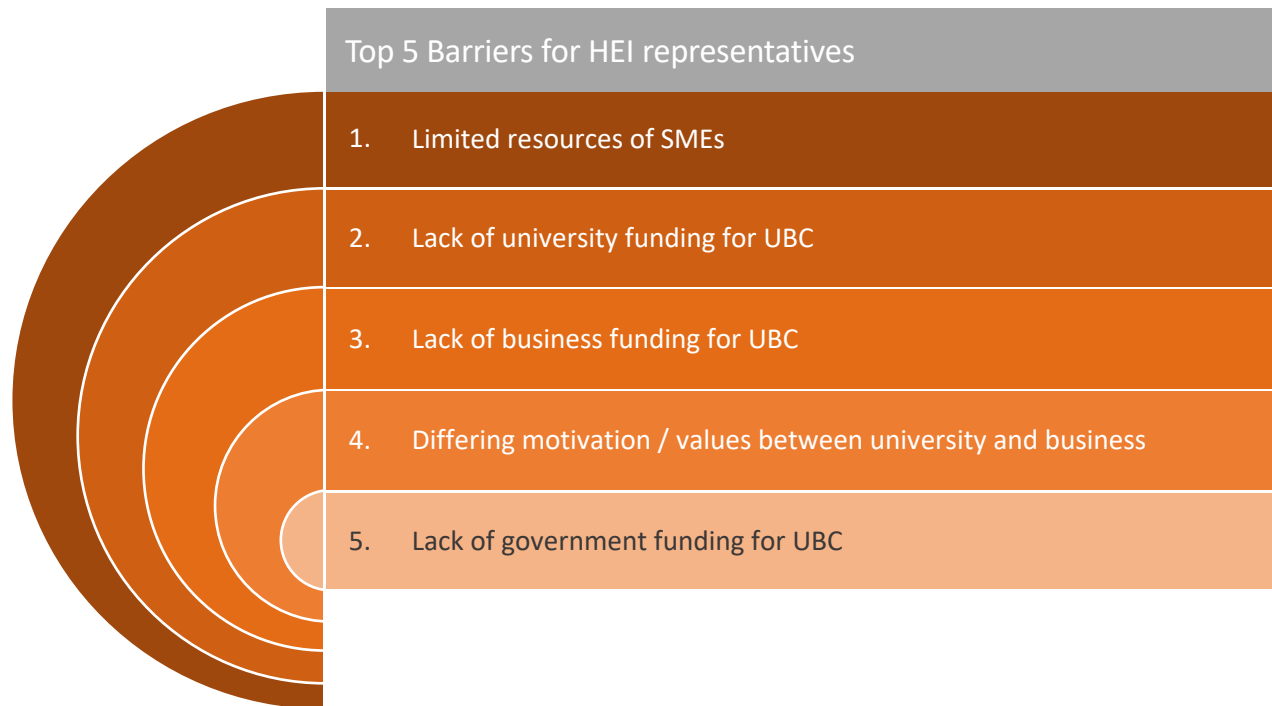*'What is inhibiting your cooperation with business?' – as answered by HEI representatives*

Barrier	Poland	Europe
Limited resources of SMEs	7,6	7,4
Lack of university funding for UBC	7,5	6,5
Lack of business funding for UBC	7,2	6,7
Differing motivation / values between university and business	7,1	6,3
Lack of government funding for UBC	6,9	6,6
Differing time horizons between university and business	6,9	6,5
Business lack awareness of university research activities / offerings	6,8	6,3
The focus on producing practical results by business	6,8	6,1
Bureaucracy related to UBC	6,8	6,2
Insufficient work time allocated by the university for academics´ UBC activities	6,8	6,4
UBC conflicts with my teaching and research responsibilities	6,5	4,9
Limited absorption capacity of business	6,3	5,8
Difficulty in finding the appropriate collaboration partner	6,3	5,7
Universities lack awareness of opportunities arising from UBC	6,1	5,5
Differing mode of communication and language between university and business	6,1	5,7
Lack of people with scientific knowledge within business	5,7	5,4
No appropriate initial contact person within either the university or business	5,6	5,2
Business need for confidentiality	5,2	5,1
Frequent staff turnovers within my university or the business	4,2	4,1

Legend: HEI representatives in Poland / HEI representatives in Europe

Scale: None — Low — Medium — High (1 to 10)

18

Drivers stimulating UBC

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 barriers to UBC.

Facilitators

'What is facilitating your cooperation with business?' – as answered by academics and HEI representatives

	Academics cooperating	HEI representatives
1.	Existence of funding to undertake the cooperation	Existence of funding to undertake the cooperation
2.	Existence of a shared goal	Existence of a shared goal
3.	Existence of mutual commitment	Existence of mutual commitment
4.	Interest of business in accessing scientific knowledge	Existence of mutual trust
5.	Existence of mutual trust	Interest of business in accessing scientific knowledge

The main factors that facilitate UBC for both Polish academics and HEI representatives are identical.

The main facilitator for both groups is the existence of funding. The further facilitators focus on the relationship aspect of UBC, highlighting the importance of a shared goal, mutual commitment and mutual trust for successful UBC. Only trustful relationships can help both parties to recognise the mutual needs for cooperation and align their expectations.

The interest of business in accessing scientific knowledge is also recognised as UBC driver by both groups. If businesses express no interest, Polish academics might consider this as an underestimation of their own work. When companies show the interest in scientific knowledge, the academic and university engagement can increase.

19

Drivers stimulating UBC

European and Polish perceptions of UBC facilitators align. The main facilitator for both groups is the existence of funding. Guaranteed financial resources are able to ease and make UBC smoother.

Both European and Polish academics also agree, that the most important facilitators are those related to the relationship component of UBC. The academics highlighted the existence of a shared goal, mutual commitment and mutual trust among the most strongest drivers enhancing their cooperation with businesses.

In addition to the funding and relationship facilitators, the interest of business in accessing scientific knowledge also plays an important role for both.

The University itself as a body is seen as a driver if it has commercial and technological interests. This is significantly different to the European average.

Although the short geographical distance between the two organisations emerges as the lowest ranked facilitator, it does not mean that it not important at all. In Polish context the short distance is essential, especially when the cooperation is just being initiated.

Facilitators

'What is facilitating your cooperation with business?' – as answered by academics

Existence of funding to undertake the cooperation — 8,1 / 7,8
Existence of a shared goal — 7,9 / 7,9
Existence of mutual commitment — 7,7 / 7,6
Interest of business in accessing scientific knowledge — 7,6 / 7,5
Existence of mutual trust — 7,5 / 8,0
Prior relation with the business partner — 7,4 / 7,3
Interest of the university in accessing business-sector R&D facilities — 7,0 / 6,3
Scientific orientation of the business — 6,5 / 6,3
Commercial orientation of the university — 6,2 / 5,5
Short geographical distance between the two organisations — 5,2 / 5,9

■ Cooperating academics in Poland
■ Cooperating academics in Europe

None   Low   Medium   High

Drivers stimulating UBC

Facilitators

'What is facilitating your cooperation with business?' – as answered by HEI representatives

Facilitator	HEI representatives in Poland	HEI representatives in Europe
Existence of funding to undertake the cooperation	8,5	8,0
Existence of a shared goal	8,4	8,2
Existence of mutual commitment	8,2	8,0
Existence of mutual trust	8,0	8,3
Interest of business in accessing scientific knowledge	7,8	7,7
Prior relation with the business partner	7,8	7,7
Commercial orientation of the university	7,7	6,5
Interest of the university in accessing business-sector R&D facilities	7,4	6,9
Scientific orientation of the business	7,3	6,7
Short geographical distance between the two organisations	5,7	6,3

None   Low   Medium   High

Polish HEI representatives and their European counterparts perceive the facilitators in a similar way.

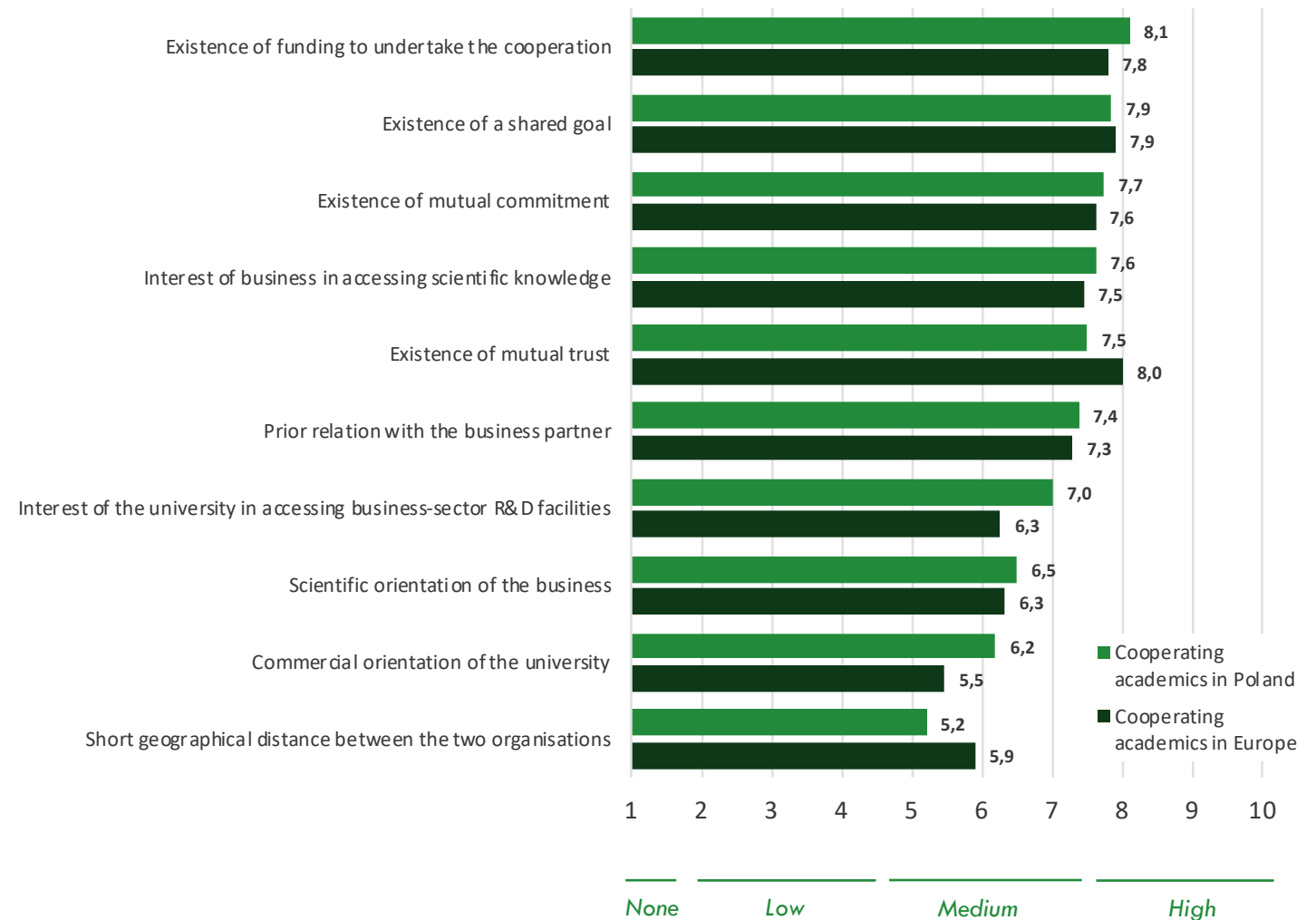Similarly to academics, for both groups, the most important facilitators also relate to the funding and relationship aspects of UBC.

The interest of business in accessing scientific knowledge also plays an important role.

Interestingly also the HEI representatives see the University as a body, if it is commercially interested and interested in technology access as a driver. It is in their hands, how the University's attitude to those items is developed.

A short geographical distance between the two organisations is the weakest facilitator, which is also consistent with the academic perspective. The world is growing together and technologies are bridging distances (transport, communication).

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Drivers stimulating UBC

Motivators of Polish academics who already cooperate with businesses and motivators of non-cooperating academics have most interesting discrepancies:

While cooperating academics highlight their personal benefits like "my" research and improves "my" teaching, as well as the researcher's insight and funding opportunities.

Whereas academics who do not undertake any collaborative activities perceive the benefits more likely to others: the graduates' employability as well as to contribute to the mission of the university. Also the "potential driver" of social challenges is not an individual one, whilst society is benefiting.

Academics cooperating with business are motivated by factors of a rather individual nature. As they already have experience, they are aware of the benefits they can get from UBC.

Thus, non-cooperating academics rate motivations, why other researcher cooperate, related to other stakeholders (employability of graduates, societal needs, mission of the university) more strongly.

While cooperating academics are also motivated by the willingness to obtain financial resources, funding is not included into the top five motivators of non-cooperating academics in Poland.

Motivators

'What motivates you to cooperate with business?'- as answered by academics

	Academics who cooperate	Academics who <u>do not</u> cooperate
1.	Uses my research in practice	Improves graduate employability
2.	Improves my teaching	Contributes to the mission of the university
3.	Gain new insights for research	Addresses societal challenges and issues
4.	Obtain funding / financial resources	Improves my teaching
5.	Improves graduate employability	Uses my research in practice

22

Drivers stimulating UBC

Motivators

'What motivates you to cooperate with business?'- as answered by academics

	Cooperating academics in Poland	Cooperating academics in Europe
Uses my research in practice	8,1	7,7
Improves my teaching	7,8	7,1
Gain new insights for research	7,5	7,8
Obtain funding / financial resources	7,3	7,0
Improves graduate employability	6,7	7,1
Addresses societal challenges and issues	6,6	7,1
Contributes to the mission of the university	6,4	6,5
Improves my reputation within the university	5,6	4,8
Increases my chances of promotion	5,	3,9

None   Low   Medium   High

The perception of UBC motivations of Polish academics mostly align with the perceptions of their European counterparts.

In comparison to the European average, the top two motivators, which are related to research and teaching are perceived slightly stronger in Poland. This indicates that Polish academic have more individualistic perception of UBC benefits.

In 2018 the system of policies and University finance and assessment changed in the country; it would be more than interesting to measure the changes, the new system created in referring to those questions.

Academics in Poland trust in benefits for other stakeholders such as students, society or university have a lower than other researchers in Europe.

Also promotion and reputation related motivators are the weakest drivers stimulating UBC for both groups. UBC activities are not reflected in the performance assessment of Polish academics. Their career seems still be based on rather "traditional" criteria, such as publications and acquiring funding.

Drivers stimulating UBC
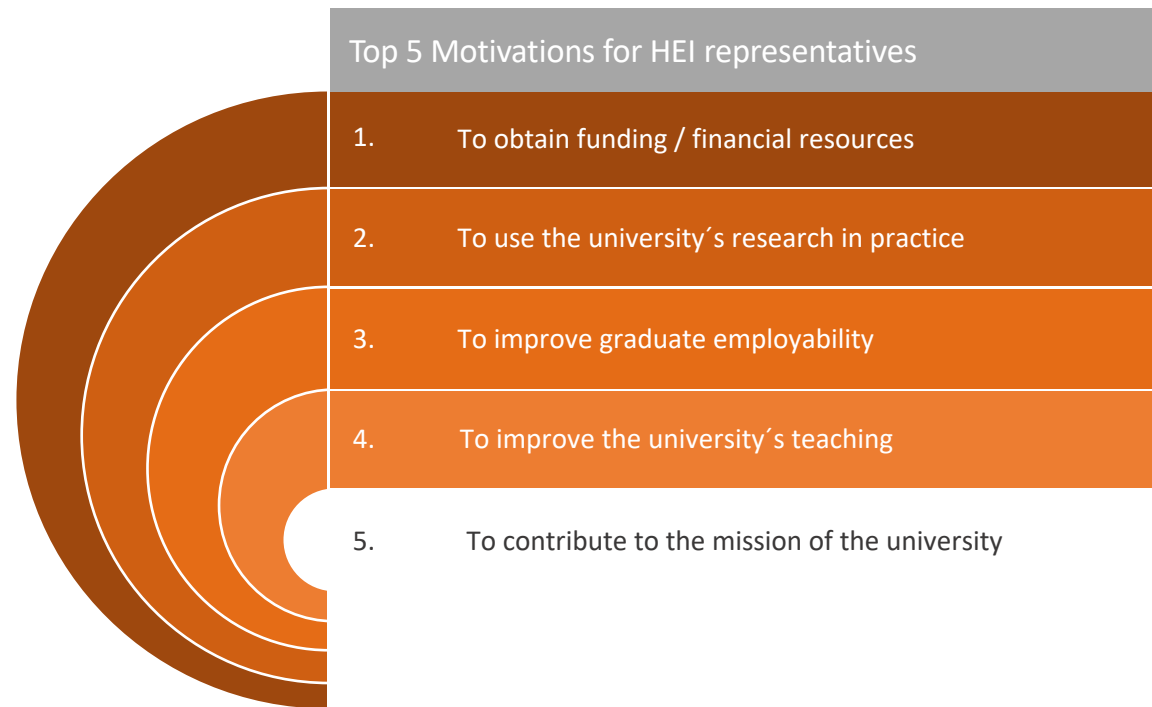
Polish HEI representatives see their academics more motivated by the benefits that their HEIs can get from UBC including obtaining financial resources and application of the university's research.

This is followed by motivators specifically related to improving graduate employability and teaching.

As to be responsible for the Universities progress and prosperity those respondents see rather the body, and its organisational objectives and benefits. They also see their academies being motivated to contribute to the mission of the university.

To get this achieved and converted, the focus of not so much their individuals. It could be that recognising the potential benefits of the academics the target of getting the University into a more UBC orientated organisation, to recognise individual benefits to achieve the organisational ones.

Motivators

'What motivates your HEI to cooperate with business?'- As answered by HEI representatives

Top 5 Motivations for HEI representatives
1. To obtain funding / financial resources
2. To use the university´s research in practice
3. To improve graduate employability
4. To improve the university´s teaching
5. To contribute to the mission of the university

Drivers stimulating UBC

Motivators

'What motivates your HEI to cooperate with business?'- as answered by HEI representatives

Motivator	HEI representatives in Poland	HEI representatives in Europe
To obtain funding / financial resources	8,7	8,1
To use the university's research in practice	8,2	8,0
To improve graduate employability	7,9	8,1
To improve the university's teaching	7,6	7,7
To contribute to the mission of the university	7,5	7,7
To improve the reputation of the university	7,4	7,8
To gain new insights for research	7,2	7,7
To positively impact society	6,8	7,8
To address societal challenges and issues	6,8	7,6

None   Low   Medium   High

Polish HEI representatives perceive almost all motivators lower than European HEI representatives. The higher perception emerges only for the top two motivators that are related to funding and research.

The need for funding can be explained by the low national level of investment in science and R&D, which however increased from 0.6 % of GDP in 2007 to 1 % of GDP in 2015 and yet is still below the EU average[1]. R&D investment in Poland relies largely on public financing, with significant support provided by European funds.

Notably, Polish HEI representatives rate motivators related to other stakeholders (e.g. graduates employability, university's mission and reputation, societal needs) less high compared to their European counterparts.

[1]European Commission (2017). Research and Innovation analysis in the European Semester Country Reports 2017, p.70.

Benefits of UBC

Polish academics and HEI managers have rather different perceptions about the stakeholders that benefit from UBC. And, yet, the both groups agree that universities can benefit the most from UBC.

While academics see themselves as stakeholders that can benefit from UBC to a relatively high extent, HEI representatives see them to gain not so many benefits at all. Academics are aware of the individual benefits they can from collaboration with business, whereas HEI representatives perceive UBC as a institutional activity.

The Polish government is believed by both groups to gain little benefit from UBC.

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

'Who receives the benefits of UBC?'- as answered by academics and HEI representatives

Academics		HEI representatives
1.	Universities	Universities
2.	Academics	Businesses
3.	Businesses	Society
4.	Students	Students
5.	Society	Academics
6.	Government / public authorities	Government / public authorities

Future intentions

Future UBC intentions – Poland

As answered by Polish academics

increase
maintain
decrease

0,3%
22,9%
76,8%
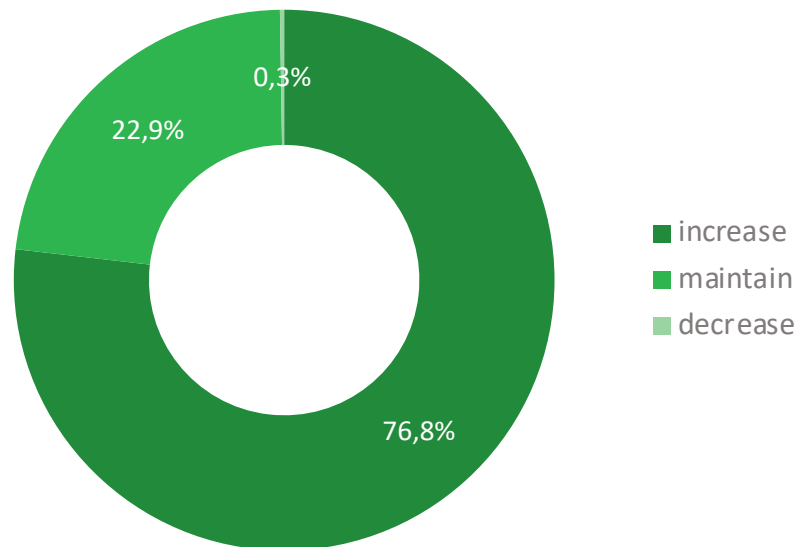
Polish academics show a strong commitment to UBC. Almost 100% of responding academics expect to maintain or increase their UBC activities. In this sense, Poland proves to be an attractive country for UBC, with positive momentum for the future. The country will catch up with others to extend the level of UBC. It seems that the positive experience and achievements direct academics to be more active in the field.

Future UBC intentions – EUROPE

As answered by European academics

increase
maintain
decrease

1,8%
40,8%
57,4%
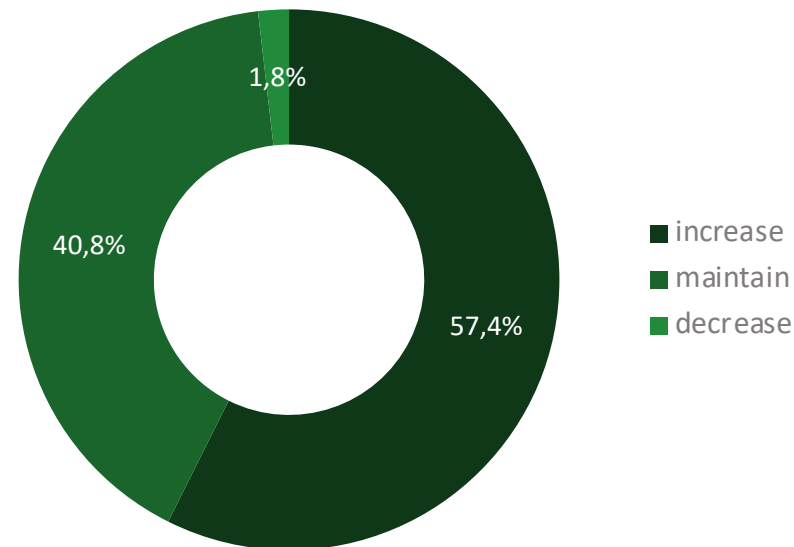
Academics in Europe also show a strong commitment to increasing UBC activities. While 57.4% of cooperating academics expect to increase their cooperation, only 1.8% plan to decrease the collaborative activities with businesses.

Willingness to recommend UBC

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

Polish academics are less satisfied with UBC in research than their European counterparts (NPS=11). While 42% of them will promote it positively, 31% would do it negatively.

Polish academics, just like their European counterparts, are less satisfied with the education-related UBC (NPS=-14). 29% of academics would recommend a colleague to engage in this type of collaboration, whereas 45% would act as detractors.

Willingness to recommend *to an academic colleague cooperation with business in R&D and education*

As answered by academics

	Detractors	Passives	Promoters
Academics cooperating in E&T	43%	28%	29%
Academics cooperating in R&D	31%	27%	42%

Net promotor score
-14
11

Satisfaction in cooperation with businesses (net promoter score)

Academics cooperating in research

Academics cooperating in education
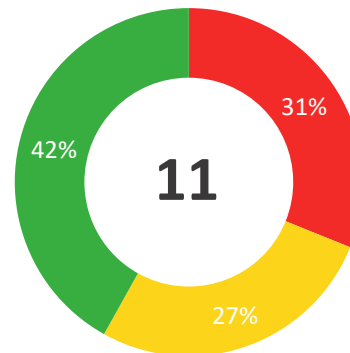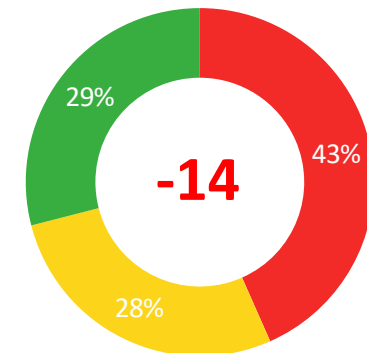
■ Detractors ■ Passives ■ Promoters

European academics' NPS result: 17

European academics' NPS result: -13.8

Supporting mechanisms for UBC
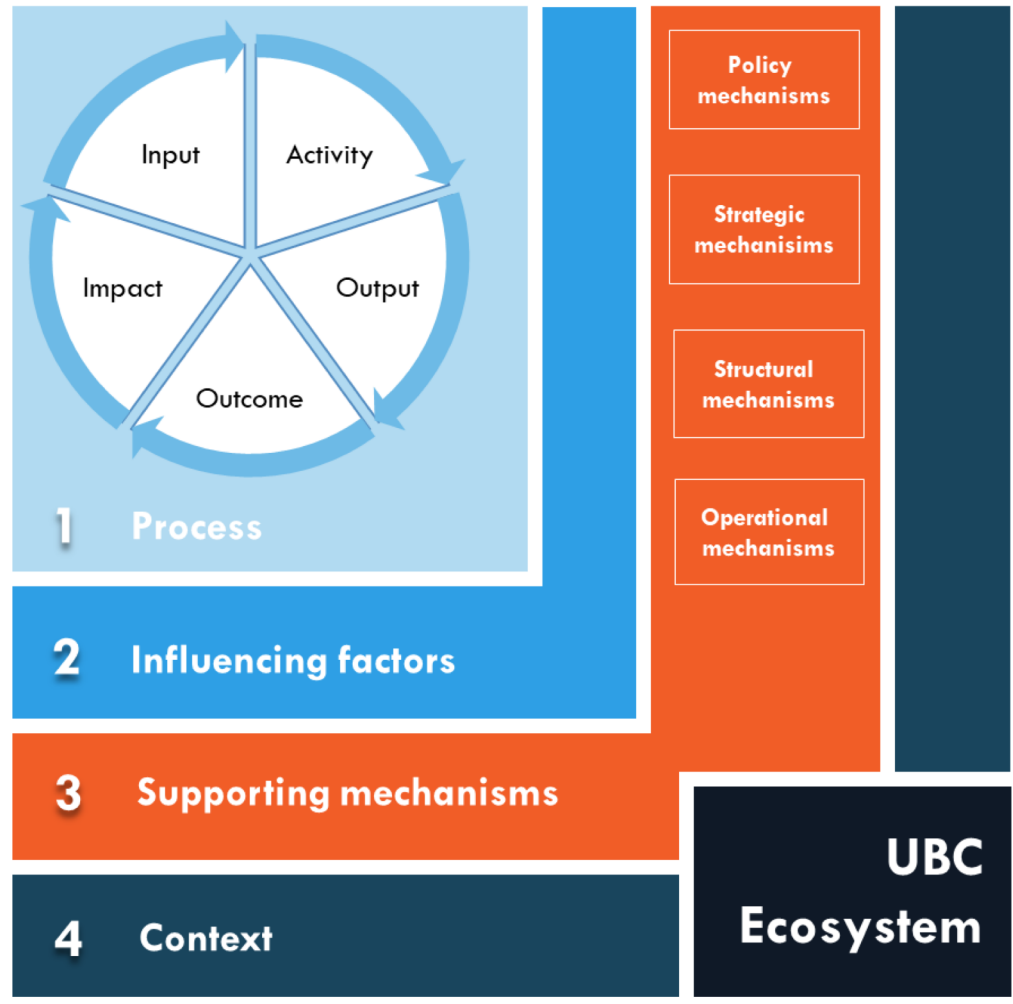
Supporting mechanisms are interventions designed to support the development of cooperation between HEIs and business.

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

Polish HEI representatives perceive policy mechanisms to be developed to a medium and low level. These perceptions are similar to the perceptions of their European counterparts.

Both in Europe and Poland the regional innovation policies are the most developed supporting mechanisms (6.2), as they are coordinated by the public administration and are usually supported or initiated by the European Union. They are followed by the IP rights legislation for academic research discovery (5.8).

The least developed mechanism in Poland, also lower than the EU average, relates to R&D tax benefits for business (4.4).

Policy mechanisms

'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives

Regional innovation policies — 6.2 / **6,6**
IP rights legislation for academic research discovery — 5.8 / **6,0**
Policies positively supporting research collaboration between university and business — **5,7** / 5.8
Infrastructure funding available to support UBC development — 5.3 / **5,6**
Policies positively supporting the creation of new companies (incl. academic entrepreneurship and start-up activities) — **5,4** / 5.7
Laws / rules / hiring policies positively supporting labour mobility between university and business — 4.6 / **4,6**
Public seed capital supporting UBC initiatives — **4,5** / 4.6
R&D tax benefits for business — **4,4** / 5.3

■ HEI representatives in Poland
▲ x.x HEI representatives in Europe

None   Low   Medium   High

Supporting mechanisms for UBC

Strategic mechanisms

'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives

Mechanism	Paper strategy in Poland	Implementation strategy in Poland	European average
A top-level management committed to UBC	7,0		7.5
A documented mission / vision embracing UBC	6,2		7.0
A strategy supporting UBC	5,8		6.7
A coordinated communication approach for UBC	5,6		5.9
Business experience considered in the recruitment of academics		5,3	5.2
The inclusion of 'cooperation with business' as part of the assessment of work performance for academics		4,9	4.8
Recognition of academics for their UBC activities (e.g. awards)		4,6	4.6
The practice of recruiting business professionals into the knowledge transfer area		4,6	5.2
The dedication of resources (incl. funding) to support UBC		4,5	5.5
The provision of incentives for academics to engage in UBC		4,5	5.0
The practice of recruiting business professionals into the careers / alumni office		4,3	4.7
The measurement of UBC performance and outputs		4,3	5.2
The reduction of teaching time for undertaking collaboration with business		3,8	4.0

Scale: 1 2 3 4 5 6 7 8 9 10

None | Low | Medium | High

Legend:
- Paper strategy in Poland
- Implementation strategy in Poland
- x.x European average

Overall, the development of the strategic mechanisms in Polish HEIs is slightly lower compared to the European average.

The paper strategies are substantially more developed than implementation strategies, showing the official commitment of Polish HEIs. This fact confirms the early stage of UBC development in Poland, but also indicates the conviction of Polish universities to collaborate with businesses.

The least developed mechanisms relate to UBC performance measurement (4.3) and the reduction of teaching time for undertaking UBC (3.8).

Supporting mechanisms for UBC

The overall development of structural mechanisms is lower in Polish HEIs compared to the European average.

Both European and Polish HEI representatives indicate the same top three structural mechanisms. For both groups the employability/careers services and bridging structures represent the most developed types of structures supporting UBC in universities. These types of structures are the result of various initiatives aimed at reducing unemployment and enhancing graduate employability in Poland.

The most developed structural mechanisms in Polish HEIs are career offices (6.8), agencies dedicated to UBC (5.8) and a board member or vice rector positions for UBC (5.5).

Joint research institutes and adjunct positions within the HEI for business people are the least developed mechanisms (3.6 each).
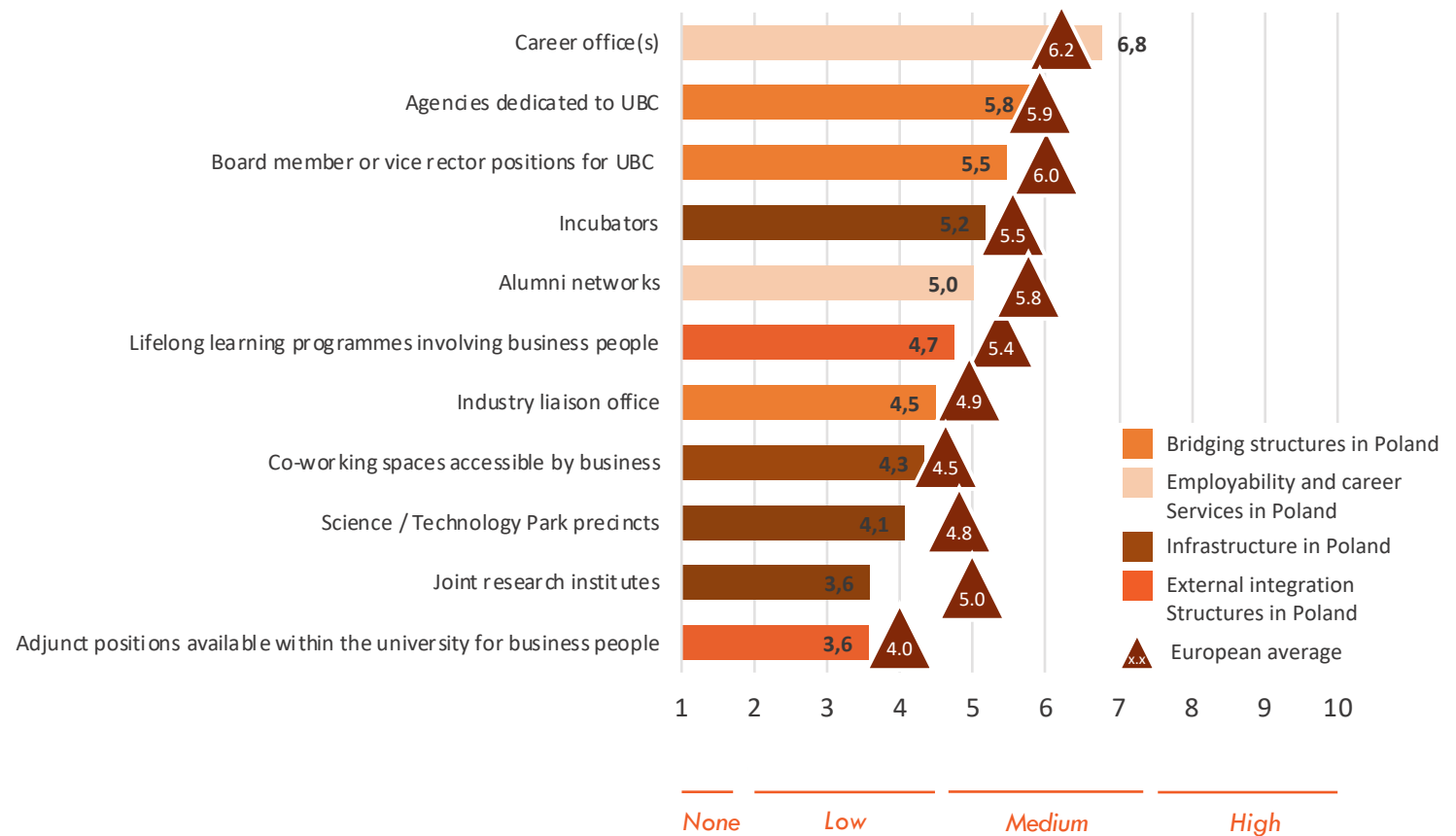
Structural mechanisms

'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives

Mechanism	Poland	European average
Career office(s)	6,8	6.2
Agencies dedicated to UBC	5,8	5.9
Board member or vice rector positions for UBC	5,5	6.0
Incubators	5,2	5.5
Alumni networks	5,0	5.8
Lifelong learning programmes involving business people	4,7	5.4
Industry liaison office	4,5	4.9
Co-working spaces accessible by business	4,3	4.5
Science / Technology Park precincts	4,1	4.8
Joint research institutes	3,6	5.0
Adjunct positions available within the university for business people	3,6	4.0

Legend:
- Bridging structures in Poland
- Employability and career Services in Poland
- Infrastructure in Poland
- External integration Structures in Poland
- x.x European average

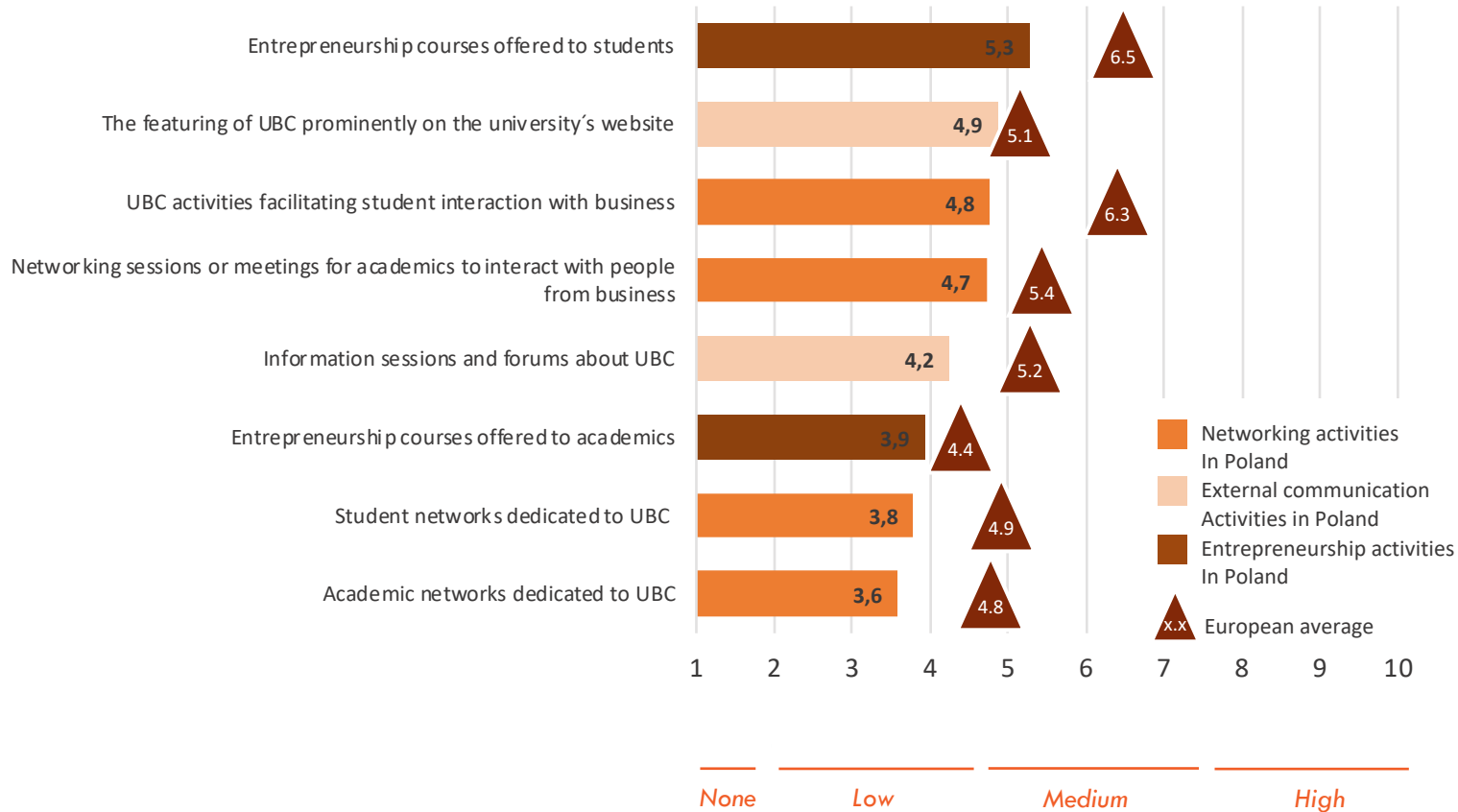Scale: 1 – 10 — None / Low / Medium / High

Supporting mechanisms for UBC

Operational mechanisms

'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives

Mechanism	In Poland	European average
Entrepreneurship courses offered to students	5,3	6.5
The featuring of UBC prominently on the university's website	4,9	5.1
UBC activities facilitating student interaction with business	4,8	6.3
Networking sessions or meetings for academics to interact with people from business	4,7	5.4
Information sessions and forums about UBC	4,2	5.2
Entrepreneurship courses offered to academics	3,9	4.4
Student networks dedicated to UBC	3,8	4.9
Academic networks dedicated to UBC	3,6	4.8

Legend:
- Networking activities In Poland
- External communication Activities in Poland
- Entrepreneurship activities In Poland
- x.x European average

Scale (1–10): None — Low — Medium — High

The development of operational mechanisms is lower in Polish HEIs than in European HEIs.

Student-centred activities are the most developed operational mechanisms, with entrepreneurship courses offered to students (5.3) and UBC activities facilitating student interaction with businesses (4.9) ranked the highest. The existing student-oriented activities of UBC nature are mostly resulted by the EU-funded projects.

While networking activities including UBC activities and networking sessions facilitating student (4.8) and academic (4.7) interaction with business are seen as developed, the student (3.8) and academics (3.6) networks dedicated to UBC are perceived as the least advanced operational mechanisms in Polish HEIs. Generally, the student initiatives are scarce in Poland, whereas academic networks dedicated to UBC have not yet been developed in the nascent Polish UBC landscape.

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 or medium 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.).
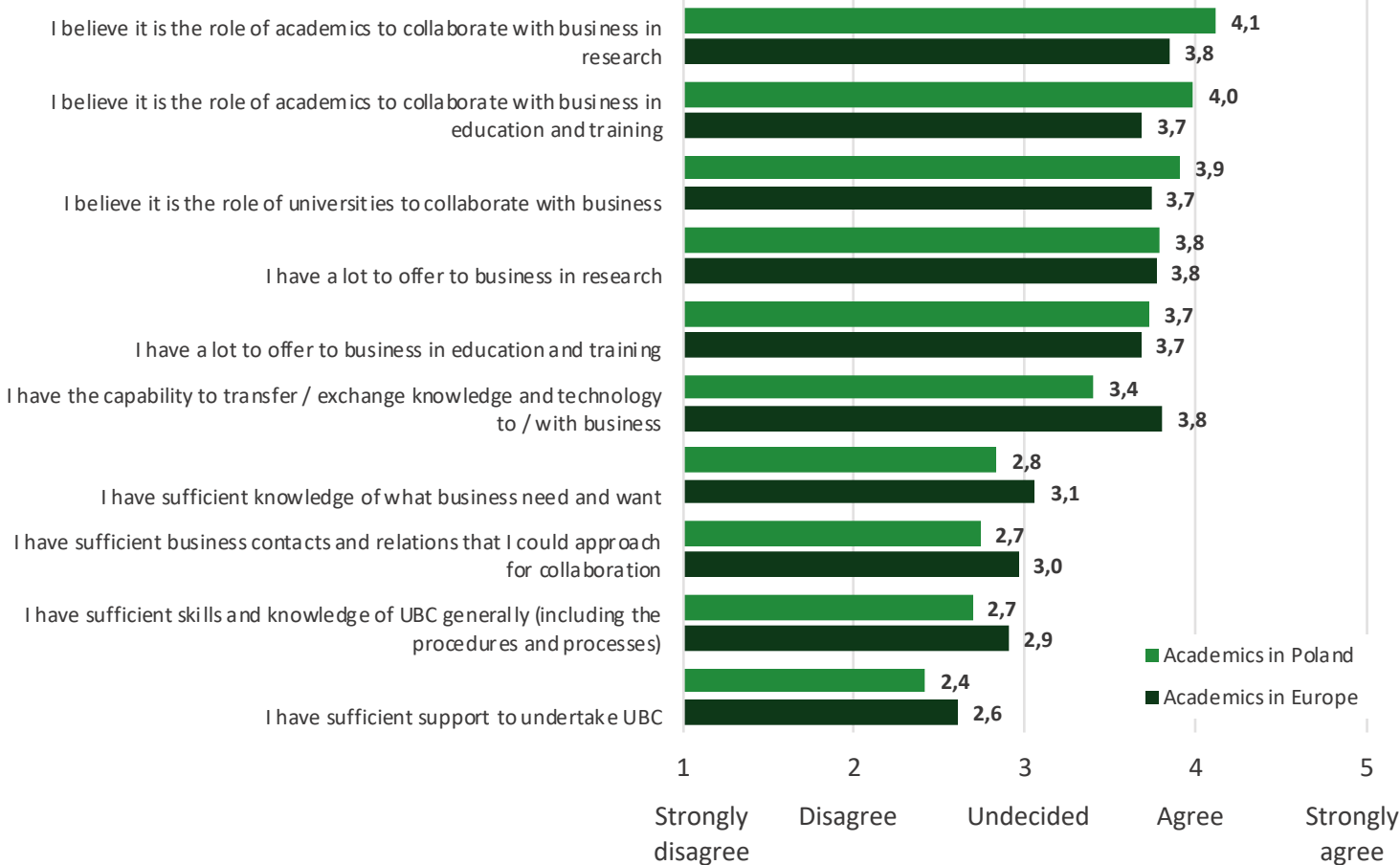
This section outlines how some contextual factors influence UBC in the country.
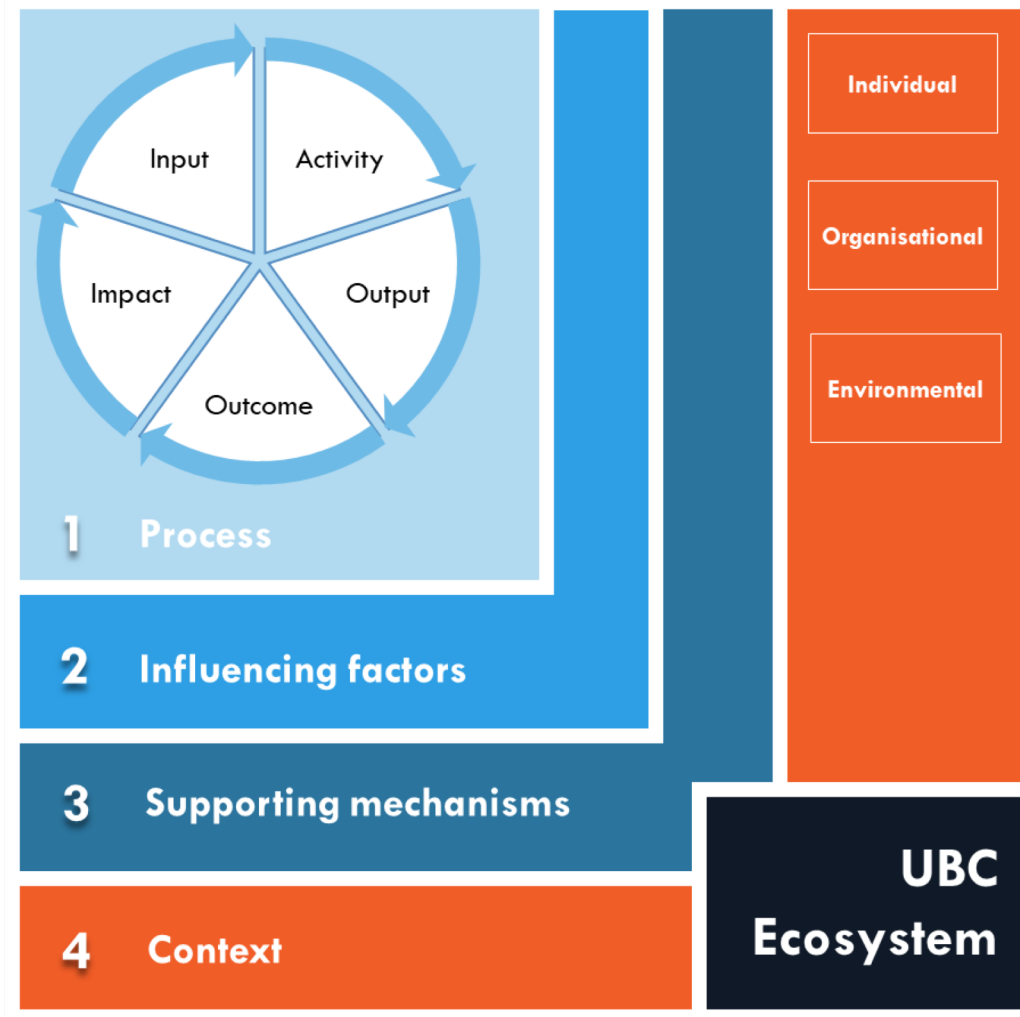
UBC capabilities

Capabilities for UBC

'To what extent do you agree or disagree with the following statements?' - as answered by academics

■ Academics in Poland	■ Academics in Europe

I believe it is the role of academics to collaborate with business in research — 4,1 / 3,8

I believe it is the role of academics to collaborate with business in education and training — 4,0 / 3,7

I believe it is the role of universities to collaborate with business — 3,9 / 3,7

I have a lot to offer to business in research — 3,8 / 3,8

I have a lot to offer to business in education and training — 3,7 / 3,7

I have the capability to transfer / exchange knowledge and technology to / with business — 3,4 / 3,8

I have sufficient knowledge of what business need and want — 2,8 / 3,1

I have sufficient business contacts and relations that I could approach for collaboration — 2,7 / 3,0

I have sufficient skills and knowledge of UBC generally (including the procedures and processes) — 2,7 / 2,9

I have sufficient support to undertake UBC — 2,4 / 2,6

Scale: 1 Strongly disagree — 2 Disagree — 3 Undecided — 4 Agree — 5 Strongly agree

Polish academics identify moderate capabilities for UBC and beliefs about the role of UBC. Compared to the European average, the have similar attitude towards UBC.

Polish academics believe that it is their and the university's role (3.9) to collaborate with business in both research (4.1) and education (4.0).

They identify their strengths in the ability to do research (3.8) and provide education (3.7) for companies.

Yet, they perceive they have insufficient contacts (2.7), as well as general knowledge (2.7) and support (2.4) to undertake UBC. These perceptions are lower than the European average.
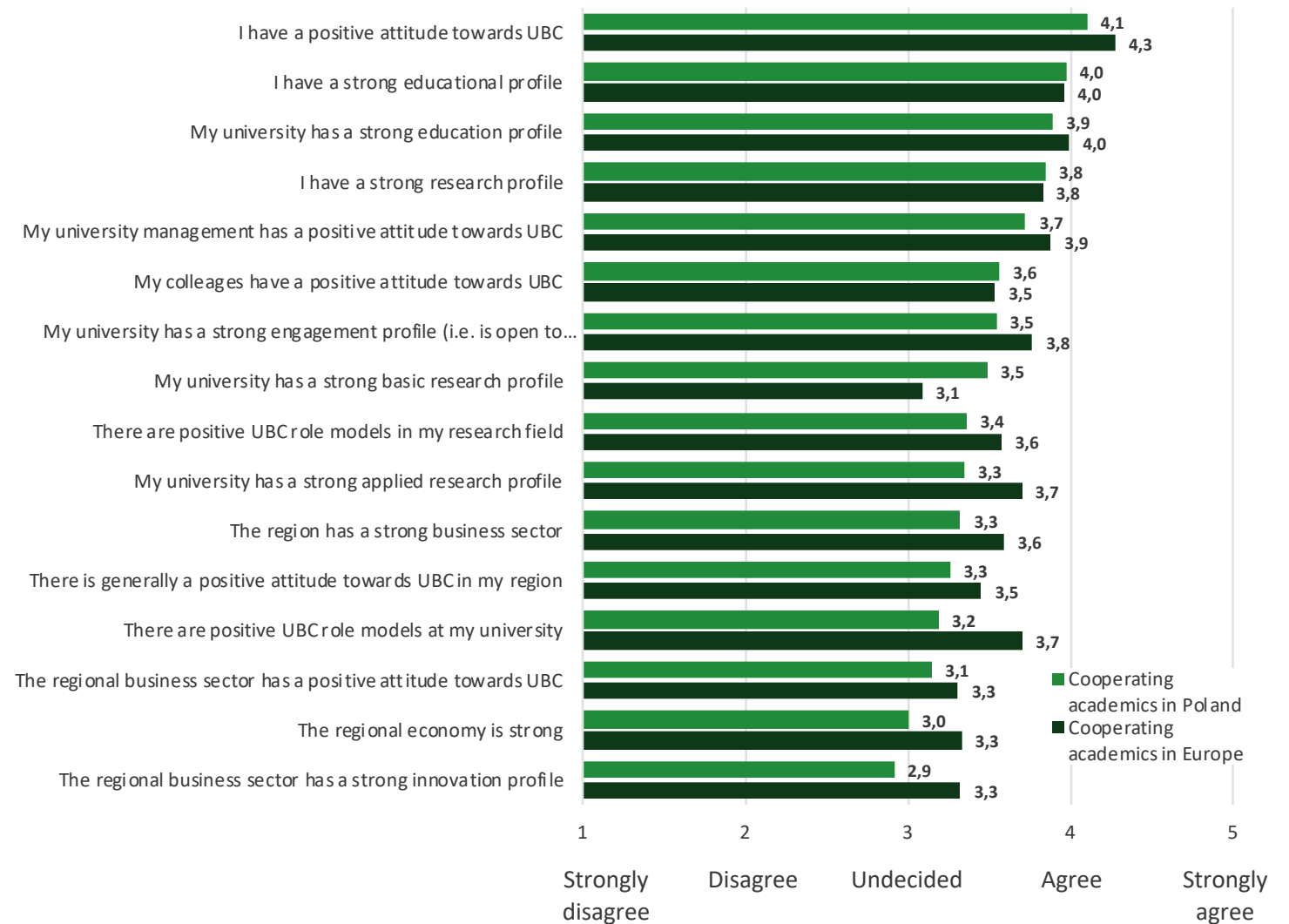
35

Context

Although Polish and European academics perceive their contextual factors similarly, the perception of most contextual factors is less positive in Poland. Yet, Polish academics perceive they have a stronger basic research profile.

Both Polish and European academics have a positive attitude towards UBC as they recognise the importance and positive effects that cooperation with businesses can bring.

Polish academics perceive they have less positive UBC role models at their HEIs and their fields. Furthermore, they have more negative attitude of their HEIs and regions towards UBC. This might be explained by the early UBC development stage and general lack of experience by academics in Polish context.
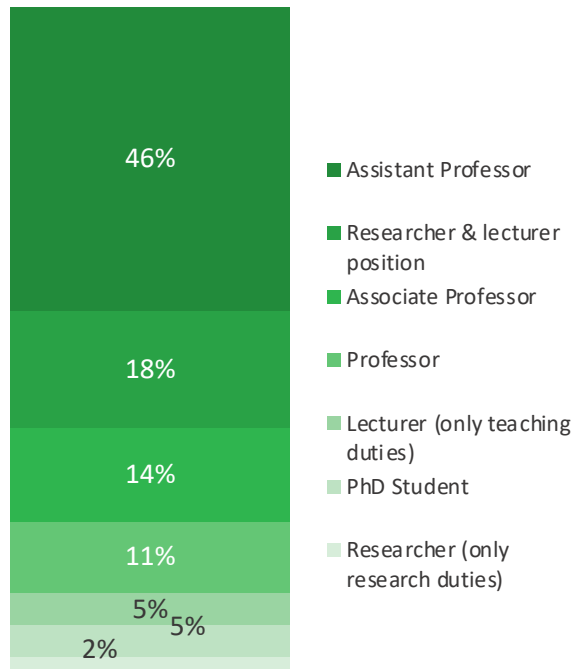
Contextual factors affecting UBC

*'To what extent do you agree or disagree with the following statements?' - as answered by academics*

Statement	Cooperating academics in Poland	Cooperating academics in Europe
I have a positive attitude towards UBC	4,1	4,3
I have a strong educational profile	4,0	4,0
My university has a strong education profile	3,9	4,0
I have a strong research profile	3,8	3,8
My university management has a positive attitude towards UBC	3,7	3,9
My colleagues have a positive attitude towards UBC	3,6	3,5
My university has a strong engagement profile (i.e. is open to…	3,5	3,8
My university has a strong basic research profile	3,5	3,1
There are positive UBC role models in my research field	3,4	3,6
My university has a strong applied research profile	3,3	3,7
The region has a strong business sector	3,3	3,6
There is generally a positive attitude towards UBC in my region	3,3	3,5
There are positive UBC role models at my university	3,2	3,7
The regional business sector has a positive attitude towards UBC	3,1	3,3
The regional economy is strong	3,0	3,3
The regional business sector has a strong innovation profile	2,9	3,3

1 — Strongly disagree
2 — Disagree
3 — Undecided
4 — Agree
5 — Strongly agree

Respondent profile – academics

Position of respondent

46% Assistant Professor
18%
14%
11%
5% 5%
2%

- Assistant Professor
- Researcher & lecturer position
- Associate Professor
- Professor
- Lecturer (only teaching duties)
- PhD Student
- Researcher (only research duties)

Age of respondents

2%
13%
14%
32%
31%
7%

- 70 +
- 60 - 69
- 50 - 59
- 40 - 49
- 30 - 39
- 20 - 29

Gender of respondents

47% 53%

- Male
- Female

Assistant professors comprise the largest group (46%), followed by researchers and lecturers (18%) and associate professors (14%). The remaining academics identified themselves as lecturers (11%), PhD students (5%) and researchers' (5%).
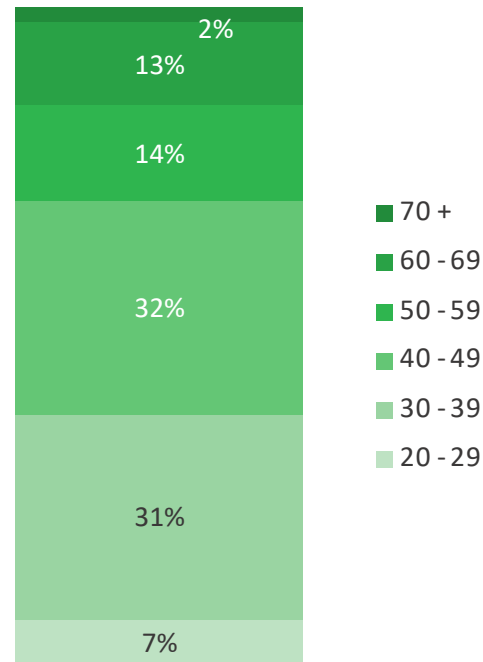
Most Polish academics in the sample are in the middle of their working life. A third of the academics (32%) in the sample are between 40 and 49. Other significant groups are those aged 30-39 (31%) and 50-59 (14%), followed by those aged 60-69 (13%). Academics aged 20-29 are only 7%.
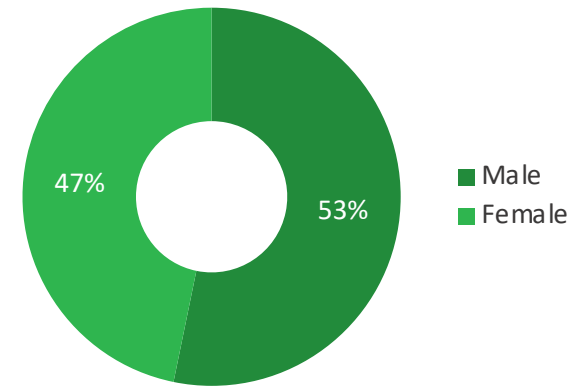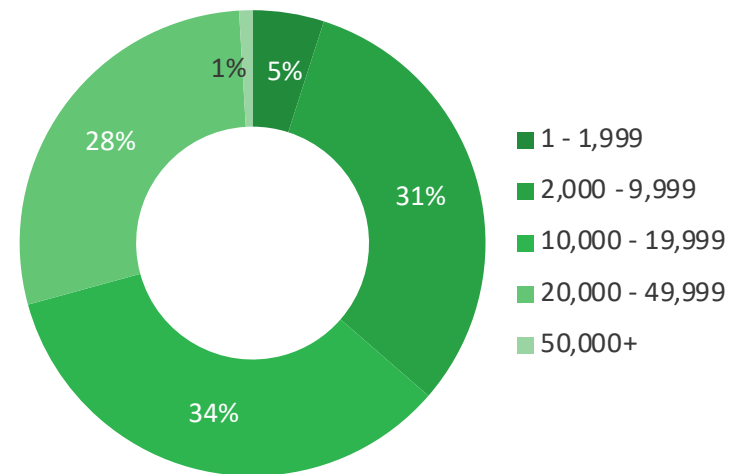
There is almost an even gender distribution in the Polish academic sample with 53% male and 47% female respondents.

Respondent profile – academics
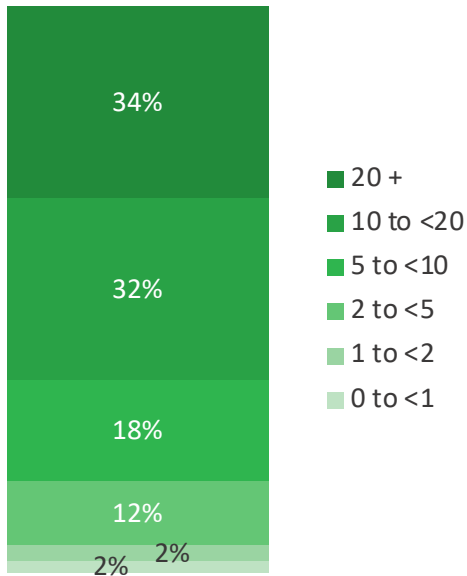
Number of students of the HEI

Legend:
- 1 - 1,999
- 2,000 - 9,999
- 10,000 - 19,999
- 20,000 - 49,999
- 50,000+

Chart values: 5%, 31%, 34%, 28%, 1%

Sample Size	
Polish Academics	n=985
European Academics	n=10.836
Polish HEI representatives	n=268
European HEI representatives	n=3.482

A third of the Polish academics (34%) in the sample work for small HEIs (between 2,000 and 9,999 students) and another third (31%) of them work for very small HEIs (under 1,999 students). Medium-large HEIs (20,000 to 49,999 students) are represented by 28% of respondents.
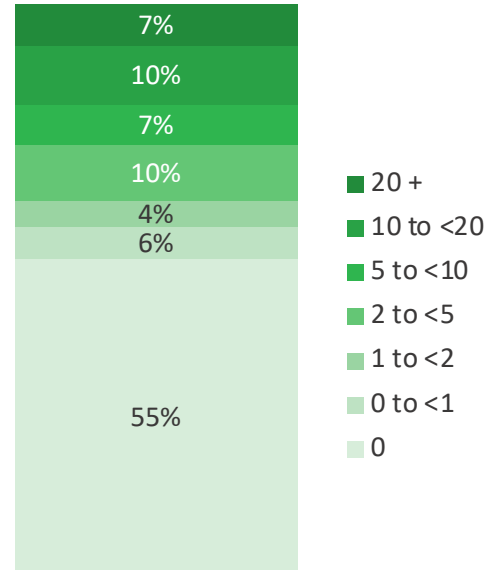
Respondent profile – academics

Years working in university

Legend:
- 20 +
- 10 to <20
- 5 to <10
- 2 to <5
- 1 to <2
- 0 to <1

(34%, 32%, 18%, 12%, 2%, 2%)

Years working in business

Legend:
- 20 +
- 10 to <20
- 5 to <10
- 2 to <5
- 1 to <2
- 0 to <1
- 0

(7%, 10%, 7%, 10%, 4%, 6%, 55%)

Years involved in UBC whilst working at a university or business

Legend:
- 20 +
- 10 to <20
- 5 to <10
- 2 to <5
- 1 to <2
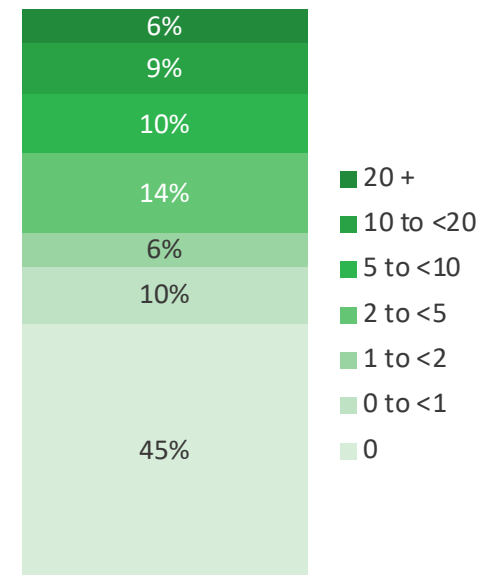- 0 to <1
- 0

(6%, 9%, 10%, 14%, 6%, 10%, 45%)

Most academic respondents have worked in academia for several years. Two thirds of them (66%) have worked in academia for over 10 years. 18% have 5-10 years of experience and 12% have worked in academic for 2-5 years. Only 4% of the academics have less than 2 year of experience.

Almost half (45%) of the Polish academic respondents have worked in industry before. 20% of them have done so for less than 5 years. 7% have 5 to 10 years and 10% - 10 to 20 years of industry experience. Only 7% have worked in business for over 20 years.

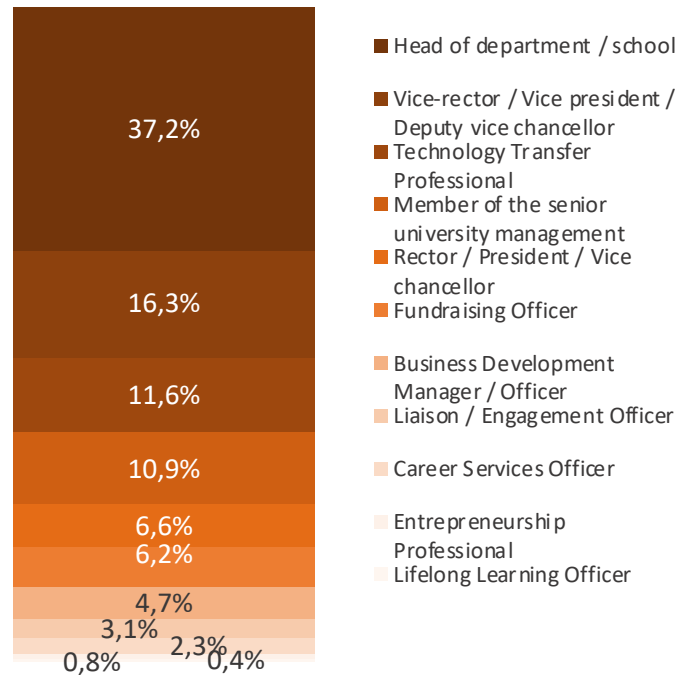Over a half of academic respondents in Poland have some UBC experience. Although only 6% have been involved in UBC for over 20 years, 19% have between 5 and 20 years of experience and 20% between 1 and 5 years of experience. 45% of academics in the sample have never engaged in UBC.

Respondent profile – HEI representatives

Position of respondent

- 37,2%
- 16,3%
- 11,6%
- 10,9%
- 6,6%
- 6,2%
- 4,7%
- 3,1%
- 2,3%
- 0,8%
- 0,4%

Legend:
- Head of department / school
- Vice-rector / Vice president / Deputy vice chancellor
- Technology Transfer Professional
- Member of the senior university management
- Rector / President / Vice chancellor
- Fundraising Officer
- Business Development Manager / Officer
- Liaison / Engagement Officer
- Career Services Officer
- Entrepreneurship Professional
- Lifelong Learning Officer

Number of students of the HEI

- 14%
- 37%
- 20%
- 27%
- 1%

Legend:
- 1 - 1,999
- 2,000 - 9,999
- 10,000 - 19,999
- 20,000 - 49,999
- 50,000+

Polish HEI representatives hold a variety of roles. 37% of them are heads of department/school. Vice-rectors or vice-presidents comprise the second largest group (16%). They are followed by technology transfer professionals (12%) and rectors or presidents (11%).
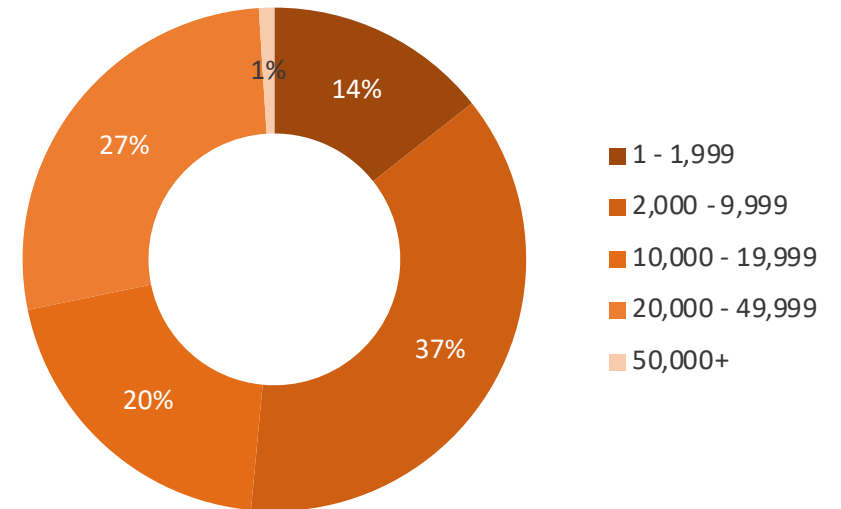
Overall, half of HEI representatives work for small HEIs (under 9,999 students), from whom 14% of HEI of them work for very small HEIs (under 1,999 students). 27% are based in medium-large HEIs (20,000 to 49,999 students) and remaining 20% work for medium-sized HEIs (10,000 to 19,999 students).

Contact us

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This report is part of the DG Education and Culture study on the University-Business Cooperation in Europe: drivers, challenges and opportunities in Europe EAC/10/2015. Further information can be found at www.ub-cooperation.eu

This report is also part of the Global University-Business Monitor initiative, a global study into university engagement and cooperation between university and business. Further information can be found at www.uni-engagement.com

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