



UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

State of University- Business Cooperation

GERMANY

University Perspective

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



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The State of German 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 Germany from the perspective of higher education institutions (HEIs). Examining the perceptions of academics, HEI managers and knowledge transfer professionals (KTPs) there still is a room for further improvement, particularly in supporting academics in their cooperation efforts, including the development of incentive and performance measurement systems in UBC and the promotion of cooperation in valorisation and management activities. Despite this 96% of academic respondents currently cooperating with businesses plan to increase or maintain their cooperation in the future.

About the study

The results presented in this report reflect the perceptions of academics, HEI managers and KTP in Germany 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 992 German HEI responses. The study measured the perceptions of respondents with respect to their cooperation efforts, barriers, drivers, supporting mechanisms and perceived capabilities.

University-Business Cooperation

German academics are involved in a variety of different cooperation types, with mobility of students, joint R&D and business consulting emerging as the most developed UBC activities. UBC in management lags significantly behind, ranking below the European average. Over half of the academics do not engage in these activities at all.

Academics see themselves as proactive initiators of UBC, with two thirds of them stating that they usually or always initiate such cooperation. Contrary, they perceive former and current students as those stakeholders that less often initiate cooperation.

Various barriers hindering UBC

German HEI respondents, including cooperating and non-cooperating academics as well as HEI representatives, are considerably hindered by bureaucracy related to UBC and insufficient work time allocated by the university for academics' UBC activities.

Both, cooperating academics and HEI managers identify limited resources of SMEs as a barrier inhibiting their cooperation with businesses, while non-cooperating academics are more hindered by the culture related barriers. Additionally, academics, independent of whether they cooperate with businesses or not, perceive that UBC conflicts with their teaching and research responsibilities.

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.

Relationships matter

While the interest of the business in accessing scientific knowledge emerges as one of the top five facilitators, the factors related to the relationship component of UBC are likely to play even more prominent role. It is the existence of mutual trust, commitment and shared goal that facilitate and thus drive cooperation, from the perspectives of all HEI respondents. These results confirm that any effort dedicated to the enhancement of cooperation between businesses and universities should in the first place focus on the relationship development.

Different benefits as motivations

HEI representatives and academics, both cooperating and non-cooperating, are motivated by the willingness to apply their research in practice, to improve graduate employability and obtain additional funding. While improvement of teaching is a motivation for those academics who already cooperate, the willingness to address societal challenges and to contribute to the mission of the university drives those academics who do not engage in UBC. As for HEI representatives, they are also driven by the motivation to improve the reputation of their universities. Nevertheless, German respondents have lower motivation for UBC than their European counterparts.

Lack of incentives

Universities in Germany are have a moderate level of development of supporting mechanisms for UBC. As evident in the data, high-level strategic developments such as top-level management

commitment to UBC, a documented mission/vision embracing UBC and a strategy supporting UBC are perceived as well developed. Yet, the mechanisms related to the provision of academic incentives to undertake UBC, including the recognition and measurement of their UBC activities are less developed. UBC activities are not reflected in the performance assessment of German academics.

Focus on students

Student-centred activities are the most developed operational mechanisms. UBC mechanisms facilitating student interaction with businesses and entrepreneurship courses offered to students are the most developed activities. Yet, the existence of the student networks dedicated to UBC is below the European average. As for activities devoted to academics, these mechanisms are seen as noticeably less developed than the students oriented ones, although still above the European average.

Positive attitude towards UBC

German academic respondents already cooperating with business have a positive view of their abilities and roles in undertaking UBC. They identified their strengths in the ability to exchange knowledge and to conduct research for companies. However, their beliefs and perceived capabilities related to cooperation in education are more negative than the research related ones.

Furthermore, German academics perceive that they have insufficient business contacts. They lack general knowledge and skills, as well as support to undertake UBC.

Introduction

About the study

The study focuses on the cooperation between higher education institutions (HEIs) and public and private organisations in the 28 European Union Member States and 5 associated countries.

The State of European university-business cooperation (UBC) study is executed for the DG Education and Culture at the European Commission (EAC/10/2015) by a consortium led by the Science-to-Business Marketing Research Centre (S2BMRC), in Germany from January 2016 until November 2017.

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

Main activities

The main components of the project were a series of expert interviews with 23 recognised UBC experts, 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.



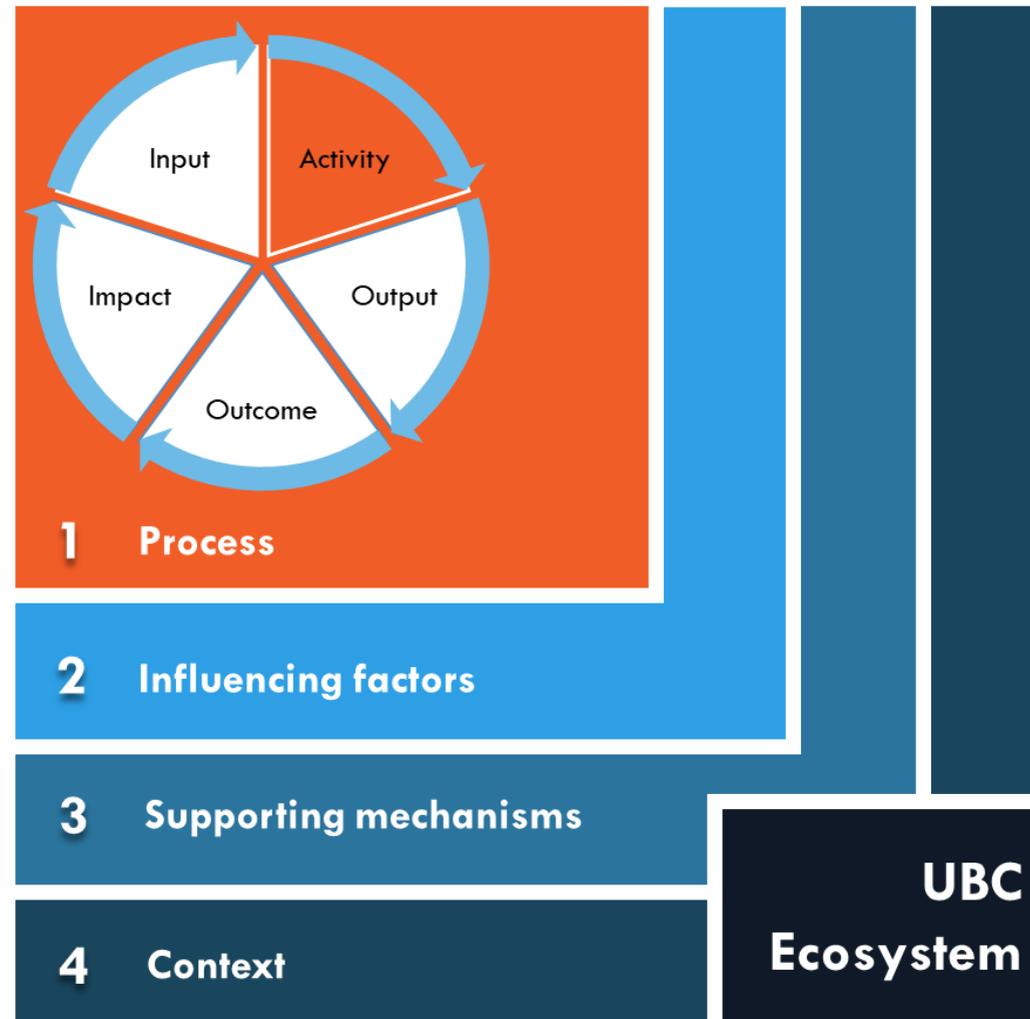
UBC activities

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-design2. curriculum co-delivery (<i>e.g. guest lectures</i>)3. mobility of students (<i>i.e. student internships/placements</i>)4. dual education programmes (<i>i.e. part theory, part practical</i>)5. lifelong learning for people from business (<i>e.g. executive education, industry training and professional courses</i>)
Research	<ol style="list-style-type: none">6. joint R&D (<i>incl. joint funded research</i>)7. consulting to business (<i>incl. contract research</i>)8. mobility of professionals (<i>i.e. temporary mobility of academics to business and vice versa</i>)
Valorisation	<ol style="list-style-type: none">9. commercialisation of R&D results (<i>e.g. licencing/patenting</i>)10. academic entrepreneurship (<i>e.g. spin offs</i>)11. student entrepreneurship (<i>e.g. start-ups</i>)
Management	<ol style="list-style-type: none">12. governance (<i>e.g. participation of academics on business boards and businesspeople participation in university board</i>)13. shared resources (<i>e.g. infrastructure, personnel, equipment</i>)14. industry support (<i>e.g. endowments, sponsorship and scholarships</i>)

Development of UBC activities

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

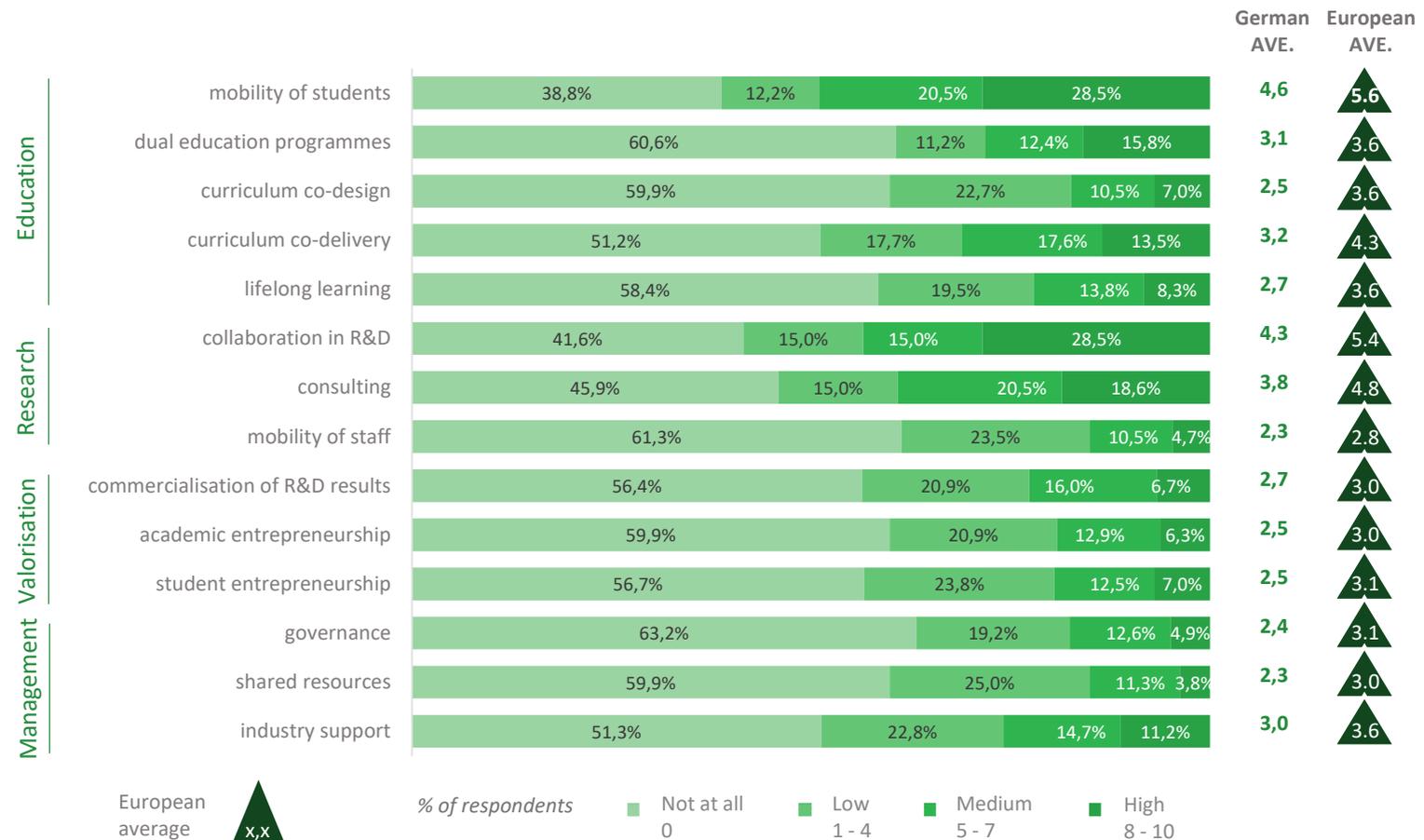
German academics most commonly engage with business in mobility of students (4.6) and collaboration in R&D (4.3), which are perceived as the traditional forms of cooperation in Germany. Yet, at least 40% of German academics do not engage in these activities at all.

The third most developed UBC activity for German academics is the business consulting (3.8). While 18.6% report a high level of development, over 40% do not engage in this activity at all. German professors carry out consulting activities privately (Steinbeis model¹) however it is not considered by them as a UBC activity.

Management and valorisation activities are not undertaken by over half of the German academics.

The extent of development of UBC activities

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

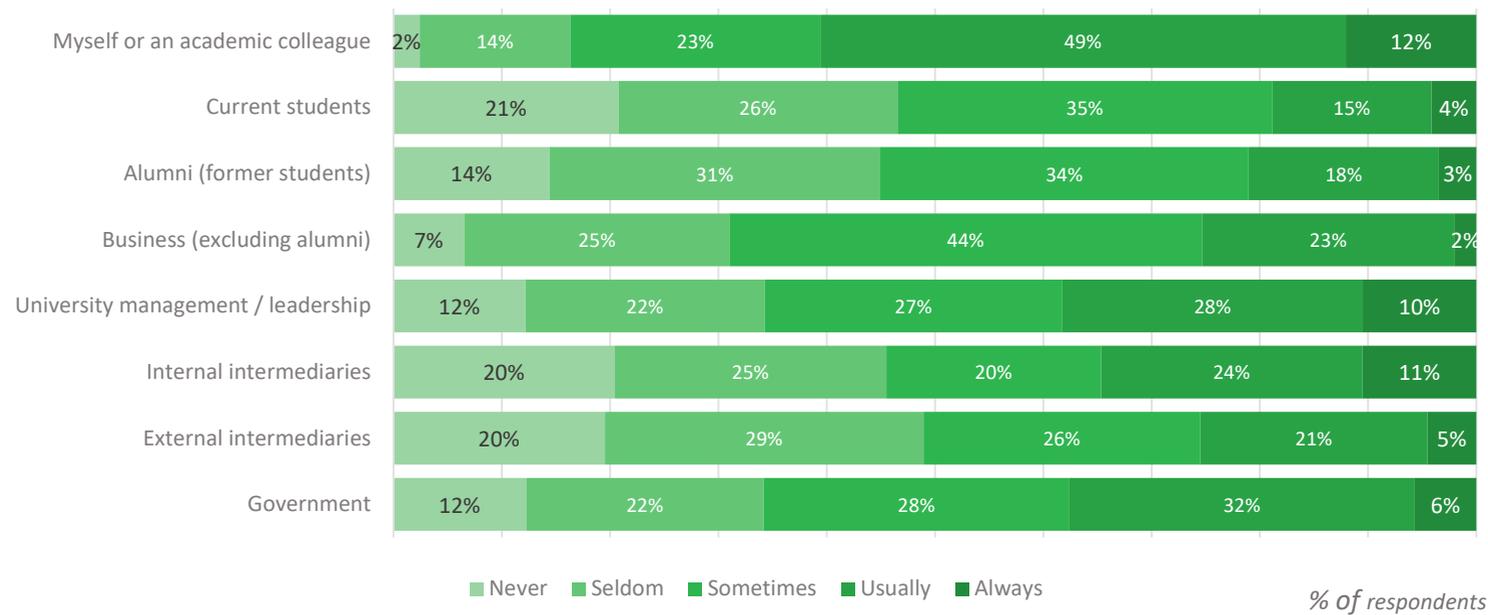


¹Steinbeis Foundation (2015). Technology. Transfer. Application. URL: <https://www.blc.edu.ba/wp-content/uploads/2015/06/Presentation-Steinbeis-2015.06.pdf>

Initiation of UBC

How UBC is initiated

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



Over half of German academics (61%) consider that themselves or their colleagues always or usually initiate UBC.

German state and university policies are increasingly stimulating academics and HEI managers to initiate cooperation activities. This is reflected in the results that show that University management and government (38% each) are also considered as active stakeholders that initiate cooperation.

Contrarily, academics perceive that former and current students are those stakeholders that less often initiate UBC. Student roles are still considered to be rather passive in this context. The potential of students and alumni has not been yet fully unlocked. This however represents an important and perhaps the most effective channel that needs to be improved and more actively utilised when enhancing UBC.

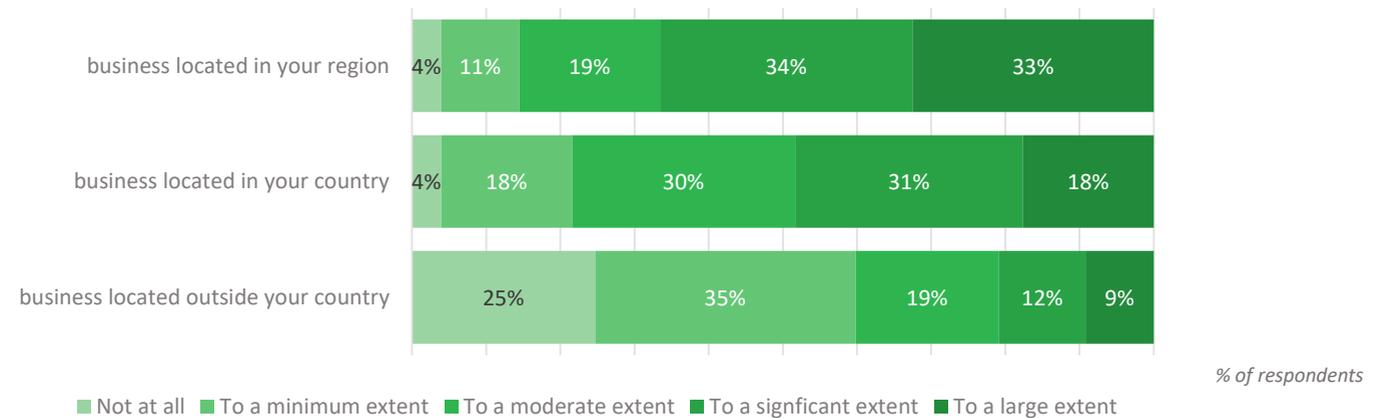
Location of cooperating partners

Proximity, both in organisational similarity and distance, is seen as a facilitator for UBC.

Bigger universities and large companies are more likely to work together as they look for leading-edge competencies that span around the world, whereas smaller HEIs and smaller companies are more interested in the direct and personal contact and want to keep the cooperation on a more personal rather than institutional level.

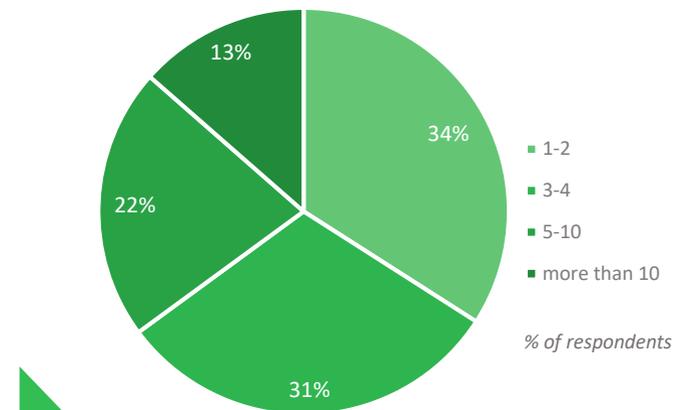
A similar logic can be applied for the number of collaborating partners. Personal and intensive discussions, close relationships and fast reactions are easier to exploit when the collaboration takes place between smaller number of entities.

Location of business partners



Academics in Germany 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 (67% and 49% respectively). Only 21% of academics indicate significant or high cooperation with international businesses.

Number of business partners

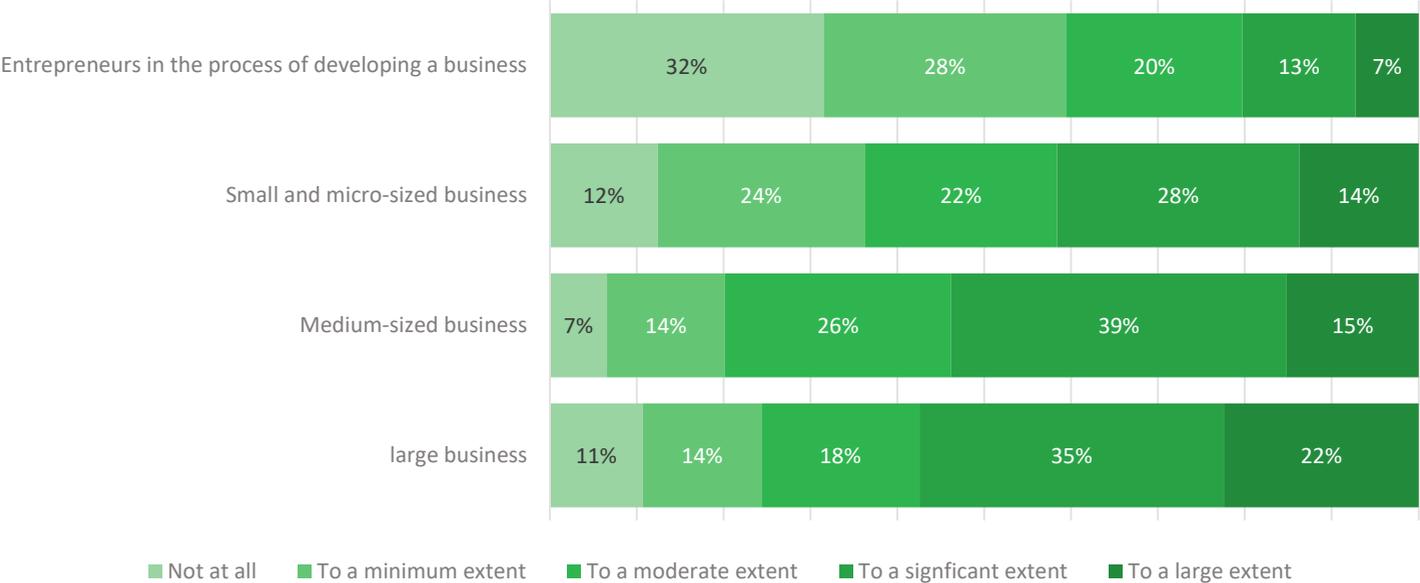


Over a half (65%) of German academics cooperate with four businesses or less while only 13% collaborate with over 10 business partners.

Size of cooperating partners

Size of cooperating partner

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



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

57% of cooperating academics in Germany engage to a significant or large extent with large businesses. This cooperation is reduced to 54% for medium businesses, 42% for small and micro-sized businesses and 20% for entrepreneurs in the process of developing a business.

In Germany, large businesses are more likely to work on the challenging R&D technology-driven projects, while SMEs usually tend to work on the strategic market oriented projects. These two types of businesses engage in collaborative activities for different reasons, on different levels and within a different timeframe.

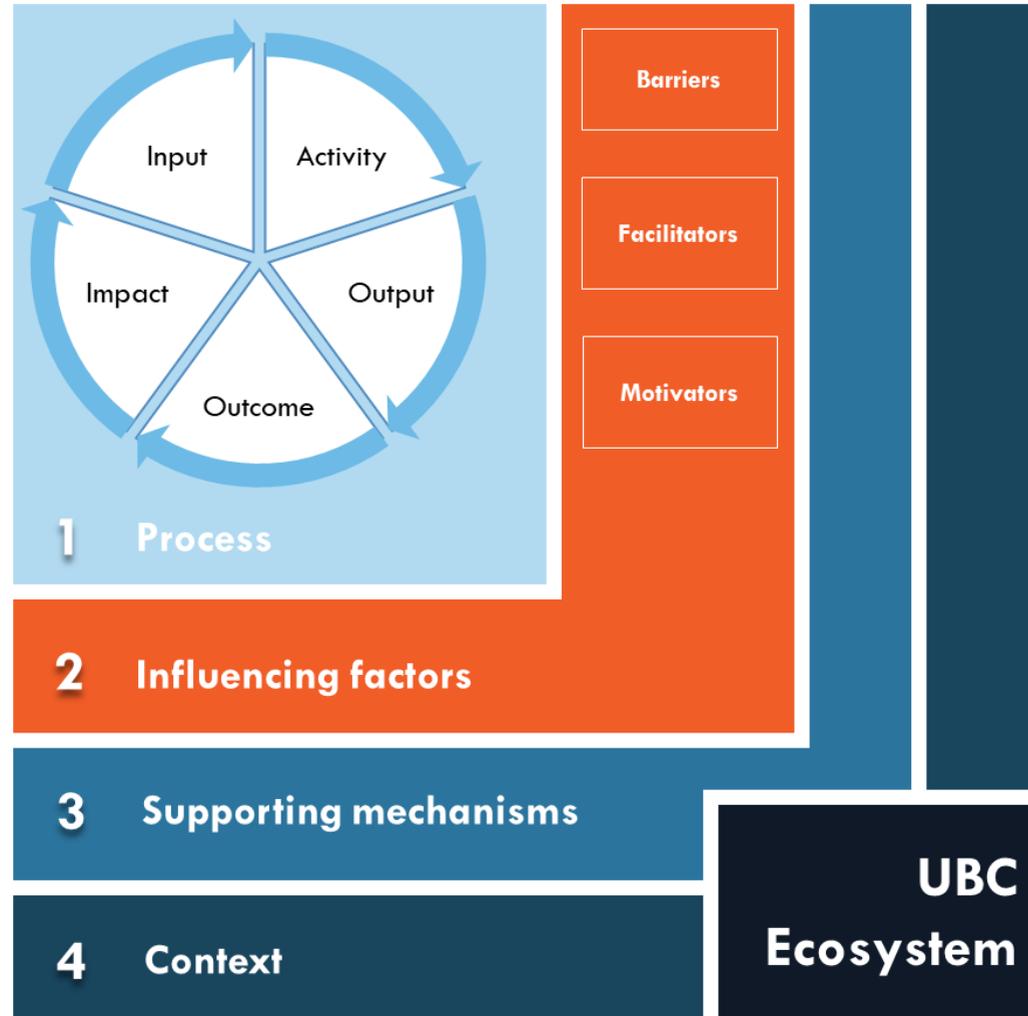
Factors influencing UBC

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, facilitators and motivators (drivers) 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.	Bureaucracy related to UBC	Differing motivation / values between university and business
2.	Insufficient work time allocated by the university for academics' UBC activities	Bureaucracy related to UBC
3.	Limited resources of SMEs	Insufficient work time allocated by the university for academics' UBC activities
4.	Lack of business funding for UBC	Differing time horizons between university and business
5.	UBC conflicts with my teaching and research responsibilities	UBC conflicts with my teaching and research responsibilities
<i>Lowest</i>	No appropriate initial contact person within either the university or business	Frequent staff turnovers within my university or the business

The top five barriers to UBC for German academics relate to lack of resources as well as administrative and cultural issues.

Bureaucracy related to UBC is among the top two relevant barriers to cooperation for both cooperating and non-cooperating academics. This result is based on the number of regulations, policies and laws in the German context. As they are created by different governmental authorities, and different levels (i.e. federal, state and local) they might even be contradictory to each other. This fact is challenging for both, HEI stakeholders and business representatives. Finding the proper way through this 'jungle' of regulations is one of the biggest challenges for UBC in Germany.

Furthermore, insufficient work time allocated by university for academics is also seen as a major UBC barrier for both groups. In the case of academics, UBC has always to compete with their other duties and responsibilities.

While collaborating academics are clearly more hindered by resources and funding related factors, non-collaborating academics perceive the barriers related to cultural issues, including differing motivations and time horizons between two organisations, more hindering.

Barriers hindering UBC

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

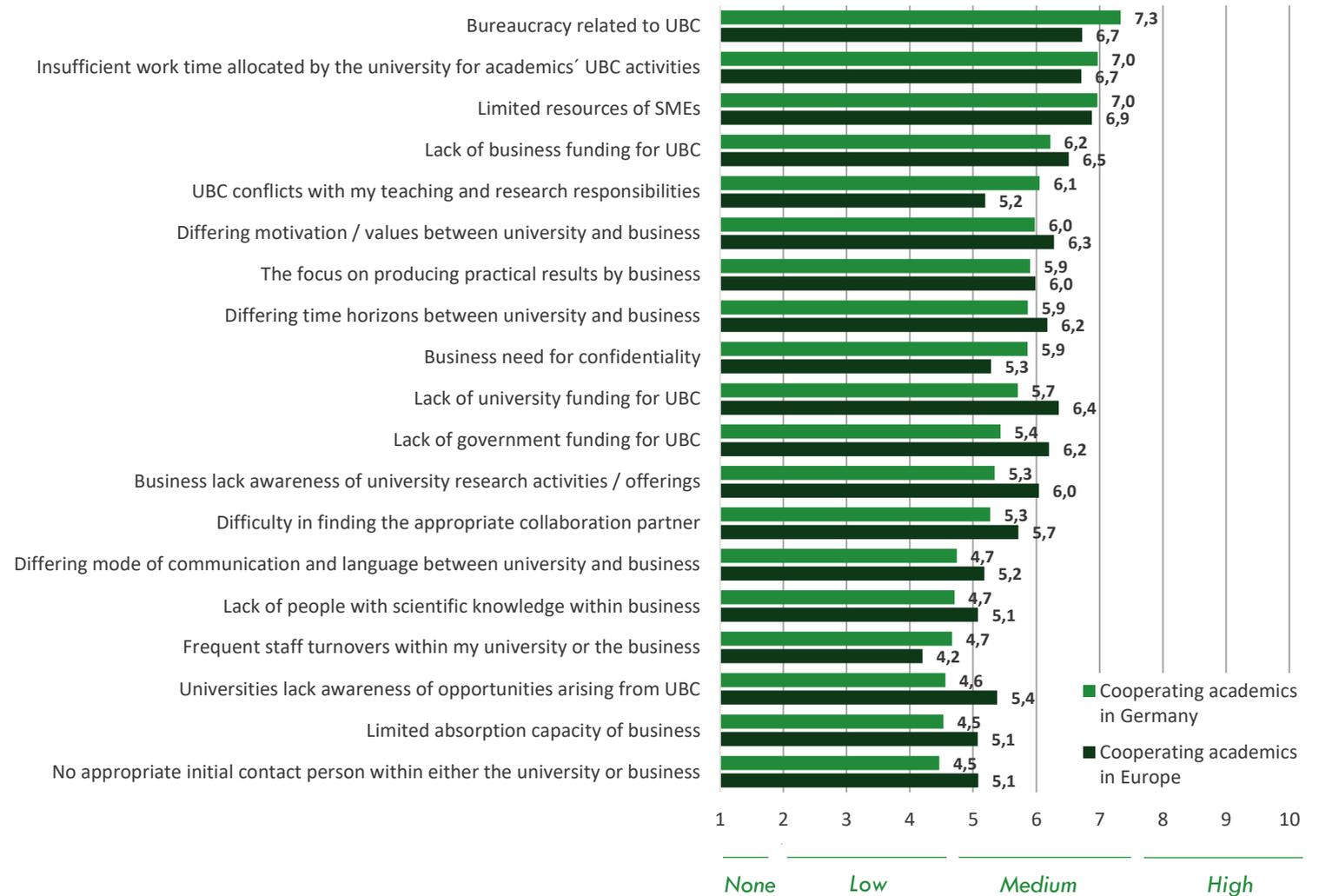
In Germany, academics are more hindered than their European counterparts by the bureaucracy related to UBC and insufficient work time allocated for their collaborative activities.

Germany is known for its regulations and complex legal frameworks that usually are not very flexible. If an academic does not strictly follow the rules, the threat of being reprimanded is far higher than the possibility to be commended.

However, they are less hindered than their European counterparts by the lack of university and government funding as well as universities' and business' awareness of UBC.

Barriers

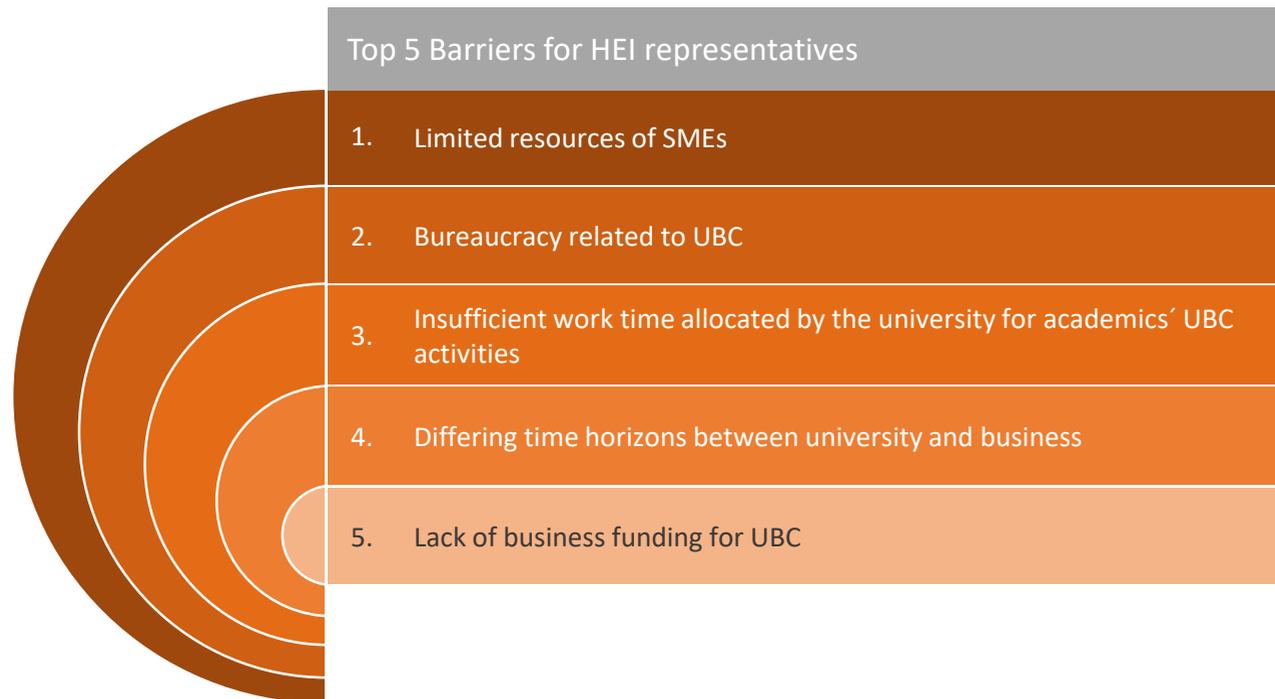
'What is inhibiting your cooperation with business?' – as answered by academics



Barriers hindering UBC

Barriers

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



The limited resources of SMEs and bureaucracy related to UBC are the largest barriers for German HEI representatives.

HEI representatives also recognise that the insufficient work time they allocate for academics' UBC activities can hinder collaboration with business. German academics have limited time to undertake UBC, an activity that also causes increased workload. They have to prioritise their tasks on a daily/weekly basis. In many cases, UBC is rated low in priorities because it does not contribute to their career promotion.

The culture-related barrier such as the different time horizons between university and business can also significantly inhibit UBC in Germany. Lack of business funding is perceived to be another barrier that inhibits cooperation for German HEI representatives.

Barriers hindering UBC

Overall, German HEI representatives perceive barriers lower than their European counterparts.

Both groups however agree that limited resources of SMEs are the biggest barrier inhibiting their cooperation with businesses. However it is not simply a lack of resources inhibiting German SMEs to cooperate but also having sufficient time to do so.

Notably, the lack of funding from different sources and the cultural differences are significantly less inhibiting for German HEI representatives.

Germany has a number of funding programmes supporting SME innovation (e.g. Innovationsgutschein¹, ZIM²). With regards to cultural differences, universities of applied sciences tend to have better connection to business, particularly SMEs. This is because professors selected by applied sciences universities have to spend at least 3 years in industry before they can apply for a professorship. This gives academics a profound understanding of business settings and diminishes cultural barriers.

The frequent staff turnovers within the university or businesses are perceived as the weakest UBC barrier by both groups.

Barriers

‘What is inhibiting your cooperation with business?’ – as answered by academics and HEI representatives



¹ Innovationsgutschein. URL: https://www.ptj.de/lw_resource/datapool/systemfiles/cbox/763/live/lw_bekdoc/f-C3-B6rderbedingungen_innovationsgutschein-2017_final.pdf

² Zentrales Innovationsprogramm Mittelstand. URL: www.zim-bmw.de

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 German academics and HEI representatives are similar.

The main three facilitators focus on the relationship aspect of UBC, highlighting the importance of mutual trust, mutual commitment and shared goal for successful UBC.

German organisations perceive trust as an essential element in UBC. If trust is built, the cooperation is more likely to succeed. If trust is missing, projects will presumably fail.

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

While for academics it is important to have funding to undertake cooperation, HEI representatives perceive the prior relation with business partner as another important facilitator.

Facilitators

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



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

Drivers stimulating UBC

The perceptions of European and German academics with respect to UBC facilitators largely align.

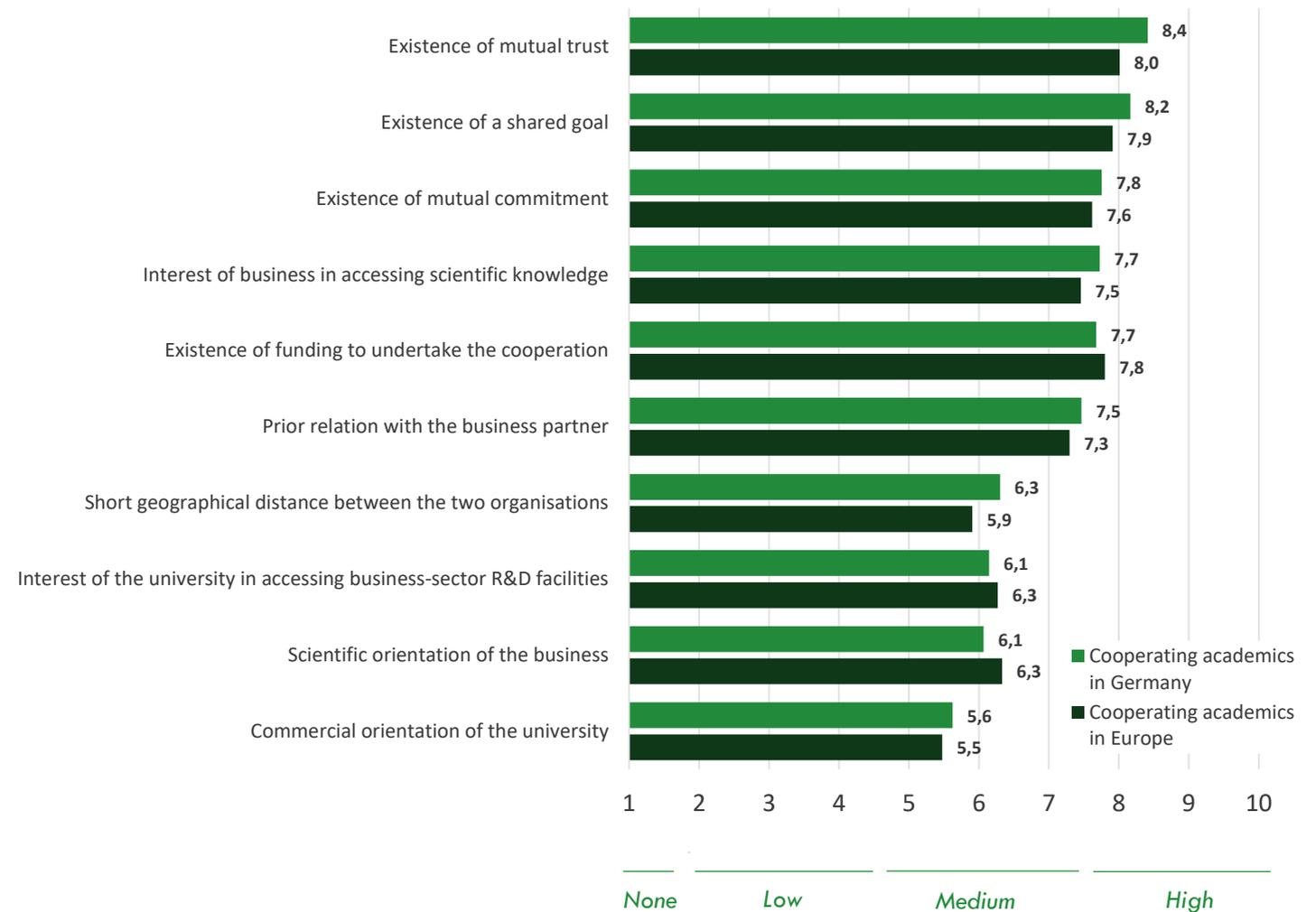
For both groups, the most important drivers are those related to the relationship component of UBC. Academics highlighted the existence of trust, shared goal and mutual commitment among the most important facilitators influencing their cooperation with businesses. Smooth and direct communication, honesty and reliability enable ambitious objectives to be achieved.

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

Contrarily, the commercial orientation of the university and the scientific orientation of the business emerge as the least strong facilitators.

Facilitators

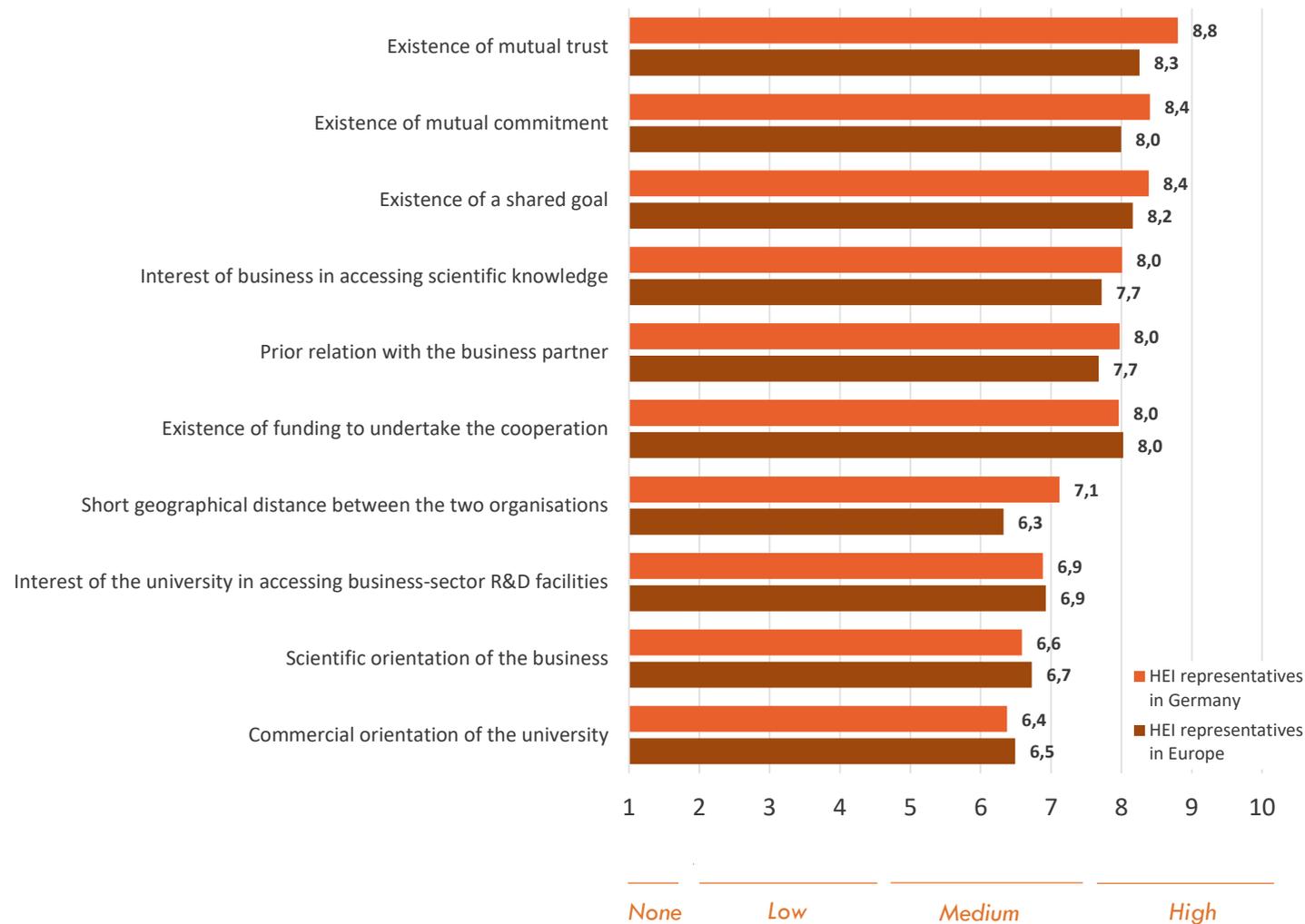
'What is facilitating your cooperation with business?' – as answered by academics



Drivers stimulating UBC

Facilitators

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



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

For both groups, the most important facilitators also relate to the relationship aspect of UBC. The existence of trust, shared goal and mutual commitment are the most important drivers facilitating their cooperation with businesses. This is consistent with the academic perception.

A prior relation with the business partner, the interest of business in accessing scientific knowledge and the existence of funding for cooperation also play an important role in facilitating UBC.

Similarly to the academic perspective, the commercial orientation of the university and the scientific orientation of the business are the weakest facilitators.

Drivers stimulating UBC

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

While cooperating academics highlight personal motivations, such as gaining new insights and the practical application of results, their non-cooperating counterparts nominate a range of possible motivations. Notably, non-cooperating academics rate motivators related to other stakeholders (e.g. employability of graduates, societal needs, mission of the university) more strongly.

Motivators

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

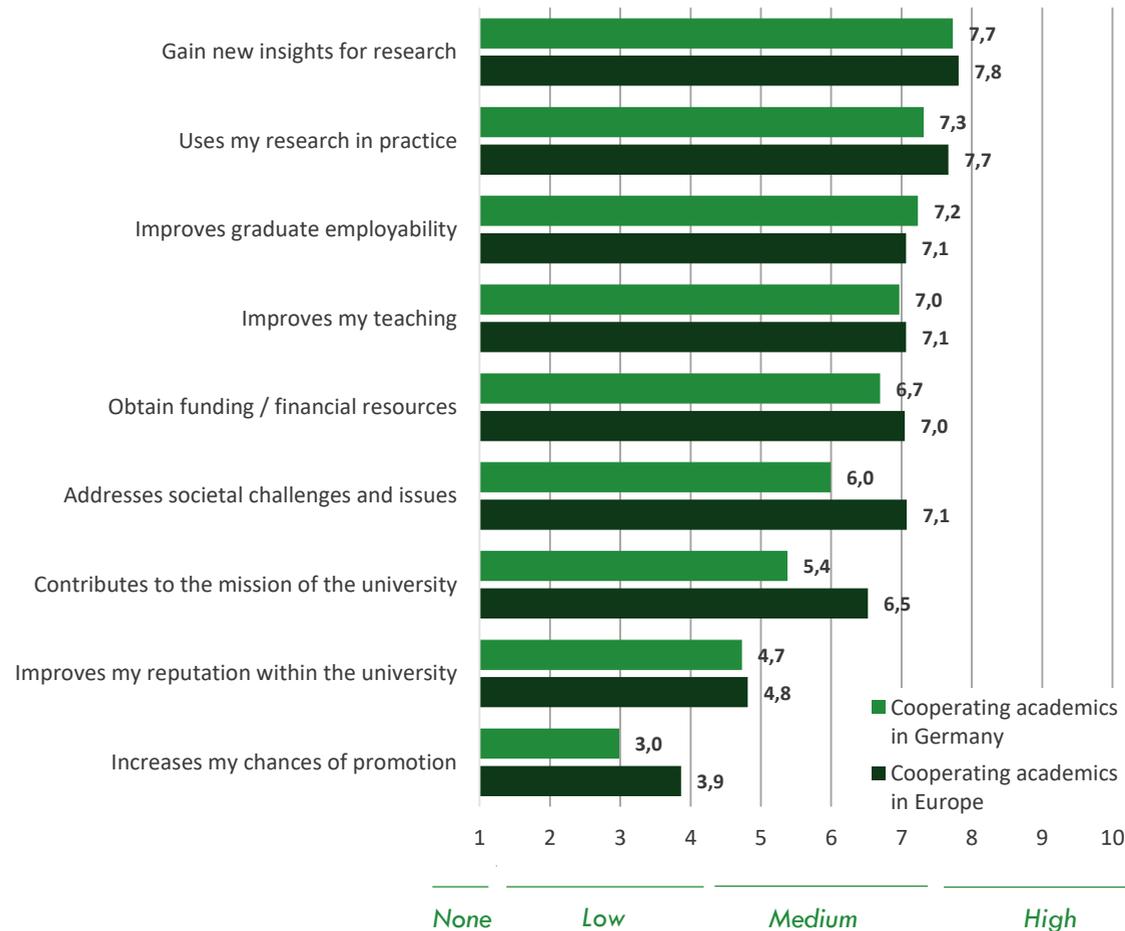


	Academics who cooperate	Academics who <u>do not</u> cooperate
1.	Gain new insights for research	Uses my research in practice
2.	Uses my research in practice	Improves graduate employability
3.	Improves graduate employability	Provides funding / financial resources
4.	Improves my teaching	Addresses societal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

Drivers stimulating UBC

Motivators

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



In comparison with their European counterparts, German academics perceive there to be less motivation to undertake UBC.

Both groups highlight research motivations, such as gaining new insights for research and its practical application, as this is generally seen as the major UBC benefit in the German HEI context.

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

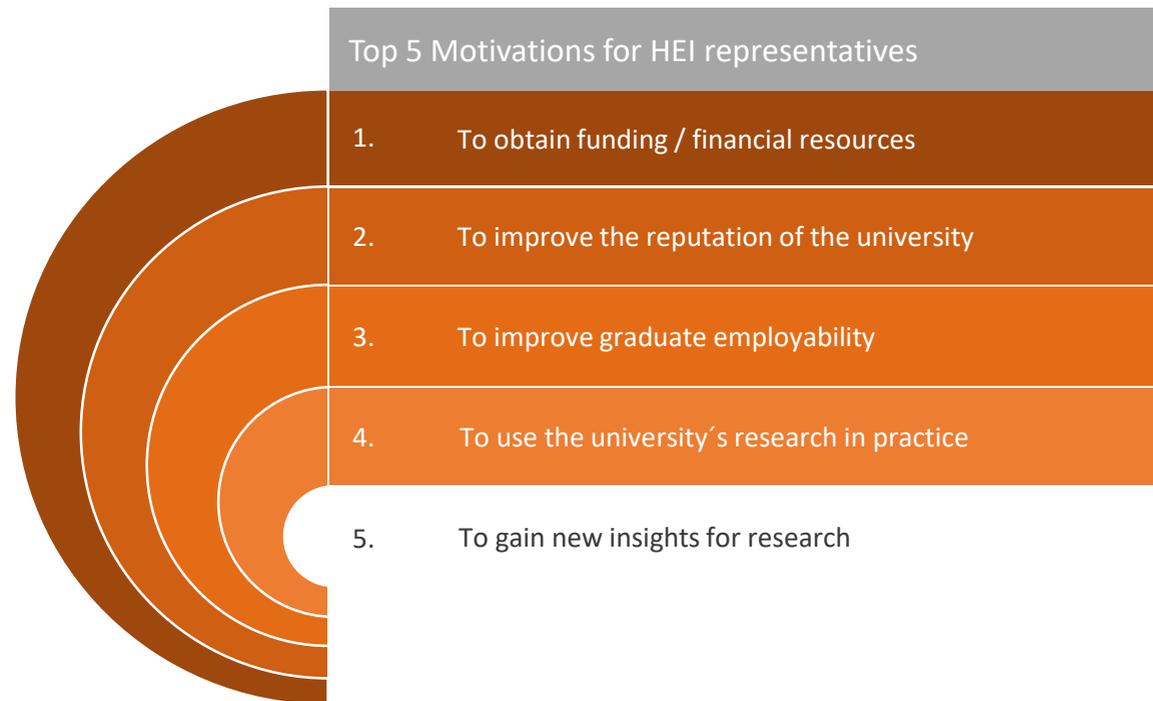
Notably, promotion and reputation related motivators emerge as the weakest drivers stimulating UBC in both European and German context. In Germany, academic career promotion is not based on the collaborative activities but on scientific publications.

Drivers stimulating UBC

HEI representatives are motivated by a range of benefits that their HEIs can get from UBC, such as financial resources and the improvement of the university reputation followed by motivators related to graduate employability and research.

Motivators

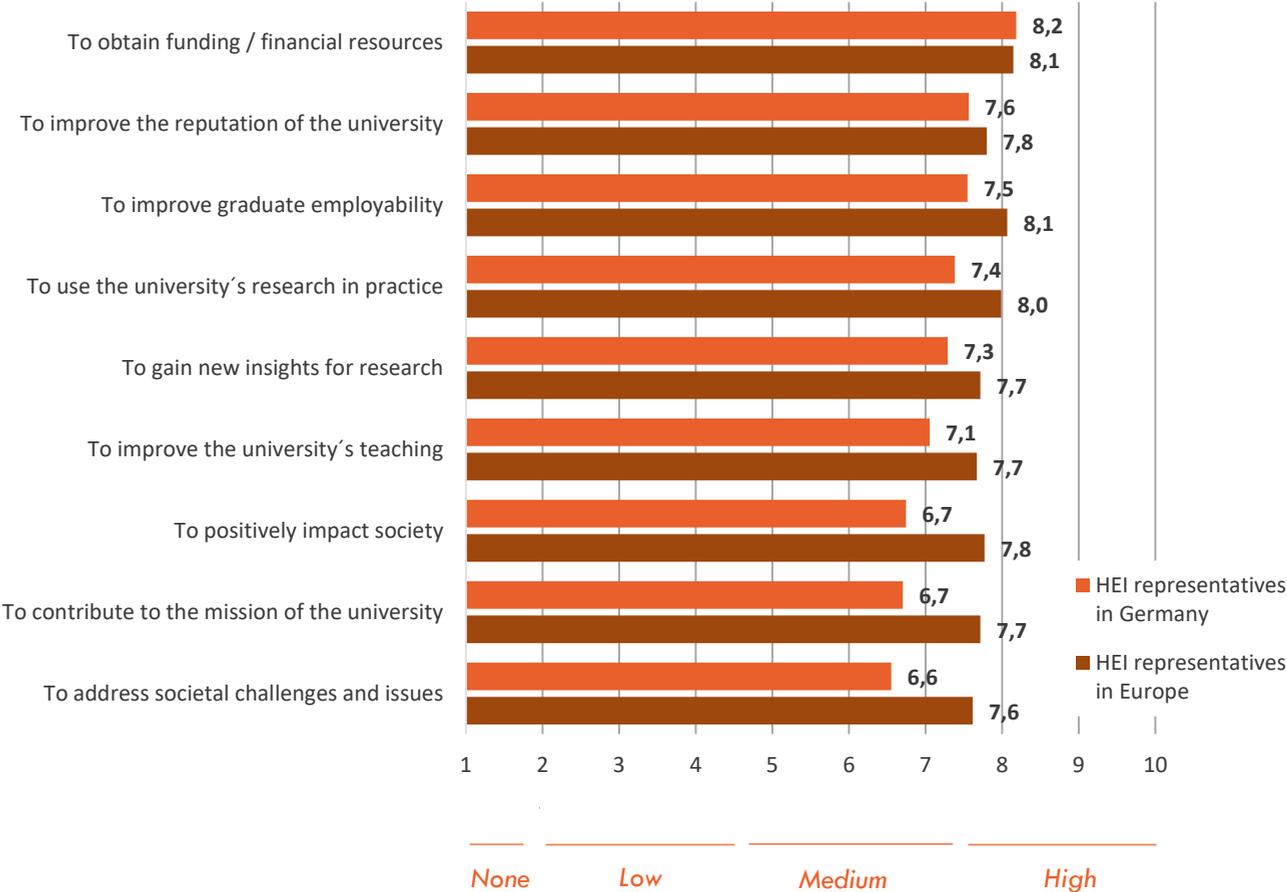
'What motivates your HEI to cooperate with business?'- As answered by HEI representatives



Drivers stimulating UBC

Motivators

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



German HEI representatives perceive almost all motivators lower than their European counterparts.

Both groups however agree on the importance of the top one motivator, which is the willingness to obtain funding. For German universities the KPIs include the volumes of the acquired third-party funding.

More crucially, while German HEI representatives differentiate the motivators according to their perceived significance, their European counterparts rank them all of nearly equal importance (from 7.6 to 8.1), which ultimately means that all these motives have a potential of stimulating UBC for universities.

Benefits of UBC

German academics and HEI managers have similar perceptions about the stakeholders that benefit the most from UBC.

Businesses are perceived by both groups as the stakeholder group that benefits the most from UBC.

Both groups see the benefits for academics lower than the benefits for students and universities.

The German government is believed by both groups to gain the least benefits from UBC.

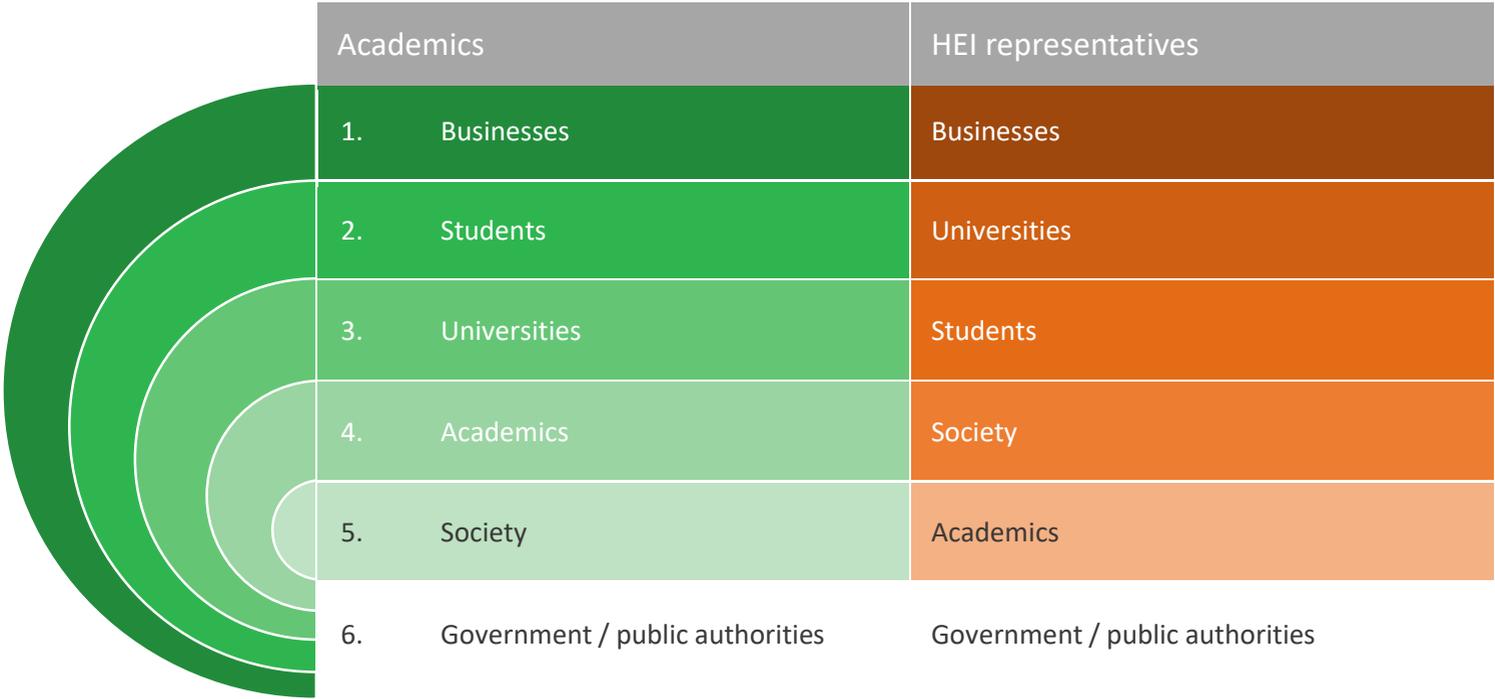
Benefits are the perceived positive outcomes (financial and non-financial) from undertaking UBC as relevant for the different stakeholder groups that can potentially participate in UBC.

The perception regarding who benefits from such cooperation can influence the decision to increase or decrease their participation or the involvement

of other groups. For example, if academics perceive their own *benefits* to be low, they may refrain from engaging in UBC. Yet, if they perceive *benefits* for students to be high, they might undertake actions that contribute to students' involvement in UBC.

Benefits

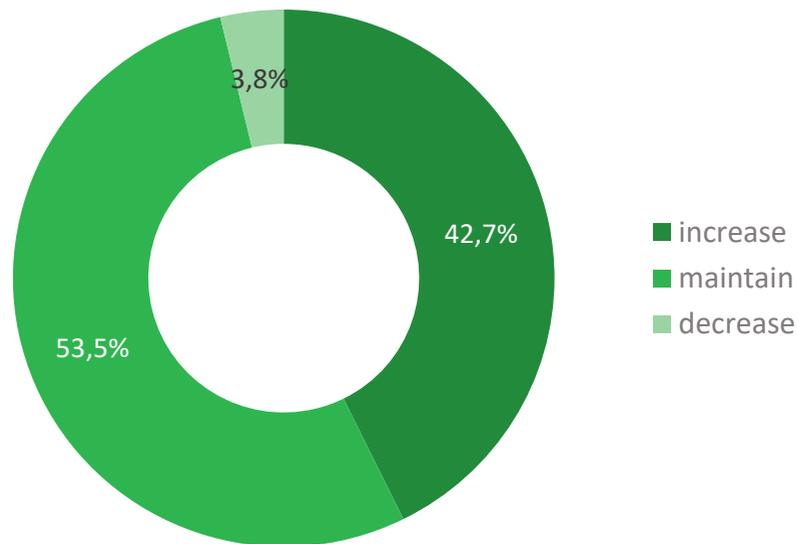
'Who receives the benefits of UBC?' - as answered by academics and HEI representatives



Future intentions

Future UBC intentions – Germany

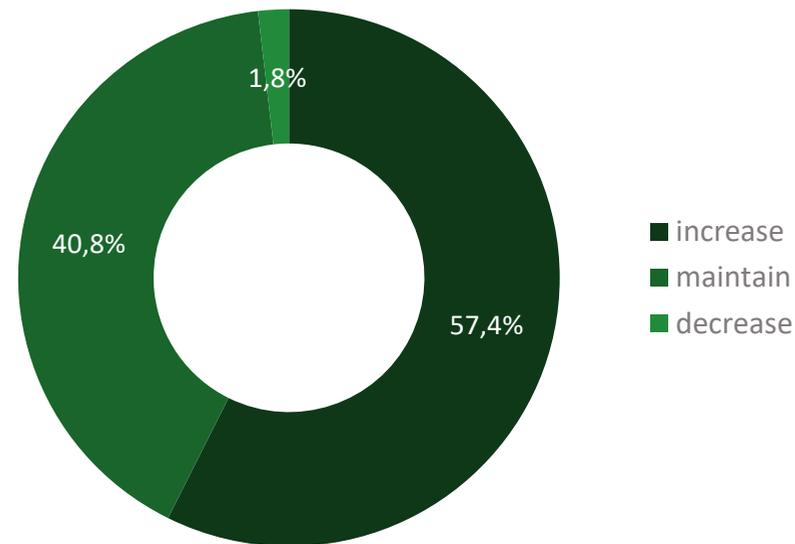
As answered by German academics



German academics show a very strong commitment to UBC. 96.2% of academics expect to maintain or 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 UBC and only 1.8% plan to decrease their collaborative activities with businesses.

Willingness to recommend UBC

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

German academics are less satisfied with UBC in research (NPS=3) than their European counterparts (NPS=17). While 37% of them will promote it positively, 34% would do it negatively.

Similarly, German academics are less satisfied than their European counterparts in education-related UBC, even when none of them are very satisfied with their experience (NPS = -26 for German and -14 for European academics).

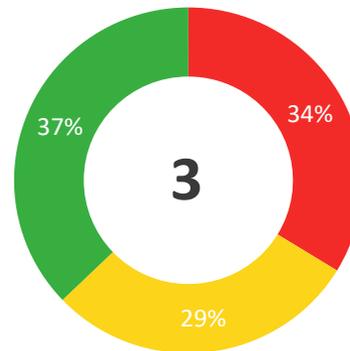
Willingness to recommend to an academic colleague cooperation with business in R&D and education

As answered by academics

	Detractors	Passives	Promoters	Net promoter score
Academics cooperating in E&T	51%	24%	25%	-26
Academics cooperating in R&D	34%	29%	37%	3

Satisfaction in cooperation with businesses (net promoter score)

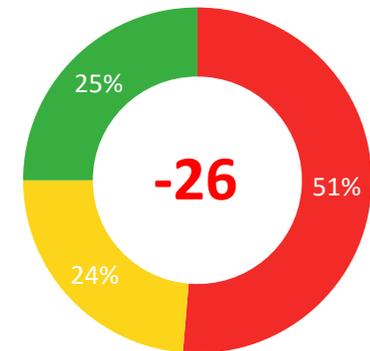
Academics cooperating in research



■ Detractors ■ Passives ■ Promoters

European academics' NPS result: 17

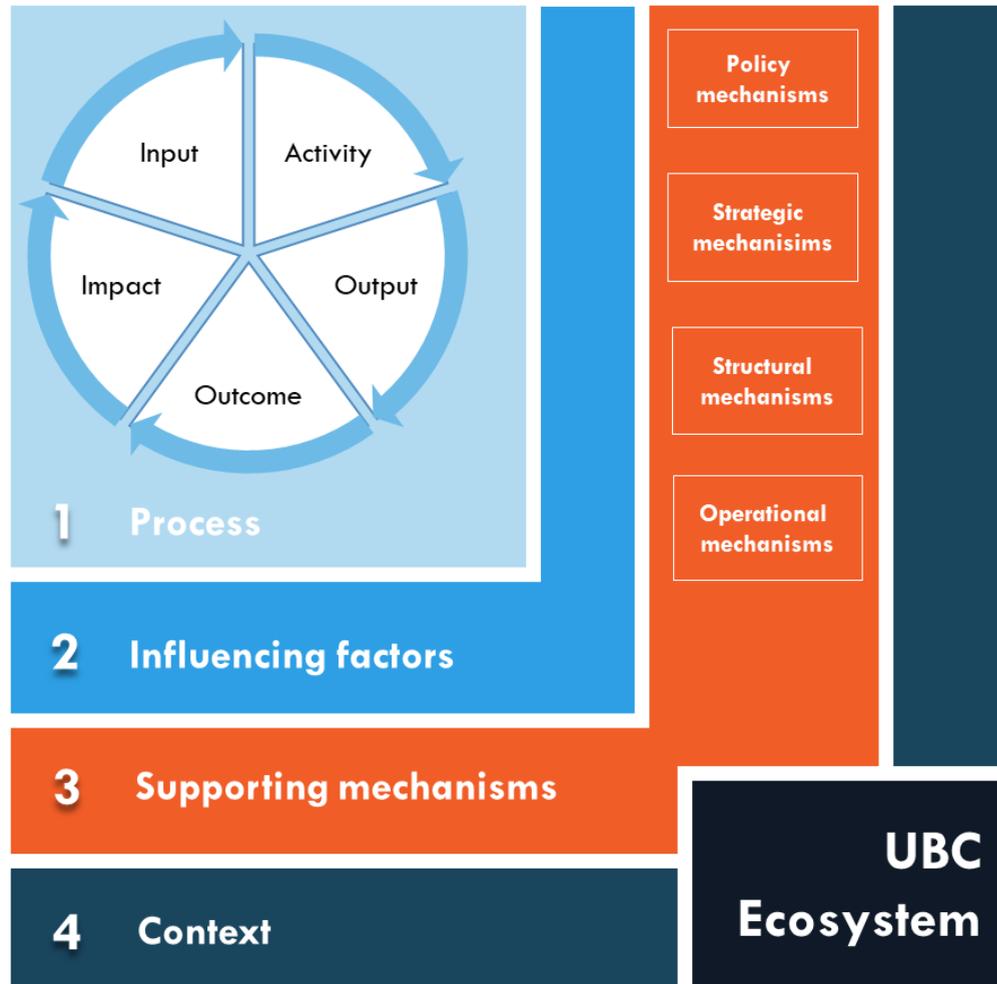
Academics cooperating in education



■ 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

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

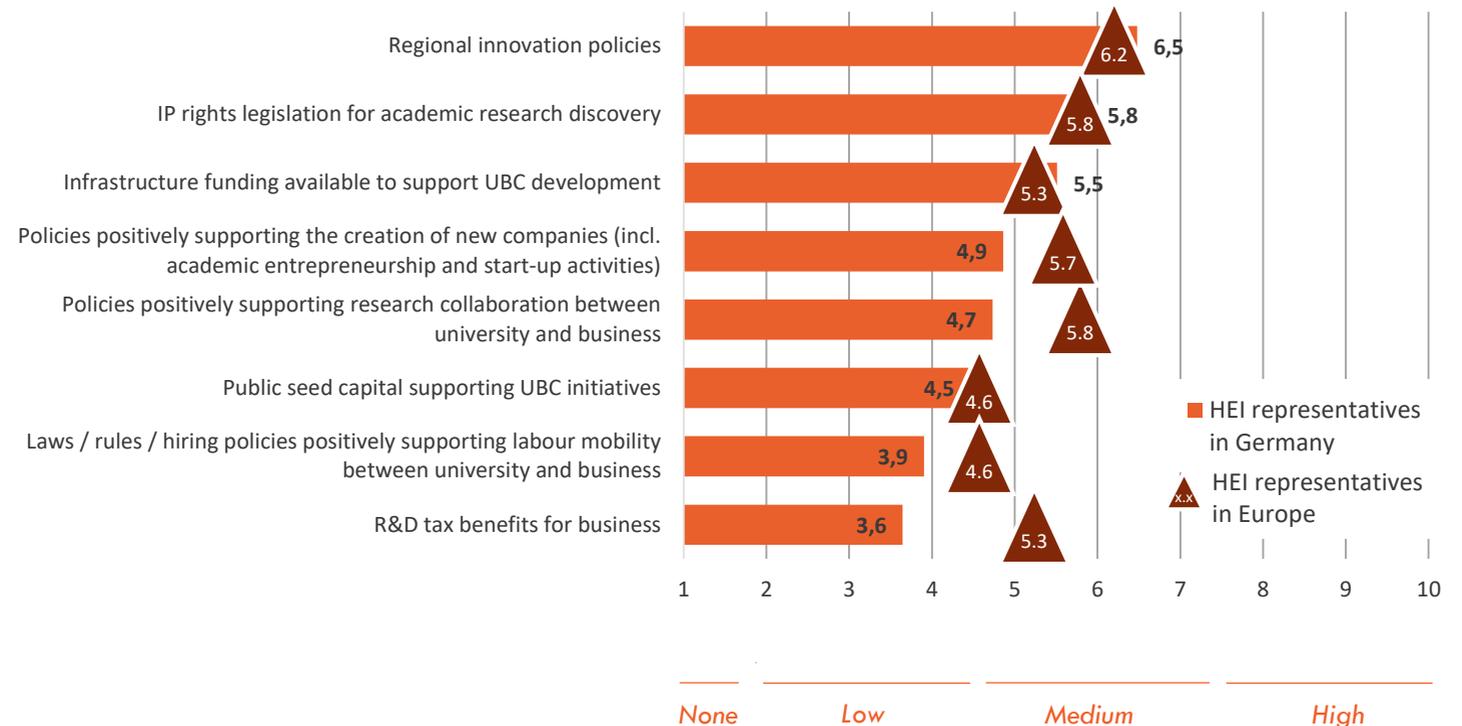
Regional innovation policies (6.5) and IP rights legislation for academic research discovery (5.8) are the most developed supporting mechanisms. These two are also the same for EU.

The policies positively supporting the creation of new companies and research collaboration between university and business (4.9 and 4.7 respectively) have lower development than in Europe.

The least developed mechanism relates to the R&D tax benefits for business (3.6).

Policy mechanisms

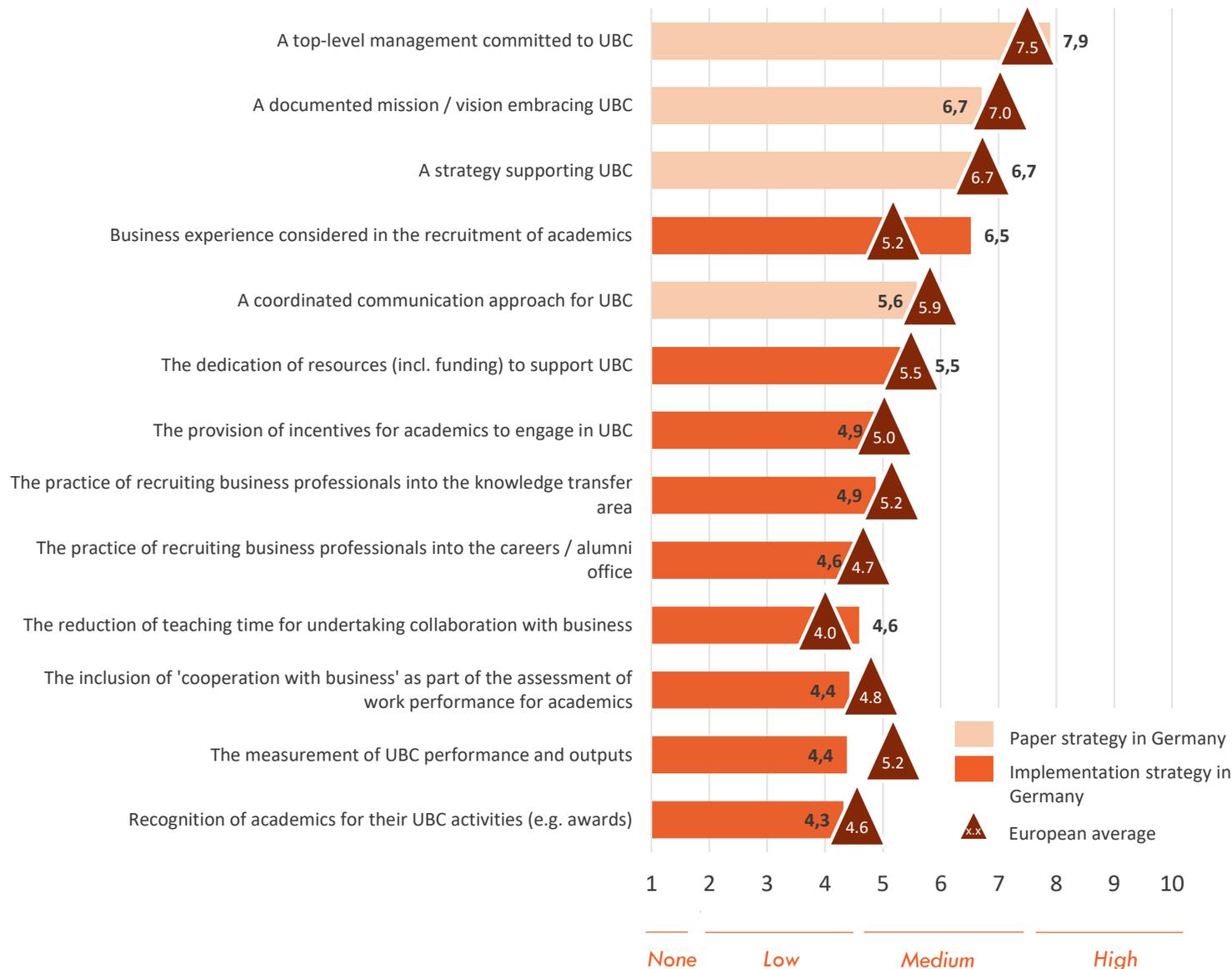
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



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 German and European HEIs is similar.

The paper strategies are substantially more developed than the implementation strategies, showing the official commitment of German HEIs above actual dedication of resources for UBC.

When recruiting academics, German HEI representatives consider their business experience to a considerably larger extent (6.5) than HEI representatives do in Europe (5.2). Having business experience is a prerequisite to be employed by some universities in Germany, in particular by the universities of applied sciences.

The least developed mechanisms are related to the measurement of UBC performance and outputs (4.4), the inclusion of UBC as part of the academics' work performance assessment of (4.4) and the recognition of academics for their UBC activities (4.3).

Supporting mechanisms for UBC

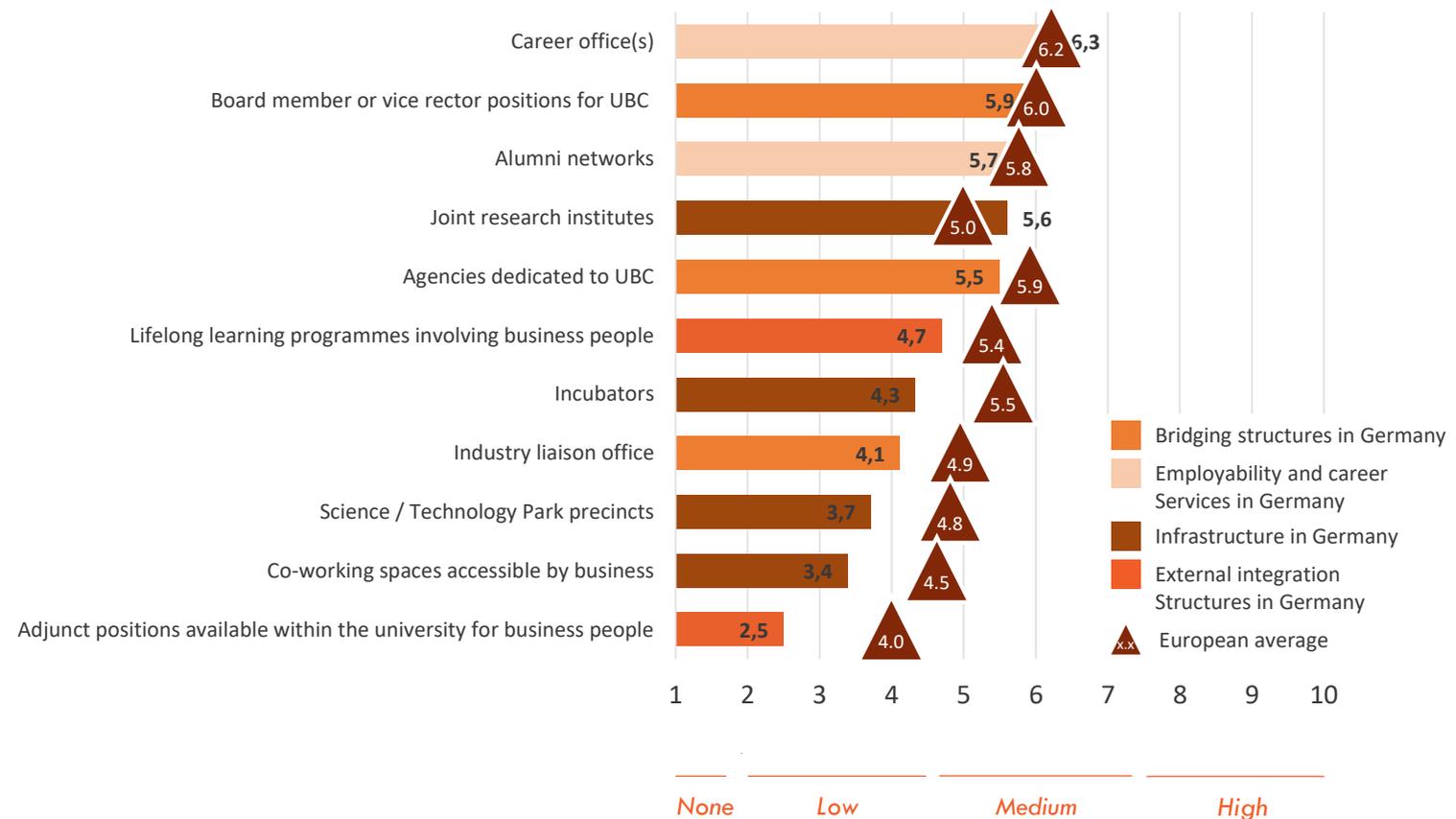
The development of structural mechanisms is generally lower in German HEIs than in European HEIs.

Both European and German HEI representatives indicated the same top three structural mechanisms. Overall the bridging structures and employability/career services emerge as the most common mechanisms adopted by the universities. They include career offices (6.3) and a board member or vice rector positions for UBC (5.9).

Adjunct positions within the HEI for business people and co-working spaces accessible by business are the least developed mechanisms in the German HEI context (2.5 and 3.4 respectively).

Structural mechanisms

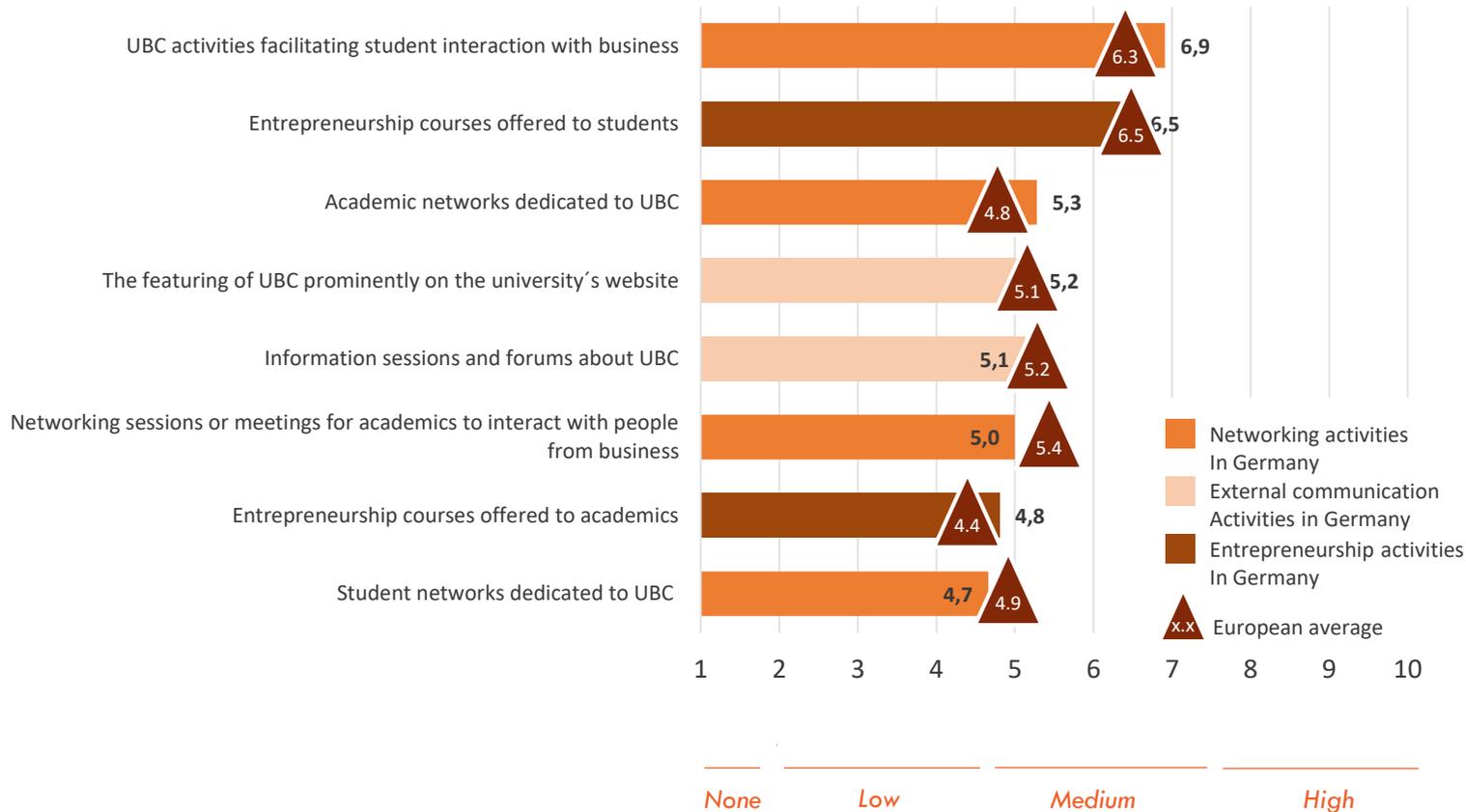
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



Supporting mechanisms for UBC

Operational mechanisms

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



The perspectives of German and European HEI representatives with respect to the development of the operational mechanisms mostly align.

Student-centred activities are the most developed operational mechanisms, with UBC activities facilitating student interaction with businesses (6.9) and entrepreneurship courses offered to students (6.5) ranked the highest.

Among the activities focused on academics, the academic networks dedicated to UBC are also seen as well developed (5.3). Other mechanisms including networking sessions/meetings (5.0) and entrepreneurship courses offered to academics (4.8).

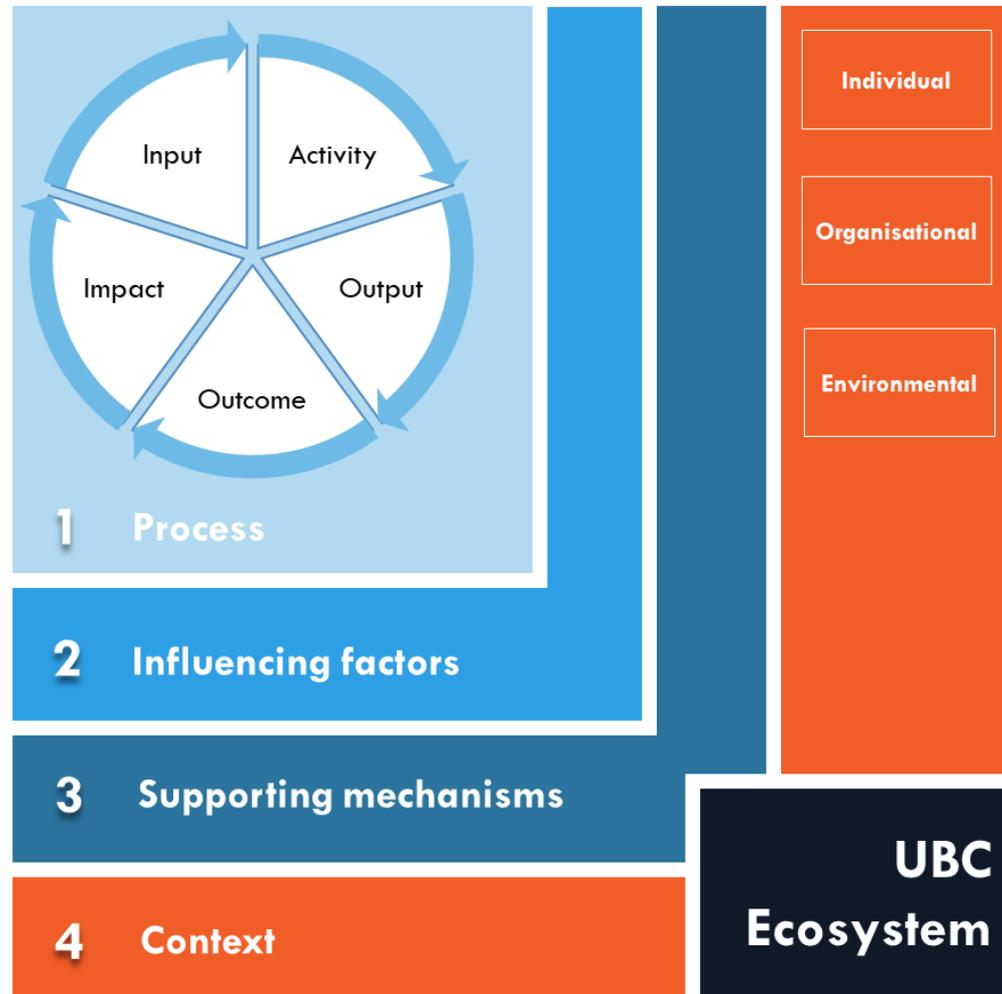
Student networks dedicated to UBC emerge as the least developed operational mechanism in German HEIs.

Context

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

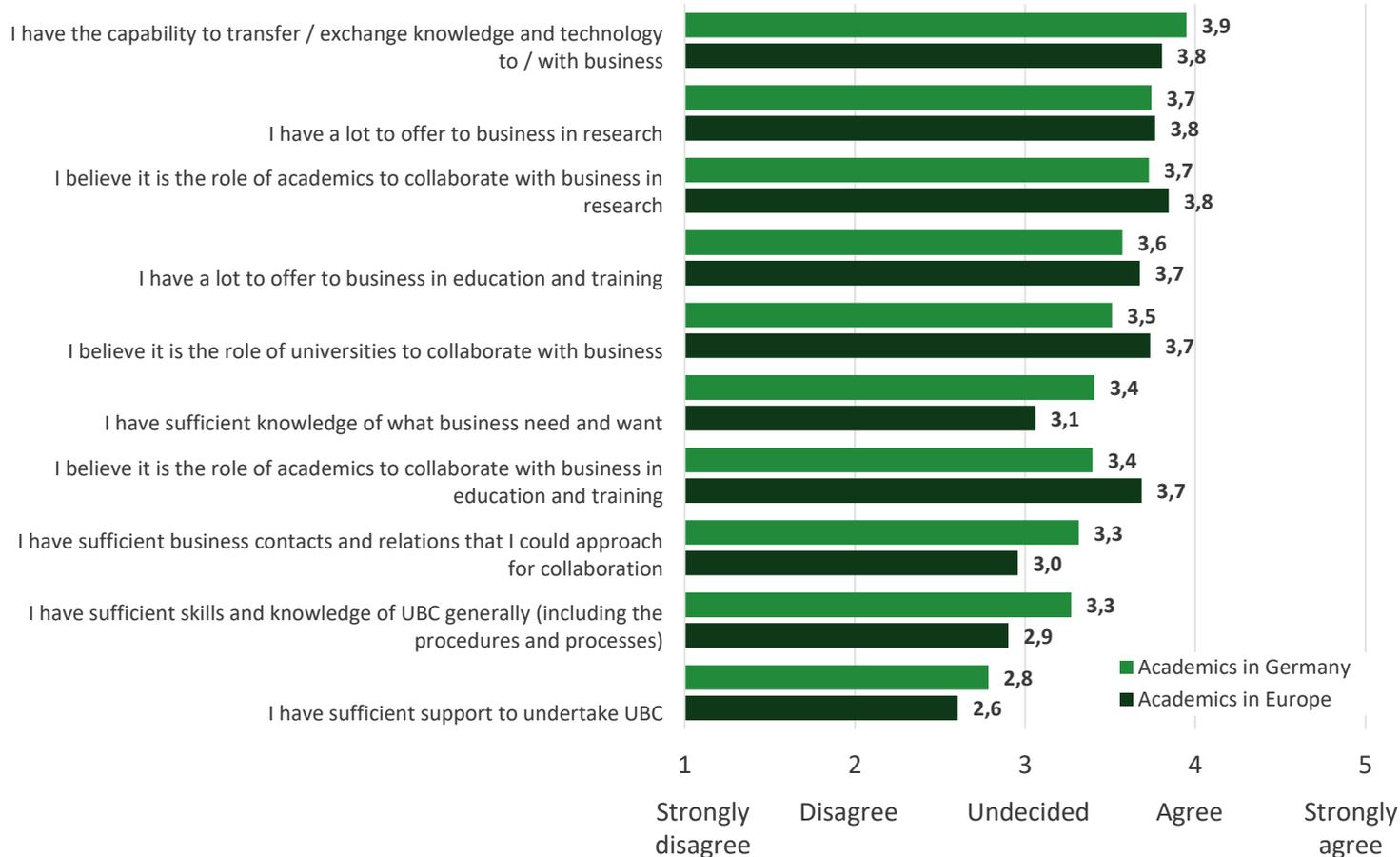
This section outlines how some contextual factors influence UBC in the country.



UBC capabilities

Capabilities for UBC

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



German academics identified moderate capabilities for collaboration and beliefs about their role in UBC.

German academics identified their strengths in the ability to exchange knowledge (3.9) and doing research for companies (3.7). They believe that it is their role to collaborate with business in research (3.7).

Their beliefs and perceived capabilities with respect to collaboration in education are more negative than the ones related to the research.

Overall, they perceive they have insufficient business contacts (3.3) and lack general knowledge (3.3) and support (2.8) to undertake UBC.

Context

German and European academics perceive their contextual factors similarly.

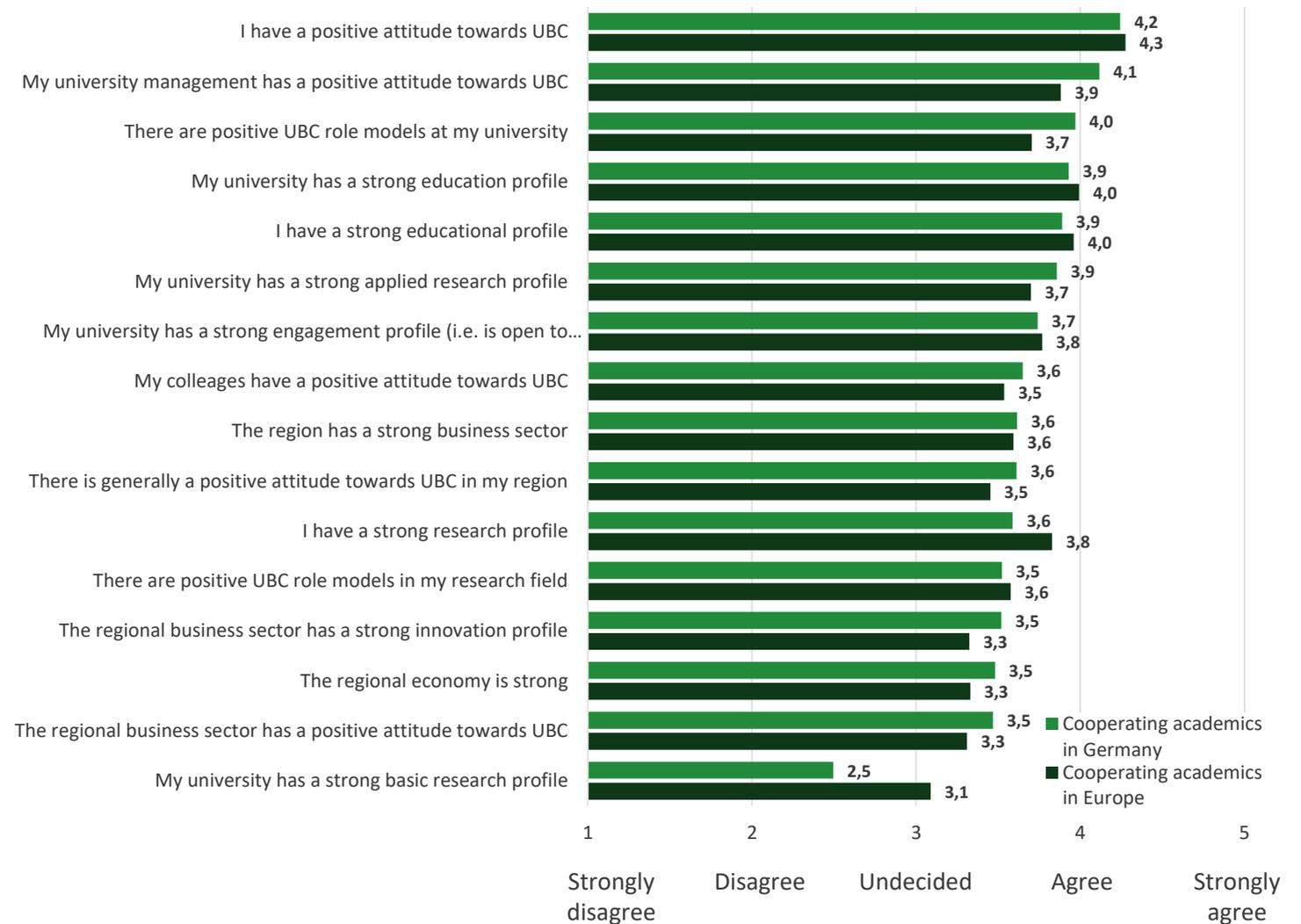
Overall, both academics as well as their university management have a positive attitude towards UBC.

Furthermore, German academics perceive they have positive UBC role models at their HEIs and their fields. UBC becomes a tradition for many German HEIs, which besides the IP licensing, have a number of other partnership development instruments in place.

German academics also perceive a more positive attitude of their colleagues, HEIs and regions towards UBC. Academics in Germany generally have a good understanding of UBC benefits and its contribution to innovation.

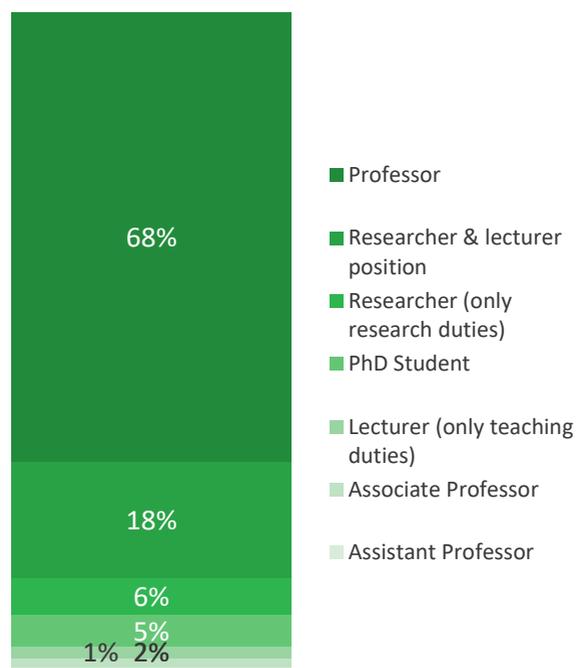
Contextual factors affecting UBC

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



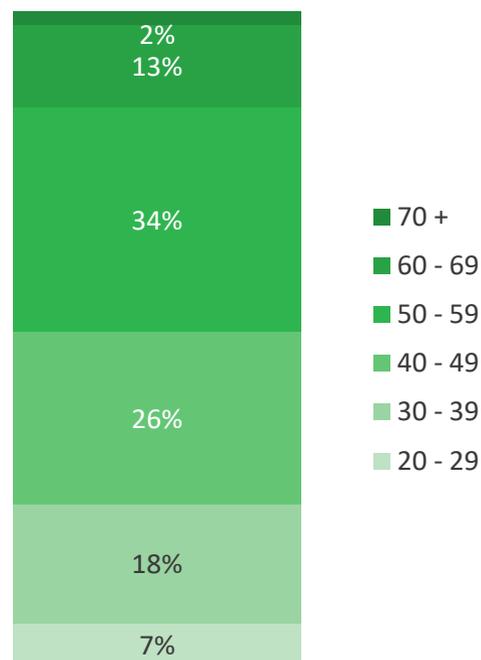
Respondent profile – academics

Position of respondent



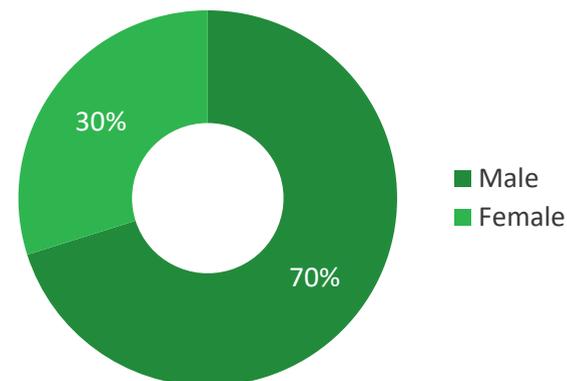
Professors comprise the largest group (68%), followed by researchers and lecturers (18%). The remaining academics identified themselves as researchers (6%), PhD students (5%), lecturers (only teaching duties) (2%), associate professors (1%) and assistant professors (1%).

Age of respondents



A third of the academics (34%) in the sample are between 50 and 59. Other significant groups are those aged 40-49 (26%) and 30-39 (18%), followed by those aged 20-29 (7%). Academics older than 60 are 13% and older than 70 are only 2%.

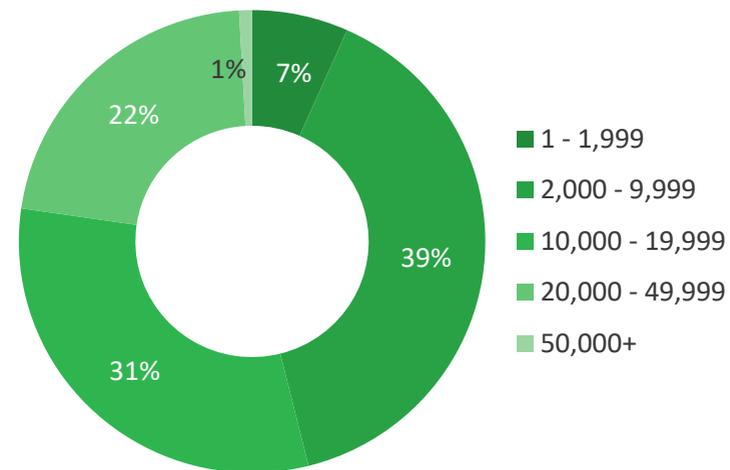
Gender of respondents



The gender distribution in the academic sample in Germany is skewed towards male respondents (70%).

Respondent profile – academics

Number of students of the HEI

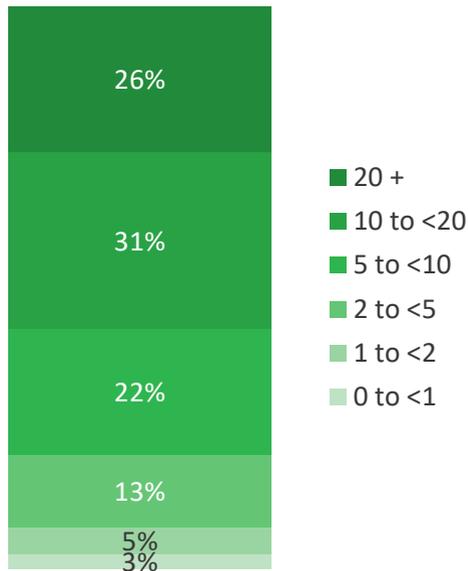


Sample Size	
German Academics	n=688
European Academics	n=10.836
German HEI representatives	n=304
European HEI representatives	n=3.482

More than a third of the German academics (39%) in the sample work for small HEIs (2,000-9,999 students) and 31% of them work for medium-sized HEIs (10,000-19,999 students). German academics based in the medium-large HEIs (20,000-49,999 students) are represented by 22% of respondents. Only 1% of the academics work at very large HEIs with over 50,000 students.

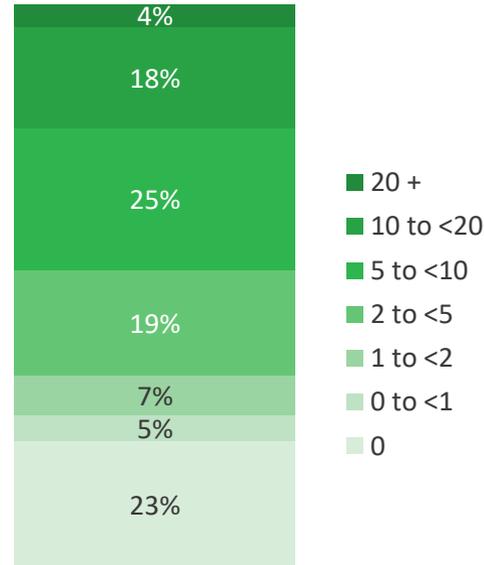
Respondent profile – academics

Years working in university



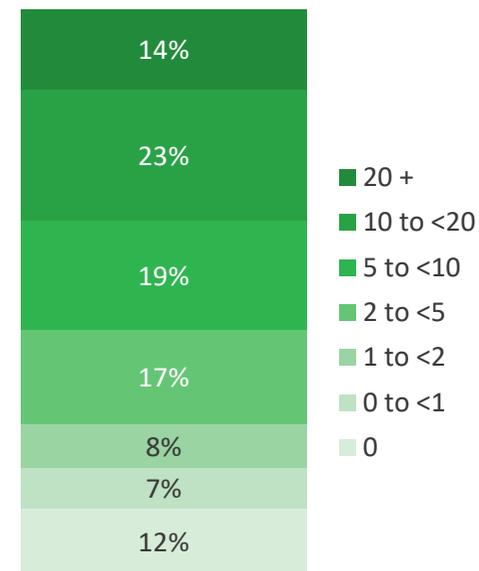
Most academic respondents have worked in academia for several years. More than half of them (57%) have worked in academia for over 10 years. 22% have 5-10 years of experience and 13% have worked in academic for 2-5 years. 5% of the academics have less than 2 year of experience.

Years working in business



German academic respondents are experienced in businesses. Over two thirds (77%) of them have worked in industry before. 19% have done so for 2 to 5 years. 25% have 5 to 10 years and 18% have 10 to 20 years industry experience. Only 4% have worked in business for over 20 years.

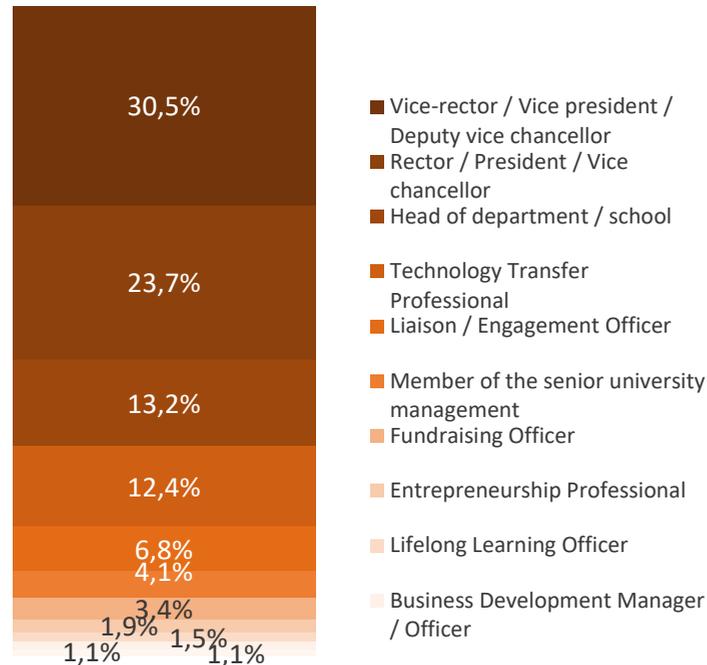
Years involved in UBC whilst working at a university or business



Most academic respondents in Germany have some UBC experience. 14% have been involved in UBC for over 20 years, 42% have 5 to 20 years of experience. 15% engage in UBC for 1 to 5 years. 12% of academics in the sample have never engaged in UBC.

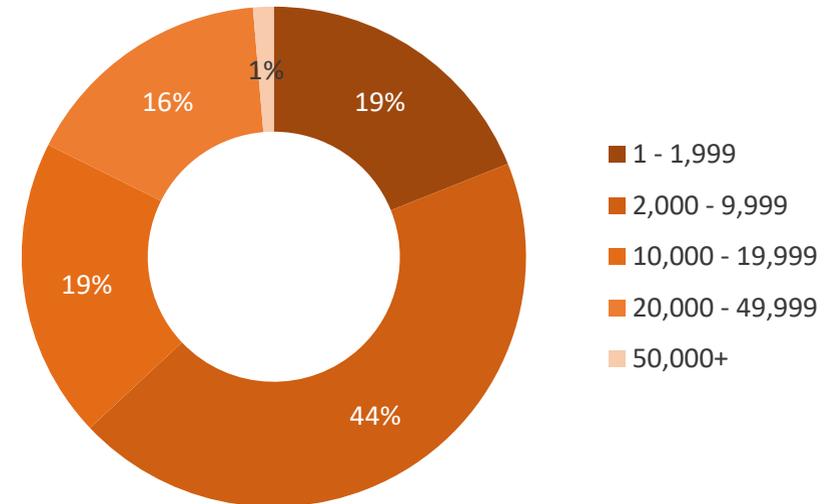
Respondent profile – HEI representatives

Position of respondent



German HEI representatives hold a variety of roles. Almost a third of them are vice-rectors or vice-presidents. Almost a quarter of them are rectors or presidents. Head of department / school is the third largest group (13%), along with technology transfer professional (12%). The smallest groups are liaison/engagement officers (7%), members of university management (4%), fundraising officers (3%) and entrepreneurship professionals (2%).

Number of students of the HEI



Overall, over two third of HEI representatives work for small HEIs (under 9,999 students), from whom almost 20% of HEI of them work for very small HEIs (under 1,999 students). Only 1% work in large HEIs (over 50,000 students).

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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