UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

State of University-Business Cooperation

CROATIA

University Perspective

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

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

Partners

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Executive summary

Summary

This report provides the findings of a study on the university-business cooperation (UBC) in Croatia from the perspective of higher education institutions (HEIs). Examining the perceptions of academics and HEI representatives (HEI managers and knowledge transfer professionals) provides. Indicate that the extent of Croatian UBC is very low and vastly underdeveloped compared to the European average, leaving much room for improvement, particularly in supporting academics in their cooperation efforts. However, there are positive signs for the future, as 100% of respondents currently cooperating with businesses plan to maintain or increase their cooperation in the future.

About the study

The results presented in this report reflect the perceptions of academics, HEI managers and KTP in Croatia 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 201 Croatian responses. The study measured the perceptions of respondents with respect to their cooperation efforts, barriers, drivers, supporting mechanisms and perceived capabilities.

University-Business Cooperation

Academics responding to this survey are involved in a variety of different cooperation types, with educational activities like curriculum co-delivery, lifelong learning and mobility of students, emerging as the most developed ones. Yet, more than 80% of academics do not undertake any valorisation or management activities at all.

Respondents see themselves and internal intermediaries as proactive initiators of UBC, with 47% and 41% of respondents respectively stating that they usually or always initiate such cooperation. In comparison, only 13% and 9% of respondents perceive alumni and external intermediaries as usually or always initiating cooperation.

Resourcing is key

Independent of whether academics are currently cooperating with business or not, a lack of government funding is identified by all academic respondents as the primary barrier to UBC, whereas they consider frequent staff turnovers within university or business to be the lowest barrier. In addition, both academics cooperating and those not cooperating perceive insufficient work time allocated by the university for academics' UBC activities as another hindering factor. While cooperating academics identify a missing financial support of universities as a barrier, non-cooperating academics point to a lack of business funding hindering their cooperation.

Barriers most strongly perceived by HEI management relate to monetary resources, such as the lack of business and government funding as well as limited resources of SMEs. KTPs also rate insufficient work time for academics and missing university funding as crucial barriers.

NOTE: 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.

Relationship is key

While funding to undertake cooperation emerges as one of the top five facilitators, 'relationship' factors such as the existence of a shared goal 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 commitment, complemented by a prior relationship with a business partner. The interest of business in accessing scientific knowledge represents another important driver of UBC.

Self-interests matter

While cooperating academics highlight self-interests, such as improving teaching and graduate employability, 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 addressing societal challenges and issues as well as contributing to the university's mission. Interestingly, research motivations do not appear as the most important motivators both for cooperating and non-cooperating academics.

Both HEI representatives and cooperating academics rank the improvement of graduate employability as the biggest motivator for UBC, followed by the motivation to improve the university's teaching. They also perceive research interests and university mission related motivations to be important.

Both academics and HEI representatives perceive academics to get some of the least benefits from UBC, which could be a major reason for not cooperating.

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 alumni networks, lifelong learning programmes as well as board member or vice-rector positions for UBC. 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 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 Germany from January 2016 until November 2017.

The aim of the study is to get a more profound, comprehensive and up to date understanding of the state of UBC in Europe: what is the state of play of a wide range of UBC activities in the different countries, what are the main drivers and barriers for the different stakeholders and at what levels; what is the regulatory framework and socio-economic conditions and what kind of measures/initiatives exist on a national level to support the development of UBC. The project investigates UBC from the perspective of both university and business.

Main activities

The main components of the project were a series of expert interviews with 23 recognised UBC experts, 52 good practice case studies, a UBC policy and indicators review as well as a major quantitative survey of stakeholders within both HEIs and business. The survey was translated into 25 languages and sent to all registered European HEIs (numbering over 3,000) in the 33 countries during October-November 2016. Through this, a final sample of 17,410 representatives from within HEIs and business was achieved. This makes the study the largest international study into cooperation between HEIs and business yet completed.

Why care about university-business cooperation?

- UBC is consider to be the engine towards knowledge-based societies and economies
- UBC is specially needed in the European context, threaten by increased global competition, with ongoing economic and social problems and high levels of youth unemployment
- UBC helps to create a more connected and functioning relationship between government, business and HEIs, which is at the core of EU funding schemes, such as Horizon 2020 and Erasmus+.
- UBC direct outcomes include:
  - improving the competitiveness of business,
  - increasing the relevance and innovativeness of research and teaching in HEIs,
  - improving the future job prospects of students and graduates,

  which can in the longer term:
  - create jobs,
  - stimulate economic growth,
  - increase living standards,
  - reduce hindrances to good living.

Study Objectives

The specific objectives for the study are:

- Chart the current state of play and provide an in-depth analysis of UBC in the countries covered by this study, from the HE and business perspectives
- Deliver 50 case studies of UBC (representative sample, balanced distribution among countries and organisations, balanced distribution of HEI and business led cases);
- Review indicators measuring UBC and propose possible scenarios for the implementations of UBC monitoring in Europe;
- Provide policy conclusions and recommendations for the furthering of UBC and the best approaches to take.

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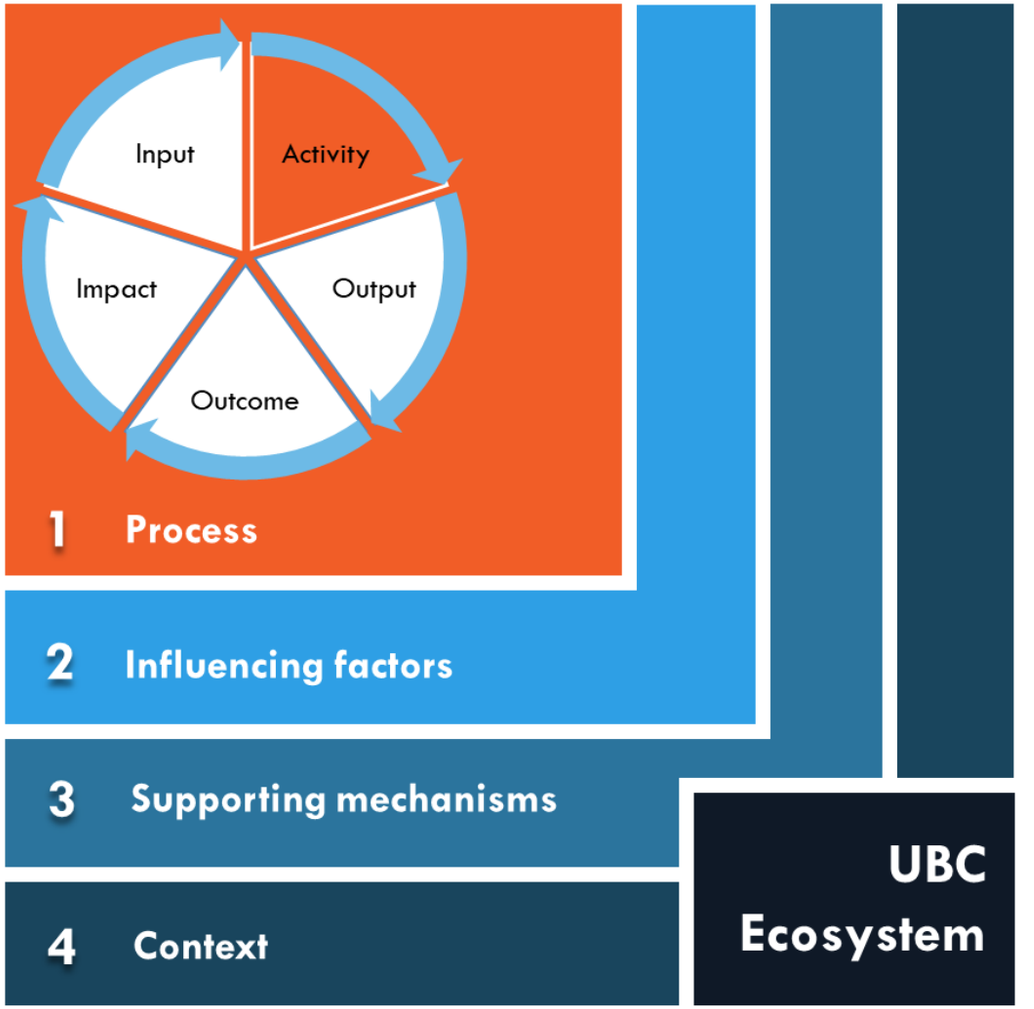
UBC activities

UBC Ecosystem Framework ™

In order to best organise the project results, a project conceptual framework was chosen.

The UBC Ecosystem Framework possess a number of interrelated elements including the process of undertaking UBC, factors that are influencing UBC, mechanisms supporting UBC and finally the context in which UBC occurs.

The framework ties together the respective project activities, providing a common thread for reporting results and making recommendations.



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

UBC Activities

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

Area	Activity
Education	1. curriculum co-design 2. curriculum co-delivery *(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)*

Development of UBC activities

Croatian academic respondents have indicated curriculum co-delivery (2,3), lifelong learning (2,1) and mobility of students (2,1) as the most developed UBC activities. However, more than 70% of academics do not undertake these activities at all.

Additionally, the development of UBC management and valorisation activities is particularly low. Over 80% of Croatian academics are not engaged with theses forms of cooperation at all.

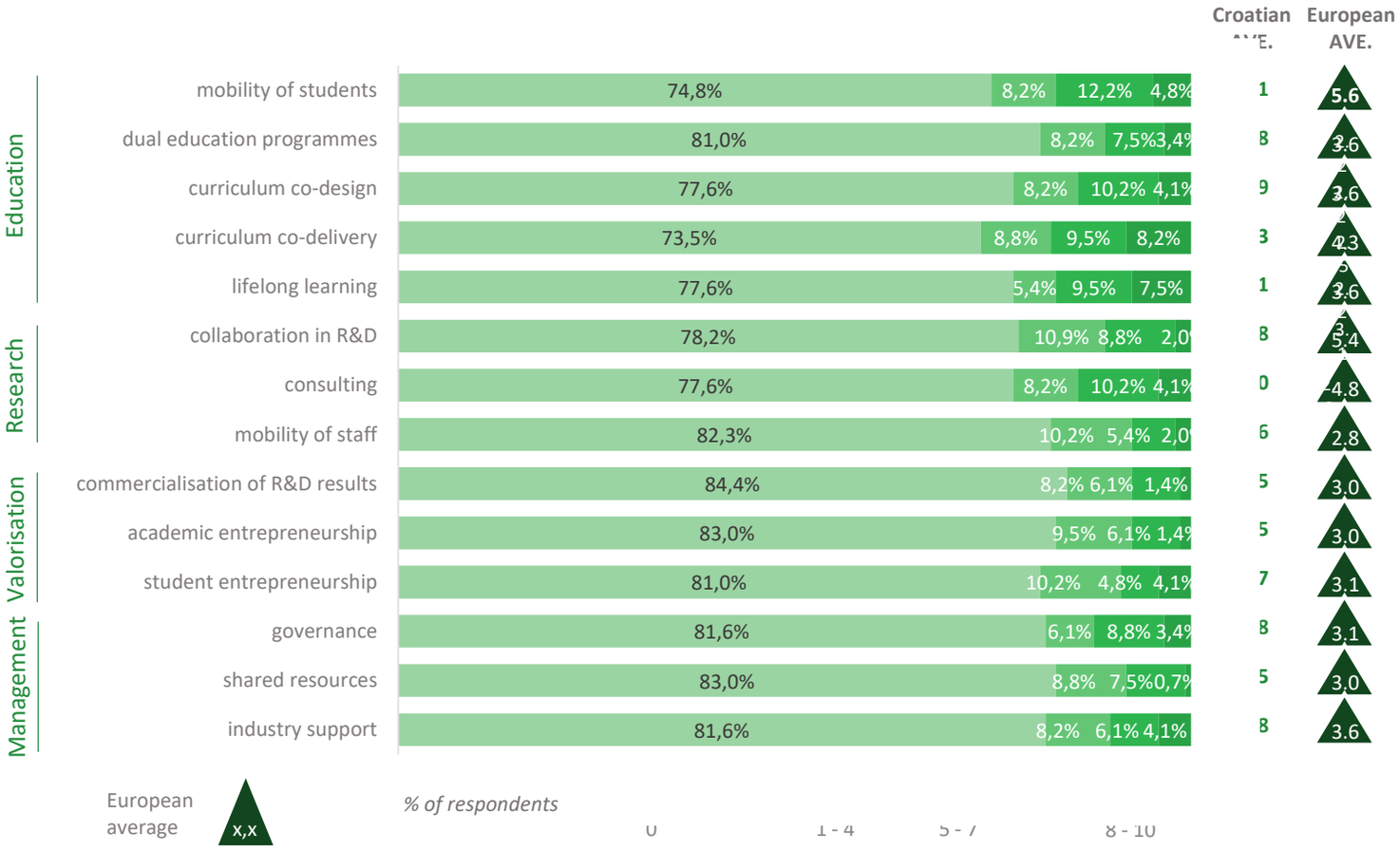
Overall, the extent of cooperation between Croatian universities and businesses is very low and is vastly underdeveloped in comparison to the European average.

A contributing factor to the very low scores given by Croatian academics to the collaboration with businesses could be as a result of a lack of understanding of the educational outcomes in broader framework.

In an earlier national study conducted in 2016 by VERN' and the Croatian Employers' Association it was found that only 10% of HEIs have some kind of entrepreneurship program. Tradition, historically and politically, could be one of the reasons for this as well as HEIs being slow to change, specially state owned ones.

The extent of development of UBC activities

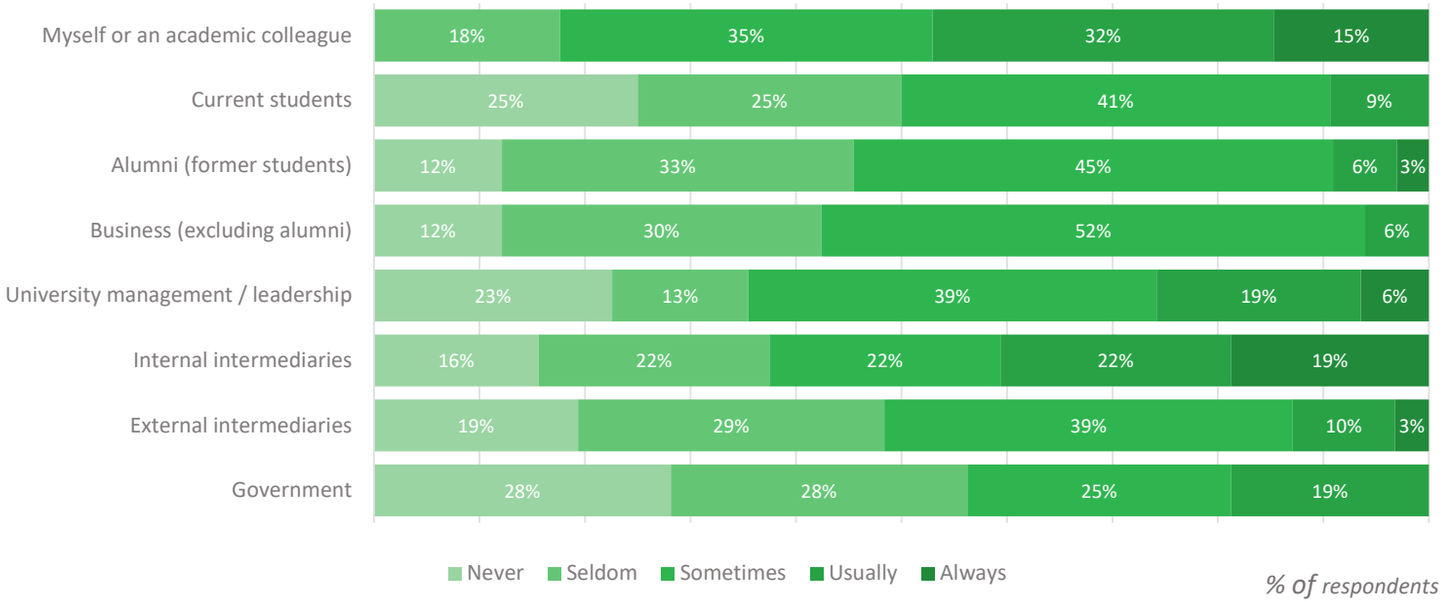
'Which UBC activities do you collaborate with businesses in?' – as answered by academics



Initiation of UBC

How UBC is initiated

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



% of respondents

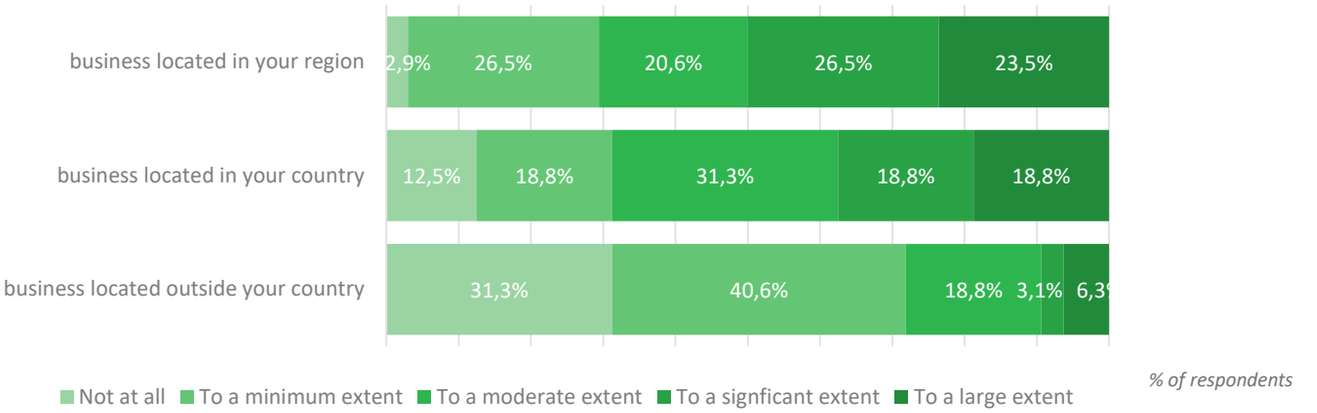
47% of Croatian academics see themselves as stakeholders that usually or always initiate UBC.

Internal intermediaries are also considered active initiators (41%).

Contrarily, the contribution of current students and government as UBC initiators is rather limited in Croatia with respectively 25% and 28% of academics reporting that they never initiate cooperation.

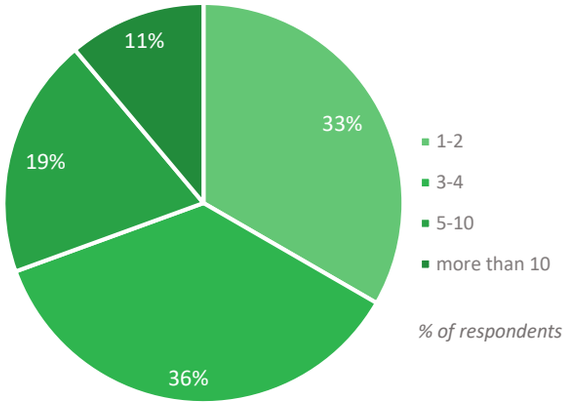
Location of cooperating partners

Location of business partners



Croatian academics have cooperation of a 'significant' and 'large extent' with Croatian businesses and businesses from the region (37,6% and 50% respectively). The cooperation with international business partners lags considerably behind.

Number of business partners

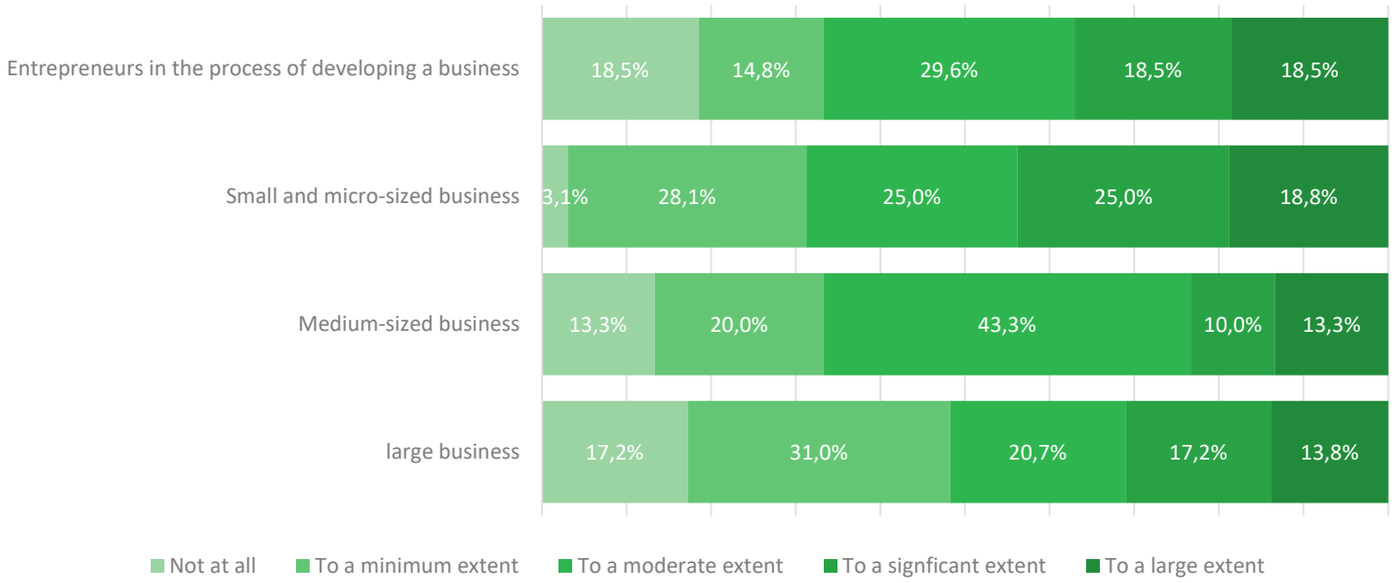


Over third of Croatian academics cooperate with 1 to 4 businesses (69%). The remaining 31% have partner relations with 5 or more partners.

Size of cooperating partners

Size of cooperating partner

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



Croatian academics undertake UBC with businesses of varying size. However, almost half (44%) the cooperating academics in Croatia engage to a significant or large extent with small and micro-sized businesses.

Croatian academics also cooperate with entrepreneurs in the process of developing a business (37%), which is an important feature of UBC activities providing students with insight on this critical phase of developing a venture.

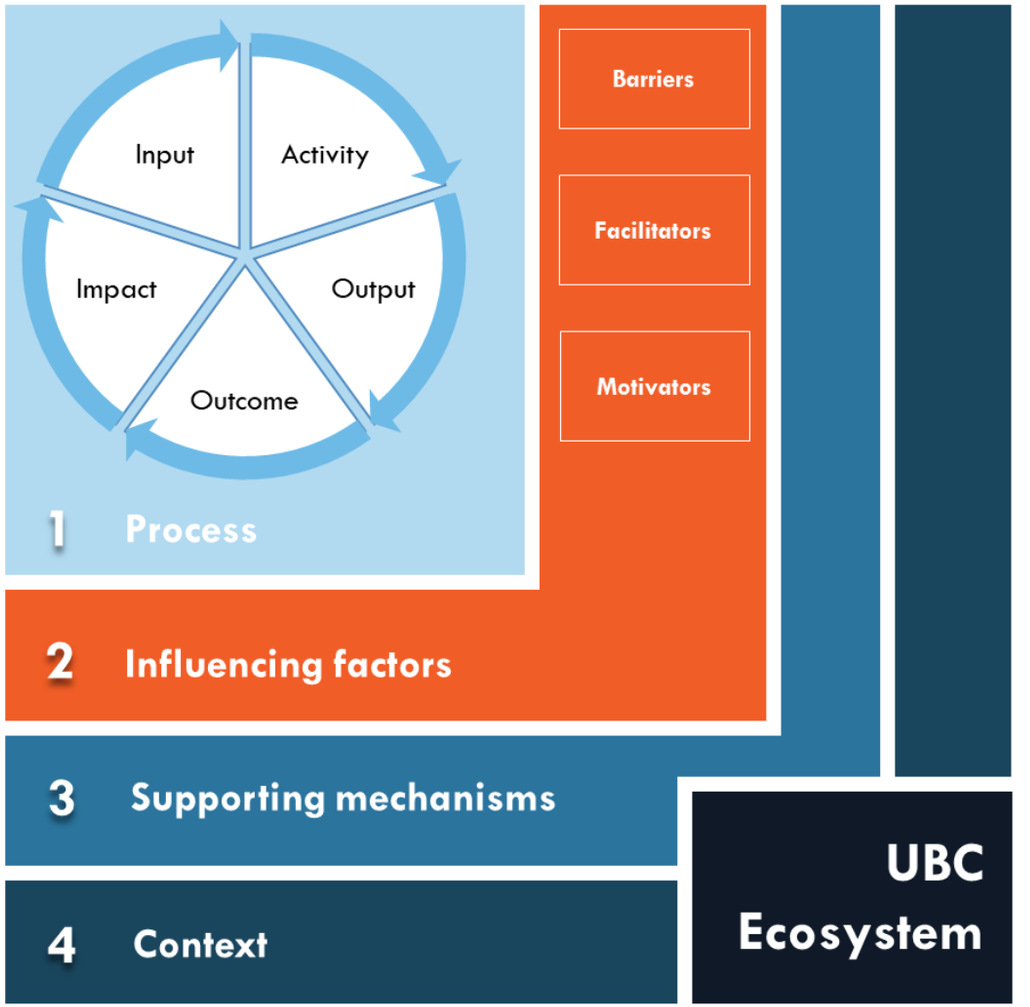
Factors influencing UBC

This section outlines the extent to which various factors affect UBC.

Generally, a barrier provides a hindrance or obstacle to do something. Drivers comprise facilitators, which enable or ease the process, and the motivators, which triggers the starting of an activity and are often related to the expected outcome(s).

At the European level, this study has found that removing a barrier does not necessarily create UBC but rather it makes UBC possible. Instead, it is the facilitators and motivators (drivers) that initiate UBC.

For example, even when a lack of funds is often named as a major barrier to cooperation, the presence of funds may not be enough for cooperation to happen if the perceived facilitators or motivators are not sufficient.



Barriers hindering UBC

Barriers

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

	Academics collaborating with business	Academics not collaborating with business
1.	Lack of government funding for UBC	Lack of government funding for UBC
2.	Insufficient work time allocated by the university for academics´ UBC activities	Bureaucracy related to UBC
3.	Business lack awareness of university research activities / offerings	Insufficient work time allocated by the university for academics´ UBC activities
4.	Lack of university funding for UBC	Lack of business funding for UBC
5.	Differing motivation / values between university and business	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

According to both cooperating and non-cooperating academics, the biggest factor inhibiting cooperation relates to the lack of government funding. Very tight government funding for public HEIs does not provide any space for activities outside of a very traditional definition of core educational activities.

Additionally, insufficient work time allocated by the university for academics' UBC activities is also perceived as a substantial barrier for both. Many public HEIs struggle with the issue of lecturers overloaded with educational classroom activities.

Whereas cooperating academics rate business lack of awareness of the university activities as a major barrier, non-cooperating academics perceived bureaucracy to be a leading inhibitor for UBC activities.

Frequent staff turnovers within the university or the business is the least inhibiting factor for UBC.

Barriers hindering UBC

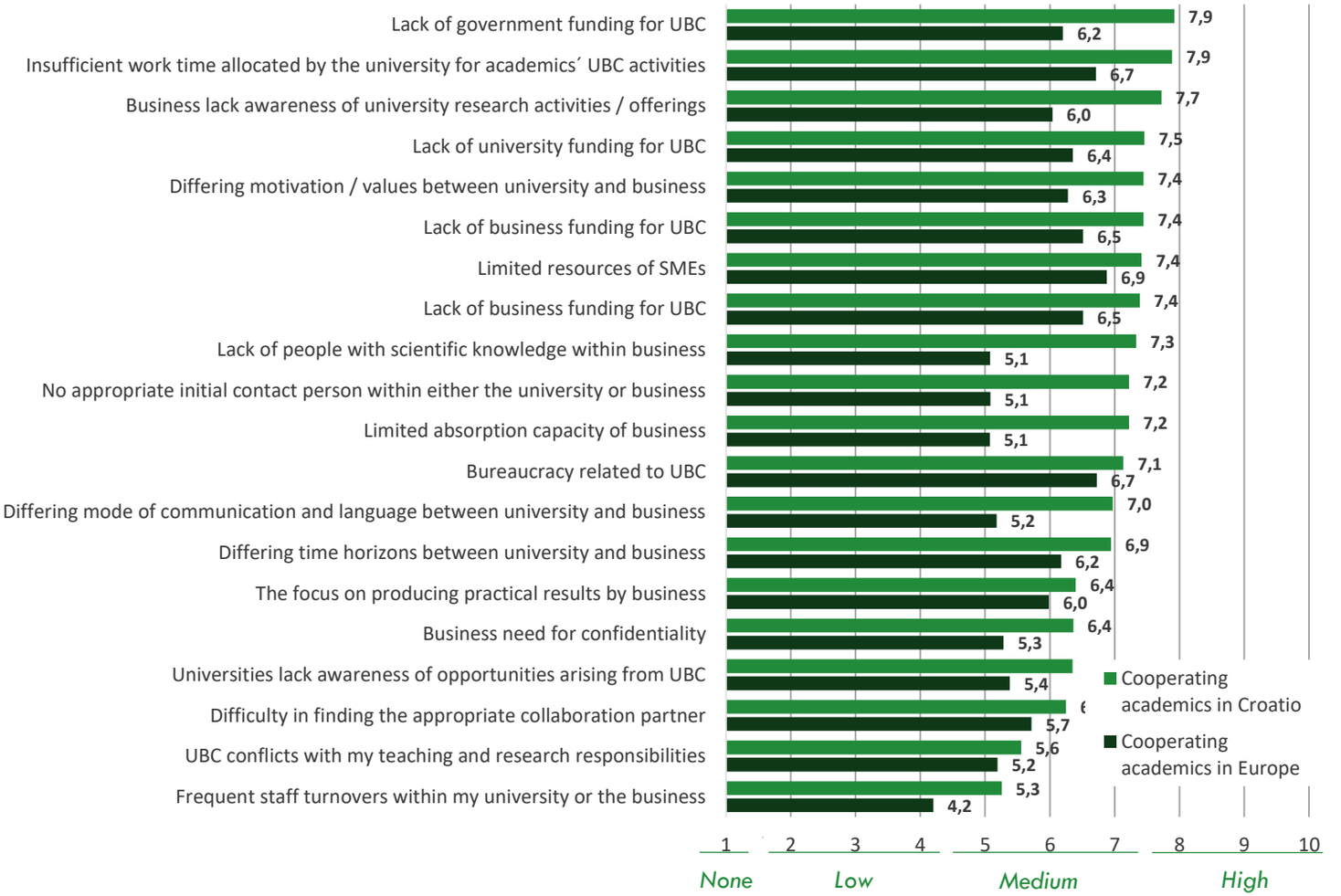
Croatian academics perceive the UBC barriers to be higher than their European counterparts.

Lack of government funding (7.9) and insufficient work time allocated by the university for academics' UBC activities (7.9) along with business' lack of awareness of university-research activities are the major barriers for Croatian academics. Croatian public HEIs are considerably under-financed and this is a long-term issue which is reflected in many findings of this survey.

Frequent staff turnovers within the university or the business is the least inhibiting factor for both Croatian and European academics.

Barriers

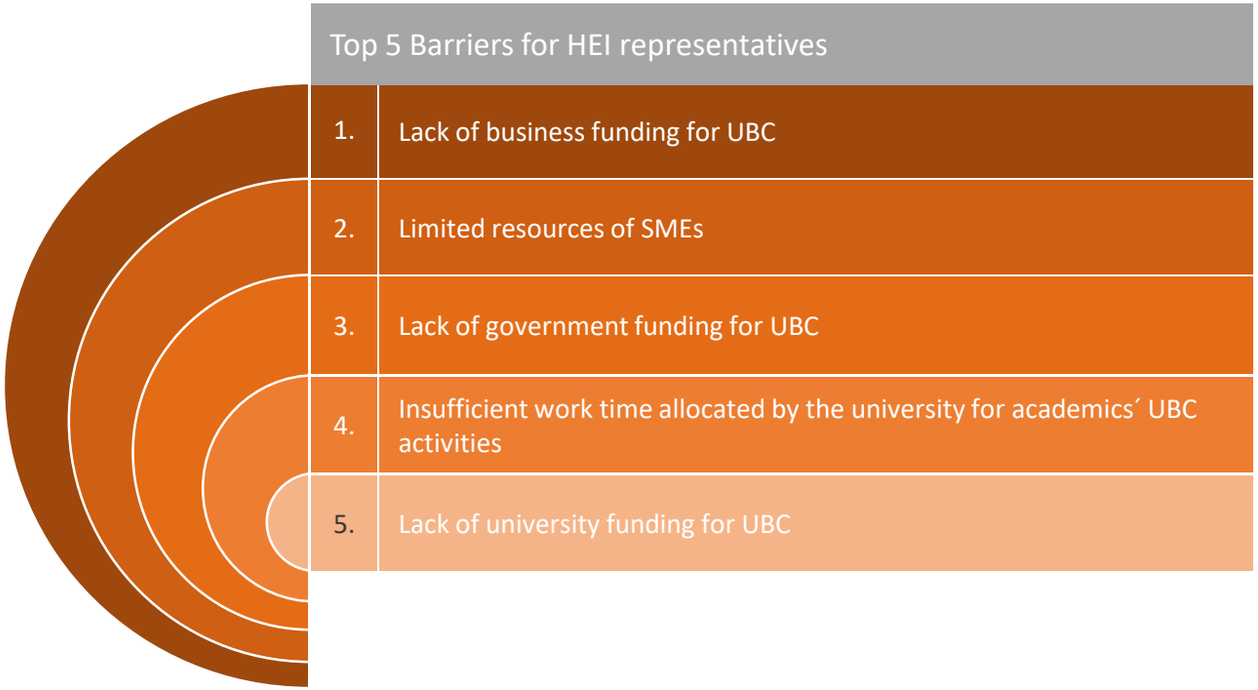
'What is inhibiting your cooperation with business?' – as answered by academics



Barriers hindering UBC

Barriers

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



The main barriers for HEI representatives are those related to the financial issues, including lack of business, government and university funding as well as limited resources of SMEs. A high proportion of UBC is based on collaborating with small and micro-sized businesses, which are usually financially more limited for funding such activities.

Insufficient work time allocated by the university for academics UBC activities' is another barrier, confirming what the academics' identified as an important barrier.

Barriers hindering UBC

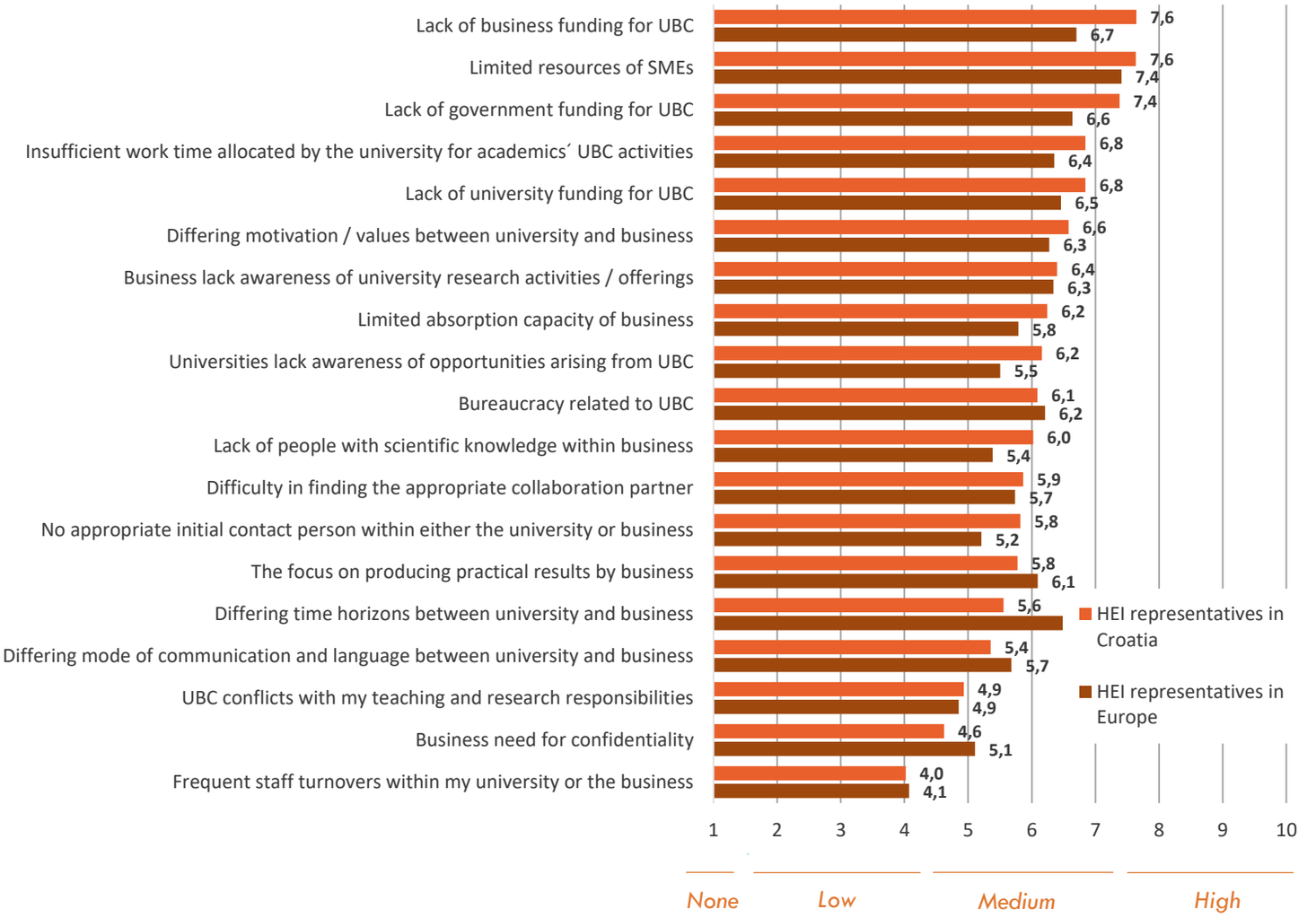
Although Croatian HEI representatives perceive most of the barriers to be higher than their European counterparts, their perceptions are largely aligned.

Both recognise the prevalence of resource barriers for UBC, with lack of funding and time being the main ones.

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



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.

Facilitators

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

	Academics cooperating	HEI representatives
1.	Existence of a shared goal	Existence of a shared goal
2.	Existence of funding to undertake the cooperation	Interest of the university in accessing business-sector R&D facilities
3.	Existence of mutual trust	Prior relation with the business partner
4.	Prior relation with the business partner	Existence of mutual trust
5.	Interest of business in accessing scientific knowledge	Existence of funding to undertake the cooperation

The factors facilitating UBC are similar for both Croatian cooperating academics and HEI representatives.

The existence of a shared goal is ranked as the main facilitator for both groups, as it is the starting point for collaboration. Further facilitators named that also focus on the relationship aspect of UBC include the importance of mutual trust and the existence of prior relation with the business partner for successful UBC.

While academics perceive funding as another primary driver, HEI representatives see the interest of the university in accessing business-sector R&D facilities as crucial. It is interesting that academics did not identify this factor as a facilitator, having in mind the quite limited financial resources for supporting research activities.

Drivers stimulating UBC

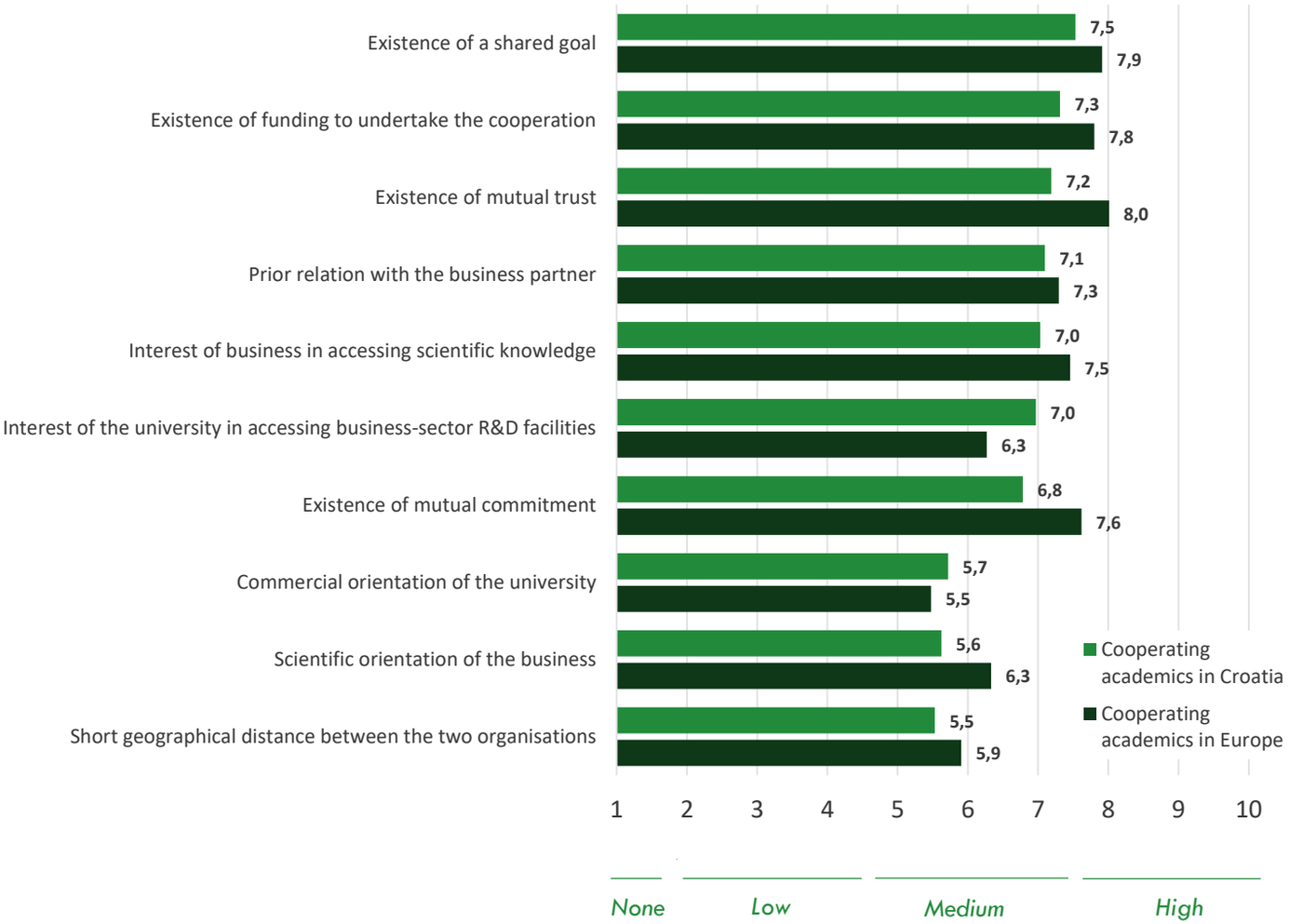
European and Croatian perceptions of UBC facilitators are fairly aligned, although Croatian academics perceive the facilitators to be less developed than their European counterparts.

In addition to relationship and funding facilitators, business interest in accessing scientific knowledge plays an important role as UBC driver.

The geographical factor emerges as the least strong facilitator for academics both in Croatia and Europe.

Facilitators

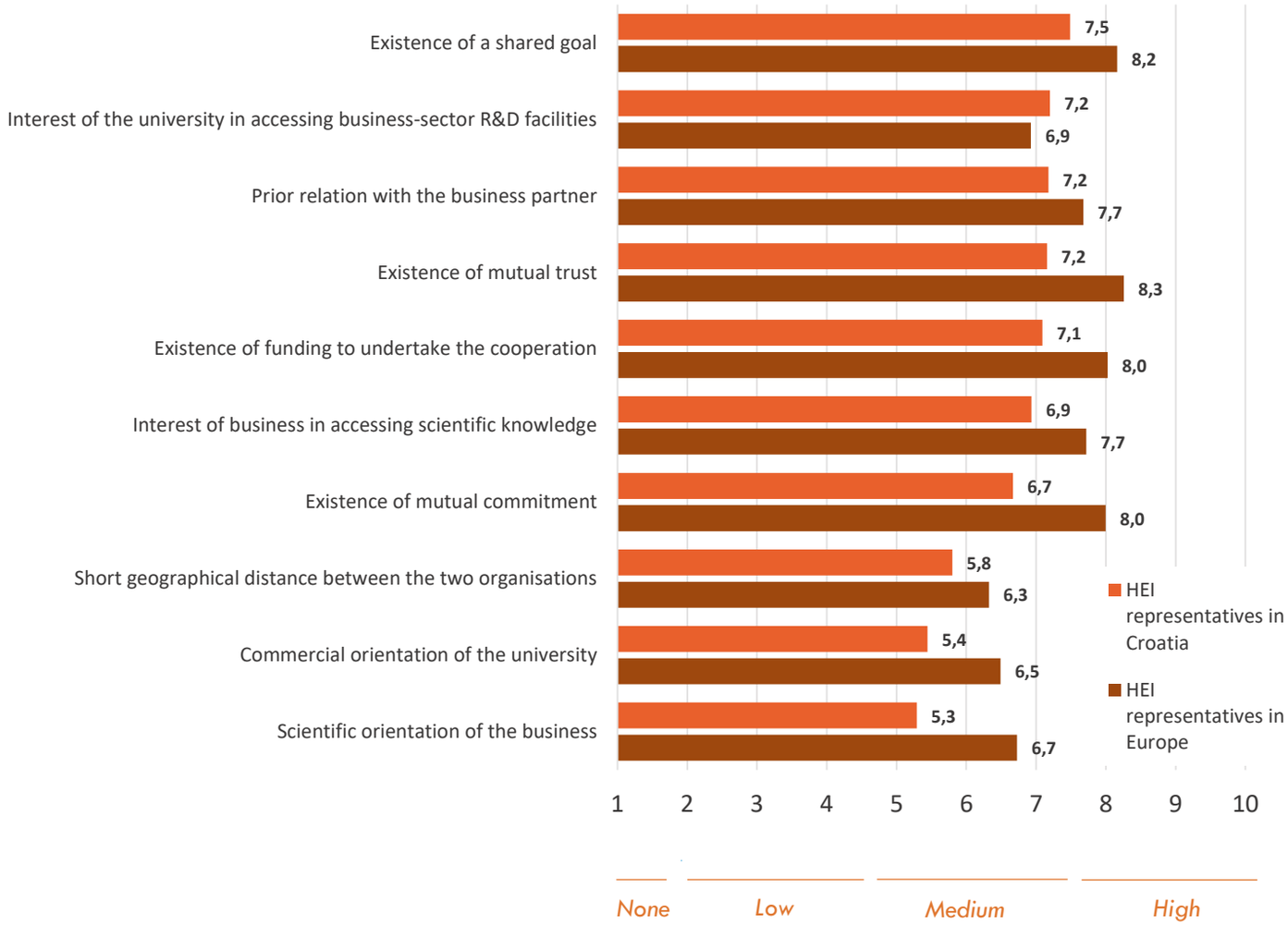
'What is facilitating your cooperation with business?' – as answered by academics



Drivers stimulating UBC

Facilitators

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



Croatian HEI representatives and their European counterparts perceive the facilitators in a different way. Overall, European HEI representatives perceive facilitators to be stronger than academics in Croatia.

For both groups, the most important facilitators relate to the relationship aspect of UBC and funding. This is consistent with the academics perception.

The interest of university in accessing business-sector R&D facilities also plays an important role for HEI representatives in Croatia.

While scientific orientation of the business is the weakest barrier for Croatian academics, for European academics it is the geographical factor.

Drivers stimulating UBC

Motivators for Croatian academics who already cooperate with businesses and motivators of non-cooperating academics are quite different.

Cooperating academics' are motivated mainly by the willingness to improve their teaching and to improve graduate employability, academics who do not on UBC as a means to contribute to the mission of the university.

Both name two of the top five motivators to be research-related including improving future research, using research in practice and addressing societal challenges.

Motivators

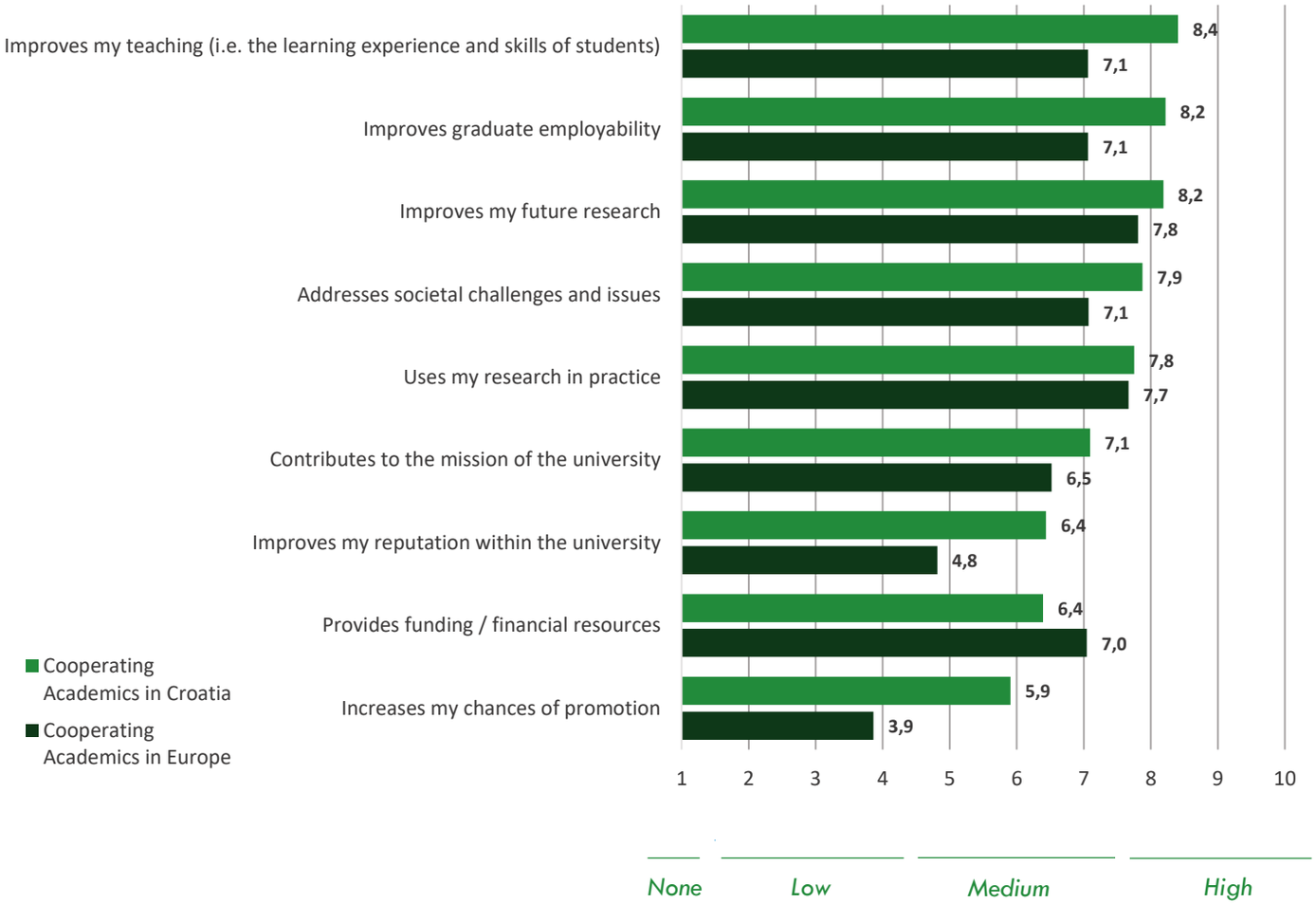
'What motivates you to cooperate with business?'- as answered by academics

	Academics who cooperate	Academics who do not cooperate
1.	Improves my teaching (i.e. the learning experience)	Addresses societal challenges and issues
2.	Improves graduate employability	Contributes to the mission of the university
3.	Improves my future research	Uses my research in practice
4.	Addresses societal challenges and issues	Improves graduate employability
5.	Uses my research in practice	Improves my future research

Drivers stimulating UBC

Motivators

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



The perceptions of motivators for UBC of Croatian and European academics differ. However, both groups agree on importance of motivators related to research.

While academics in Croatia are more motivated to improve teaching, graduate employability and research, European academics are primarily driven by research oriented reasons. This reflects the differences in time allocation and financial resources available to Croatian academics for research activities.

The biggest difference between Croatian and European academics are in reputation and promotion. Croatian academics percieve those two motivators much stronger than their European counterparts.

Drivers stimulating UBC

HEI representatives are more motivated by factors related to students with improvement of graduate employability and improvement to teaching being the strongest motivators.

Research oriented motives also bear particular importance for HEI representatives, as well as UBC's ability to contribute to the mission of the university.

Students' employability is the strongest key performance indicator in Croatia, and strengthening teaching and research activities are prerequisites for successful delivery of the HEI's mission.

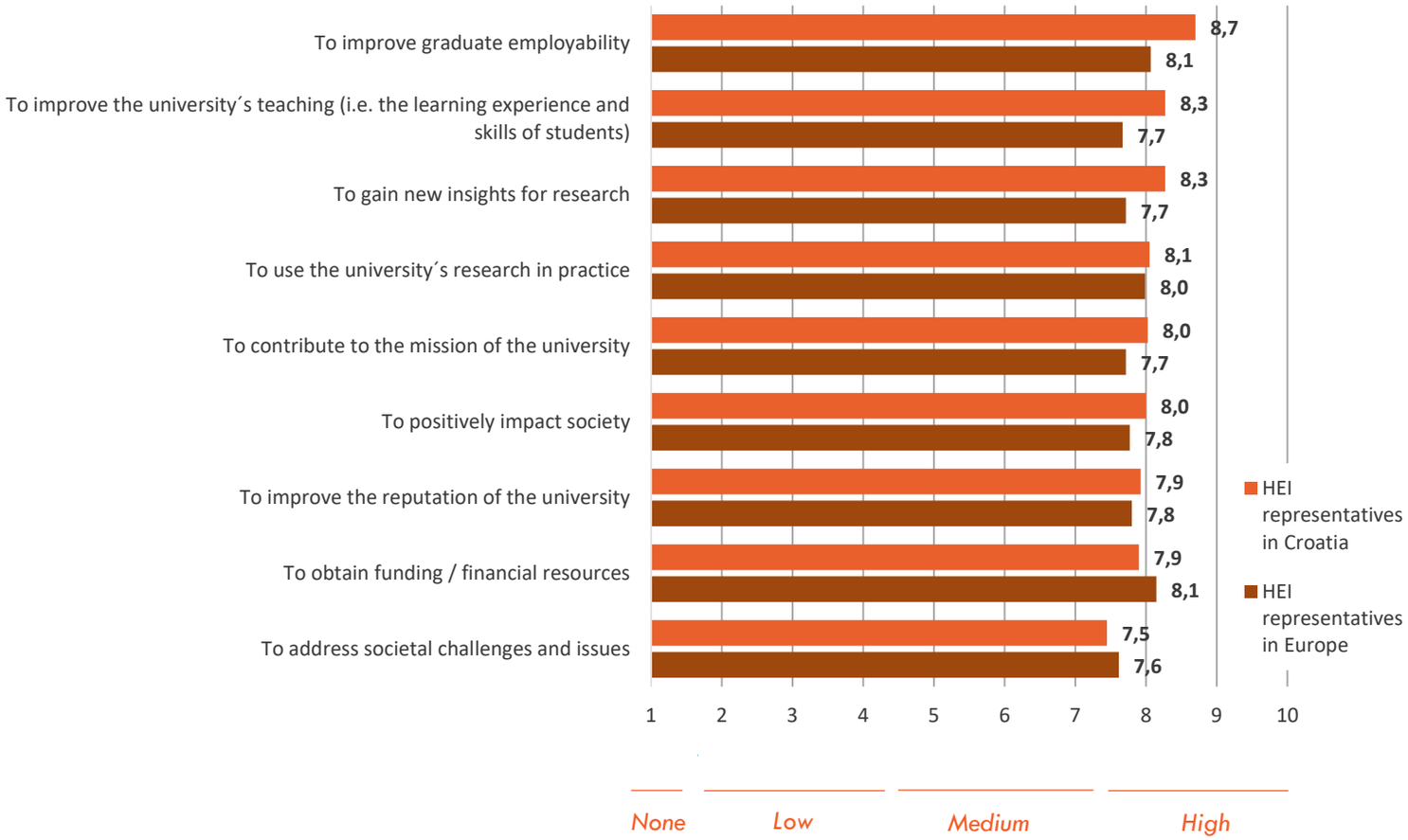
Motivators

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

Drivers stimulating UBC

Motivators

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



Croatian HEI representatives perceive motivators similarly to their European counterparts. However, Croatian HEI representatives perceive almost all motivators sligthly higher than HEI representatives in Europe.

Improving graduate employability is perceived as the strongest motivator for both, as it is a the most important key performance indicator.

Willingness to address societal challenges and issues is the weakest motivator for HEI representatives in Croatia and Europe.

More crucially, for both European and Croatian HEI representatives all motivators were ranked of nearly equal importance, which ultimately means that all these motives have a potential of stimulating UBC for universities.

Croatian academics and HEI representatives have different perceptions about the stakeholders that benefit from UBC.

While academics consider society to benefit the most from UBC, students' are the main beneficiaries from the perspective of HEI representatives. Such difference in ranking can be explained by using broader (academics) or narrower (representatives) perspective, but both perspectives allign with each other.

Croatian academics perceive businesses as another primary UBC beneficiary, whereas HEI representatives perceive more benefits for the university.

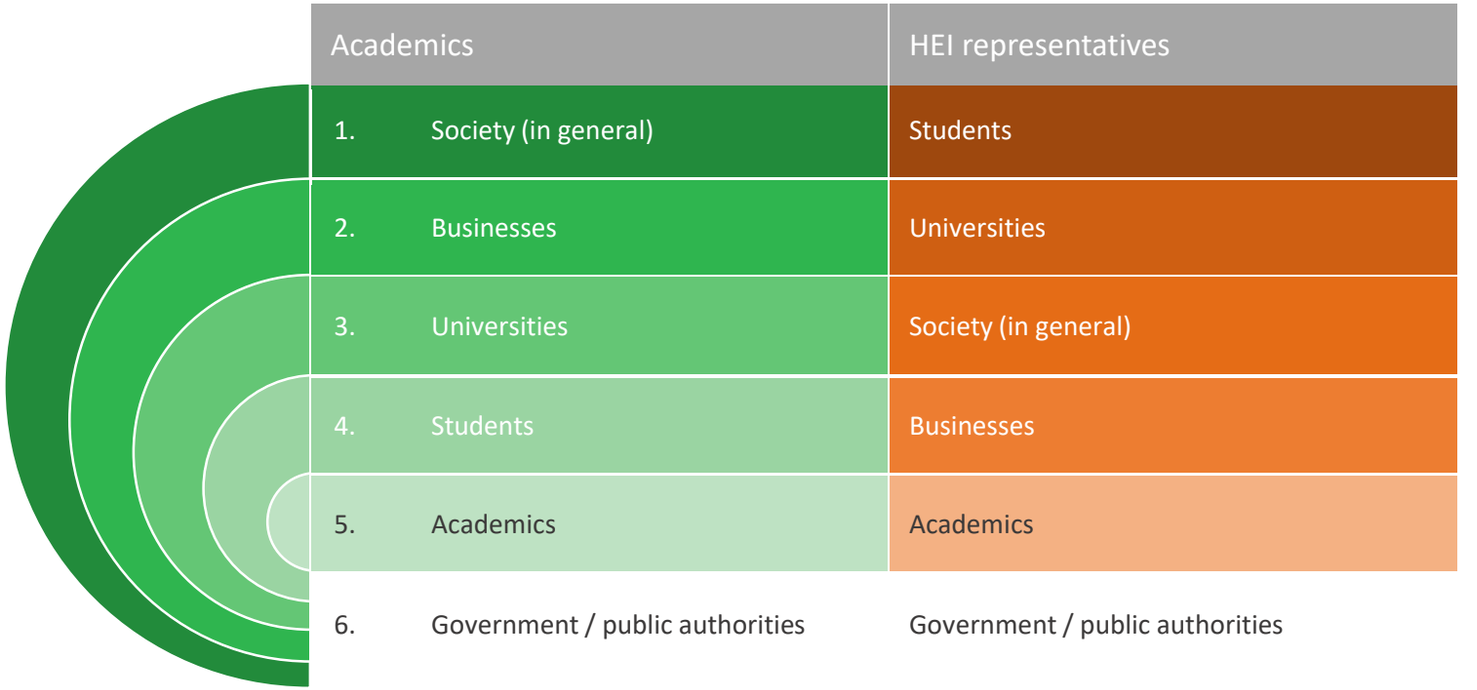
Academics were rated by both academics and HEI representatives as receiving some of the lowest benefits from UBC. This is potentially a major explanatory factor as to why academics in Croatia do not cooperative.

Benefits of 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

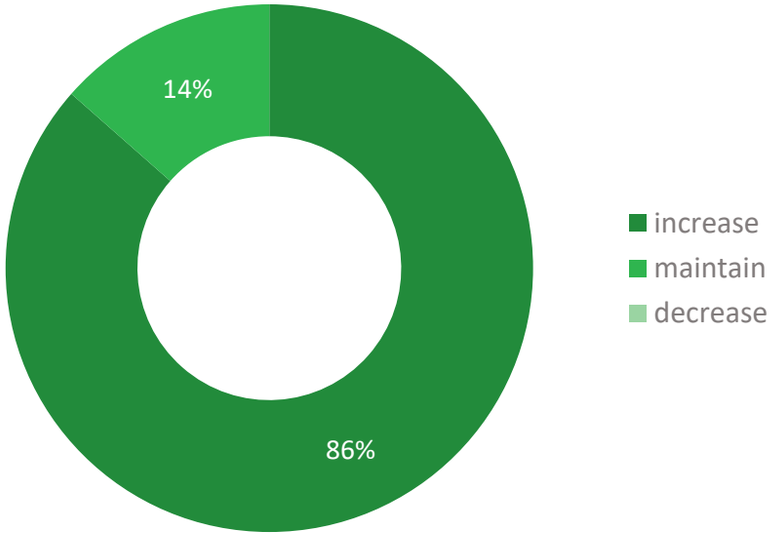
'Who receives the benefits of UBC?'- as answered by academics and HEI representatives



Future intentions

Future UBC intentions – Croatia

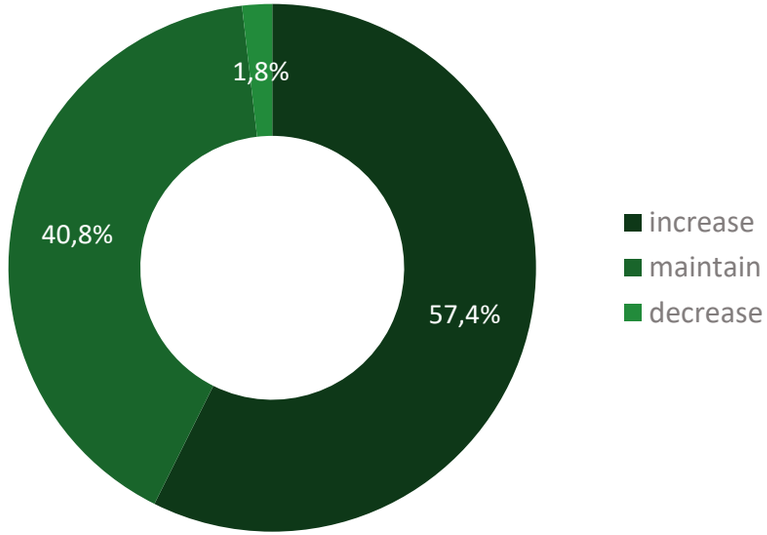
As answered by Croatian academics



Croatian academics showed a very strong commitment to the UBC, with 100% of them expecting to 'maintain' or 'increase' their cooperation.

Future UBC intentions – EUROPE

As answered by European academics



Academics in Europe also expressed strong commitment to increasing collaborative activities, with 57,4% of responding academics with cooperation experience expecting to 'increase' their cooperation. 1.8% of academics have decided to decrease UBC.

Willingness to recommend UBC

The willingness of Croatian cooperating academics to recommend to a colleague to engage in UBC does not vary depending on whether this cooperation is in research or in education.

Croatian academics are equally satisfied with UBC in research as their European counterparts and significantly more satisfied in education and training (Croatian NPS 33 vs. European NPS -13.8).

Half of the Croatian cooperating academics identify as promoters in both, research and education.

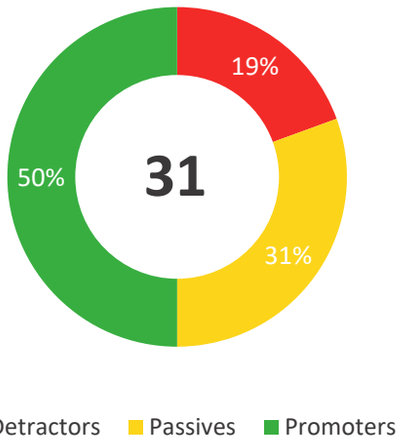
***Willingness* to recommend *to an academic colleague cooperation with business in R*&D and education**

As answered by academics

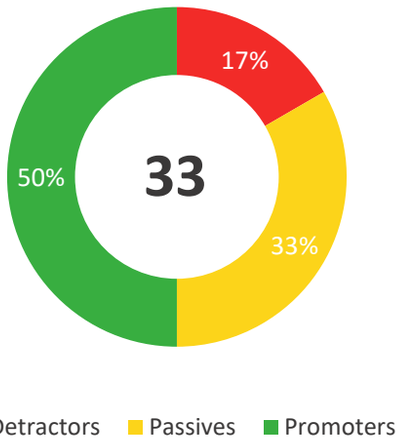
	Detractors	Passives	Promoters	Net promotor score
Academics cooperating in E&T	*17%*	*33%*	*50%*	33
Academics cooperating in R&D	*19%*	*31%*	*50%*	31

Satisfaction in cooperation with businesses (net promoter score)

Academics cooperating in research



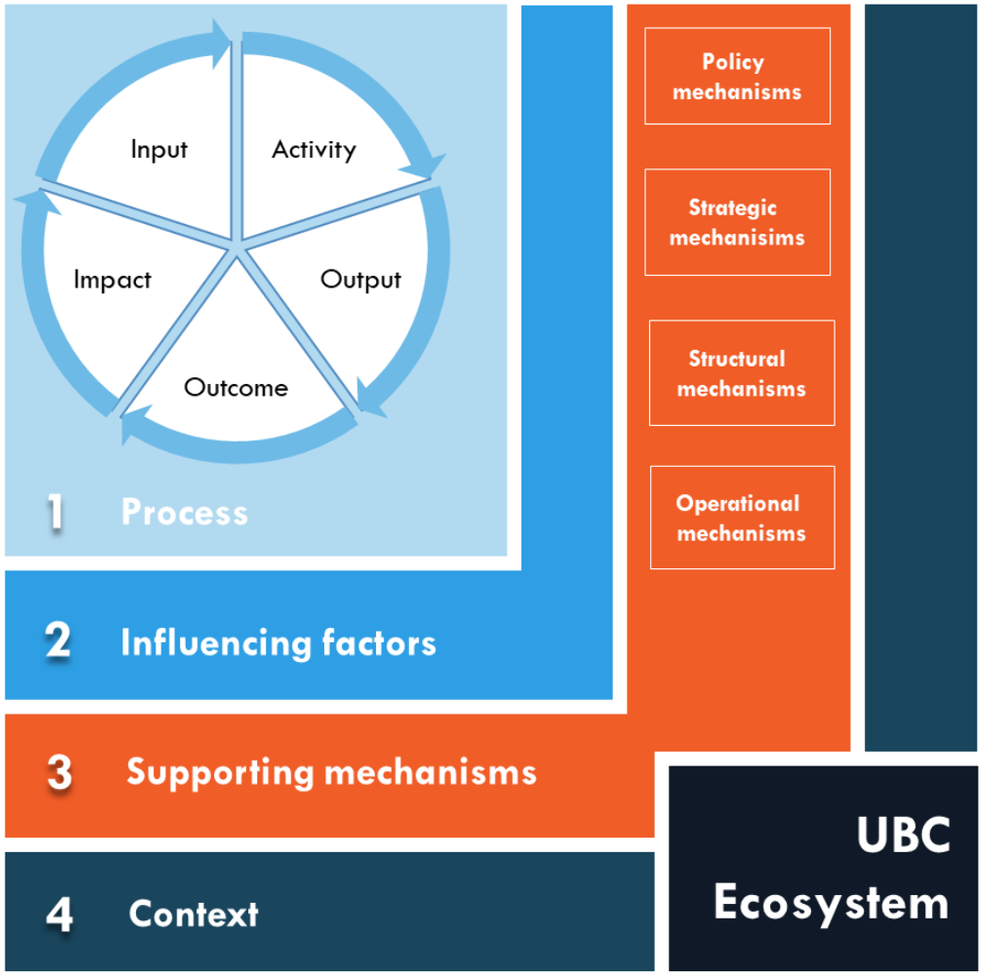
Academics cooperating in education



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

Croatian HEI representatives perceive policy mechanisms to be developed to a low level, substantially less than their European counterparts.

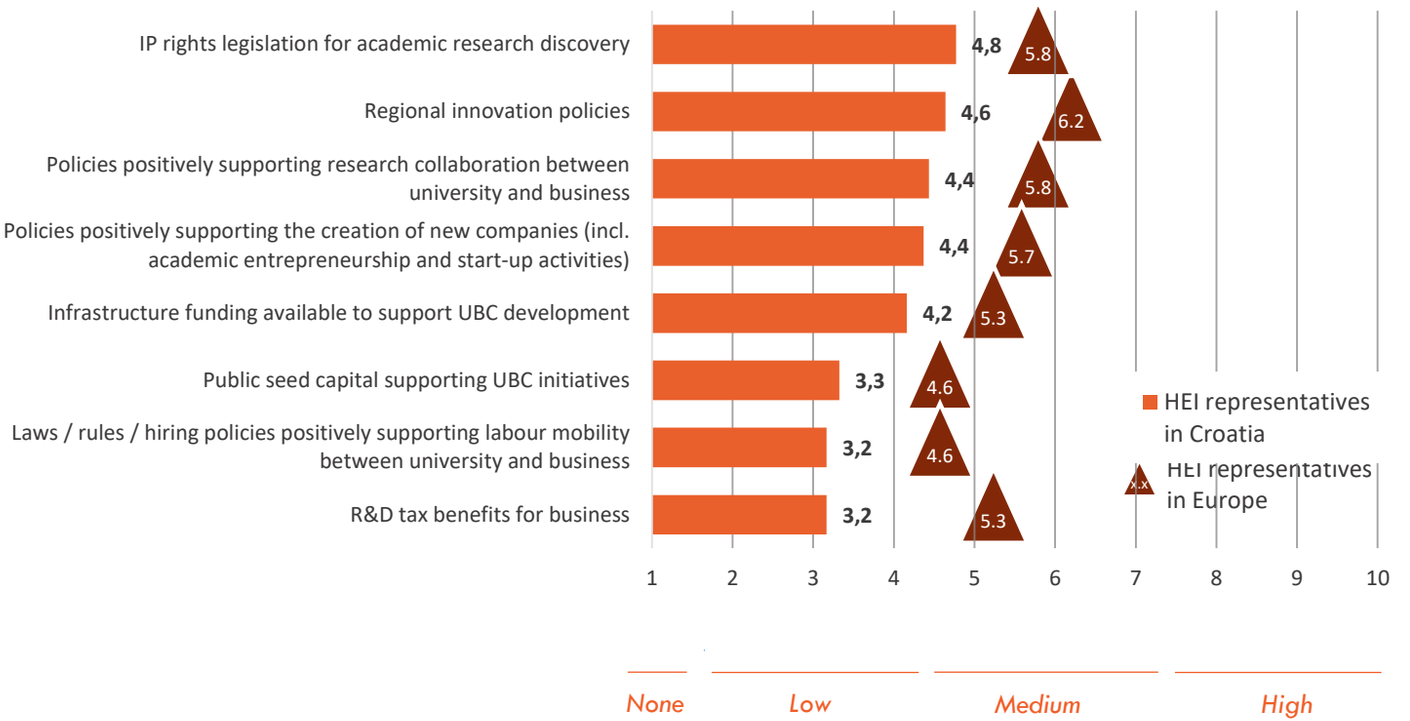
IP rights legislation for academic research discovery (4.8) is the most developed policy mechanism, followed by regional innovation policies and policies positively supporting research collaboration between university and business, which is somewhat surprising due to the fact that regional innovation policies barely exist in Croatia.

R&D tax benefits for business (3.2) and 'laws/rules/hiring policies supporting labour mobility lag considerably behind. Overall, the results show all policy mechanisms in Croatia are less developed compared to European average.

Many international surveys like Doing Business (World Bank), Global Competitiveness Report (World Economic Forum) and Global Entrepreneurship Monitor have identified for many years low innovation capacity of the Croatian economy, low R&D transfer from research institutions to the business sector and a lack of seed capital. This reveals a long standing policy issue in Croatia.

Policy mechanisms

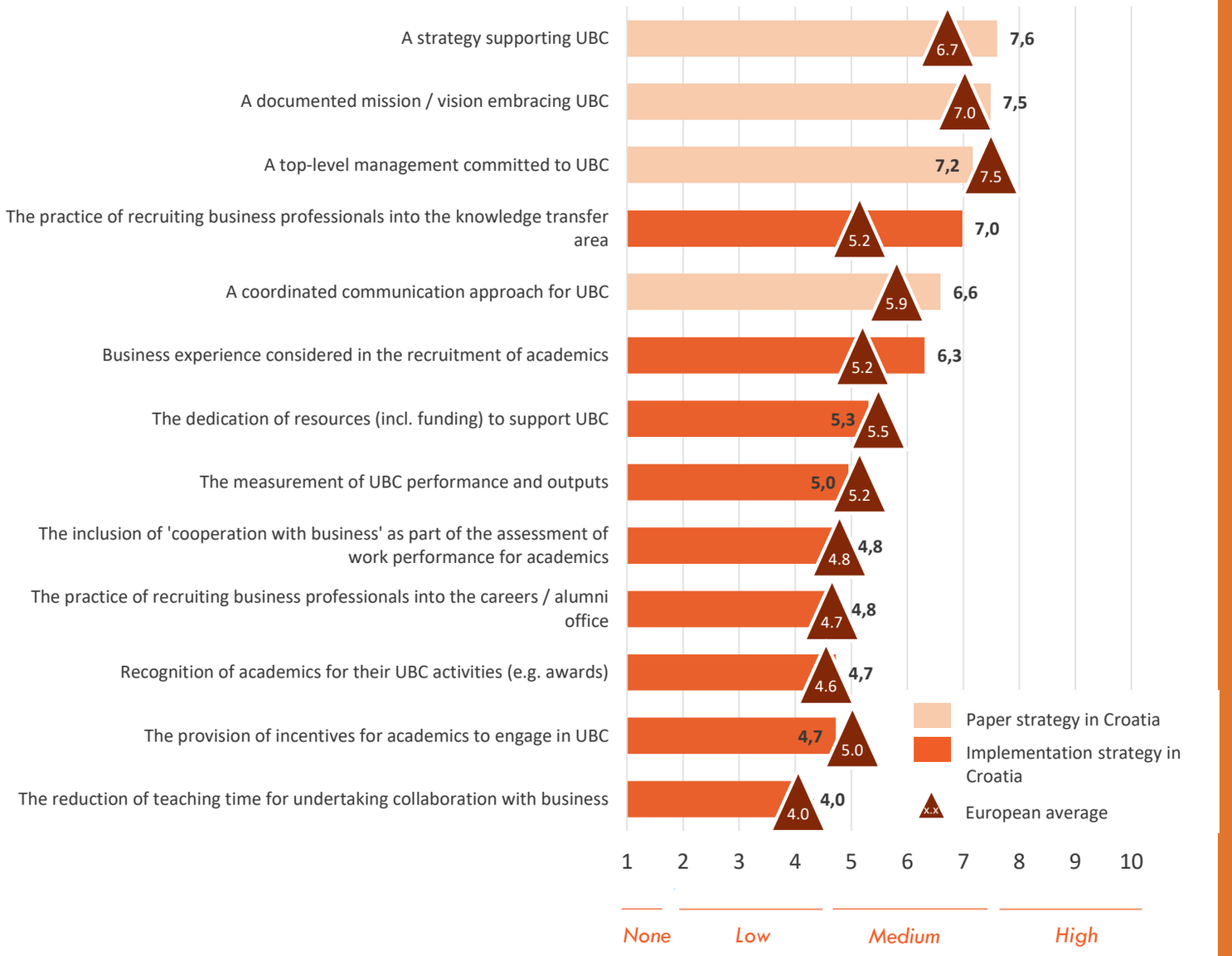
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



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 Croatian and European HEIs is very similar.

Paper strategies are more developed than implementation strategies, showing the official commitment of Croatian HEIs to UBC above the actual dedication of resources.

The provision of incentives for academics to engage in UBC (4.7) and the reduction of teaching time for undertaking collaboration with business (4.0) considerably lag behind, evidencing the discrepancy between paper and implementation strategies

Supporting mechanisms for UBC

The development of structural mechanisms is significantly lower in Croatian HEIs than in European HEIs.

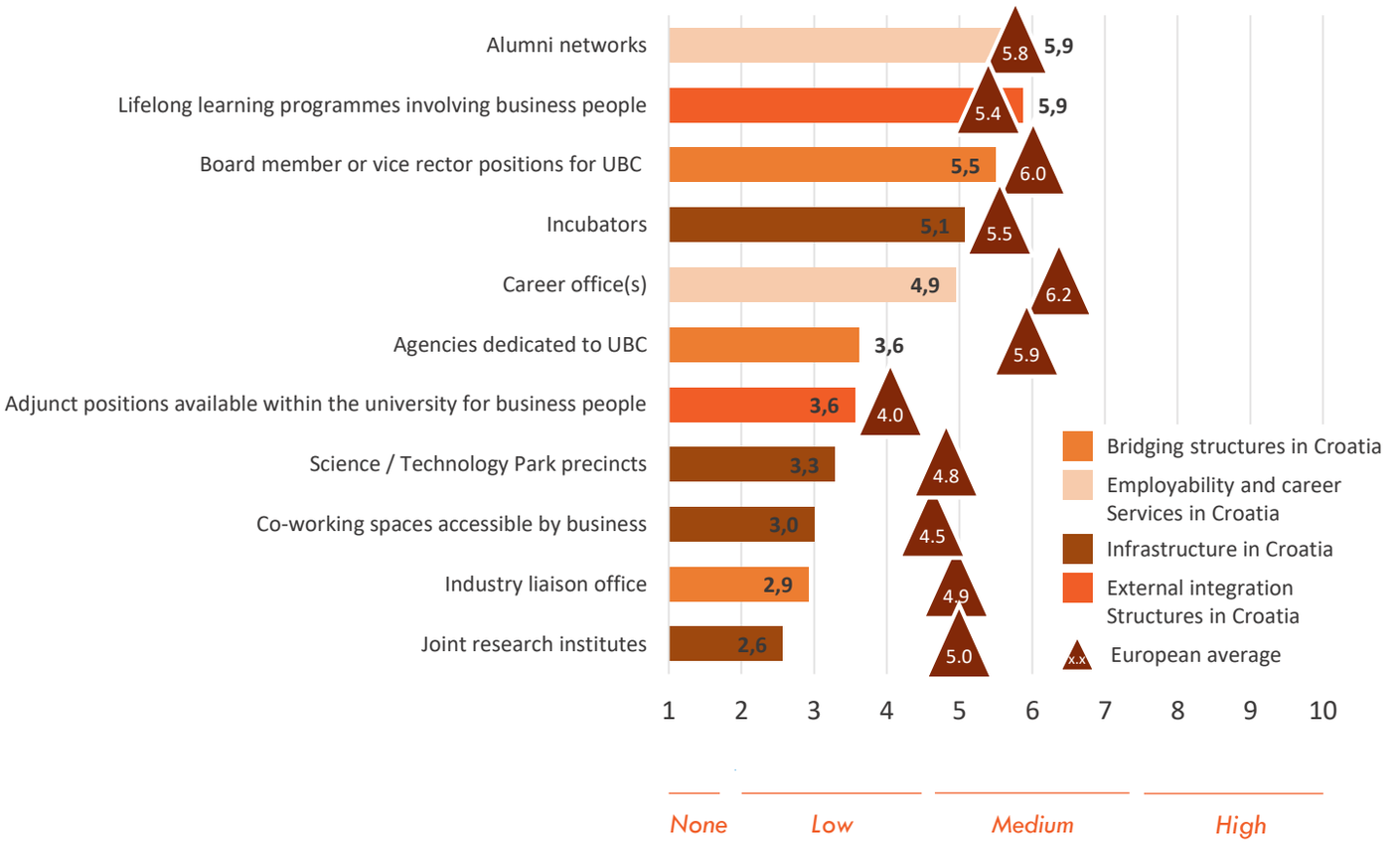
Alumni networks (5.9) and lifelong learning programmes (5.9) are the most developed mechanisms, which is interesting because according to statistics, Croatia is among the countries with the lowest involvement of people in lifelong learning programs. Additionally, alumni networks are relatively inexistent

Industry liaison offices (2.9) and joint research institutes (2.6) have the lowest scores.

Compared with European average, the development of structural mechanisms in Croatian universities considerably lags behind, because many of those structures are not part of HEIs activities, neither there is a financial support for it. Career offices, incubators, and alumni networks are still in their infancy.

Structural mechanisms

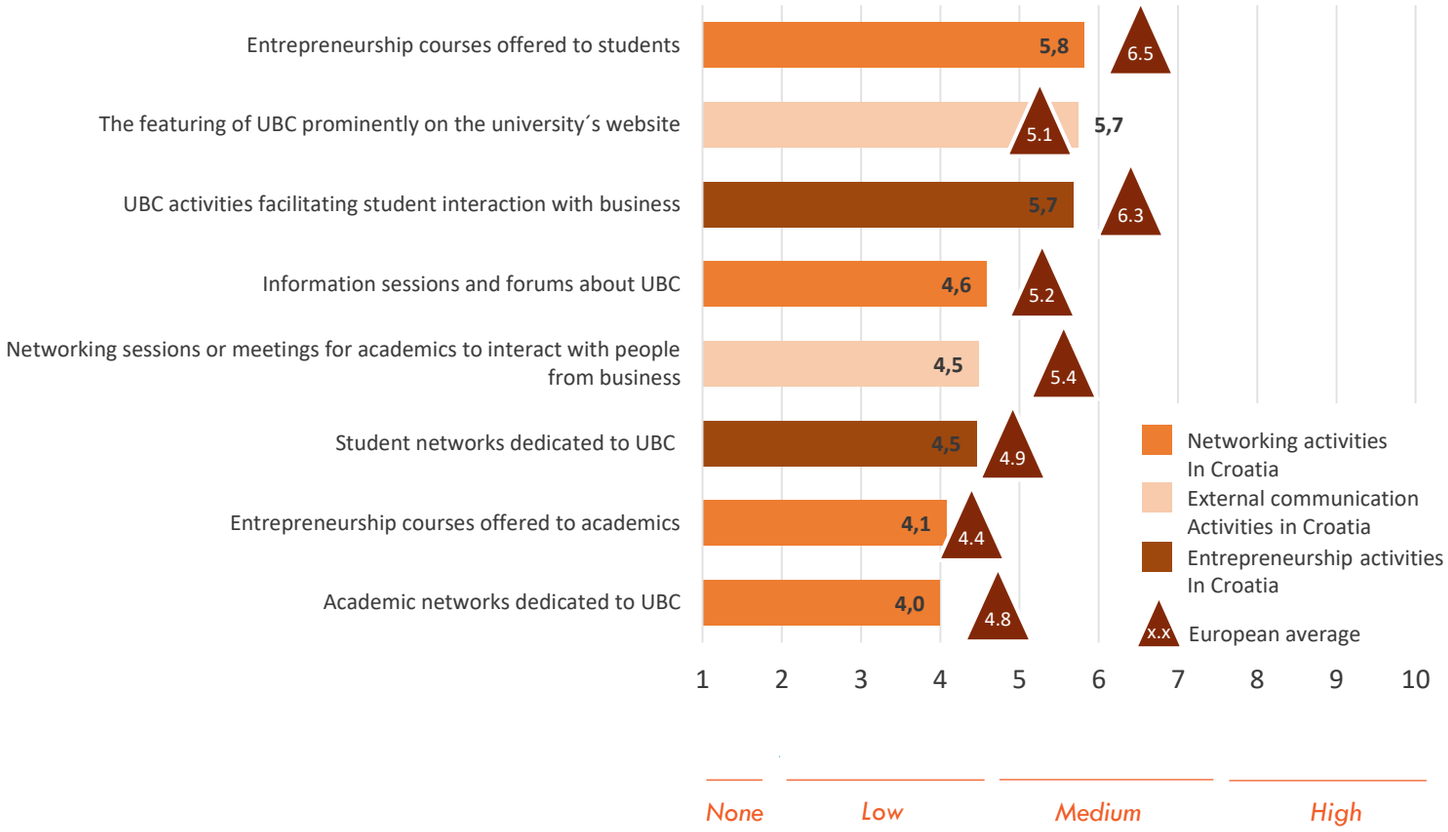
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



Supporting mechanisms for UBC

Operational mechanisms

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



Overall, the perspectives of Croatian and European HEI representatives differ in respect to the development of operational mechanisms. These are less developed in Croatian HEIs.

Student-centred activities are the most developed operational mechanisms, with entrepreneurship courses offered to students (5.8) and UBC activities facilitating student interaction with businesses (5.7) UBC ranked the highest.

In Croatian universities, UBC is prominently featured on the universities' website, being the only scoring higher than the European average.

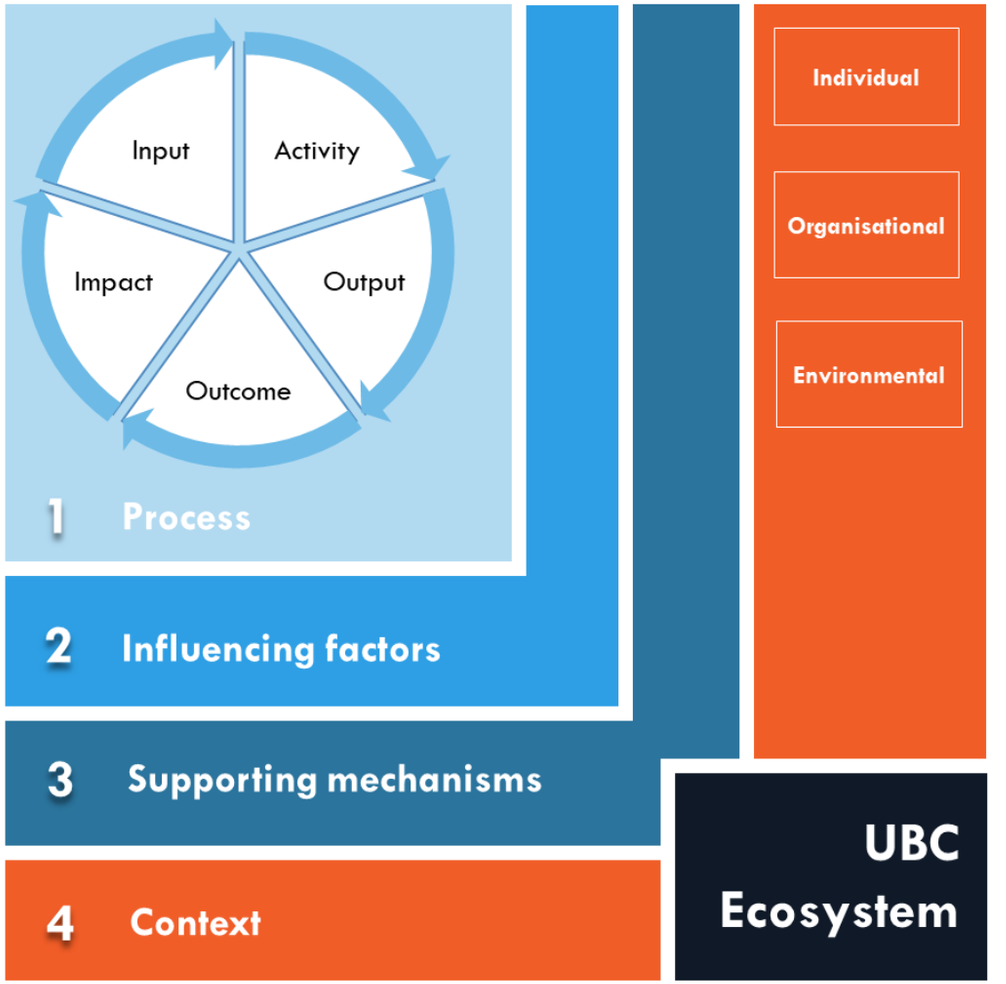
Academics-oriented networking activities are the most underdeveloped operational mechanisms in Croatian HEIs.

Context

The degree to which UBC takes place is influenced by a set of element present in the context of the organisation that cannot be changed in short term.

These include the characteristics of individual actors involved, the institutional factors relating to the university and business, as well as by a set of broader environmental factors (political, economic, social, technological, etc.).

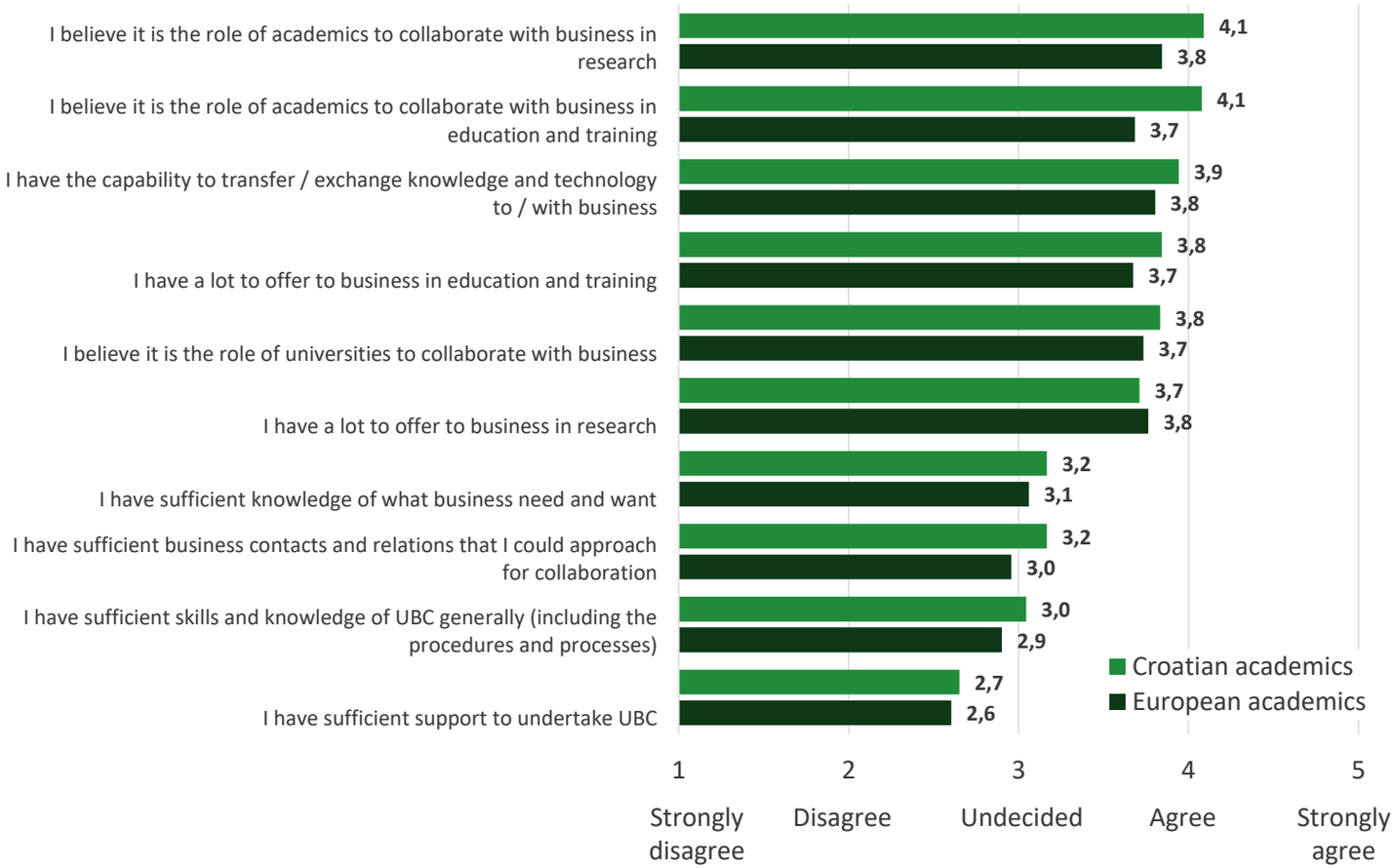
This section outlines how some contextual factors influence UBC in the country.



UBC capabilities

Capabilities for UBC

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



Croatian academics identified they possessed moderate capabilities for UBC providing a similar, though mostly slightly superior, to those of their European counterparts.

Croatian academics believe that it is their role to collaborate with businesses in research and education. They are also capable of transferring knowledge to the businesses.

Yet, they have less capabilities related to UBC skills and knowledge, as well as business contacts, indicating the general lack of support to undertake UBC.

Context

Both Croatian and European academics consider they have a positive attitude towards UBC. The state that their universities also have a positive attitude, along with a strong educational profile.

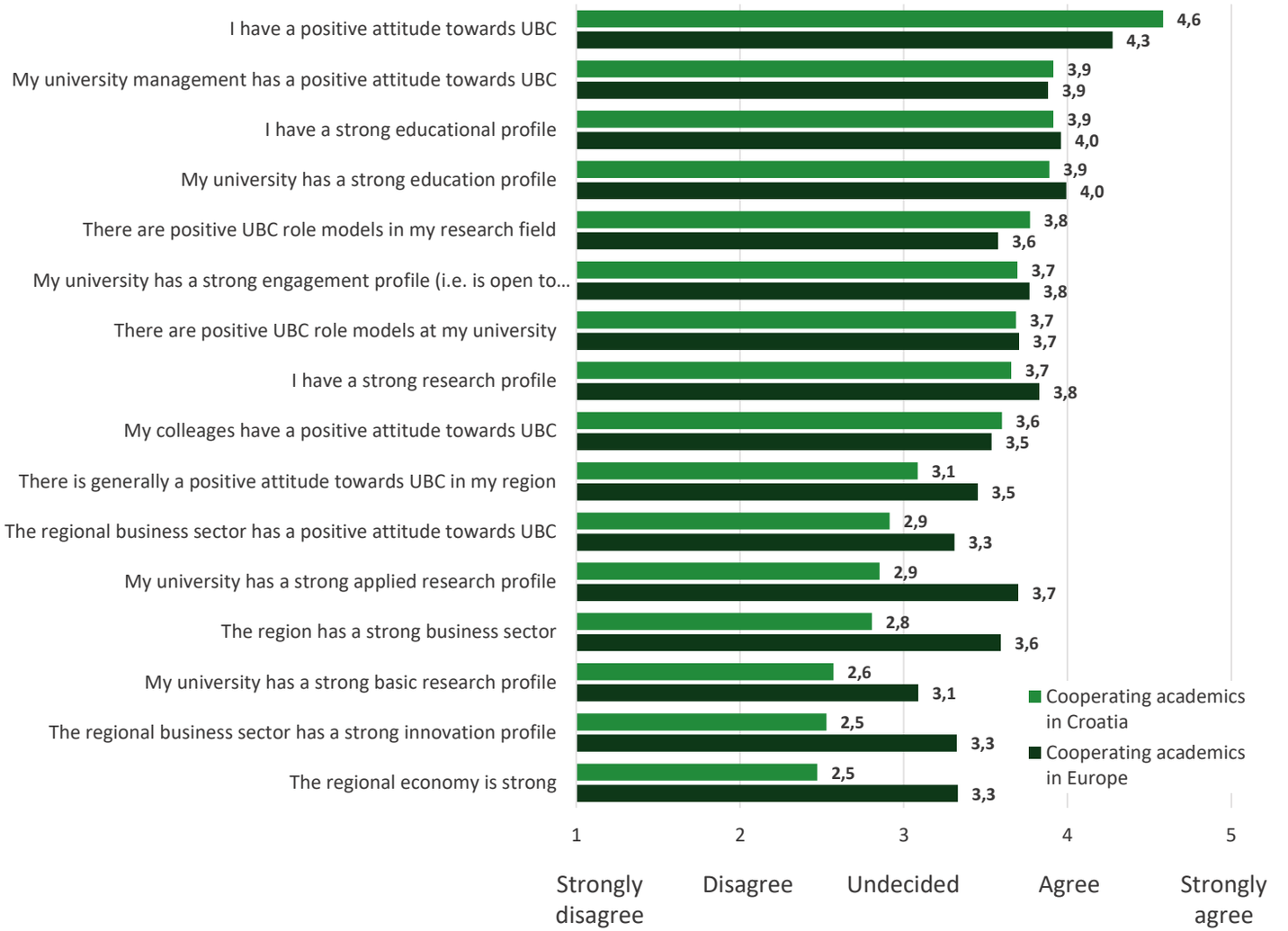
However, factors related to the regional context including economy, business sector and innovation profile are perceived as especially weak by Croatian academics.

This exposes differences in regional development – Croatian NUTS2 regions are among the 25% of the least competitive regions in EU[1].

[1] Regional Competitiveness Index, 2016.

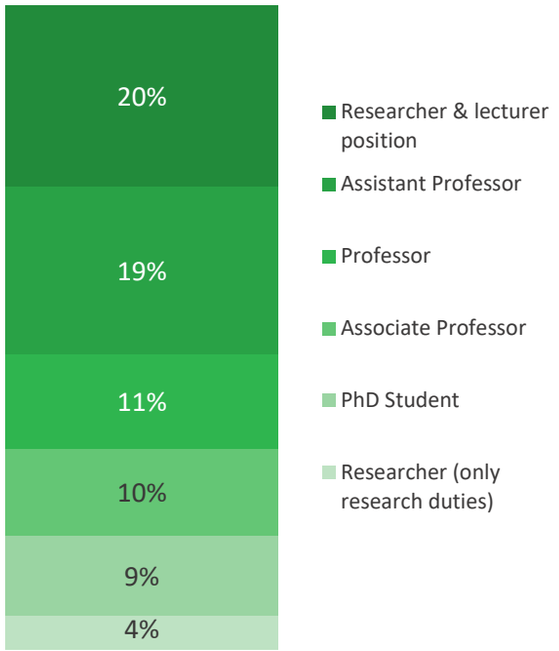
Contextual factors affecting UBC

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



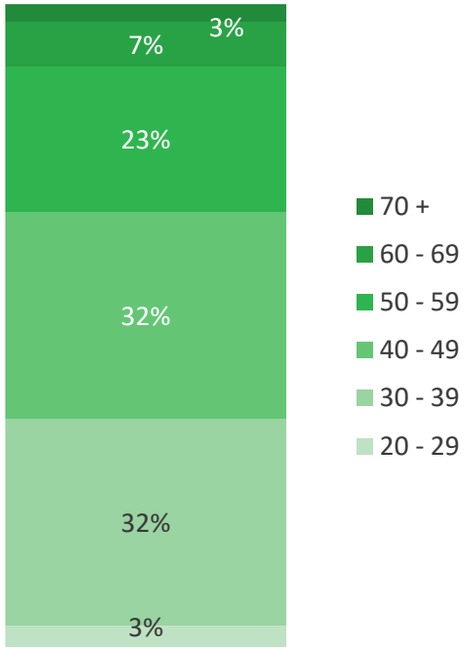
Respondent profile – academics

Position of respondent



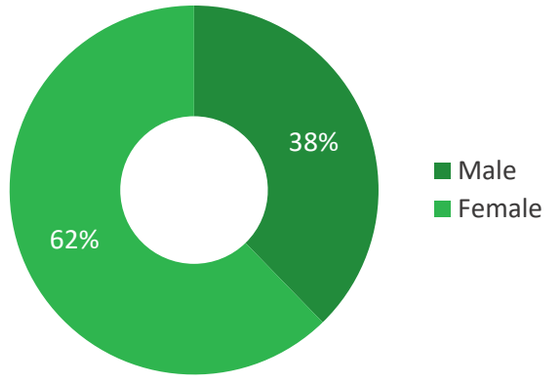
'Researchers and lecturers' and 'Assistant Professors' comprised two largest groups (20% and 19%), followed by 'Professor' (11%). The remaining respondents identified themselves as 'Associate Professor' (10%), 'PhD students' (9%) and 'Researcher' (4%).

Age of respondents



A variety of age groups is represented in the Croatian sample, with the two biggest groups of academics aged 40 to 49 and 30 to 39 (32% each). Further significant group is comprised by those 50 to 59 (23%).

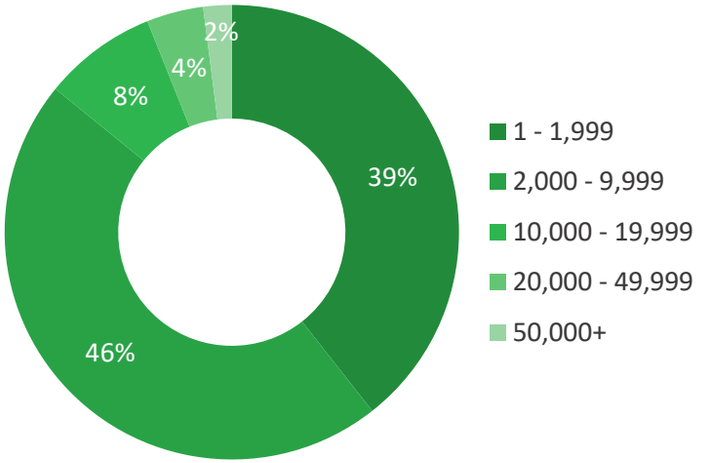
Gender of respondents



The emerged gender distribution is skewed towards female respondents, with 62% female and 38% male academics.

Respondent profile – academics

Number of students of the HEI

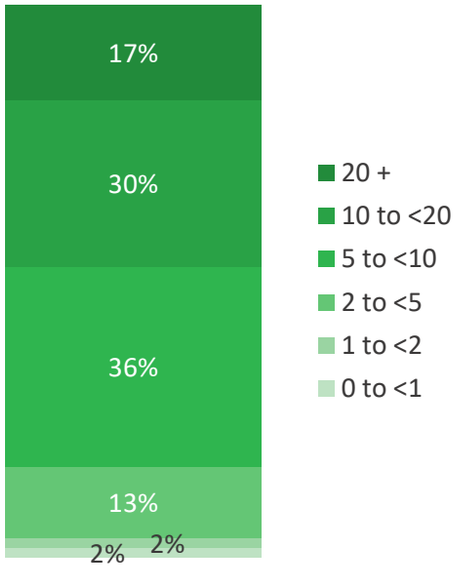


Sample Size	
Croatian Academics	n=147
European Academics	n=10.836
Croatian HEI representatives	n=54
European HEI representatives	n=3.482

Almost half of Croatian academics work in small HEIs with 2,000 to 9,999 students (46%). Very small HEIs with less than 2,000 students is the second most represented group in the sample (39%). Medium-sized HEIs with 10,000 to 19,999 students account for 8% of the academics.

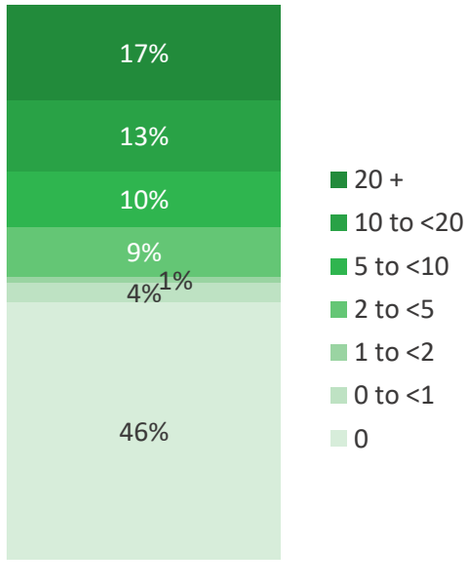
Respondent profile – academics

Years working in university



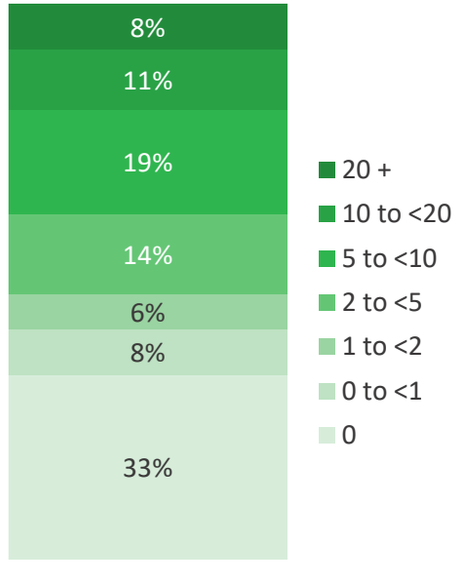
17% of respondents indicate that they have worked in a HEI for over 20 years. The majority (36%) of academics have 5 to 10 years experience. Further 30% work in HEI for 10 to 20 years. The smallest group contain respondents with less than 5 years experience (a total of 15%).

Years working in business



Almost half (46%) of Croatian academic respondents never worked in industry. 17% have more than 20 years experience. Further 13% spent 10 to 20 years in industry. A total of 19% have 2 to 10 years industry experience.

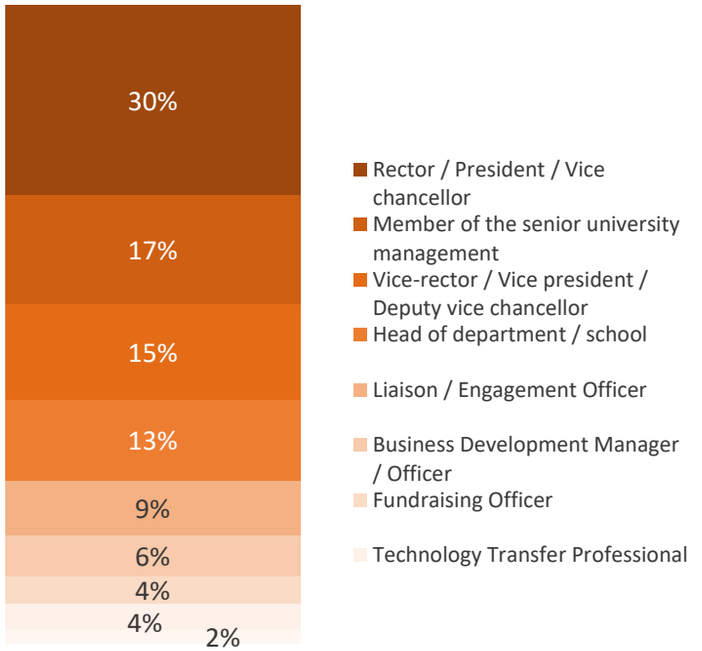
Years involved in UBC whilst working at a university or business



Third of academics have no UBC experience. 19% engaged in cooperation with businesses for 5 to 10 years, and 14% – 2 to 5 years. Further 19% have been involved in UBC for more than 10 years. Total of 14% have less 2 years UBC experience.

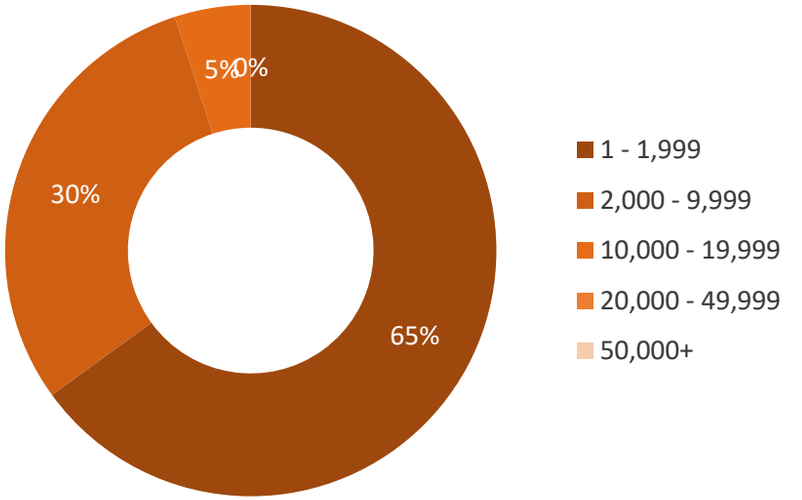
Respondent profile – HEI representatives

Position of respondent



30% of Croatian HEI representatives hold a 'Rector / President / Vice chancellor' position. The second biggest groups is comprised by 'Members of the senior university management' (17%), followed by 15% of 'Vice-rectors / Vice-presidents' and 13% of 'Heads of departments'.

Number of students of the HEI



Overall, 65% of HEI representatives work for very small HEIs with less than 2,000 students with a further 30% based in small institutions (2,000 to 9,999 students). Only 5% of HEI representatives work in medium-sized.

UNIVERSITY-BUSINESS COOPERATION IN EUROPE

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

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

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