



UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

State of University- Business Cooperation

SLOVENIA

University Perspective

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



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

Partners



Authors: Adisa Ejubovic, Gregor Cerinsek, Todd Davey, Arno Meerman, Victoria Galan-Muros, Balzhan Orazbayeva

For further information about the State of European University-Business Cooperation project, national reports or the Global Engagement Monitor, please contact Todd Davey (Davey@fh-muenster.de) or Arno Meerman (meerman@uiin.org)

Executive summary

Summary

This report seeks to contribute to our understanding of the higher education institution's (HEI) perspective of university-business cooperation (UBC). Examining the perceptions of academics, HEI managers and knowledge transfer professionals (KTP) provides positive signs for the future, with all respondents currently cooperating with businesses planning to maintain or increase their cooperation in the future. Yet, more can be done, for example, in supporting academics in their cooperation efforts, including the development of dedicated academic UBC networks, as well as the development of incentive systems for academics engaging in UBC.

About the study

The results presented in this national report are from the State of European University-Business Cooperation (UBC) study executed for the DG Education & Culture of the European Commission (EAC/10/2015) by a consortium led by the Science-to-Business Marketing Research Centre. The project investigated university-business cooperation (UBC) from the perspective of both university and business, seeking clarity on mechanisms supporting it, drivers, barriers and challenges. The results are part of two quantitative surveys (university and business perspectives) ran in 2016 and receiving 17,431 responses, making it the largest International study yet competed on the topic.

Academics as primary UBC initiators

Academics responding to this survey are involved in a variety of different cooperation types, with

educational activities such as curriculum co-delivery, lifelong learning and mobility of students, emerging as the most developed ones.

Respondents see themselves as proactive initiators of UBC, with 56% of respondents stating that they usually or always initiate such cooperation. In comparison, only 14% of respondents perceive government to be usually initiating cooperation.

Resourcing and values are key

Cooperating academics point out that the main barriers pertain to the lack of funding (top 4 barriers are funding-related), in particular government funding. Slovenian higher education is primarily funded by the government and the general expectation is that UBC should also be funded from the public purse.

While non-cooperating academics also point out the lack of government funding as one of the barriers, they give more prominence to the differing motivations/values between university and business. The non-cooperating academics are likely to be coming from disciplines where practical applicability may be challenging and therefore the values and motivations preclude them from forging cooperation with businesses. HEI representatives side with non-cooperating academics in detecting differing values and motivations between university and business as the main obstacle to UBC.

This report provides a university perspective on university-business cooperation UBC, drawing on a survey of European higher education institutions, academics and businesses. While acknowledging limitations relating to the generalisability of the results due to the non-random nature of the sample, the results provide positive signs both of the present and for the future, while also providing an indication as to areas that require future development.

Executive summary

Relationship and funding main drivers

While funding to undertake cooperation emerges as one of the top five facilitators, relationship factors such as prior relation with the business partner appears as the dominant facilitator. Another relational factor facilitating and driving cooperation from the perspectives of both HEI respondents and academics is the existence of mutual trust. As Slovenian academics cooperate with a small number of partners, good past experiences and trust are perceived as paving way to safer and reliable UBC.

Self-interests only one part of the story

While cooperating academics highlight self-interests, such as improving teaching and research, academics not cooperating don't identify their own benefits as the biggest motivating factor for cooperation. Instead they identify benefits that other stakeholders can obtain from UBC. These include improving graduate employability and contributing to the university's mission.

Both HEI representatives and cooperating academics rank the research-related indicators as the biggest motivator for UBC. HEI representatives also rank existence of funding as one of the important motivators. HEI representatives are more likely to perceive UBC in a holistic manner: acquiring additional funding, enabling applicability of research and generating employable graduates.

Strategy first

With respect to the development of UBC supporting mechanisms, high-level paper strategies such as a

strategy supporting UBC and a documented mission/vision embracing UBC are perceived as the most developed. Yet, specific implementation strategies such as incentive and recognition systems along with the reduction of teaching time for undertaking collaboration emerge are less advanced.

The most developed structural mechanisms in the given sample include career offices, alumni networks and lifelong learning programmes. When examining the development of specific activities, a strong focus on students emerges, with the highest development reported in relation to student entrepreneurship courses and UBC activities facilitating student interaction with business. Another important operational mechanism relates to the featuring of UBC prominently on the university's website. Academic entrepreneurship courses and networks, on the other hand, are perceived as least developed.

Cooperating with conviction

Academic respondents already cooperating with business have a positive view of their abilities and roles in undertaking UBC. Indeed, the respondents believe that it is the role of academics to cooperate with business in both research and education. Furthermore, they believe they have an ability to exchange knowledge and technology with business and are convinced of having a lot to offer to business in education and training. Yet, few agree that they have sufficient support to undertake UBC.

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 Slovenia 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, 51 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.



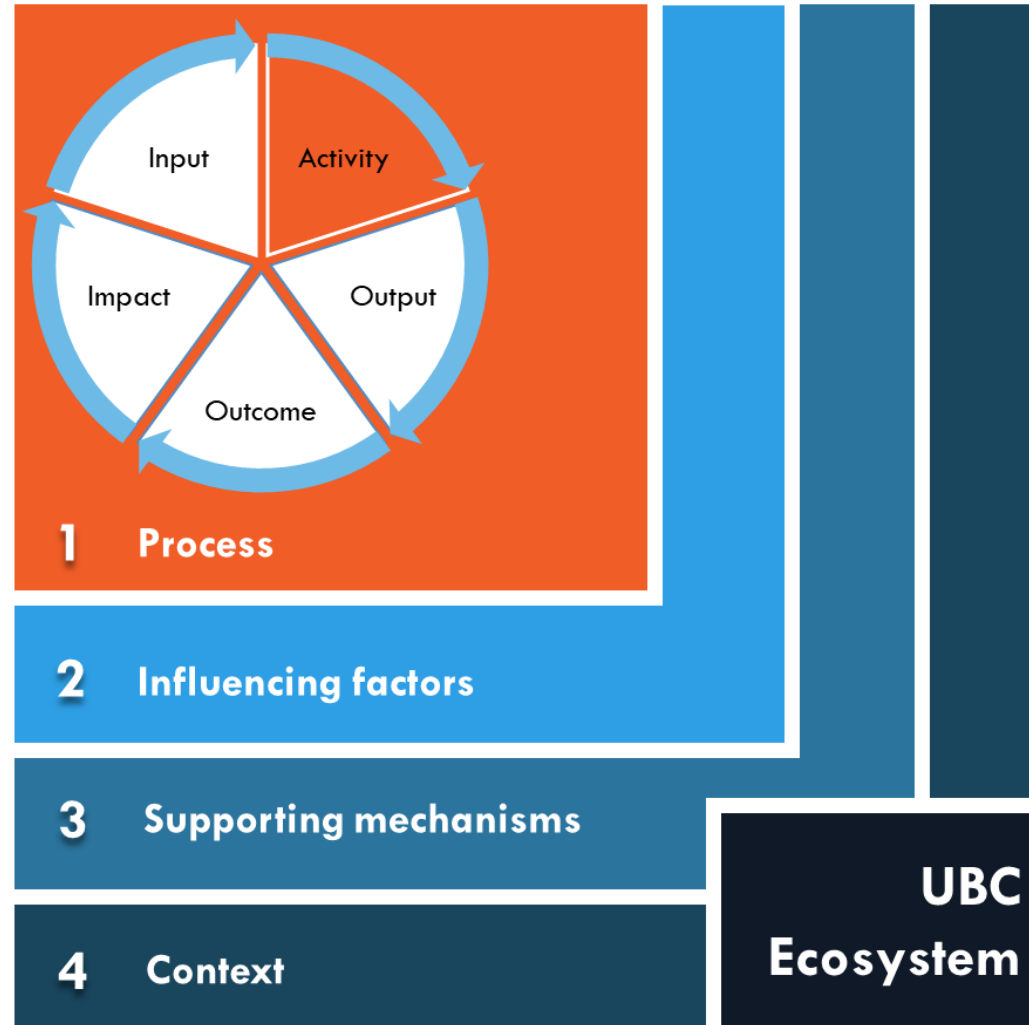
UBC activities

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	<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

Overall, most UBC activities are less developed for Slovenian academics than for their European counterparts.

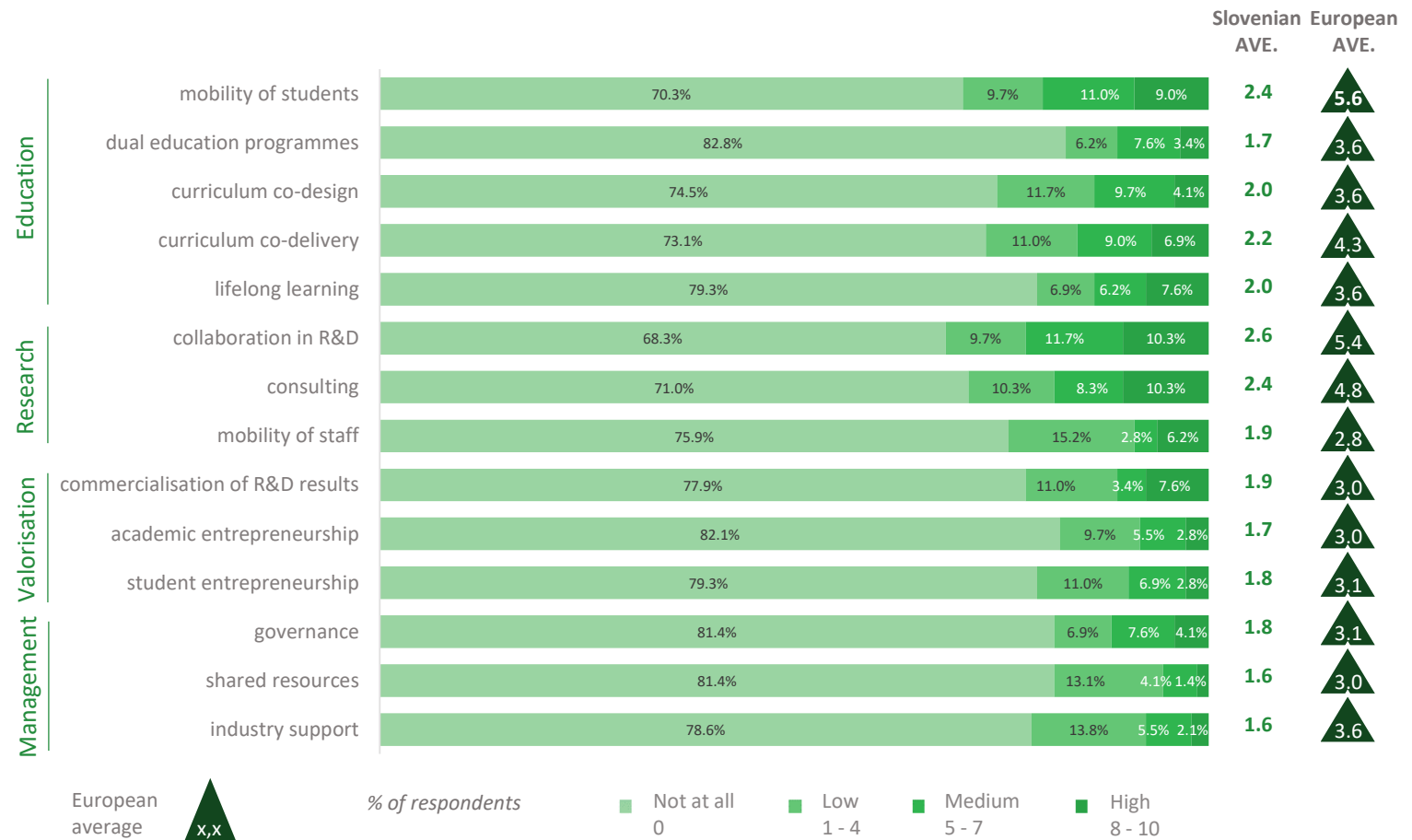
Slovenian academics most commonly engage with business in collaboration in R&D (2.6), consulting and mobility of students (2.4 each). However, around 70% of Slovenian academics do not engage in these activities. One explanation could be the fact that areas of engineering and natural sciences are more engaged than the areas of humanities and social sciences, both in education and R&D.

The fourth most developed UBC activity for Slovenian academics is curriculum co-delivery (2.2). But while 7% report a high level of development, over 70% are not engaged at all. The business professionals most frequently engage as external speakers but do not directly influence the overall curricula development or modification. The so-called “academic independence” is a norm in Slovenia, which is quite favorable in academic spheres, meaning that externals (state, capital, political parties) are not to influence academic freedom.

All the UBC management activities and valorisation activities are not developed at all around 80% of Slovenian academics.

The extent of development of UBC activities

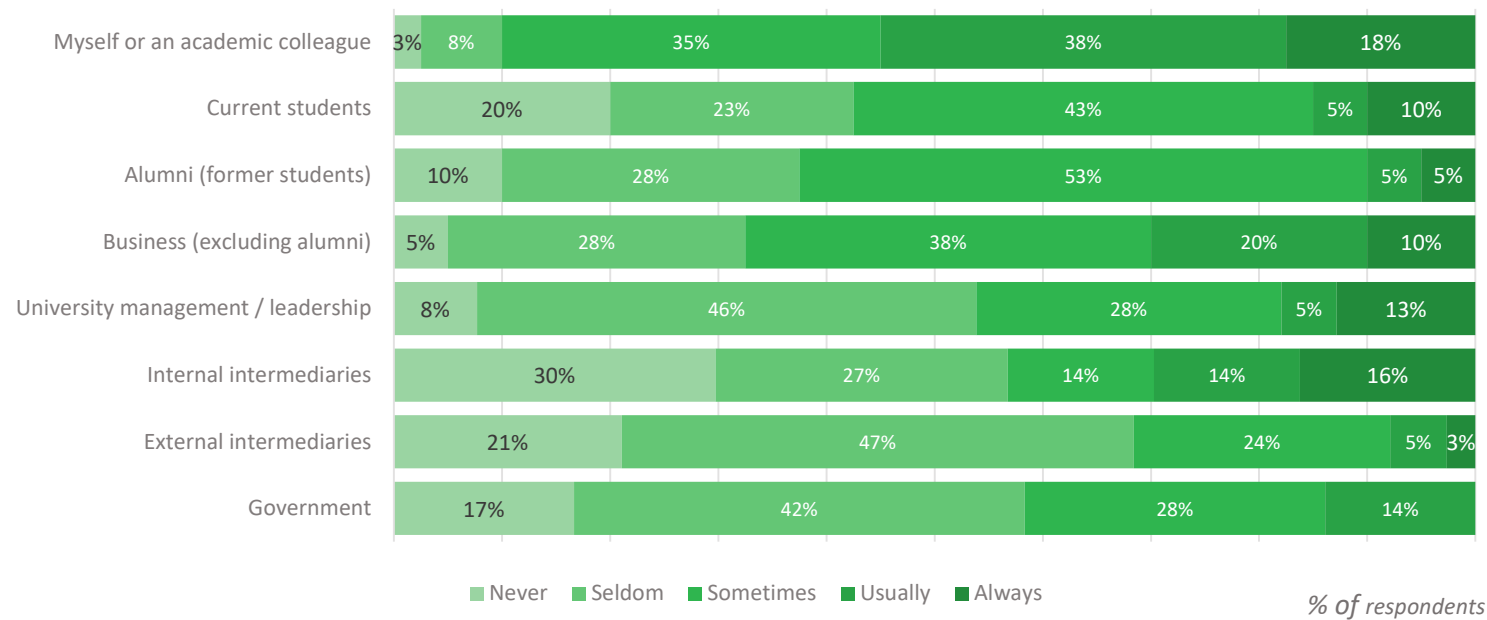
‘Which UBC activities do you collaborate with businesses in?’ – as answered by academics



Initiation of UBC

How UBC is initiated

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



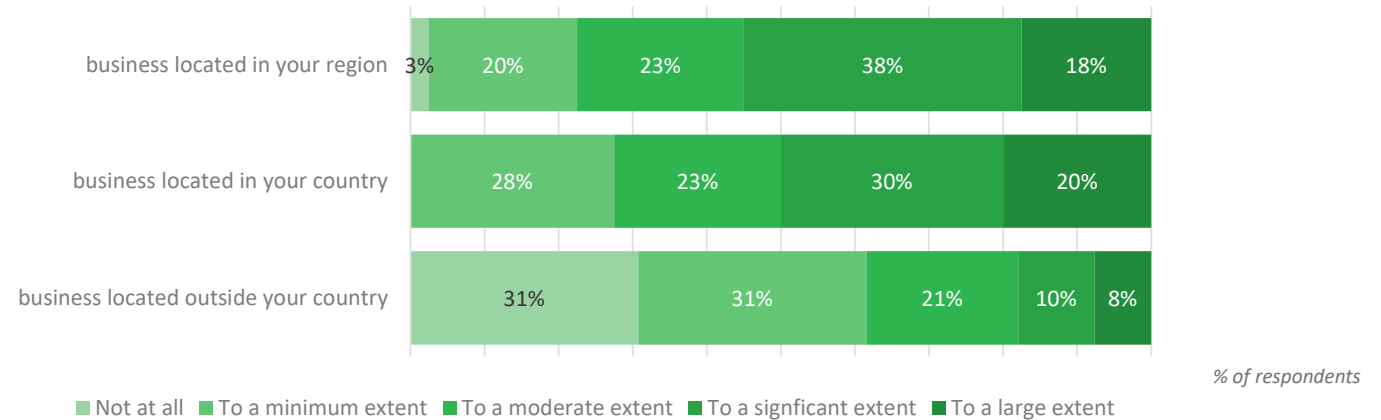
Over half of Slovenian academics (56%) consider that themselves or their colleagues always or usually initiate UBC. Since there is a lack of structural mechanisms that would initiate or enhance UBC collaboration (e.g. a specific UBC platform) the initiation is still mainly dependent on individuals (and business environment as well). So, if a specific challenge arises that would need to involve the UBC (and this is especially relevant for R&D) the individuals engage their own network and use their individual connections based on past experiences.

Business and internal intermediaries (30% each) are also considered initiators most times.

On the other hand, academics perceive that government (14%) less often initiate UBC.

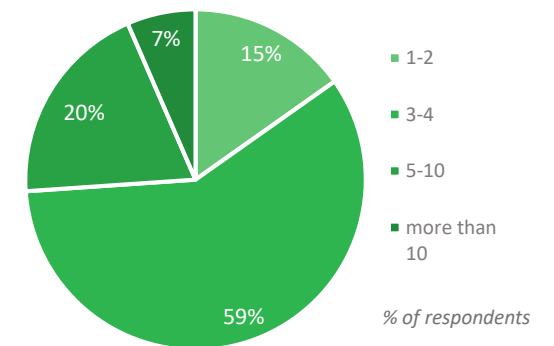
Location of cooperating partners

Location of business partners



Academics in Slovenia focus on collaboration with regional and national businesses. They undertake a significant or high levels of cooperation with businesses at a regional and national level (56% and 50% respectively). Only 18% of academics indicate significant or high cooperation with international businesses. The UBC is perceived as more reliable, safer and easier to establish and maintain if involving familiar companies from own network that are mainly locally or nationally based. This is also related to the previous results which indicates that academics most frequently consider themselves as initiators – using their individual familiar contacts and networks. The exception is EU projects.

Number of business partners

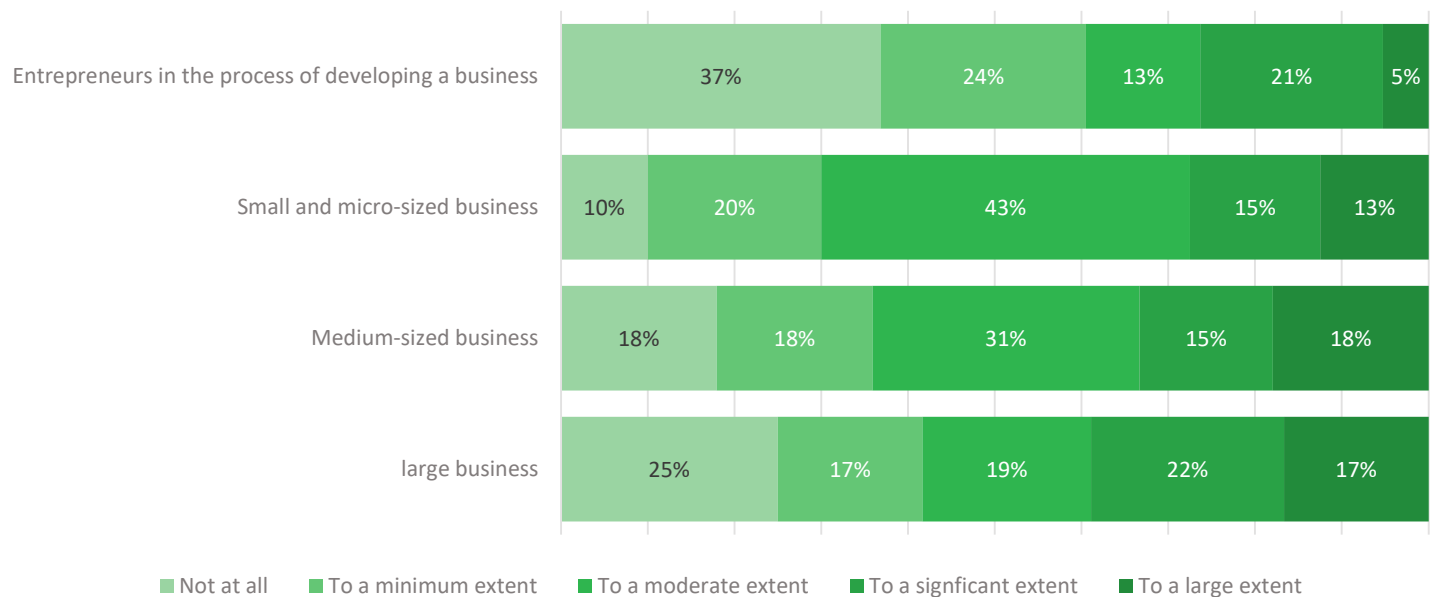


Over a half (59%) of Slovenian academics cooperate with 3-4 businesses. 20% collaborates with 5-10 businesses. 15% does so with 1-2 businesses while only 7% collaborates with more than 10. The cooperation mainly depends on the individuals and their established networks involving 3-4 reliable companies (i.e. individuals working in the company) with successful past experiences.

Size of cooperating partners

Size of cooperating partner

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



The larger the business the more likely it is to cooperate with a Slovenian academic.

39% of cooperating academics in Slovenia engage to a significant or large extent with large businesses. This cooperation is slightly reduced to 33% for medium businesses, 28% for small and micro-sized businesses and 26% for entrepreneurs.

The universities and academics most frequently cooperate with large and prominent companies focusing also on R&D, and which also perceive UBC as part of their strategic orientation. Smaller firms are frequently very self-dependent, do not rely their business on R&D activities and are also facing lack of time for UBC.

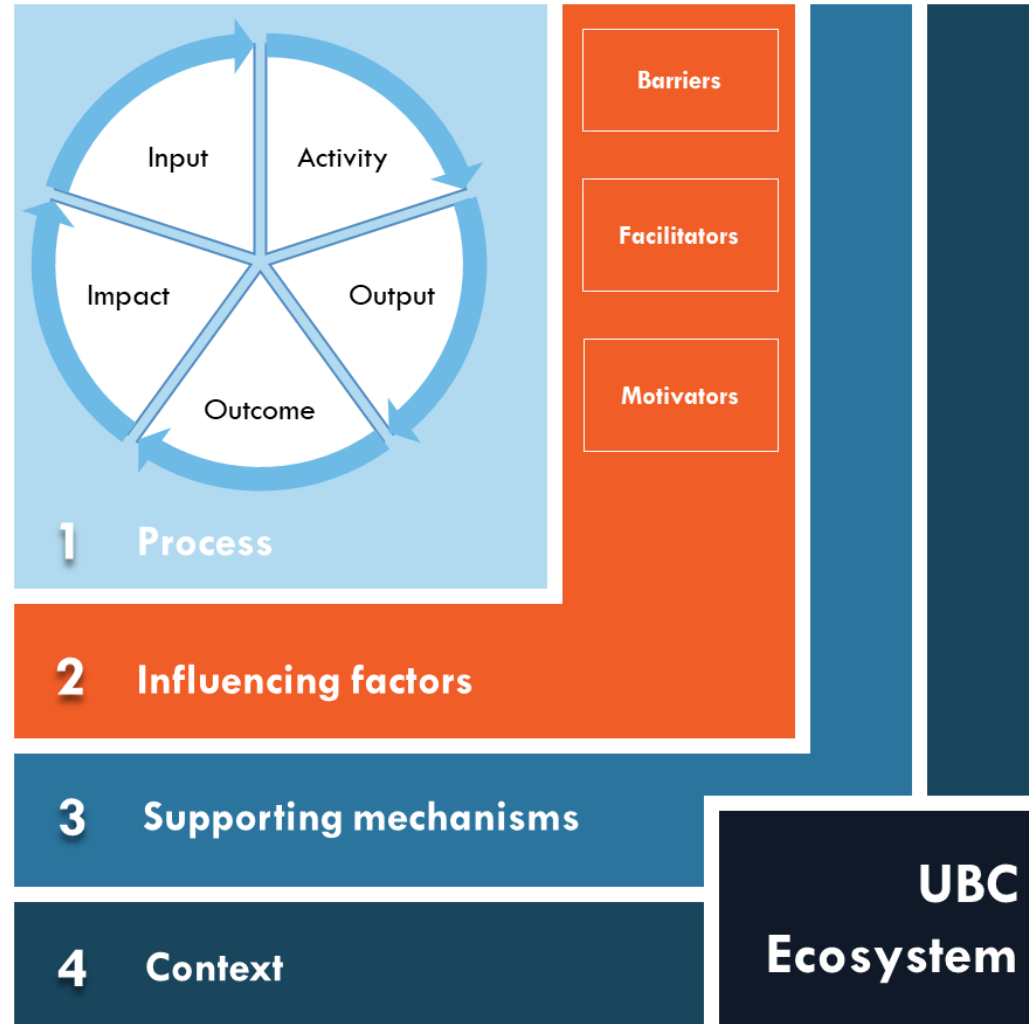
Factors influencing UBC

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 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.	Lack of government funding for UBC	Differing motivation/values between university and business
2.	Lack of university funding for UBC	Lack of government funding for UBC
3.	Lack of business funding for UBC	Limited resources of SMEs
4.	Limited resources of SMEs	The focus on producing practical results by business
5.	Bureaucracy related to UBC	Bureaucracy related to UBC
<i>Lowest</i>	UBC conflicts with my teaching and research responsibilities	Frequent staff turnovers within my university or the business

Lack of government, university and business funding and limited SME resources are top 4 four barriers for cooperating academics. On the other hand, only 2 barriers for non-cooperating academics relate to resources. Since the government is the key funding body of overall higher education in Slovenia, there is an expectation that the government should be financing UBC-related activities. Therefore, there is a lack of understanding of who should financially support UBC and there is no strong push for business to provide funding. This is due to the lack of good practices in which business has strong interest in UBC and also provides considerable financial support.

Differing motivation/values between university and business is the top barrier for non-cooperating academics. The non-cooperating academics do not have experiences with UBC and the key reason for that is often the practical non-applicability of their work (especially relevant for social sciences and humanities). Bureaucracy related to UBC is another important barrier in Slovenian context rated equally by both groups.

The least important barrier for cooperating academics is conflicting of UBC with teaching and research responsibilities, while for non-cooperating academics it is frequent staff turnover.

Barriers hindering UBC

Slovenian academics and their European counterparts have different perceptions of barriers hindering UBC.

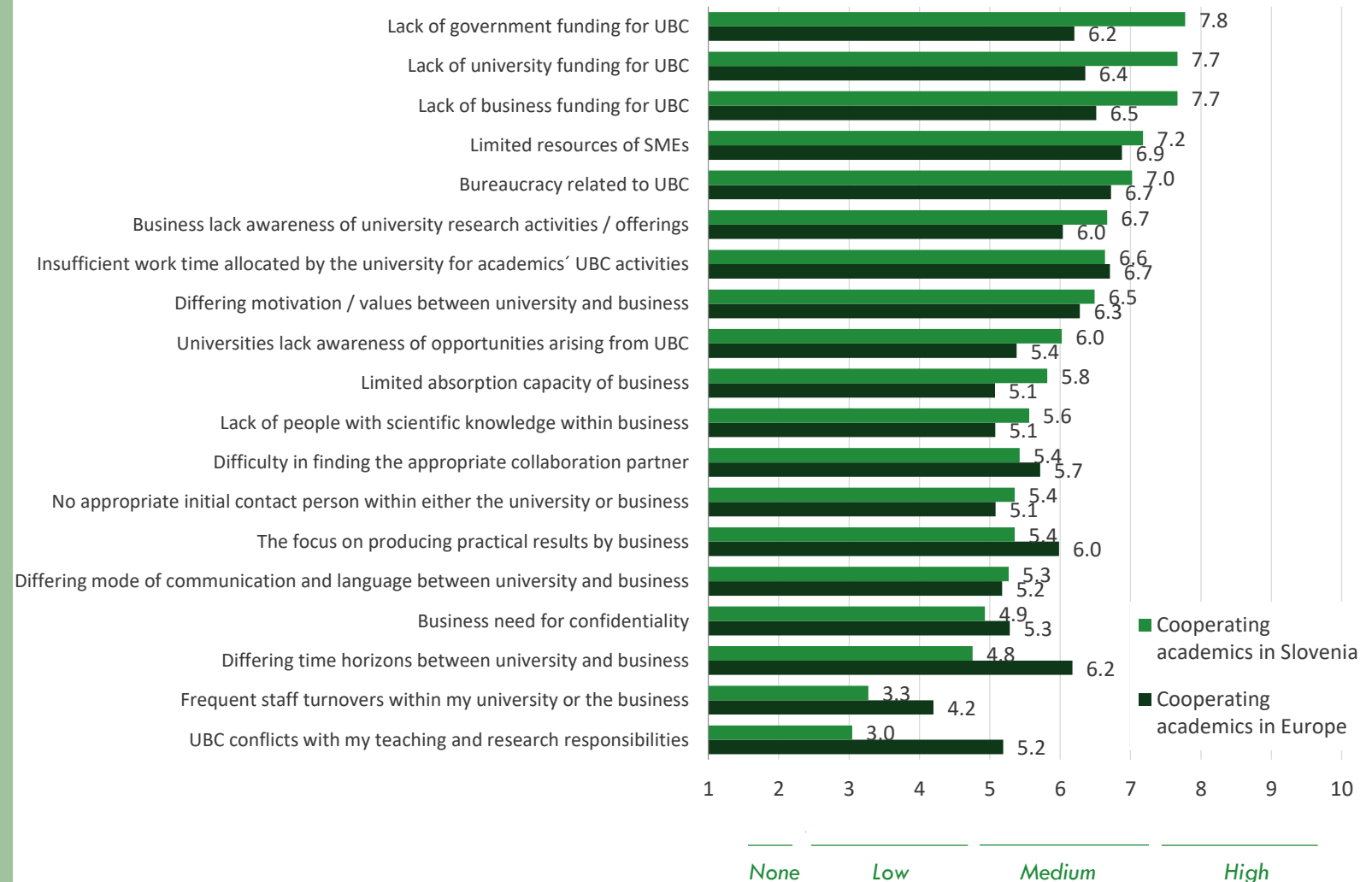
In Slovenia academics are more hindered than their European counterparts by the lack of funding.

However, they are less hindered than their European counterparts by differing time horizons between university and business and conflicting nature of UBC with research and teaching responsibilities. The majority of UBC relates to specific R&D or internships which is set well in advance, specifically defined by the contract (effort, deadlines etc.) and therefore does not interfere with other existing activities.

Similarly to European academics, frequent staff turnover is not an important barrier and it is even less prominent in Slovenian case. Staff turnover is generally not an issue in Slovenian higher education. In majority, staff employed at universities remains there for the whole working period.

Barriers

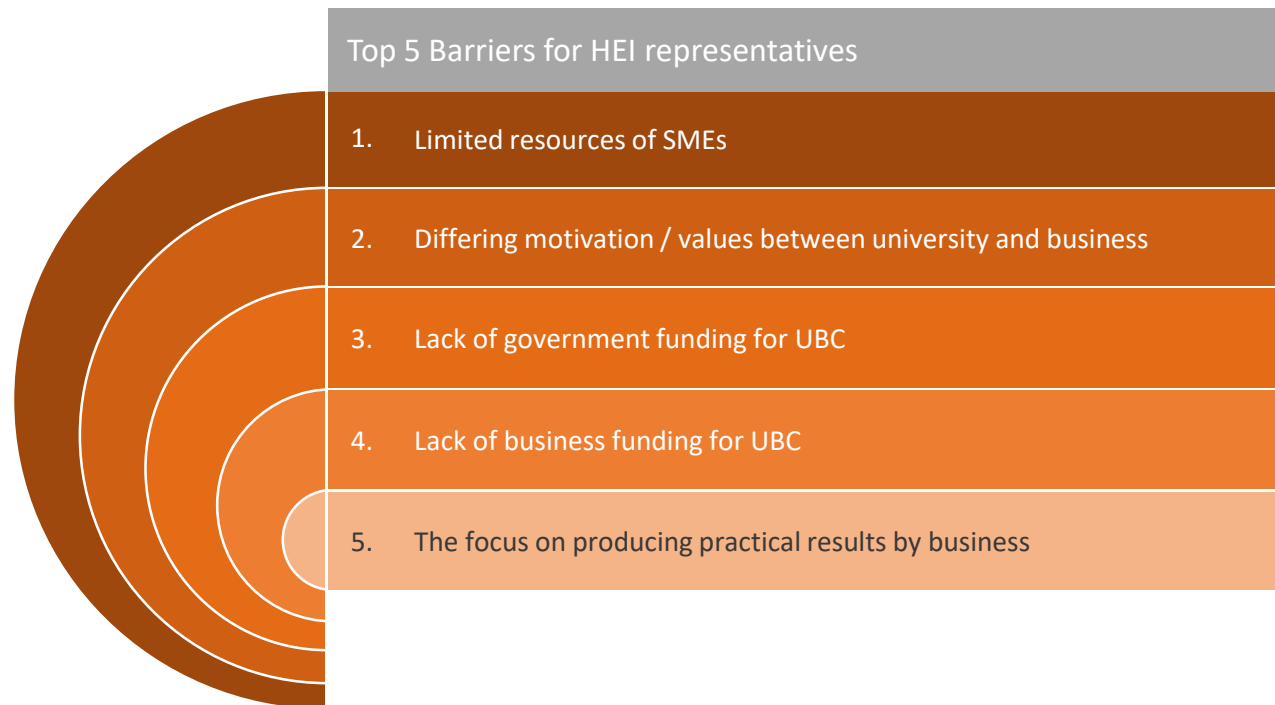
'What is inhibiting your cooperation with business?' – as answered by cooperating academics



Barriers hindering UBC

Barriers

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



Slovenian HEI representatives are inhibited to engage in UBC by the lack of resources and cultural differences similarly to Slovenian academics.

The lack of resources of SMEs and government and business funding are among the largest barriers. Unlike Slovenian academics HEI representatives seem to realise that enhancing UBC should require not primarily government resources, but other sources as well. Companies are one of those sources. Since SMEs represent the key driving force of Slovenian economy it is therefore obvious that SMEs should be the ones mostly involved in UBC and that they should also provide additional funding. However, and generally speaking, SMEs have not yet recognised the benefits of UBC – also confirmed in previous results where large companies are recognised as more involved. Since SMEs are very much focused on their specific tasks and products (optimisation and standardisation) they are also very cautious of investing money in areas where they do not see direct and short-term benefits. And UBC is one of them.

Further, differing motivation/values between university and business pose as another relevant barrier.

The focus on producing practical results by business emerges as another barrier but not as high as the aforementioned ones.

Barriers hindering UBC

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

Limited resources of SMEs are the largest barrier, similarly to European HEI representatives.

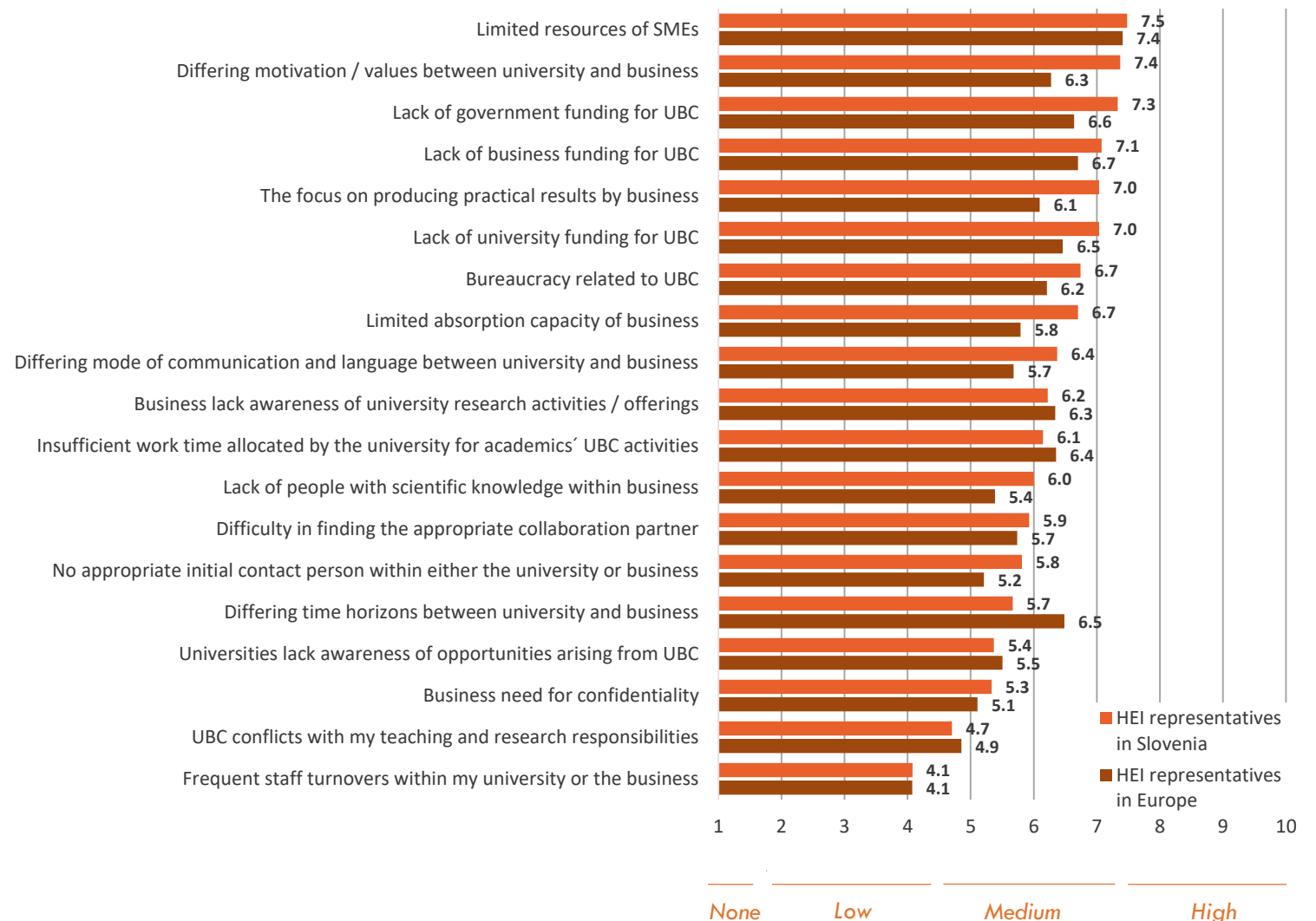
Differing motivations between university and business is further important barriers and it significantly exceeds European average. Generally speaking, this is one of the key issues why UBC is not as developed as it could be in the Slovenian context. HEI representatives perceive different motivations, values and practical business orientation as the first step which should be resolved in order to initiate the UBC. All other barriers (e.g. funding, bureaucracy, etc.) start later are not yet perceived as key barriers for the non-cooperating, but also for the HEI representatives, who have the larger picture in mind. So firstly, the liaison should be established, which is the most difficult one, especially in social sciences and humanities.

Some barriers in the Slovenian context are not as prominent as they are in the European context, such as differing time horizons between university and business.

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 academics and HEI representatives



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 the presence of barriers to UBC.

The main factors that facilitate UBC for both Slovenian academics and HEI representatives are rather similar.


The main four facilitators focus on the relationship aspect of UBC, highlighting the importance of mutual trust, a shared goal and prior relation with business partner for successful UBC. Since UBC is mainly initiated and sustained based on personal contacts and networks (due to Slovenia being a small country) prior relation and good experiences (good practices) are extremely important. What counts as well is what are the experiences of others (one's close colleagues or friends) that have already cooperated with certain partner.

Existence of funding is a major facilitator for academics, while is slightly less so for HEI representatives.

The interest of business in accessing scientific knowledge is also recognised by both groups.

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	Prior relation with the business partner
2.	Existence of mutual trust	Existence of funding to undertake the cooperation
3.	Existence of a shared goal	Existence of mutual trust
4.	Prior relation with the business partner	Existence of a shared goal
5.	Interest of business in accessing scientific knowledge	Interest of business in accessing scientific knowledge

Drivers stimulating UBC

European and Slovenian perceptions of UBC facilitators are similar.

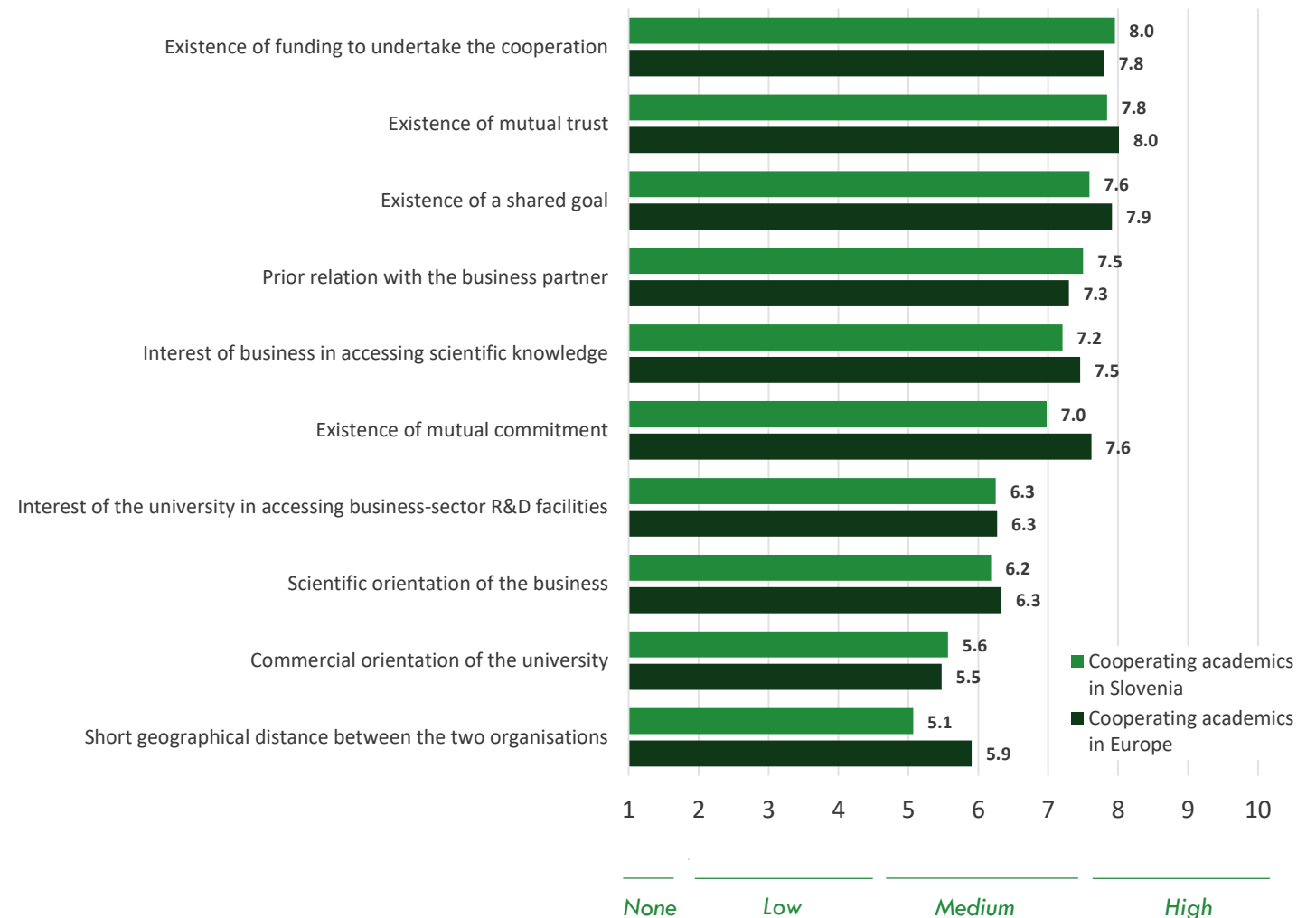
For both groups, the most important facilitators are those related to the relationship component of UBC and funding. Slovenian academics rated existence of funding for UBC as the most important facilitator.

The existence of mutual trust, a shared goal and prior relation with business partner are further important facilitators influencing their cooperation with businesses.

Short geographical distance is among the least important facilitators for both groups, while it is even less so for Slovenian academics.

Facilitators

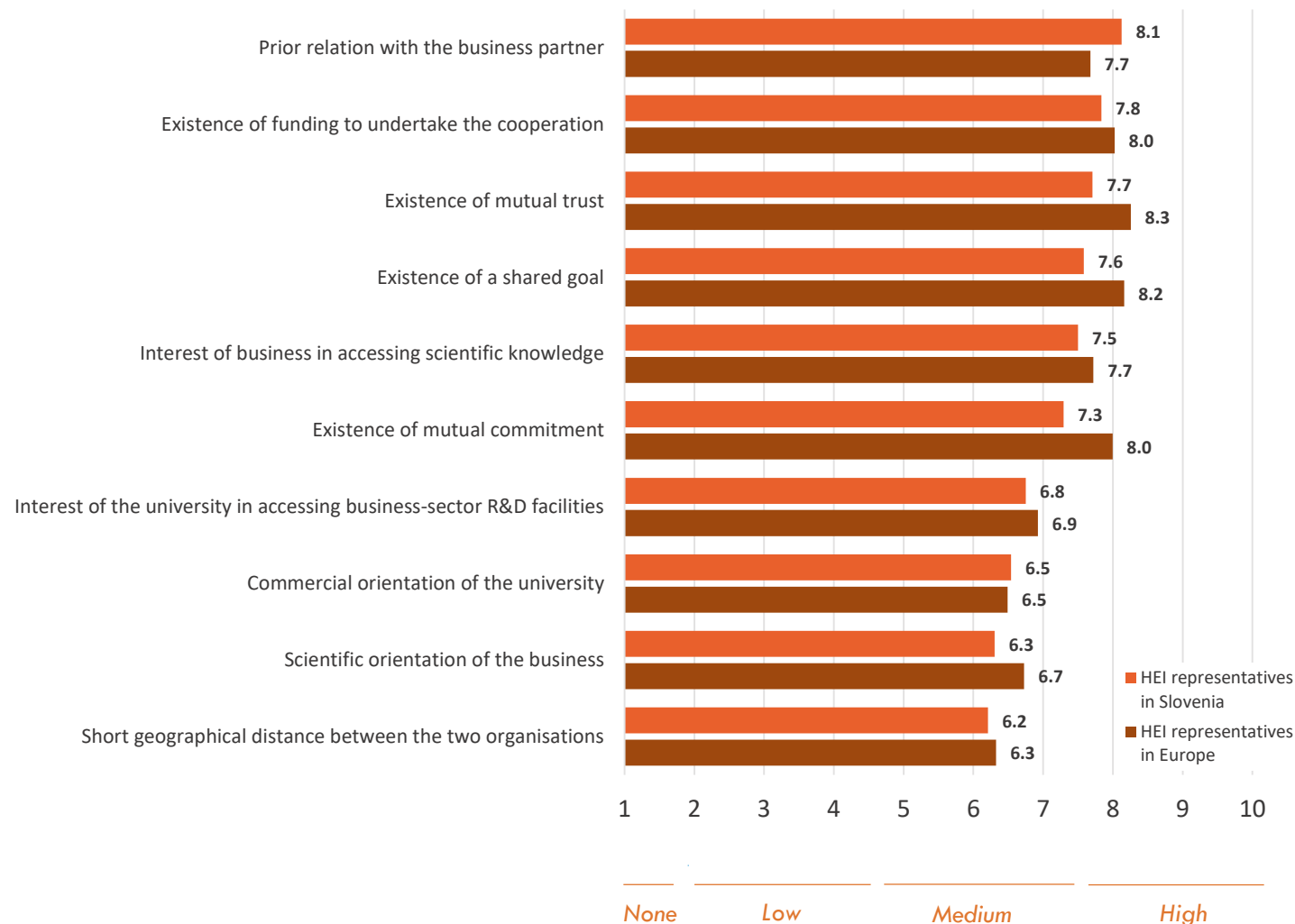
'What is facilitating your cooperation with business?' – as answered by cooperating academics



Drivers stimulating UBC

Facilitators

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



Slovenian HEI representatives perceive the facilitators to be less prominent than it is the case with European counterparts.

However, prior relations with the business partner is the only facilitator that exceeds the EU average and it is at the same time the top facilitator for Slovenian HEI representatives.

For both groups, the most important facilitators also relate to the relationship aspect of UBC and funding. The existence of mutual trust and a shared goal, as well as existence of funding for UBC are other most important drivers facilitating their cooperation with businesses. This is consistent with the academic perception. UBC is sustained based on prior relations and good experiences. This goes also in line with the result which suggests that 79% of Slovenian business respondents cooperate with 1 to 4 HEI partners and that over a half (59%) of Slovenian academics cooperate with 3-4 businesses as UBC is seen as more reliable and safe when involving familiar partners. The interest of business in accessing scientific knowledge also plays an important role.

Similarly to academics, the short geographical distance between two organisations are the weakest facilitators.

Drivers stimulating UBC

Motivators of Slovenian academics who already cooperate with businesses and motivators of non-cooperating academics have certain discrepancies.

While cooperating academics highlight research motivations, such as gaining new insights and using it in practice, academics not cooperating are also driven by the willingness to improve graduate employability and improving the mission of the university. The possible interpretation is that the cooperating academics mainly come from technical and engineering faculties who do not face serious challenges with employability of their graduates. Therefore, they value other, more individually oriented benefits and impacts of UBC. On the other hand, it is highly possible that the non-cooperating ones mainly come from social science and humanities. Since these fields experience more challenges in term od employability of their graduates, they may perceive that UBC could improve it.

Furthermore, they are both motivated by improving their teaching, but cooperating academics express this more while non-cooperating academics express more the possibility to address societal challenges.

Motivators

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

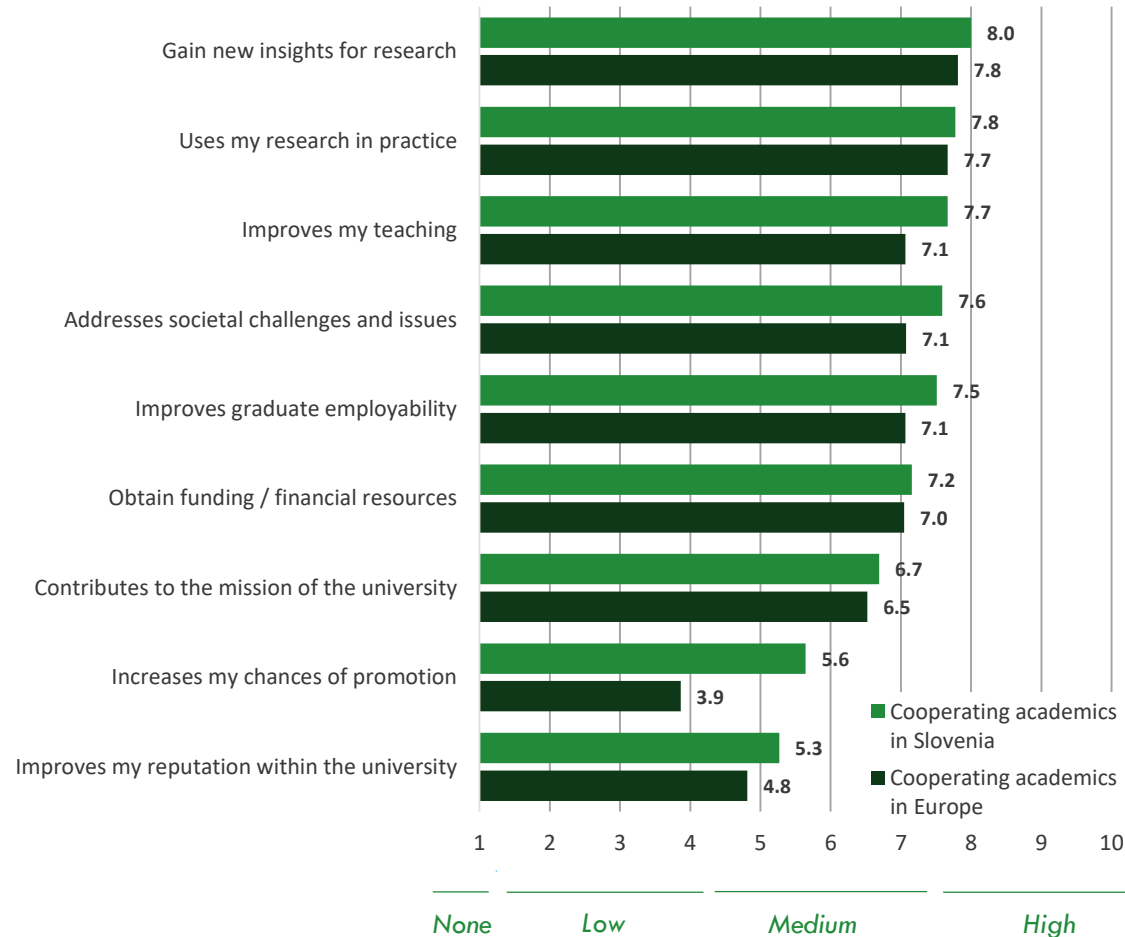


	Academics who cooperate	Academics who <u>do not</u> cooperate
1.	Gain new insights for research	Improves graduate employability
2.	Uses my research in practice	Contributes to the mission of the university
3.	Improves my teaching	Addresses societal challenges and issues
4.	Addresses societal challenges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

Drivers stimulating UBC

Motivators

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



The perception of UBC motivations of Slovenian academics mostly align with the perceptions of their European counterparts, but they rate them at a higher level.

Both groups highlight research and teaching motivations, such as gaining new insights for research and its practical application.

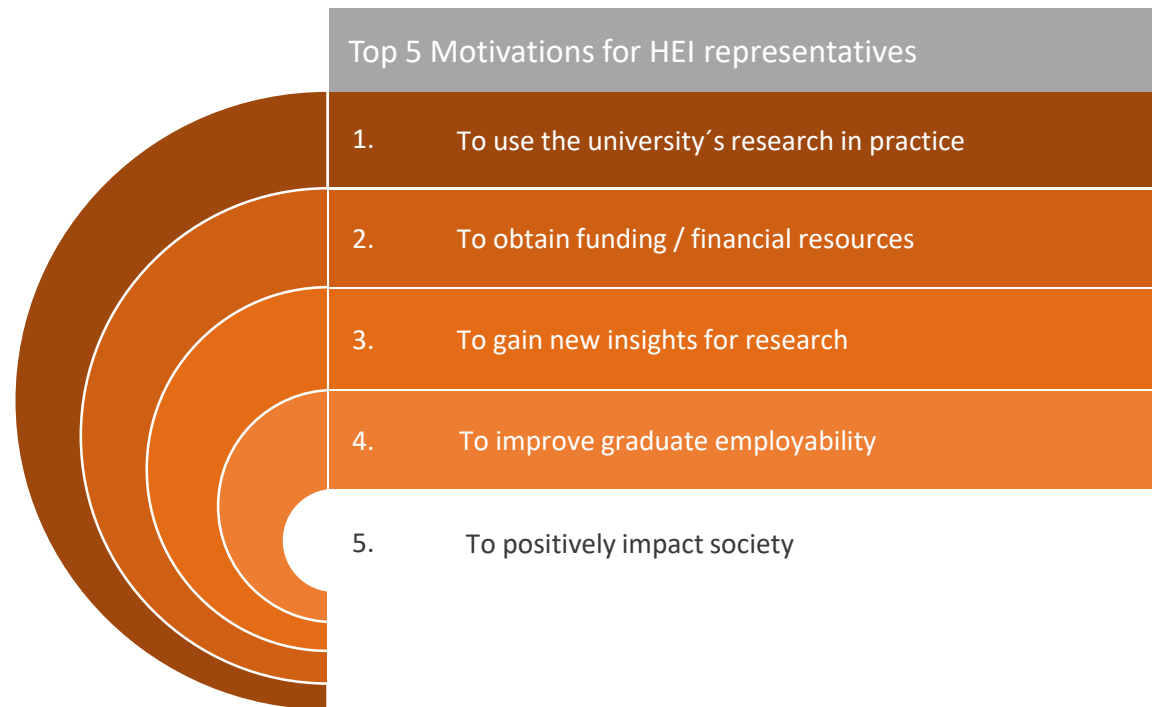
The motives focused on other stakeholders including university and society have a lower importance for academics in Slovenia.

Notably, promotion and reputation related motivators are the weakest drivers stimulating UBC for both groups, but they are more pronounced for Slovenian academics. UBC is not strongly connected to promotional factors in Slovenia.

Drivers stimulating UBC

Motivators

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



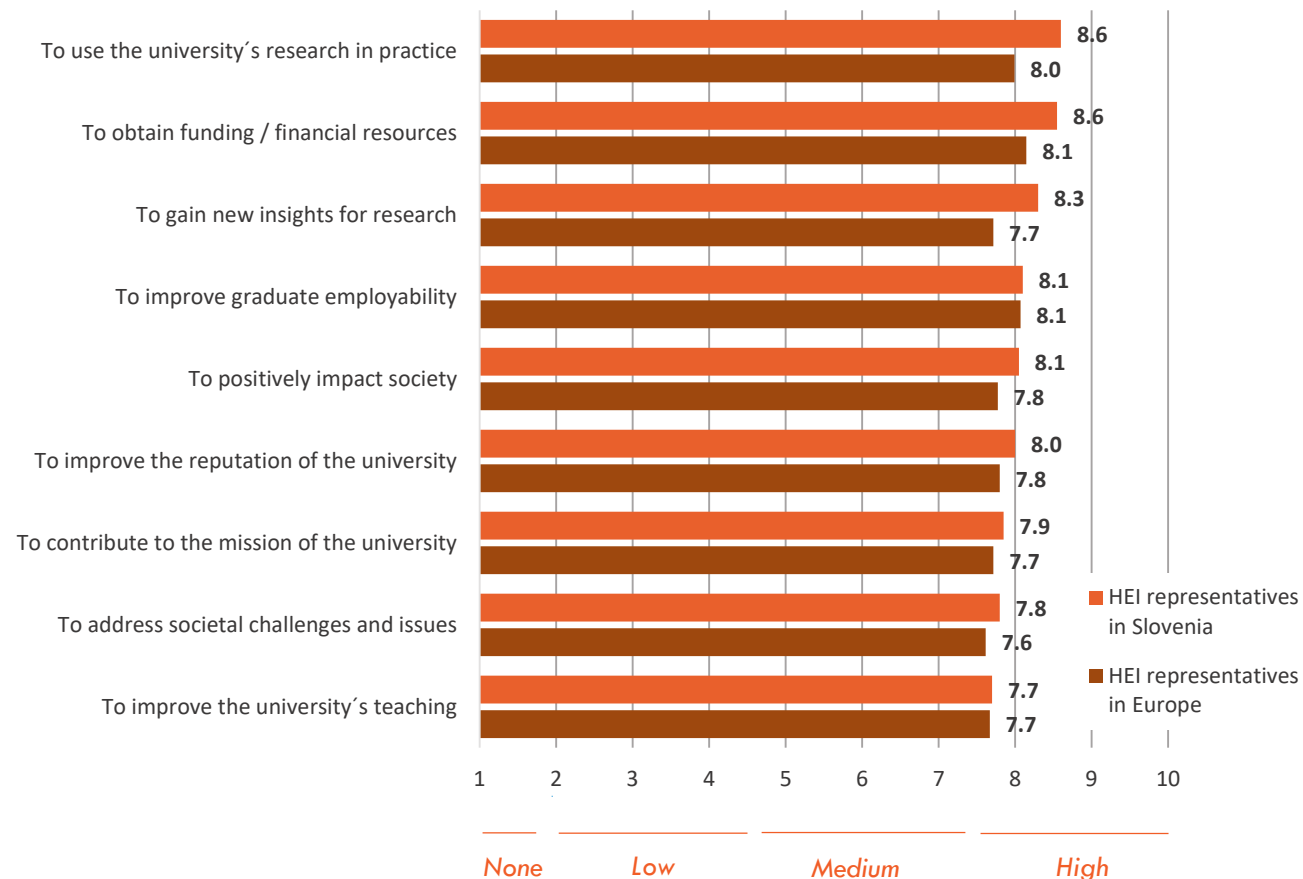
HEI representatives are more motivated by the benefits such as funding (unlike academics) and improving the research. Academics have relatively secure jobs and are financed for their teaching and research activities, irrespective of the UBC that they undertake. However, HEI representatives consider UBC as possible additional source for the university, which could potentially open new jobs or secure their own (depending on the specific type of the HEI representative). UBC is a potential source of new projects with the industry and business environment.

They are also driven by benefits for other stakeholders such as graduate employability and impact on the society. HEI representatives in Slovenia have a broader picture in mind and do not focus only on their individual benefits in comparison to academics.

Drivers stimulating UBC

Motivators

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



Slovenian HEI representatives perceive motivators exceptionally similar to their European counterparts.

Both groups think using university research in practice is very important, though this is more pronounced in the Slovenian context. As outlined before, HEI representatives have a more holistic picture in mind, perceiving UBC as the one who could raise the quality of the university, bring university closer to practice and improve the general image of the university in broader society (which is currently perceived as self-sufficient and highly theoretical – especially in social sciences and humanities).

Similarly, possibility of obtaining funding rates quite high too, and again Slovenian HEI representatives give more value to this indicator.

They are also quite motivated by gaining insights for research and improving the graduate employability.

On the other hand, both groups are least motivated by the improvement of teaching.

Benefits of UBC

Slovenian academics and HEI managers have different perceptions about the stakeholders that benefit the most and the least from UBC.

While academics perceive students to be primary benefactors of UBC, HEI representatives think it is the society. For academics a knowledgeable students is a direct product of academics' work and activities.

Both groups see businesses as the stakeholder that benefits the most after students and the society.

Academics believe more government benefits from UBC, while HEI representatives see government as the last benefactor on the list.

Interestingly, academics perceive themselves as the last benefactor.


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

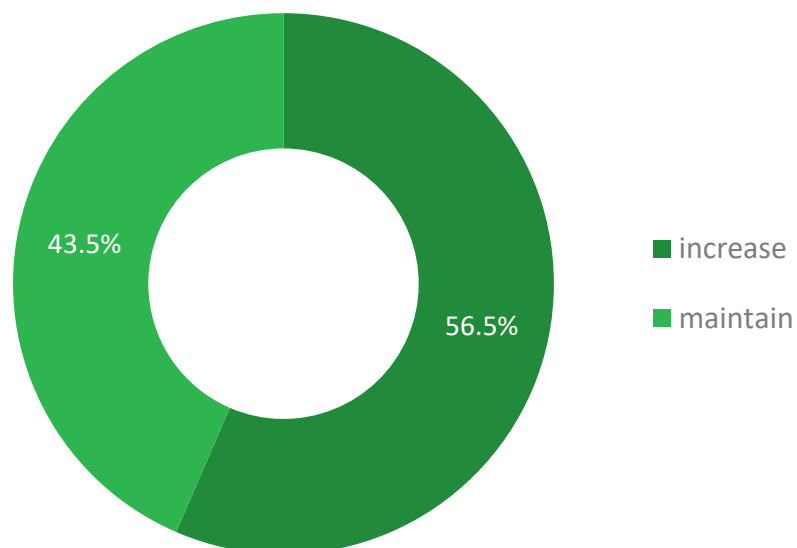


	Academics	HEI representatives
1.	Students	Society
2.	Society	Students
3.	Businesses	Businesses
4.	Government/public authorities	Universities
5.	Universities	Academics
6.	Academics	Government /public authorities

Future intentions

Future UBC intentions – Slovenia

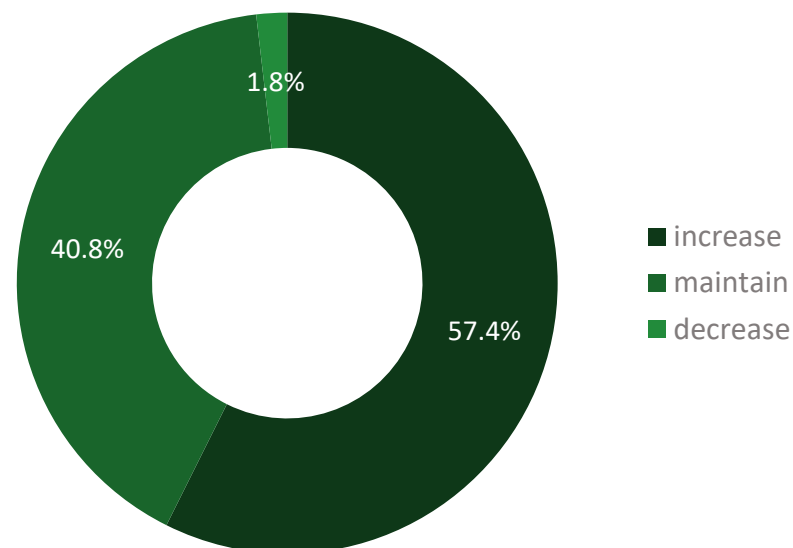
As answered by Slovenian academics



Slovenian academics show a very strong commitment to UBC. 43.5% of academics expect to maintain while 56.5% plan to increase their UBC activities.

Future UBC intentions – EUROPE

As answered by European academics



Academics in Europe show even a stronger commitment to increasing UBC activities. 57.4% of cooperating academics expect to increase their cooperation and only 1.8% plan to decrease their collaborative activities with businesses.

Willingness to recommend UBC

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

Slovenian academics are more satisfied with UBC in research (NPS=35) than their European counterparts (NPS=17). While 51% of them will promote it positively, only 16% would do it negatively. UBC in R&D is more effective and produces direct results with measurable impact. It is also very specific and contractual, meaning easier to establish, a lot of control, direct and short-term results, easier to manage expectation of both sides.

Slovenian academics are also more satisfied than their European counterparts in education-related UBC. While 52% of academics would recommend UBC, 33% of them would not recommend it, resulting in NPS of 19. Education is more challenging and it is not possible to modify curricula based on industry demands on short basis. Therefore, it is difficult to directly satisfy the needs of companies for producing graduates with appropriate requested skills (technology cycles).

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

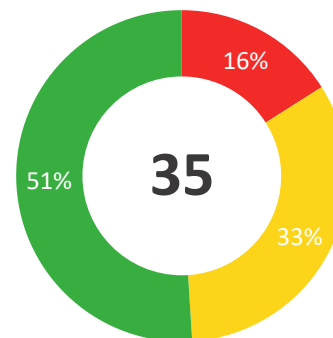
As answered by academics

	Detractors	Passives	Promoters
Academics cooperating in E&T	33%	14%	52%
Academics cooperating in R&D	16%	33%	51%

Net promotor score
19
35

Satisfaction in cooperation with businesses (net promotor score)

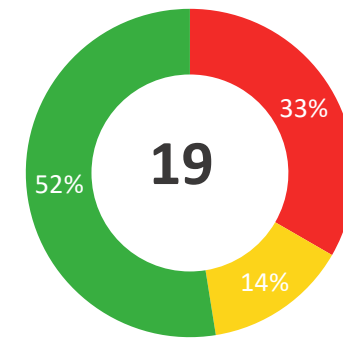
Academics cooperating in research



■ Detractors ■ Passives ■ Promoters

European academics' NPS result: 17

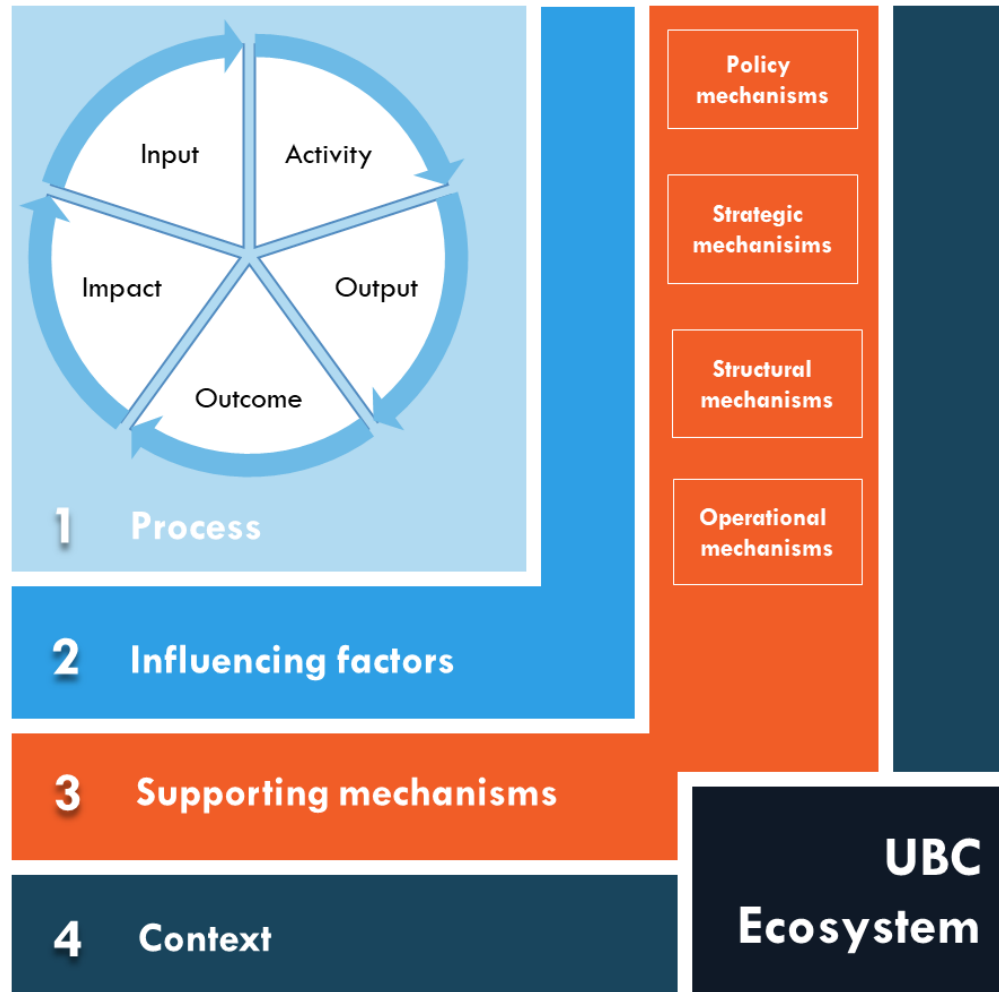
Academics cooperating in education



■ Detractors ■ Passives ■ Promoters

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

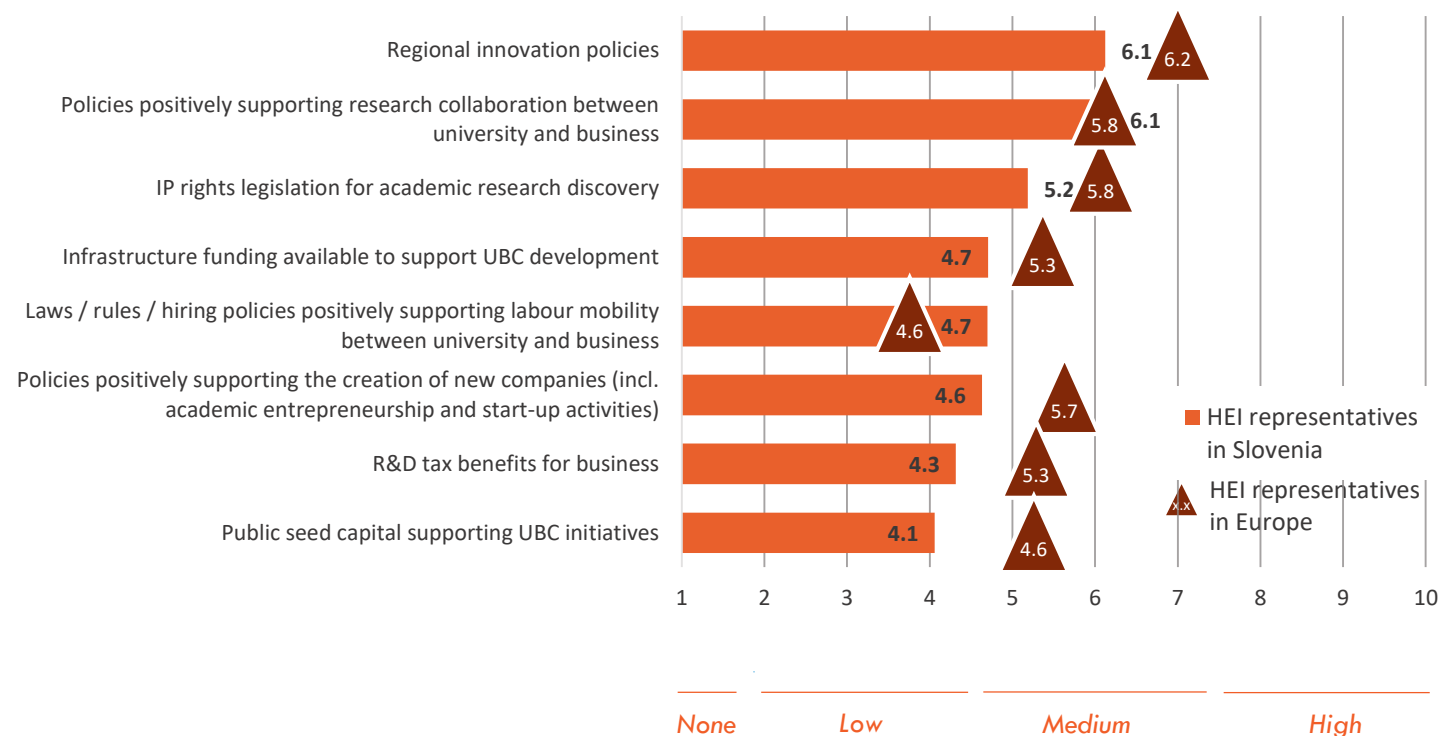
This section outlines the extent to which UBC supporting mechanisms are developed in this sample from the HEI perspective.

At the European level, the extent of development of all these mechanisms significantly influences the extent of cooperation.

Supporting mechanisms for UBC

Policy mechanisms

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



Slovenian HEI representatives perceive policy mechanisms to be developed at a low to medium level. These perceptions are a mainly lower than the perceptions of their European counterparts. Policy mechanisms for UBC are underdeveloped and this can be seen also through the previous sections of the report. In general, UBC is not initiated, supported or enhanced through specific university mechanisms or platforms. It is mainly dependent on individual efforts or culture established within certain departments or laboratories within technical faculties.

Regional innovation policies and policies positively supporting research collaboration between university and business are the most developed (6.1 each).

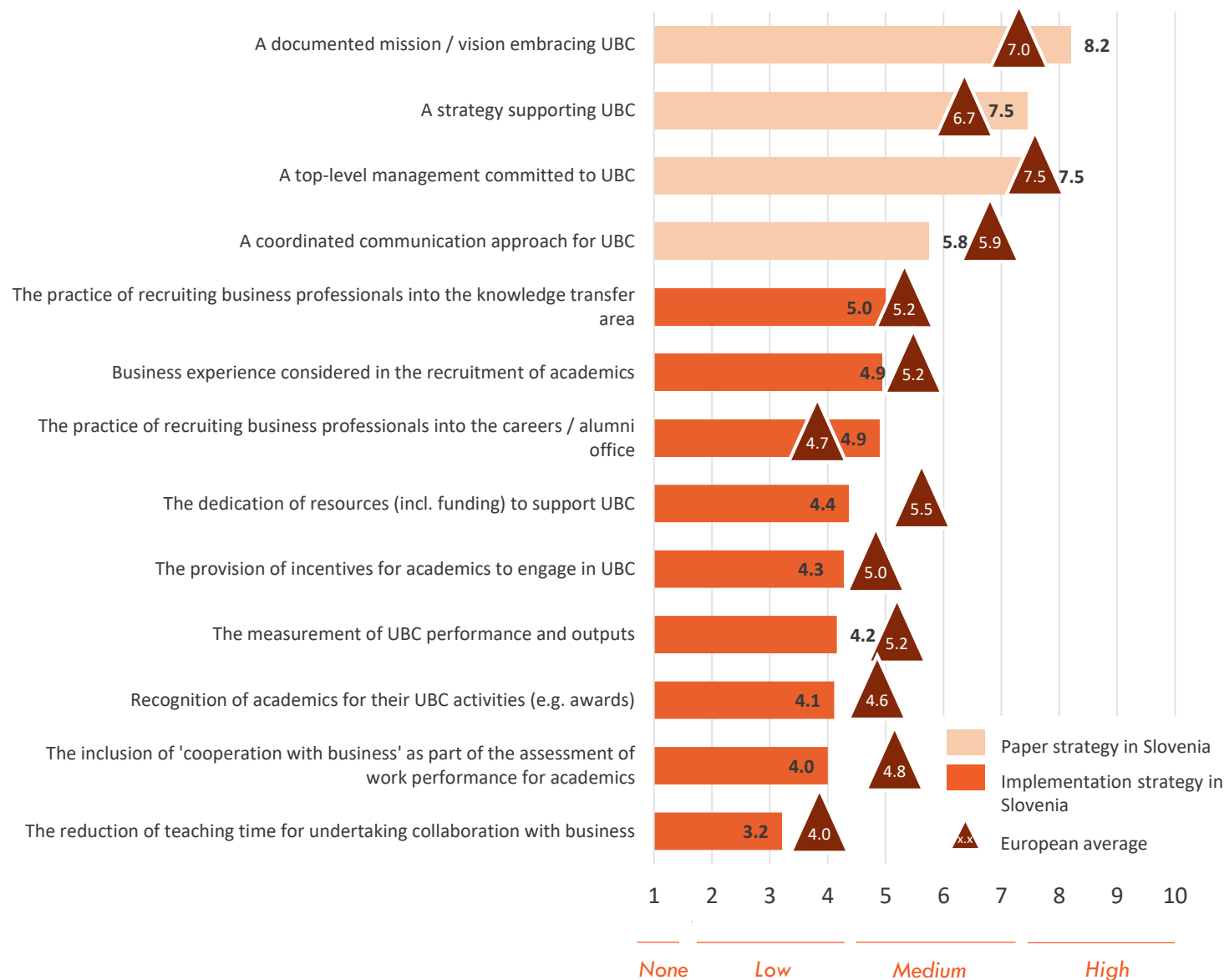
IP rights legislation for academic research discovery (5.2) are among better developed supporting mechanisms.

The least developed mechanism, lower than the EU average, is public seed capital supporting UBC initiatives (4.1).

Supporting mechanisms for UBC

Strategic mechanisms

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



Overall, the development of the strategic mechanisms in Slovenian and European HEIs is similar.

Paper strategies are substantially more developed than implementation strategies, showing the official commitment of Slovenian HEIs.

Documented mission is the most developed and it exceeds the European average.

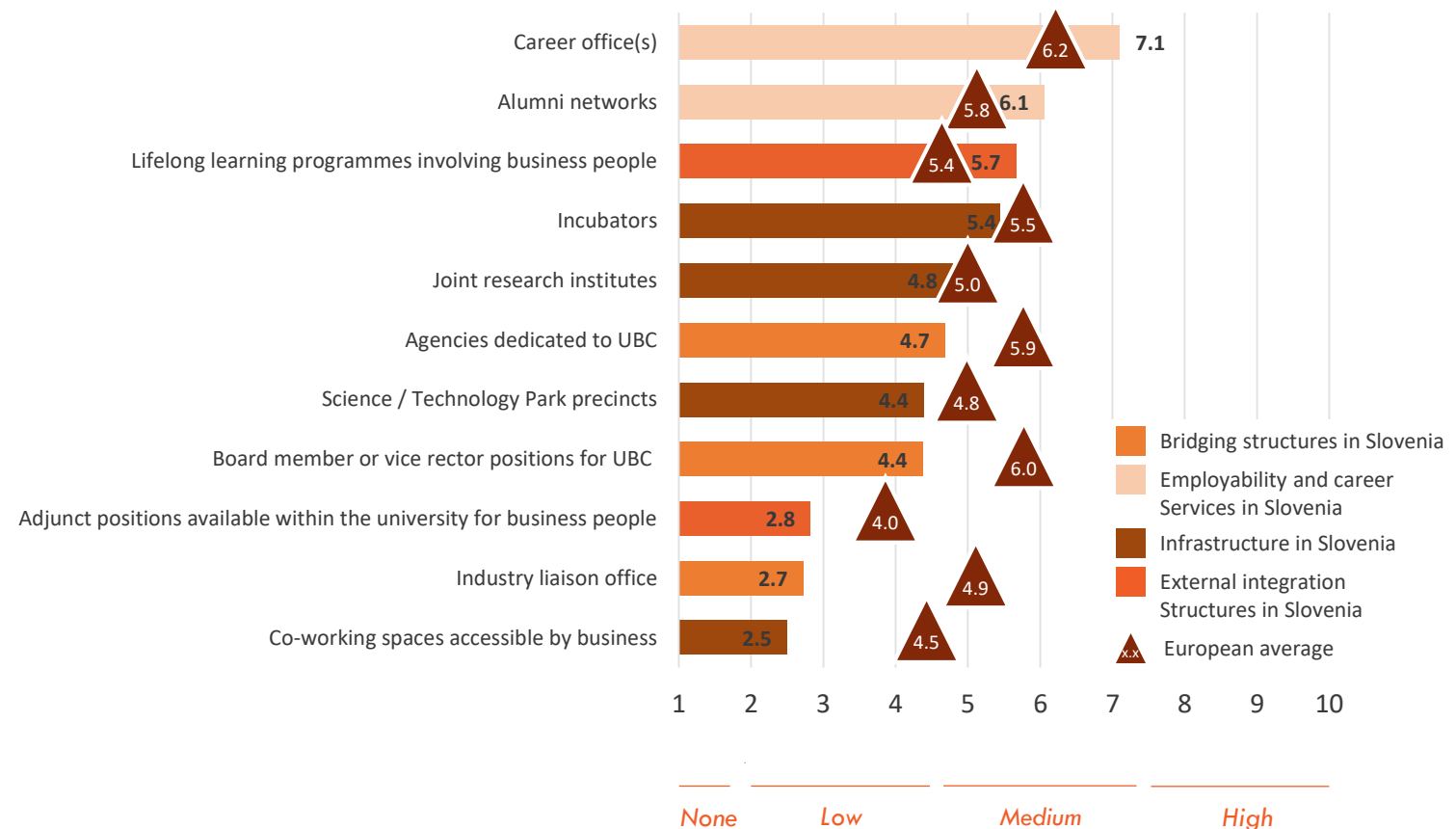
Implementation strategies are less developed and all of them are below the EU average. The most developed out of these is the practice of recruiting business professionals into the knowledge transfer area.

The least developed mechanisms are related the inclusion of cooperation with business as part of the assessment of work performance for academics (4.0) and reduction of teaching time for undertaking collaboration with business (3.2).

Supporting mechanisms for UBC

Structural mechanisms

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



The development of structural mechanisms is higher than EU average with respect to employability and career services in Slovenian HE. These are the most developed structural mechanisms. Career services are well-established in Slovenia, but they do not directly contribute towards enhancing all modalities of UBC.

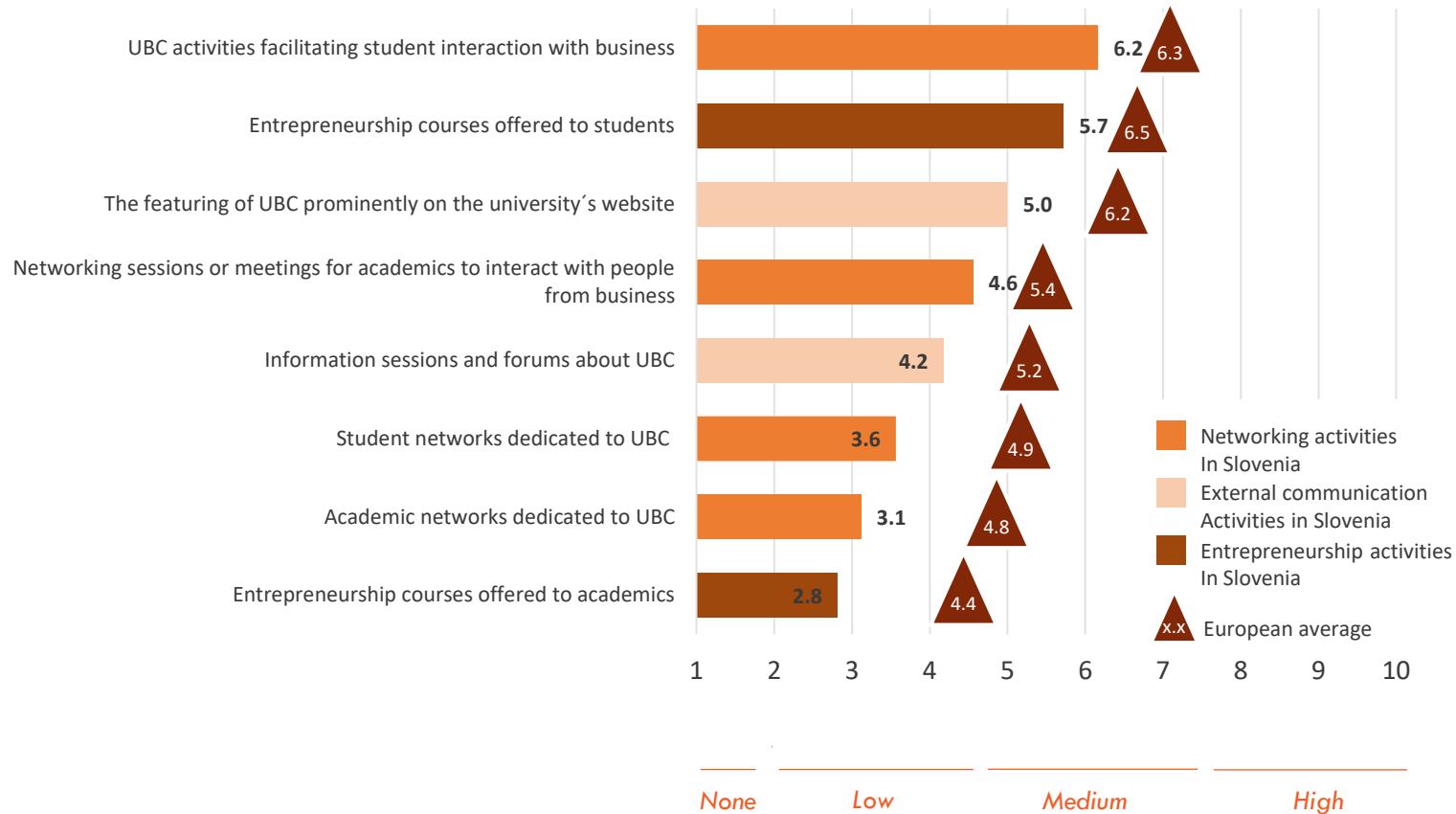
Also exceeding the EU average is lifelong learning programs involving business people. This is mainly due to European projects in the area of Erasmus+ and lifelong learning, and HEI representatives are quite familiar with these projects (as well as working on these projects).

On the other hand industry liaison offices (2.7) and co-working spaces accessible by business (2.5) are the least developed mechanisms. In Slovenia, some of these institutions are established. However, they are not the primary areas for the UBC. As already explained, UBC is generated and driven through other channels which are not so much institutionalised (e.g. individuals as key initiators and drivers for UBC).

Supporting mechanisms for UBC

Operational mechanisms

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



The perspectives of Slovenian representatives are lower on all indicators relating to operational mechanisms.

The most developed ones refer to UBC activities facilitating student interaction with businesses (6.2) and entrepreneurship courses offered to students (5.7). Majority of faculties offer certain entrepreneurship courses for their students and also the access through university incubators or other platforms (e.g. associations of young entrepreneurs).

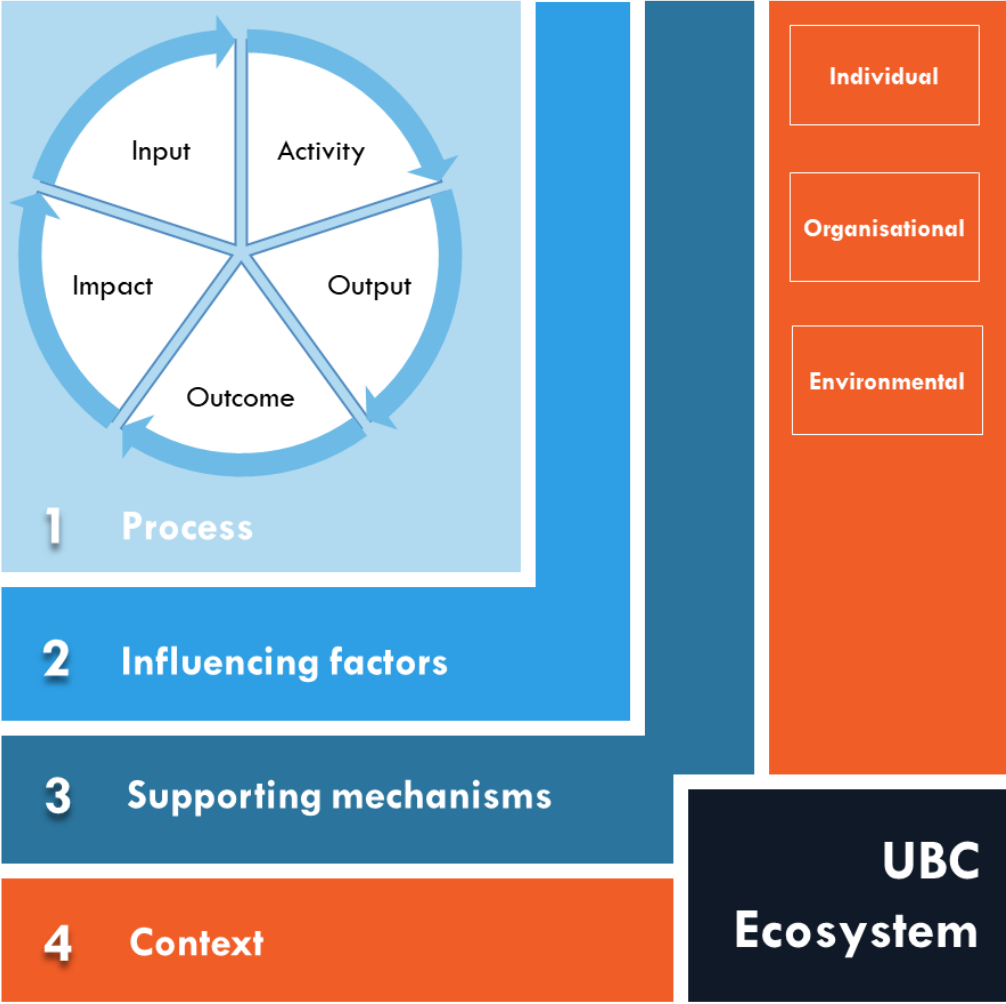
The least developed are academic-related mechanisms, namely entrepreneurship courses offered to academics (2.8) and academic networks dedicated to UBC (3.1). There is a considerable lack of entrepreneurial courses that would be offered to academia or academic networks dedicated to UBC. Practically speaking, these platforms do not exist at all or, similarly, academics and HEI representatives are not familiar that these kinds of activities exist.

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.).

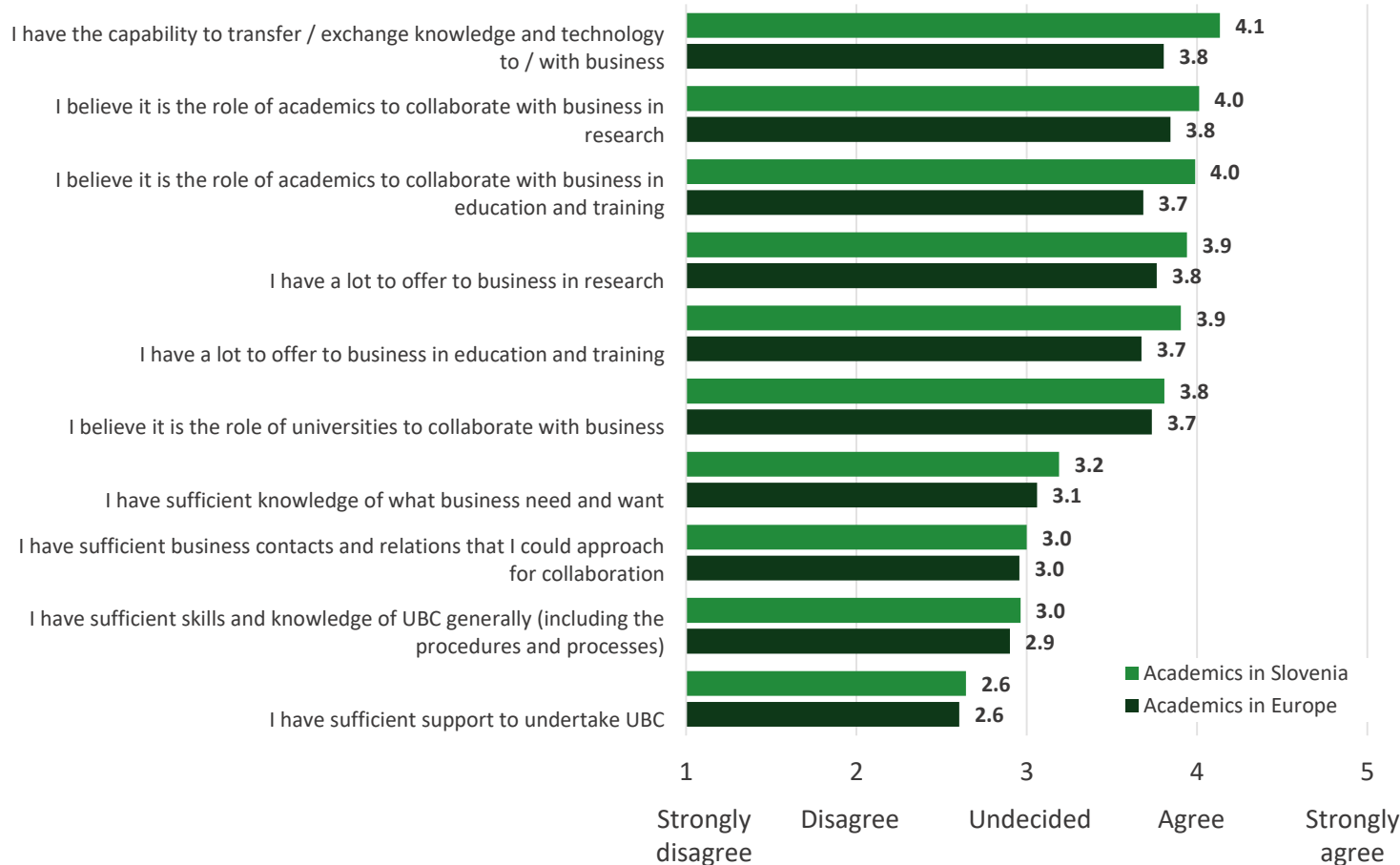
This section outlines how some contextual factors influence UBC in the country.



UBC capabilities

Capabilities for UBC

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



Slovenian academics identified moderate to high capabilities for UBC and beliefs about their role in UBC. They all exceed European averages.

Slovenian academics identified their strengths in the ability to exchange knowledge (4.1). They believe that is their role to collaborate with business in research and education (4.0).

Their beliefs and perceived capabilities to cooperate in education are more negative than the research ones. Due to lack of experiences that would incorporate also other modalities there is a lack of successful role models and good practice examples. The UBC field in general is still fuzzy and majority of academics are not aware of different modalities that it could encompass.

They perceive they have insufficient skills on UBC (3.0) and support to undertake UBC (2.6). As already outlined, there is no considerable support for UBC in academic environment and it is mainly dependent on individual efforts and successful past relations between individuals/teams in both spheres.

Context

Slovenian perceptions on contextual factors differ considerably to European one.

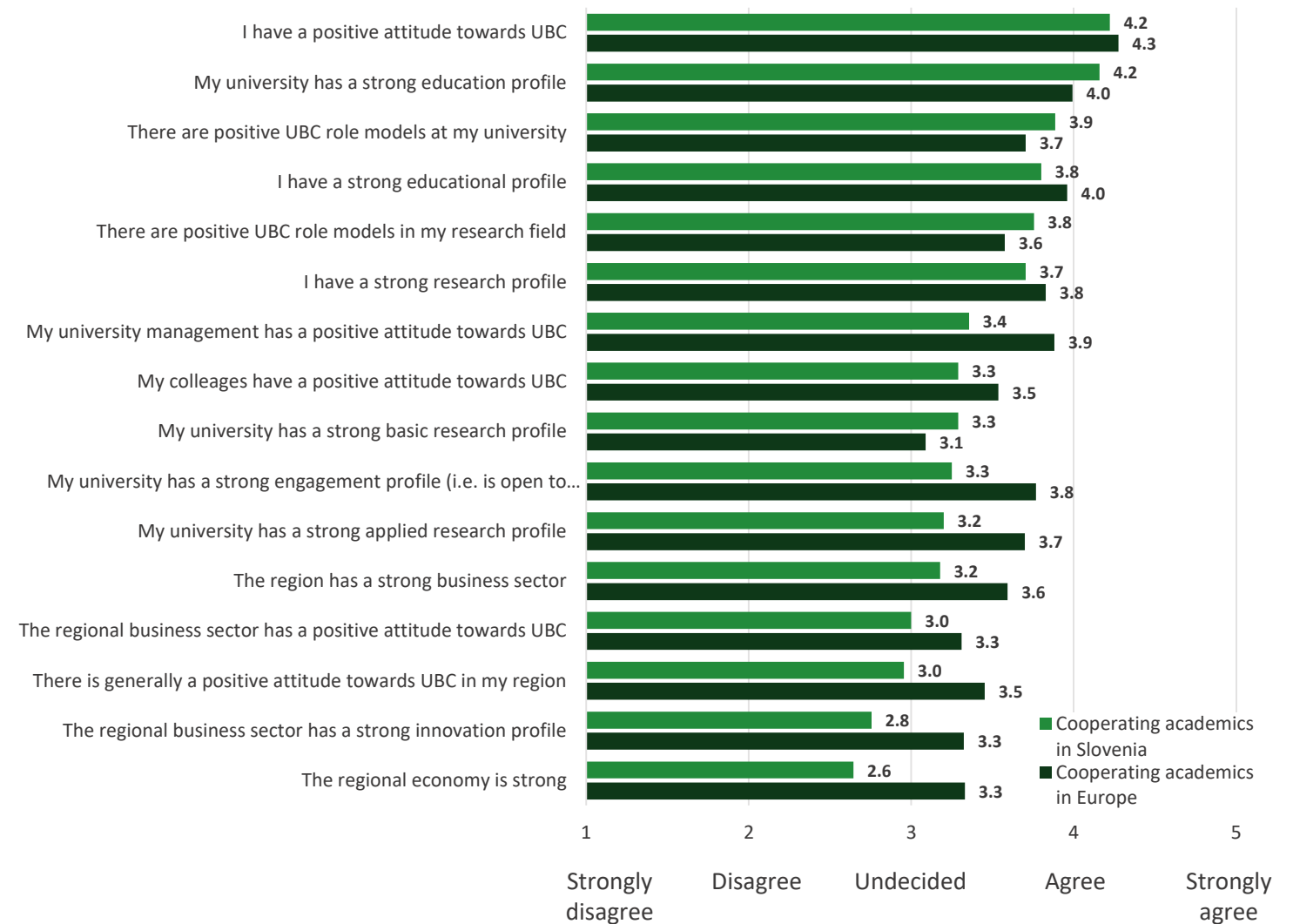
They both have very positive attitude to UBC and believe their universities have strong education profile. Positive attitudes towards UBC are in line with the general picture within the society and academia and are also supported by European strategies. They further believe there are positive UBC role models at their universities.

Slovenian academics do not believe that their university management has a positive attitude to UBC as much as their European colleagues do.

Slovenian academics believe their economy is not strong and that their regional business does not have a strong innovation profile. Academics tend to perceive the “outside world” as the one responsible for the lack of UBC (university management, economy, regional business with low innovation profile). They consider themselves as capable enough to cooperate, however, they do not have proper support for the UBC (especially financial one from the government).

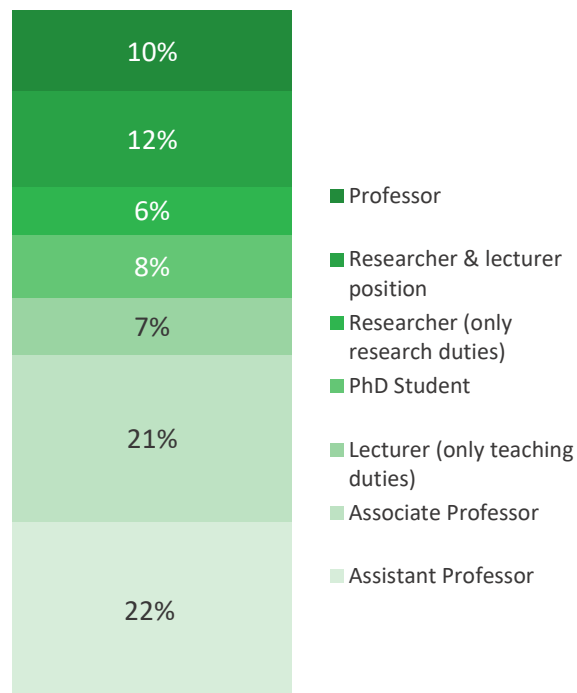
Contextual factors affecting UBC

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



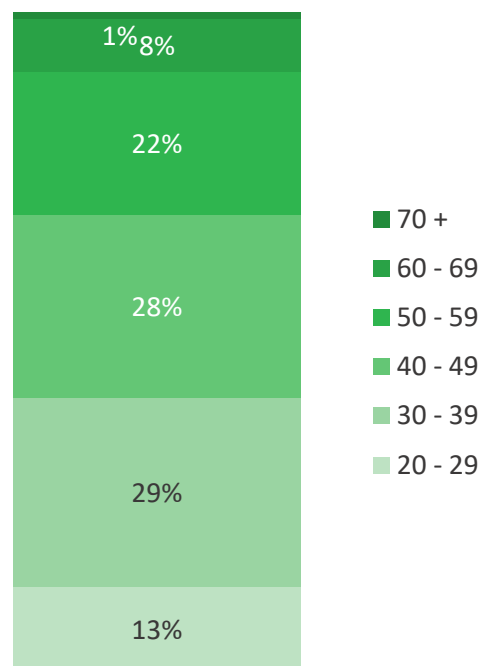
Respondent profile – academics

Position of respondent



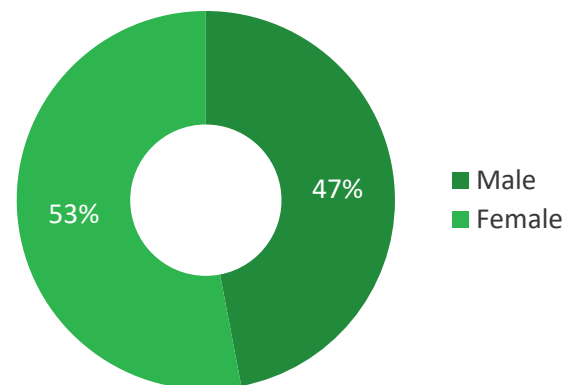
Assistant professors comprise the largest group (22%), followed by associate professors (21%). The remaining academics identified themselves as researcher and lecturers (12%), professors (10%), PhD students (8%), lecturers (only teaching duties) (7%) and researchers (only research duties) (6%).

Age of respondents



More than half of academics (57%) are aged 30-49. 22% of academics are aged 50-59 while 13% are aged 20-29. 8% are aged 60-69 while only 1% is over 70.

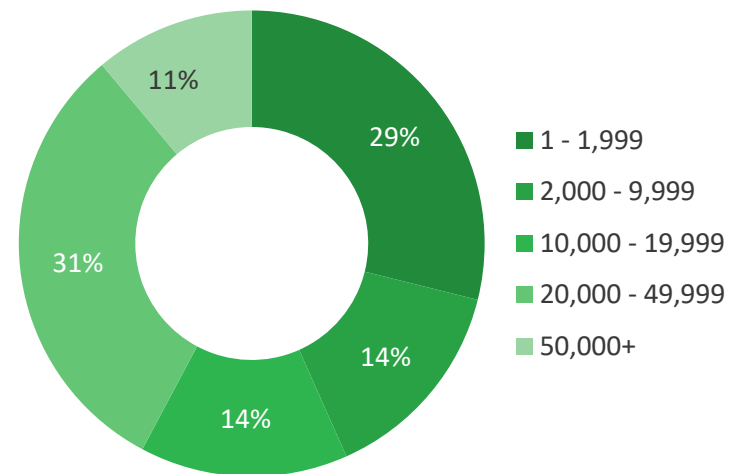
Gender of respondents



The gender distribution in the academic sample in Slovenia is slightly skewed towards female respondents (53%).

Respondent profile – academics

Number of students of the HEI

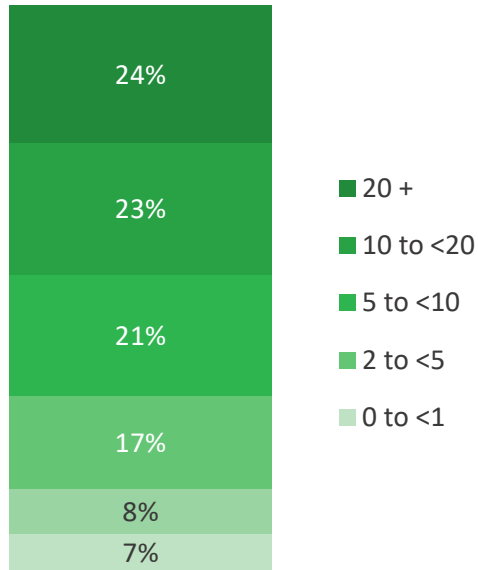


Sample Size	
Slovenian Academics	n=145
European Academics	n=10.836
Slovenian HEI representatives	n=29
European HEI representatives	n=3.482

Almost a third of the Slovenian academics (31%) work for medium large HEIs (20,000-49,999 students). 29% in the sample work for micro-sized HEIs (1-1,999 students) and 14% of them work for small HEIs (2,000-9,999 students) and 14% of them work for medium-sized HEIs (10,000-19,999 students). 11% of the academics work at very large HEIs with over 50,000 students.

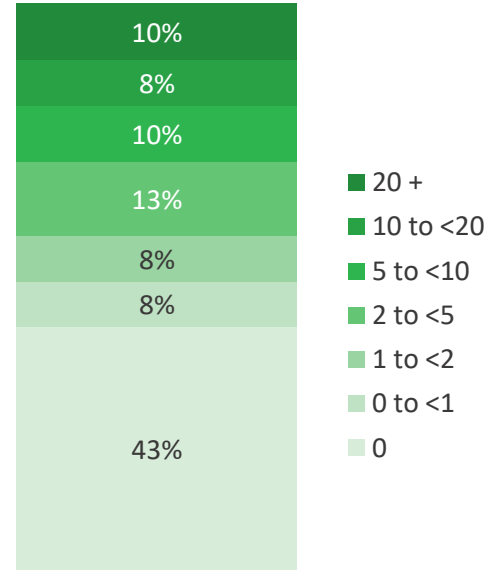
Respondent profile – academics

Years working in university



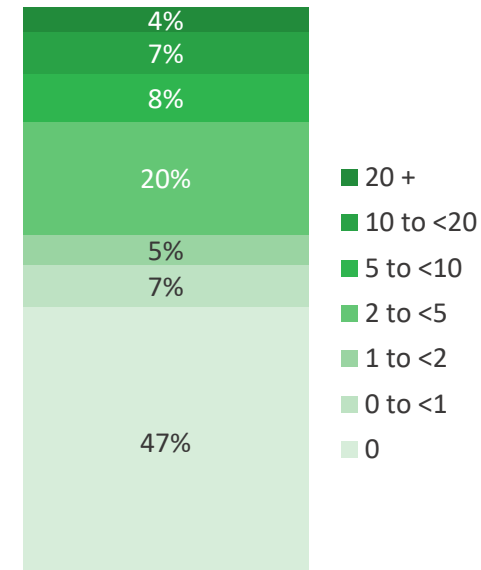
Most academic respondents have worked in academia for several years. Almost a half of them (47%) have worked in academia for over 10 years. 21% have 5-10 years of experience and 17% have worked in academic for 2-5 years. 15% of the academics have less than 2 year of experience.

Years working in business



Slovenian academic respondents are not very experienced in industry. 51% of them have little to no industry experience. 21% have 1 to 5 years in the industry. 18% have 5-20 years and 10% have over 20 years of industry experience.

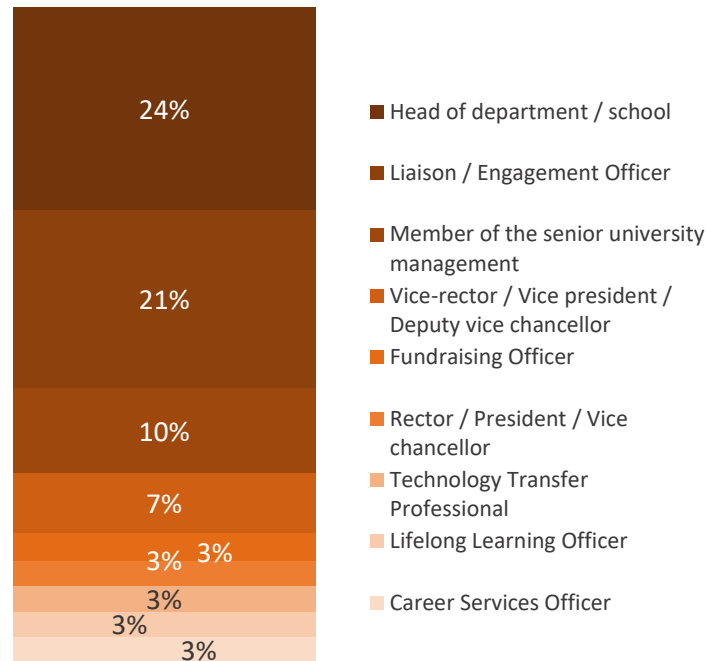
Years involved in UBC whilst working at a university or business



Most academic respondents in Slovenia have no UBC experience (47%). 12% have been involved in UBC for up to 2 years, 20% have 2 to 5 years of experience. 8% have engaged in UBC for 5 to 10 years. 7% of academics in the sample have 10 to 20 UBC experience, while only 4% have over 20 years of experience.

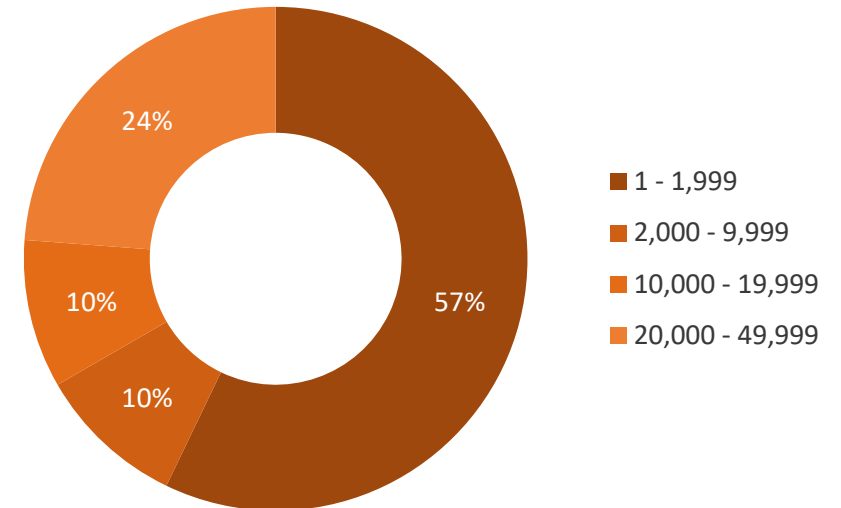
Respondent profile – HEI representatives

Position of respondent



Slovenian HEI representatives hold a variety of roles. Almost a quarter of them are heads of departments (24%). Liaison officers are the second largest group with 21% of representation. Members of the senior university management are represented by 10% of the sample while 7% is taken up by vice-rectors/-presidents. The further groups are each represented by 3% of the sample: rectors/presidents, technology transfer professionals, lifelong learning and career service officers.

Number of students of the HEI



Overall, around two thirds of HEI representatives work for micro-sized HEIs (under 1,999 students). 10% each work at small (2,000-9,999 students) and medium-sized HEIs. (10,000-19,999 students). 24% work in medium-large HEIs (20,000-49,999 students).

Contact us

Todd Davey - davey@uiin.org

Arno Meerman - meerman@uiin.org

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 ubc-monitor.com