



UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

State of University- Business Cooperation

NETHERLANDS

University Perspective

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



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

Partners



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Executive summary

This report seeks to contribute to our understanding of the higher education institution's (HEI) perspective of university-business cooperation (UBC). Examining the perceptions of academics, HEI managers and knowledge transfer professionals (KTP) provides positive signs for the future, with 98.5% of all respondents currently cooperating with businesses planning to maintain or increase their cooperation in the future and higher than European average rate of satisfaction of the stakeholders with their current activities. Yet, more can be done, for example, by further supporting academics in acquiring knowledge about the business' needs and further developing UBC supporting mechanisms on the institutional level.

About the study

The results presented in this report reflect the perceptions of academics, HEI managers and KTP in The Netherlands 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 277 responses from Dutch HEIs. The study measured the perceptions of respondents with respect to their cooperation efforts, barriers, drivers, support mechanisms and perceived capabilities.

University-Business Cooperation activities

Dutch academics more commonly practice mobility of students (35.6%), consulting (30%) and collaboration in R&D (28.3%) with businesses. However, more than 50% of them do not engage in these activities at all. The academia is still oriented

towards more scientific output, while UBC activities might not be translated into career advancement and a number of publications for the individual academics. Even fewer academics undertake UBC in valorisation and management, with more than 70% of them not engaging in those activities at all.

Dutch academics clearly see themselves as the main UBC initiators. More than 70% of the academics report that they or their colleagues always or usually initiate UBC. External and internal intermediaries are seen as rather passive in UBC initiation in The Netherlands.

Not enough financial resources and understanding

Those HEIs stakeholders surveyed in this study (HEI representatives, collaborating and non-collaborating academics) indicate rather different major factors that hinder UBC. While for collaborating and non-collaborating Dutch academics the barriers related to the culture, such as differing time horizons and motivation/values between the partners appear to be the most pressing, for HEI representatives it is the lack of funding from different sources (business, government, university) and other practicalities that limit UBC the most. Certainly, lack of funding is seen as a barrier for Dutch collaborating academics as well, especially from the university side, but is perceived as less inhibiting for non-collaborating academics.

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

Executive summary

Relationship is the key; funding is the keychain

A well-established relationship between the partners is a key to successful collaborative practices, which is agreed upon by both Dutch academics and HEI managers. Mutual trust and a shared goal considerably facilitate UBC. However, the relationship should be supported by the structures and, more importantly, funding. The existence of funding to undertake the cooperation is one of the more frequently mentioned facilitator of UBC by all the Dutch respondents, along with the interest to access scientific knowledge from business side.

Social responsibility motivates UBC engagement

HEI stakeholders in The Netherlands are driven by rather similar motivations to engage in UBC. Both academics and HEI managers are motivated to meet current societal challenges. It is, in part, incentivised by the national and regional policies in The Netherlands. However, Dutch academics that cooperate with businesses are more motivated to undertake UBC to advance their research (such as to gain new insights and apply their research in practice), while non-collaborating academics are more inclined towards improving graduate employability and contribution to the mission of the university. HEI managers hold a view that represents the mixture of both previously mentioned groups.

Likewise, Dutch academics and HEI managers have a similar view on which stakeholder groups benefit the most from UBC: they are students, society and businesses.

Policies and strategy drive collaboration

Overall, the policy, strategic, structural and operational mechanisms to support UBC are developed to a medium level in Dutch HEI, which, nonetheless, exceeds the European average. The most developed policy mechanisms are connected with innovation, entrepreneurship growth and support of UBC. On the institutional level, Dutch HEI representatives recognise top-level management commitment to UBC and higher level of the development of paper strategies, such as mission and vision embracing cooperation. Alumni networks and incubators are the most developed structural mechanisms in Dutch HEIs, while student-oriented activities are the most common operational mechanisms supporting UBC.

Positive attitude to UBC

Dutch academics agree that they personally, as well as their university management have a positive attitude towards UBC. Contextually, academics see their universities having strong educational profile, yet lacking in basic research. Additionally, Dutch academics identify their capabilities for UBC as moderate. They believe in their ability to exchange knowledge and conduct research for/with companies. Dutch academics, however, report that they have insufficient knowledge of business' needs and general support to undertake UBC.

Despite the challenges, Dutch academics seem to be satisfied with the joint activities with businesses in both research and educational activities, which significantly exceeds European average, especially in education. This shows a positive tendency for the UBC growth in the future.

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, 51 good practice case studies, a UBC policy and indicators review as well as a major quantitative survey of stakeholders within both HEIs and business. The survey was translated into 25 languages and sent to all registered European HEIs (numbering over 3,000) in the 33 countries during

October-November 2016. Through this, a final sample of 17,410 representatives from within HEIs and business was achieved. This makes the study the largest international study into cooperation between HEIs and business yet completed.

Why care about university-business cooperation?

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

Study Objectives

The specific objectives for the study are:

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



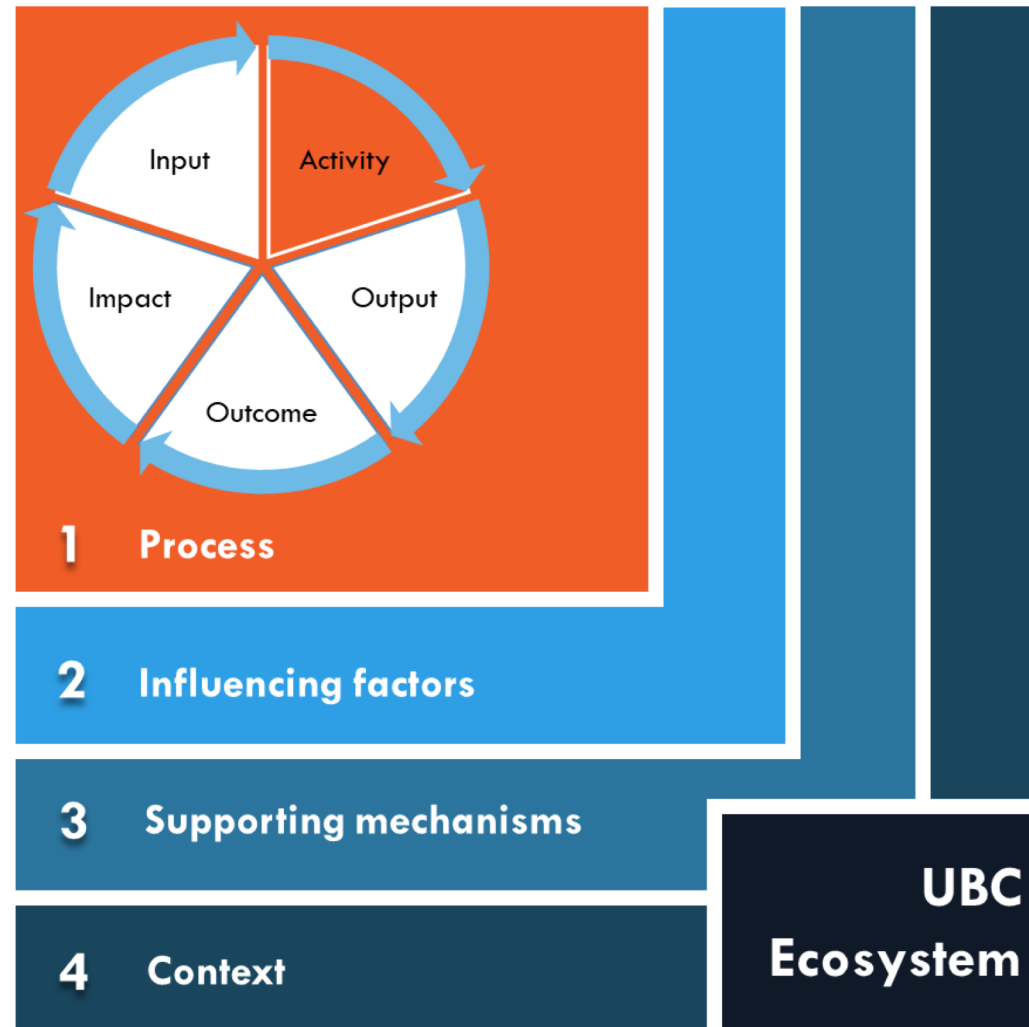
UBC activities

UBC Ecosystem Framework™

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

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

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



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

UBC Activities

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

Area	Activity
Education	<ol style="list-style-type: none">1. curriculum co-<u>design</u>2. curriculum co-<u>delivery</u> (e.g. guest lectures)3. mobility of students (i.e. student internships/placements)4. dual education programmes (i.e. part theory, part practical)5. lifelong learning for people from business (e.g. executive education, industry training and professional courses)
Research	<ol style="list-style-type: none">6. joint R&D (incl. joint funded research)7. consulting to business (incl. contract research)8. mobility of professionals (i.e. temporary mobility of academics to business and vice versa)
Valorisation	<ol style="list-style-type: none">9. commercialisation of R&D results (e.g. licencing/patenting)10. academic entrepreneurship (e.g. spin offs)11. student entrepreneurship (e.g. start-ups)
Management	<ol style="list-style-type: none">12. governance (e.g. participation of academics on business boards and businesspeople participation in university board)13. shared resources (e.g. infrastructure, personnel, equipment)14. industry support (e.g. endowments, sponsorship and scholarships)

Development of UBC activities

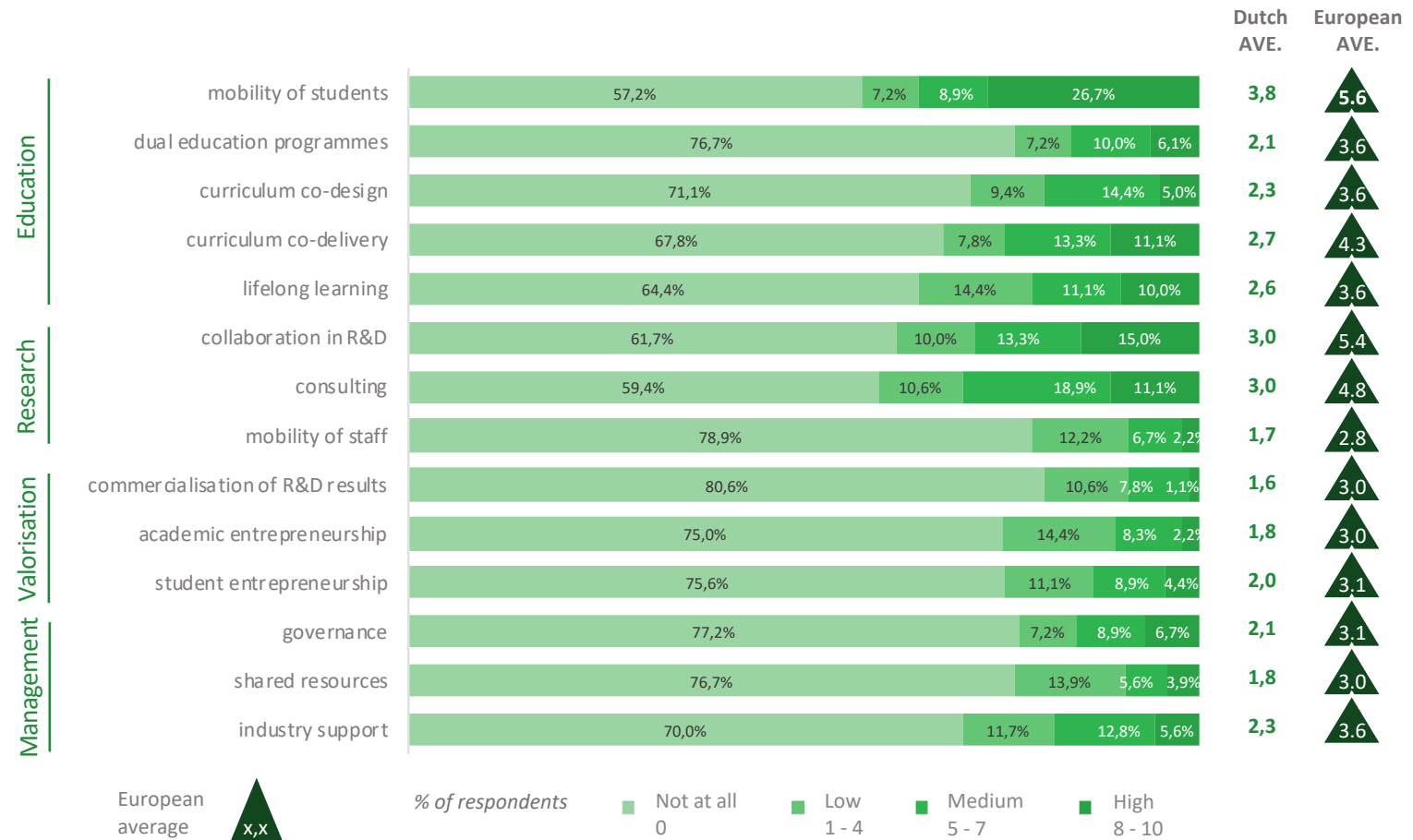
Overall, Dutch academics perceive the level of the development of most UBC activities lower than the European average shows.

Dutch academics most commonly engage in mobility of students (3.8), consulting (3.0) and collaboration in R&D (3.0) with businesses. However, more than 50% of them do not engage in these activities at all. The academia is still oriented towards more scientific output, while UBC activities might not be translated into career advancement and a number of publications for the individual academics. As well as that, for UBC in education the academics experience certain levels of risk of “loosing control” or “reducing the quality: by engaging the external representatives without pedagogical experience.

Additionally, the development of joint valorisation and management activities is particularly low, with more than 70% of Dutch academics not engaged in this type of UBC at all.

The extent of development of UBC activities

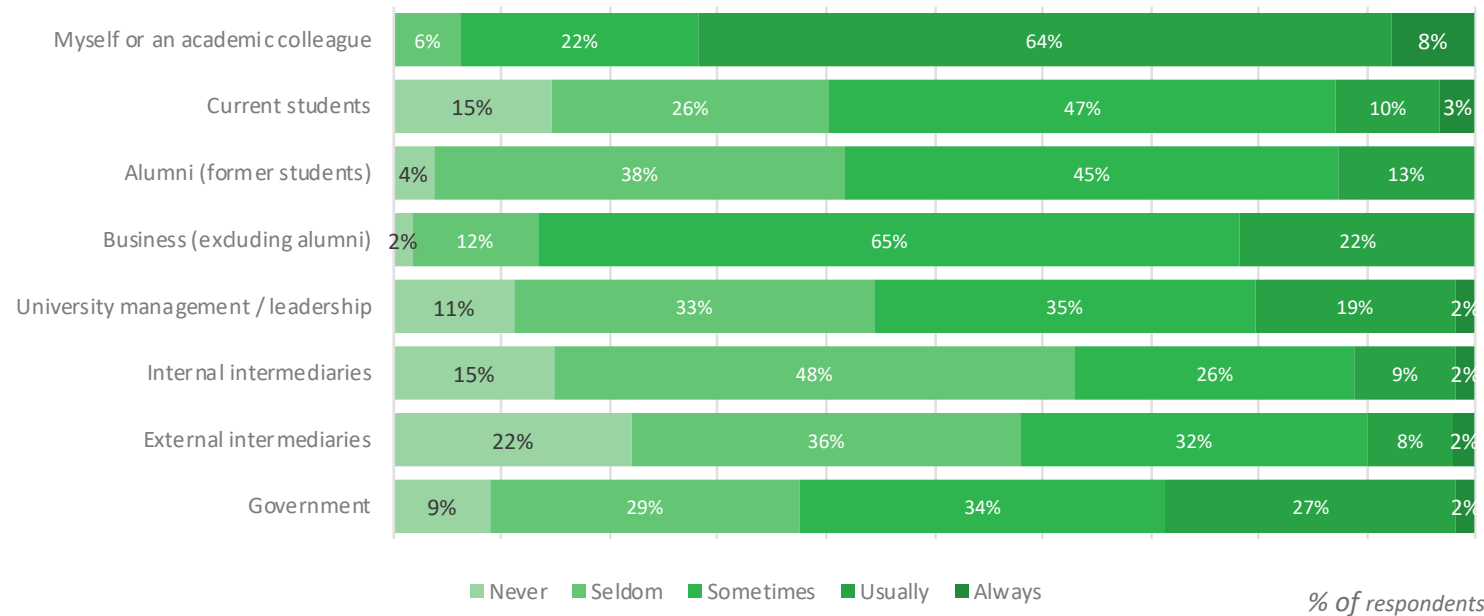
‘Which UBC activities do you collaborate with businesses in?’ – as answered by academics



Initiation of UBC

How UBC is initiated

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



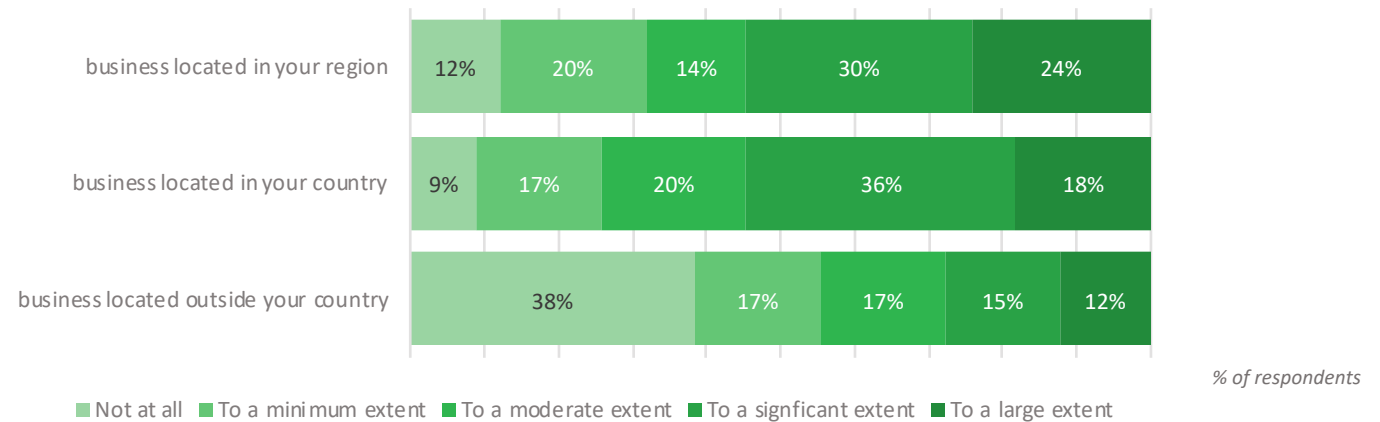
Dutch academics clearly see themselves as the main UBC initiators. More than 70% of the academics report that they or their colleagues always or usually initiate UBC. It

Government (29%) and university management (21%) are also considered initiators but to a considerably lesser extent. Those actors serve as facilitators more, rather than initiators of UBC.

Dutch academics perceive that both internal and external intermediaries are those stakeholders that less often initiate UBC.

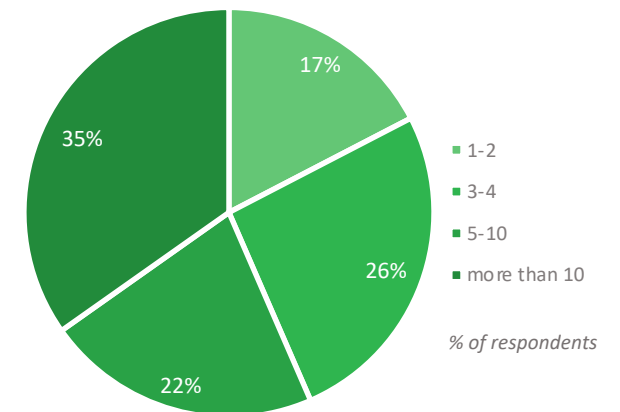
Location of cooperating partners

Location of business partners



Dutch academics undertake significant to high levels of cooperation with regional and national businesses (both 54%). Only 12% of academics collaborate to a high extent with businesses outside the Netherlands and 38% do not collaborate internationally at all. Easy access and personal interaction to co-operate on regional and national level in a smaller country such as The Netherlands, as well as the variety of possibilities within Dutch higher education system disincentive the businesses to seek for international contacts.

Number of business partners

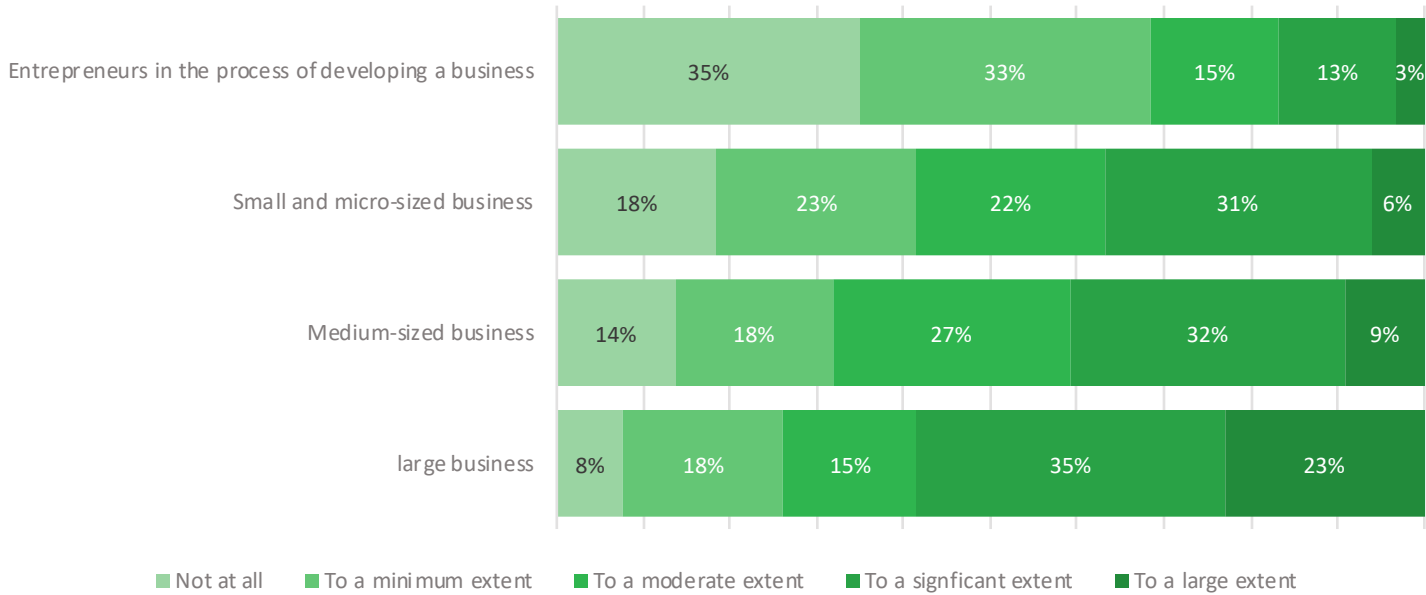


43% of Dutch academics cooperate with 1 to 4 businesses, 22% collaborate with 5-10 partners and 35% have partner relations with 5 or more partners.

Size of cooperating partners

Size of cooperating partner

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



The larger the business the more likely UBC takes place, as indicated by Dutch academics.

Academics in the Netherlands collaborate in a greater extent with large businesses. More than half of cooperating academics in Netherlands (58%) engage to a significant or large extent with them. Large businesses can dedicate more time, resources to UBC, as well as more diverse culture to establish a quality collaboration.

41% of cooperating academics in Netherlands engage to a significant or large extent with medium-sized businesses, followed by small and micro-sized businesses (37%).

This amount of UBC is reduced to 16% with entrepreneurs.

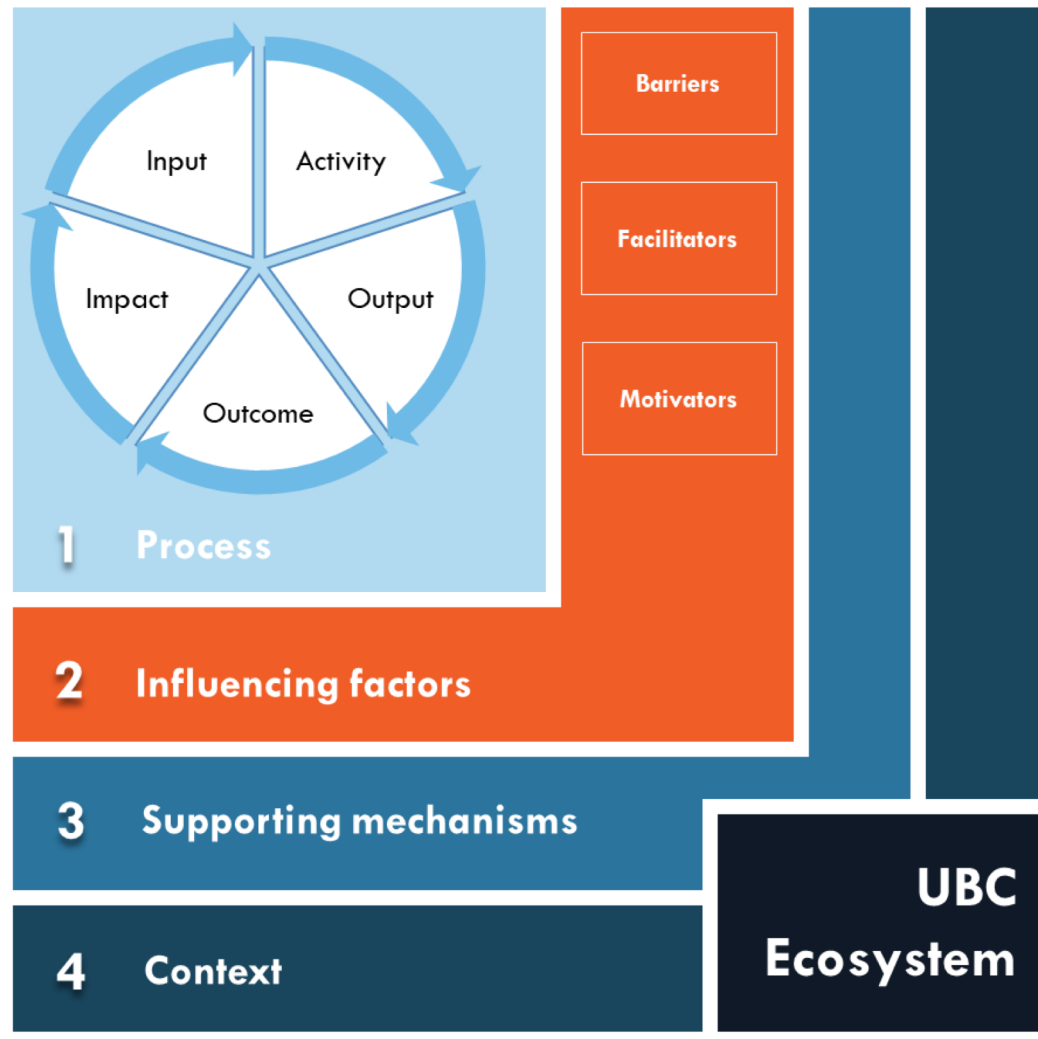
Factors influencing UBC

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

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

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


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



Barriers hindering UBC

Barriers

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



	Academics collaborating with business	Academics not collaborating with business
1.	Differing time horizons between university and business	Differing motivation / values between university and business
2.	Lack of university funding for UBC	The focus on producing practical results by business
3.	Business lack awareness of university research activities / offerings	Lack of business funding for UBC
4.	Lack of business funding for UBC	Difficulty in finding the appropriate collaboration partner
5.	Differing motivation / values between university and business	Insufficient work time allocated by the university for academics' UBC activities
<i>Lowest</i>	UBC conflicts with my teaching and research responsibilities	Frequent staff turnovers within my university or the business

The top five barriers that hinder UBC are different for both collaborating and non-collaborating academics.

While cooperating academics are mostly limited by the differing time horizons and the limited funding, their non-collaborating colleagues perceive the other culture related barriers such as differing motivations and the businesses' practical orientation as the most inhibiting factors for successful UBC.

Dutch academics that cooperate with businesses are more hindered by the lack of funding from both university and businesses, whereas non-collaborating academics report only one financial barrier. It is connected with the lack of prior UBC experiences of the latter, where the cooperating academics realise that the universities should financially be involved as well.

While collaborating academics perceive the business' lack of awareness of university research offerings as further UBC inhibiting factor, their non-collaborating counterparts are notice the difficulty in finding the business partner.

Barriers hindering UBC

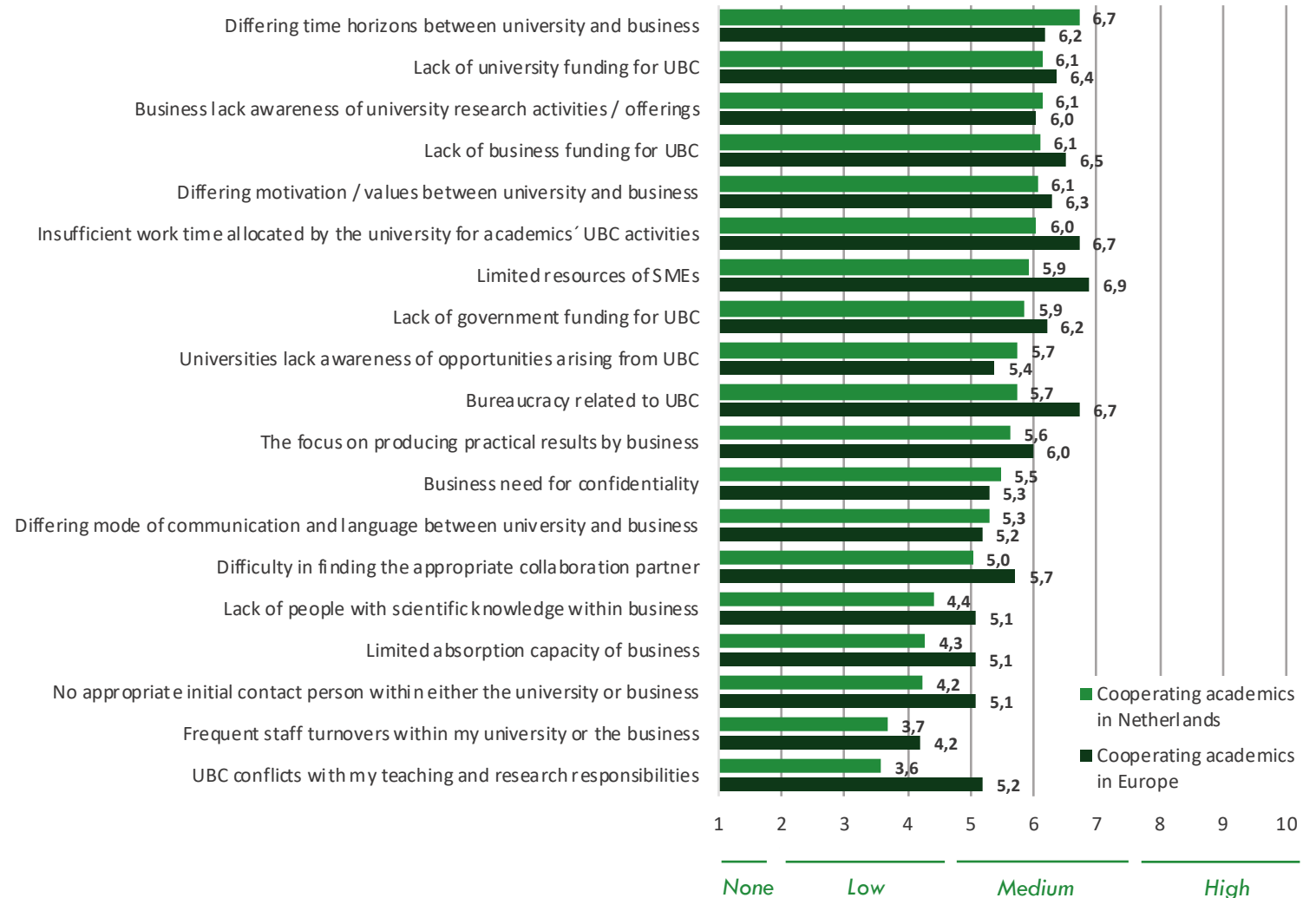
Dutch academics perceive the majority of barriers to be present to lower extend than their European counterparts do.

Yet, in The Netherlands academics are more hindered by the differing time horizons between partnering organisations, which is also indicated as the main barrier. The academics are oriented towards producing knowledge input in forms of scientific publications and basic research, while the companies expect a more immediate results quicker.

Dutch academics are significantly less hindered than their European counterparts by the SMEs' limited resources, bureaucracy related to UBC and UBC conflicting with academics' teaching and research responsibilities (gap of 1 point of more). SMEs in The Netherlands have a tendency to have more resources available for the UBC.

Barriers

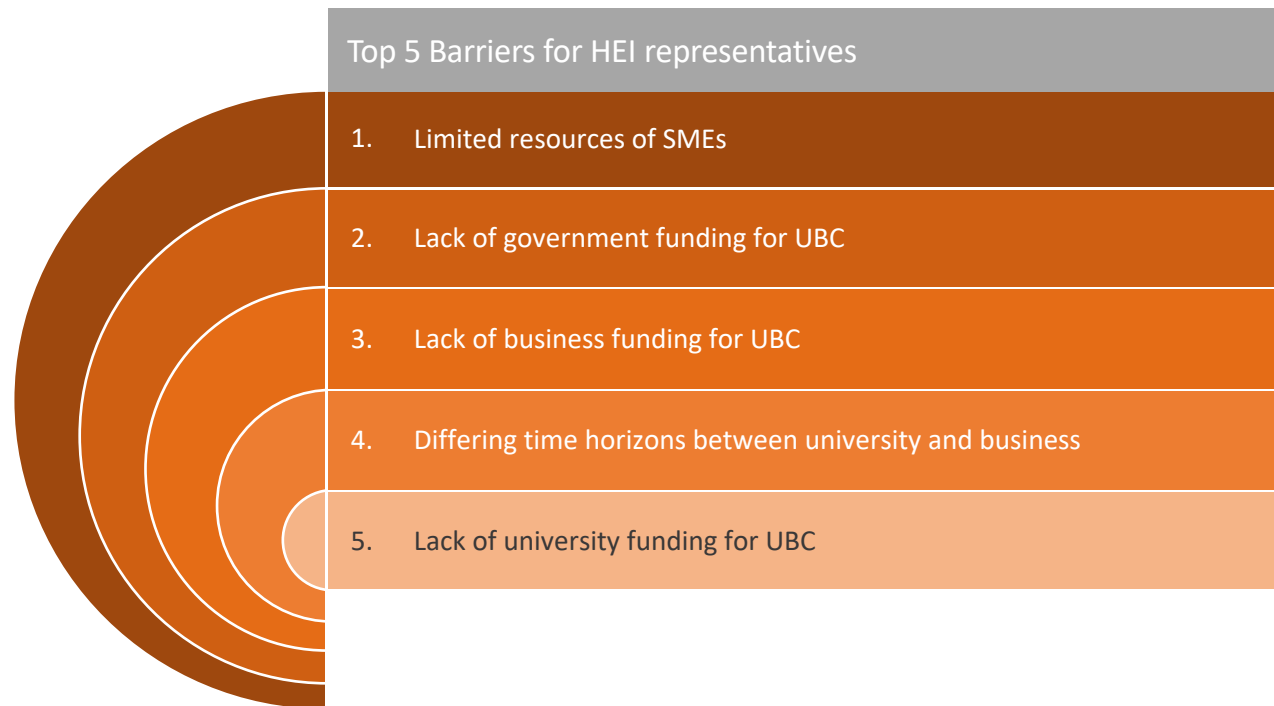
'What is inhibiting your cooperation with business?' – as answered by academics



Barriers hindering UBC

Barriers

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



The lack of resources is perceived as the most pressing barrier for Dutch HEI representatives.

Thus, contrary to academics' view, SMEs' limited resources represent the largest limitation to engage in UBC for Dutch HEI representatives along with lack of funding from different sources (government, business and university).
Depends on the role expectations ?

At the same time, the differing time horizons between university and business can also significantly hinder UBC in The Netherlands according to Dutch HEI representatives.

Barriers hindering UBC

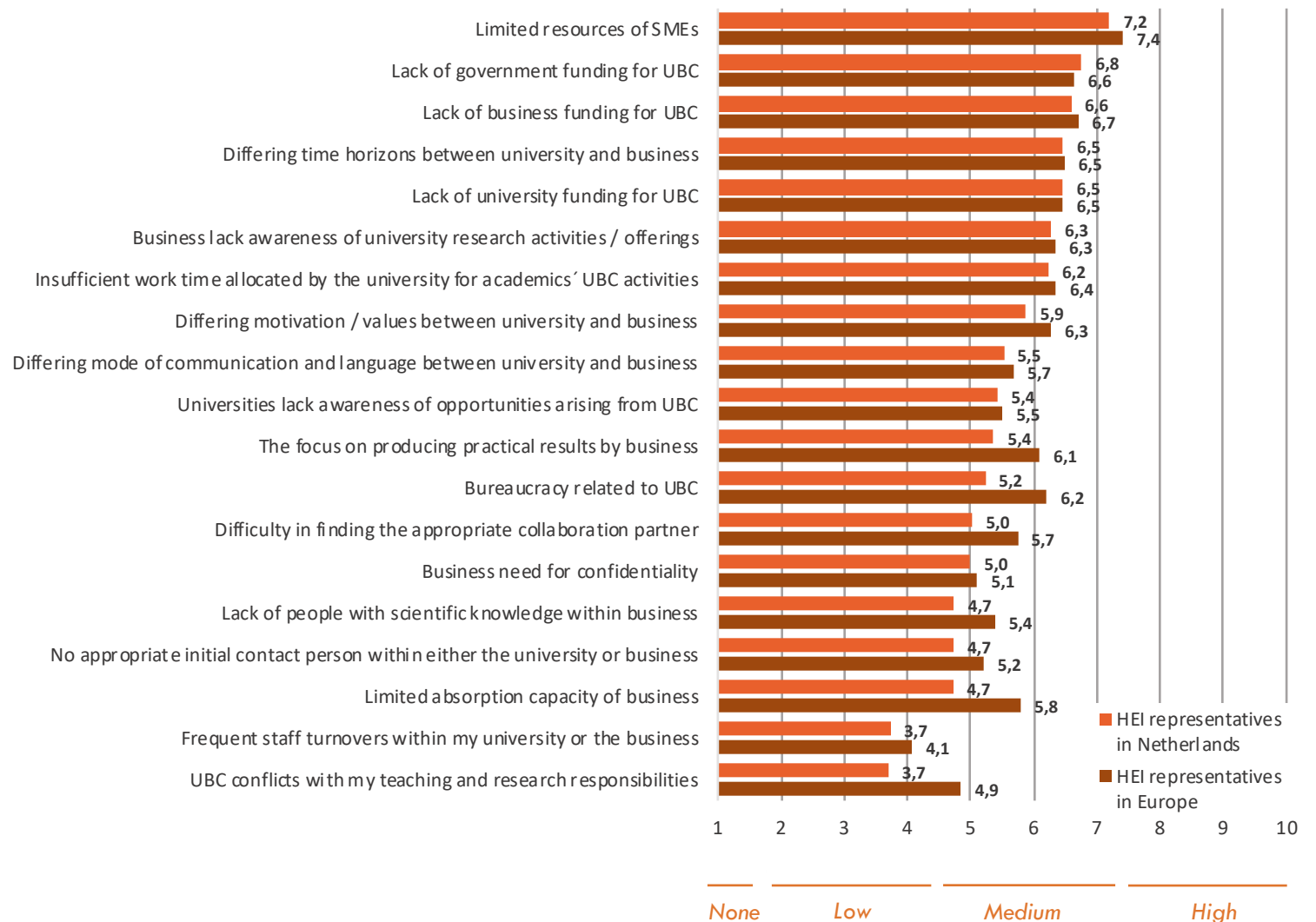
Overall, most barriers are perceived similarly by Dutch HEI representatives and their European counterparts.

Similarly to European HEI representatives, Dutch HEI representatives are constrained to engage in UBC mostly by lack of resources and funding.

'Businesses' focus on producing practical results', along with 'bureaucracy related to UBC', 'business limited absorption capacity' and 'UBC conflicting with academics' teaching and research responsibilities' are perceived to be hindering UBC more by Dutch HEI representatives than by their European counterparts.

Barriers

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



Drivers stimulating UBC

Drivers are those factors that encourage businesses, academics or HEIs to engage in UBC.

Drivers of UBC are divided into two factors:

1. **Facilitators** – factors that enable or ease cooperation
2. **Motivators** – incentives or benefits that the respective stakeholders would like from the cooperation

Together, these two factors provide a comprehensive picture of what compels businesses to cooperate.

The 2010-11 State of European UBC study showed that for European universities the existence of strong UBC drivers can overcome the presence of barriers to UBC.

The main factors that facilitate UBC as seen by both Dutch academics and HEI representatives are identical.


The main two facilitators focus on the relationship aspect of UBC, highlighting the importance of mutual trust and a shared goal between the partners.

The existence of funding to undertake UBC and the interest of business in accessing scientific knowledge are also recognised by both groups as important drivers for UBC.

Similarly, both groups perceive the existing prior relations with the business partners as another UBC 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 a shared goal
3.	Existence of funding to undertake the cooperation	Existence of funding to undertake the cooperation
4.	Interest of business in accessing scientific knowledge	Interest of business in accessing scientific knowledge
5.	Prior relation with the business partner	Prior relation with the business partner

Drivers stimulating UBC

Average European and Dutch perceptions of common UBC facilitators align. Yet, Dutch academics perceive most drivers to be present to lower extent than European academics do.

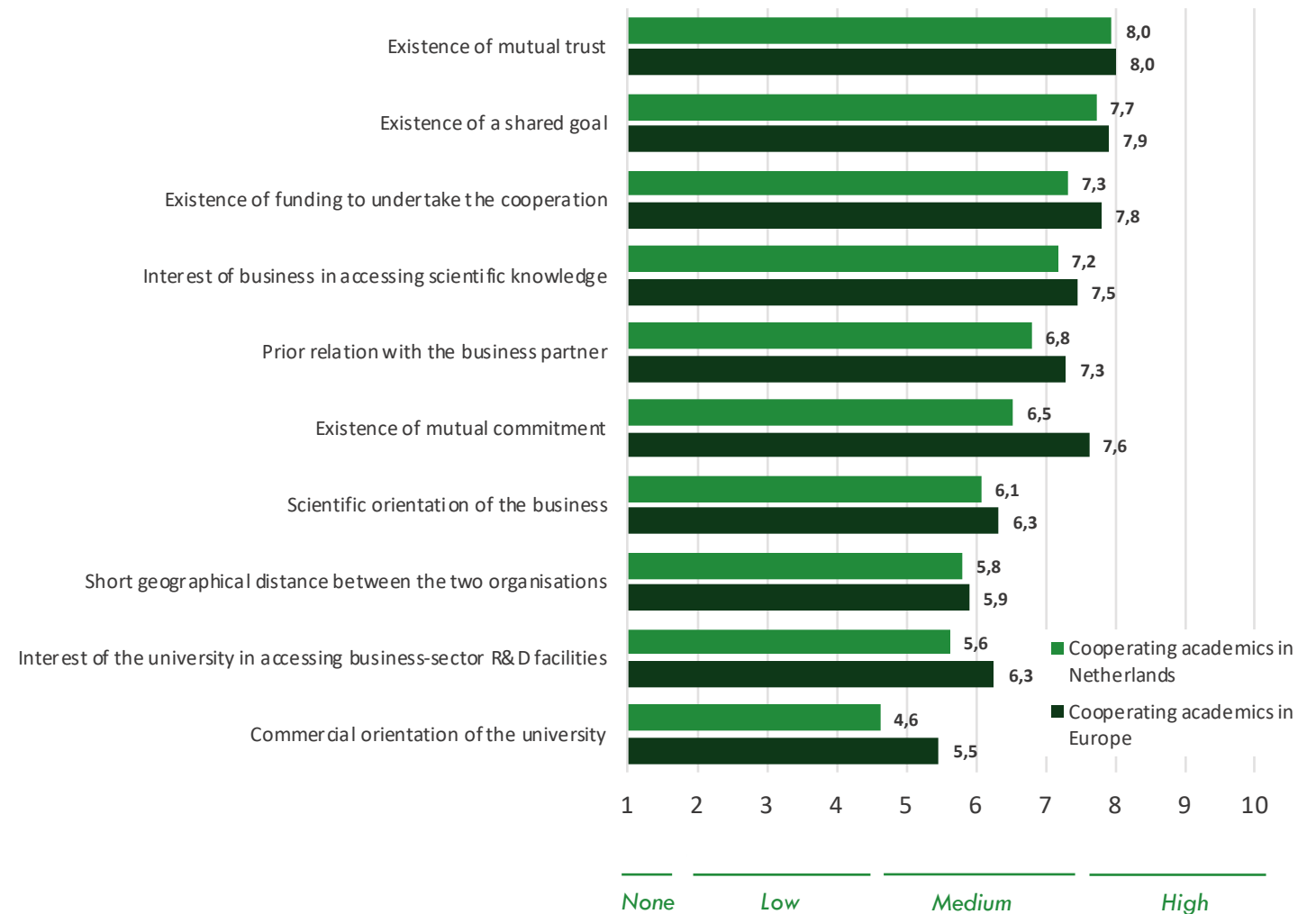
For both groups, the most important facilitators are those related to the relationship component of UBC and funding.

However, European academics consider the existence of mutual commitment as a more relevant facilitator than their counterparts in The Netherlands.

Additionally, the commercial orientation of the university emerges as the weakest facilitator for both groups, but it is perceived to be significantly lower by Dutch academics. HEIs are in their majority public institutions in The Netherlands, therefore the commercial orientation is rarely found as a feature of the Dutch university.

Facilitators

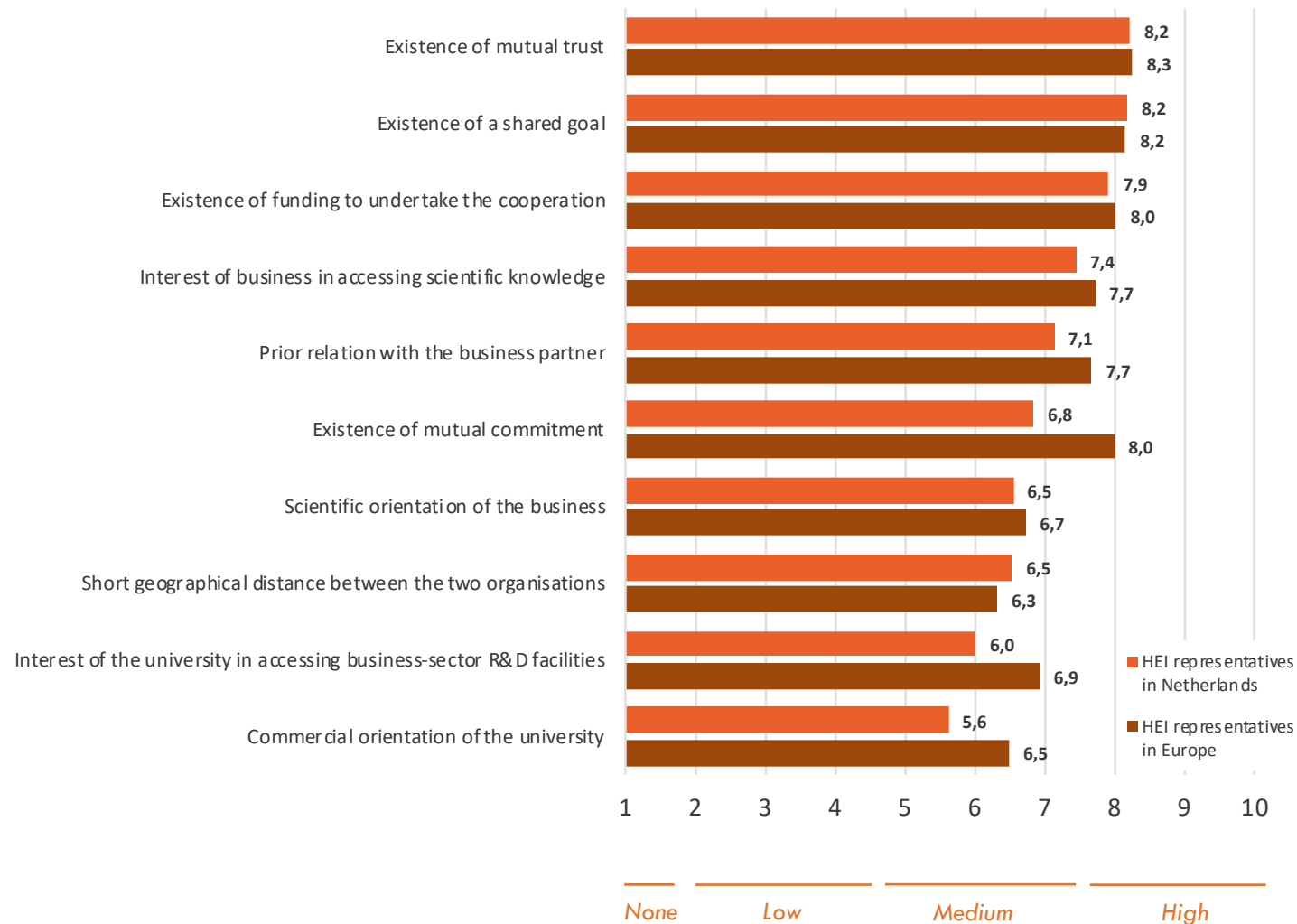
'What is facilitating your cooperation with business?' – as answered by academics



Drivers stimulating UBC

Facilitators

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



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

For both groups, the most important facilitators also relate to the relationship components (the existence of mutual trust, a shared goal), and availability of funding. This is consistent with the academic perspective.

Yet, further relationship related factors such as the existence of prior relations and mutual commitment are more important for HEI representatives in Europe than for those in The Netherlands.

The commercial orientation of the university emerges as the weakest facilitator for both groups, but it is also perceived significantly lower by Dutch HEI representatives.

Drivers stimulating UBC

Dutch cooperating academics are motivated to engage in UBC for similar reasons as those Dutch academics who do not co-operate perceive.

Addressing societal challenges and issues emerges as the main motivator for both groups.

However, while cooperating academics highlight their research progression, such as gaining new insights and practical application, academics that not cooperate are driven by the willingness to improve graduate employability as well as by the motivation to contribute to the mission of the university. Dutch academics with UBC experience tend to be more practically-oriented, while non-cooperating ones are driven by idealistic theoretical ideas about UBC.

Improving teaching is another relevant motivator to engage in UBC for both groups.

Motivators

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

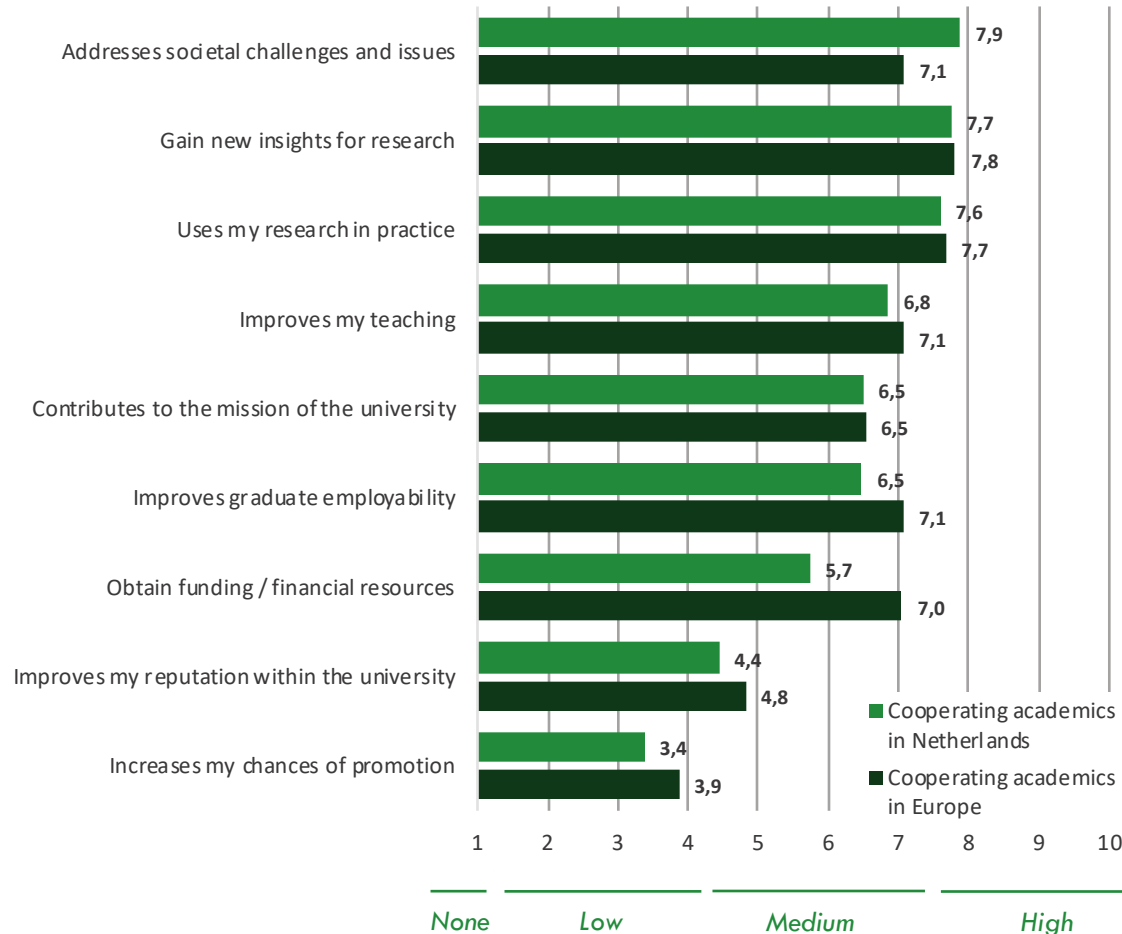


	Academics who cooperate	Academics who <u>do not</u> cooperate
1.	Addresses societal challenges and issues	Addresses societal challenges and issues
2.	Gain new insights for research	Improves graduate employability
3.	Uses my research in practice	Contributes to the mission of the university
4.	Improves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

Drivers stimulating UBC

Motivators

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



Dutch academics perceive most of the motivators to be lower than the European average.

The major driver that motivates Dutch academics to cooperate with businesses is the willingness to contribute to the society and its challenges. Recently, in The Netherlands, the research is being directed towards the societal needs more, which is reinforced by the national policies.

Conversely, Dutch academics are much less motivated to engage in UBC for promotion or improving their reputation than their European counterparts.

The most significant difference between the perceptions of the two groups relates to the motivation to obtain funding, which is significantly lower for Dutch academics.

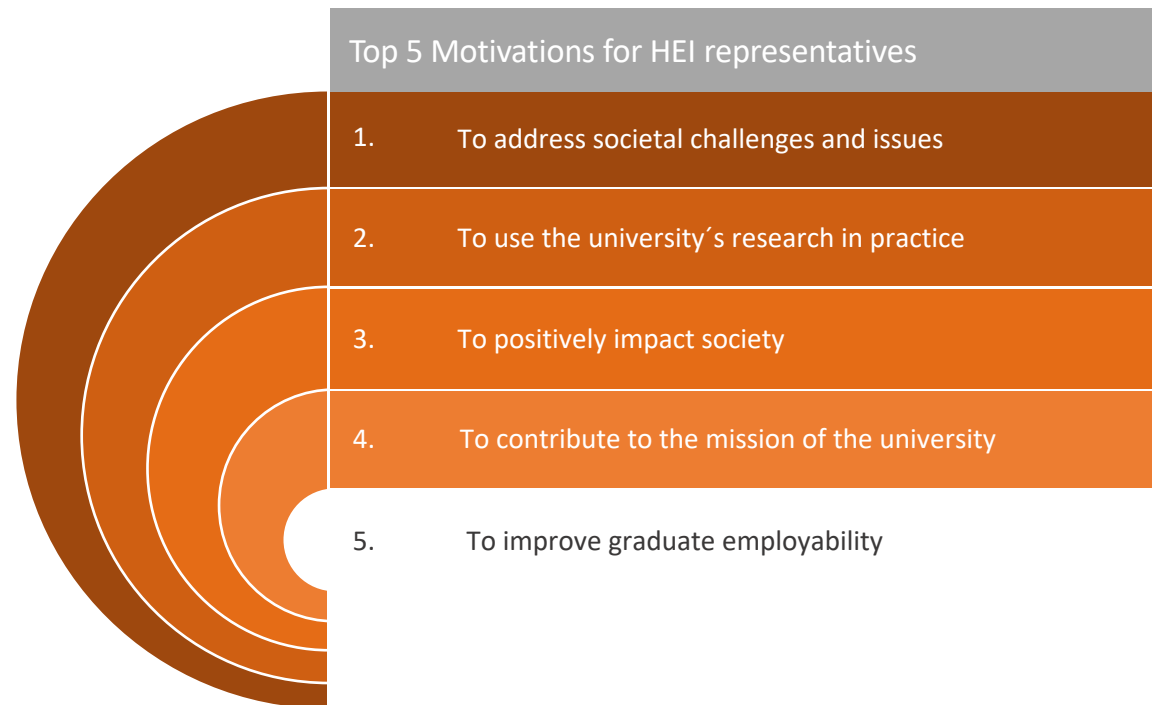
Drivers stimulating UBC

Dutch HEI representatives are highly motivated to engage in UBC for the benefits that it can bring to society.

Using research in practice, contributing to the mission of the university and improving graduate employability are also commonly mentioned motivators for Dutch HEI representatives. **personal and idealistic drive**

Motivators

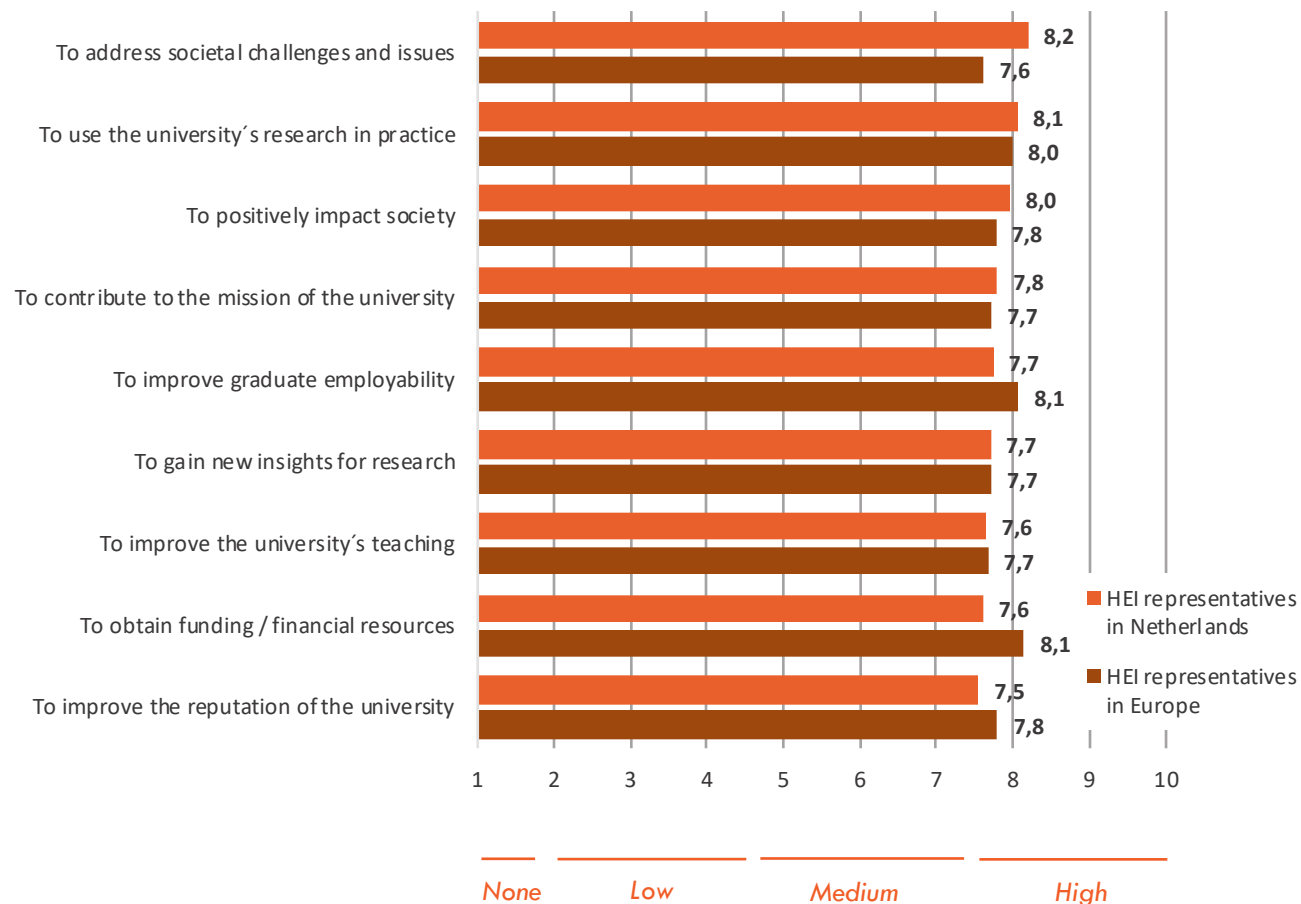
'What motivates your HEI to cooperate with business?'- As answered by HEI representatives



Drivers stimulating UBC

Motivators

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



Dutch HEI representatives indicate a very similar perception to the UBC motivators as their European counterparts.

The top motivation for Dutch HEI representatives is related to their willingness to address social challenges, while the European HEIs representatives are much more motivated to obtain funding and resources.

More crucially, for both European and Dutch HEI representatives all motivators were ranked of nearly equal importance (from 7.6 to 8.2), which ultimately means that all these motives have a greater potential of stimulating UBC for universities.

Benefits of UBC

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

Students and society are perceived by both groups as the stakeholder groups that benefit the most from UBC.

Academics see more benefits for themselves than for universities and government.

Government is believed by both groups to gain the fewest 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

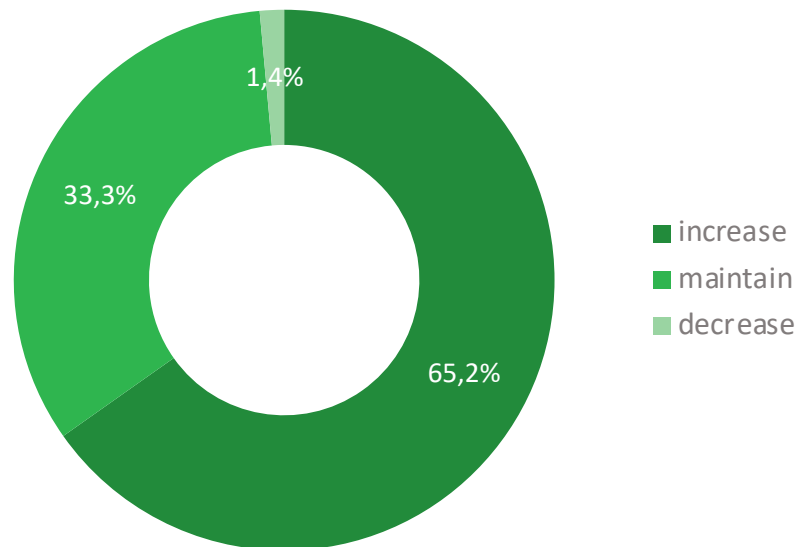


	Academics	HEI representatives
1.	Students	Students
2.	Society	Society
3.	Businesses	Businesses
4.	Academics	Universities
5.	Universities	Academics
6.	Government / public authorities	Government / public authorities

Future intentions

Future UBC intentions – Netherlands

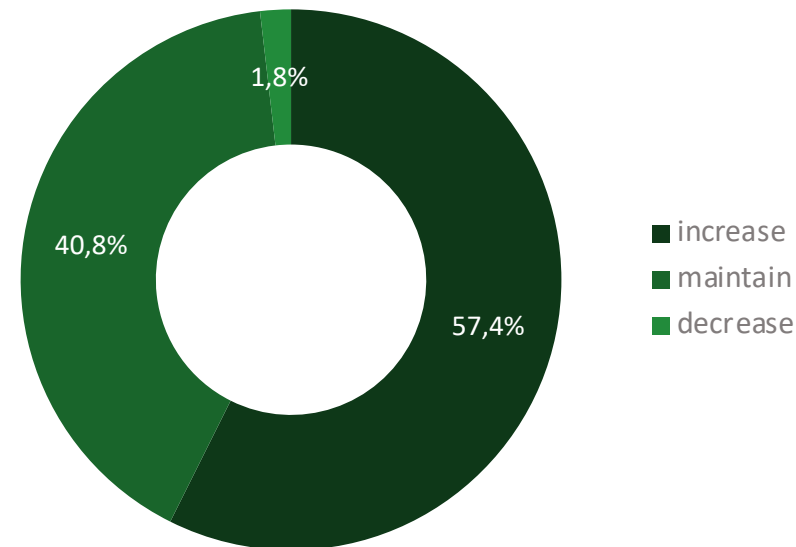
As answered by Dutch academics



Dutch academics show very strong commitment to UBC. 98.5% of them are expecting to maintain or increase their UBC activities. In this sense, The Netherlands proves to be an attractive country for UBC, with positive momentum for the future.

Future UBC intentions – EUROPE

As answered by European academics



Academics in Europe also show strong commitment to increasing UBC activities. 57.4% of cooperating academics expect to increase their cooperation and only 1.8% plan to decrease their collaborative activities with businesses. This shows a positive projection for UBC in Europe.

Willingness to recommend UBC

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

Dutch academics are more satisfied with UBC in research than their European counterparts (NPS=29). While 45% of them will promote it further, only 15% would not recommend it.

Similarly, Dutch academics are also more satisfied with education-related UBC than the European academics (NPS = 2 for Dutch and -14 for European academics).

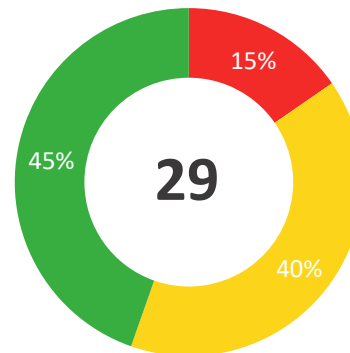
Willingness to recommend to an academic colleague cooperation with business in R&D and education

As answered by academics

	Detractors	Passives	Promoters	Net promoter score
Academics cooperating in E&T	32%	34%	34%	2
Academics cooperating in R&D	15%	40%	45%	29

Satisfaction in cooperation with businesses (net promoter score)

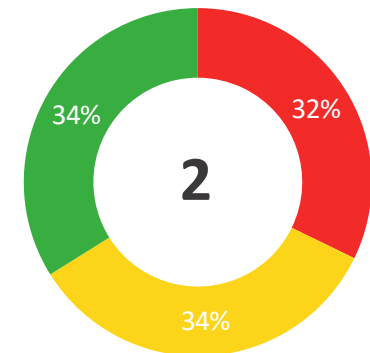
Academics cooperating in research



■ Detractors ■ Passives ■ Promoters

European academics' NPS result: 17

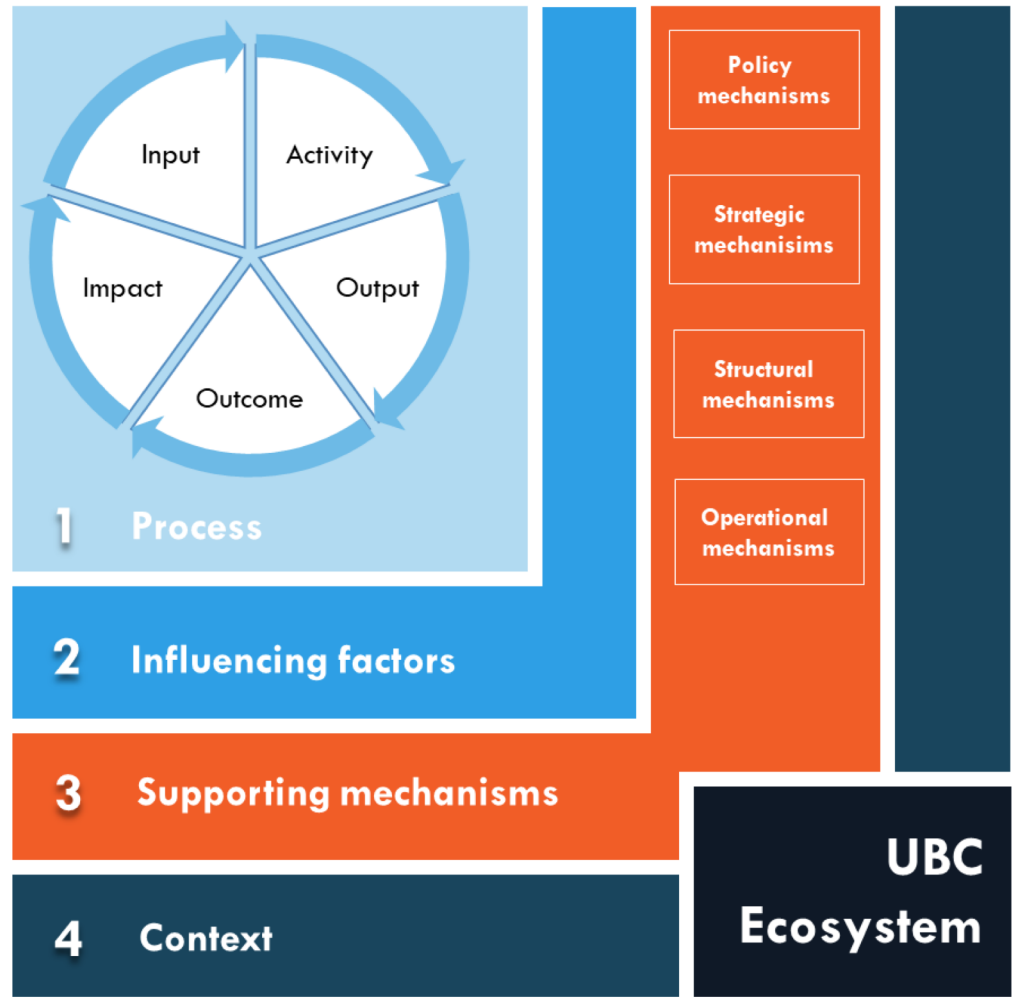
Academics cooperating in education



■ 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

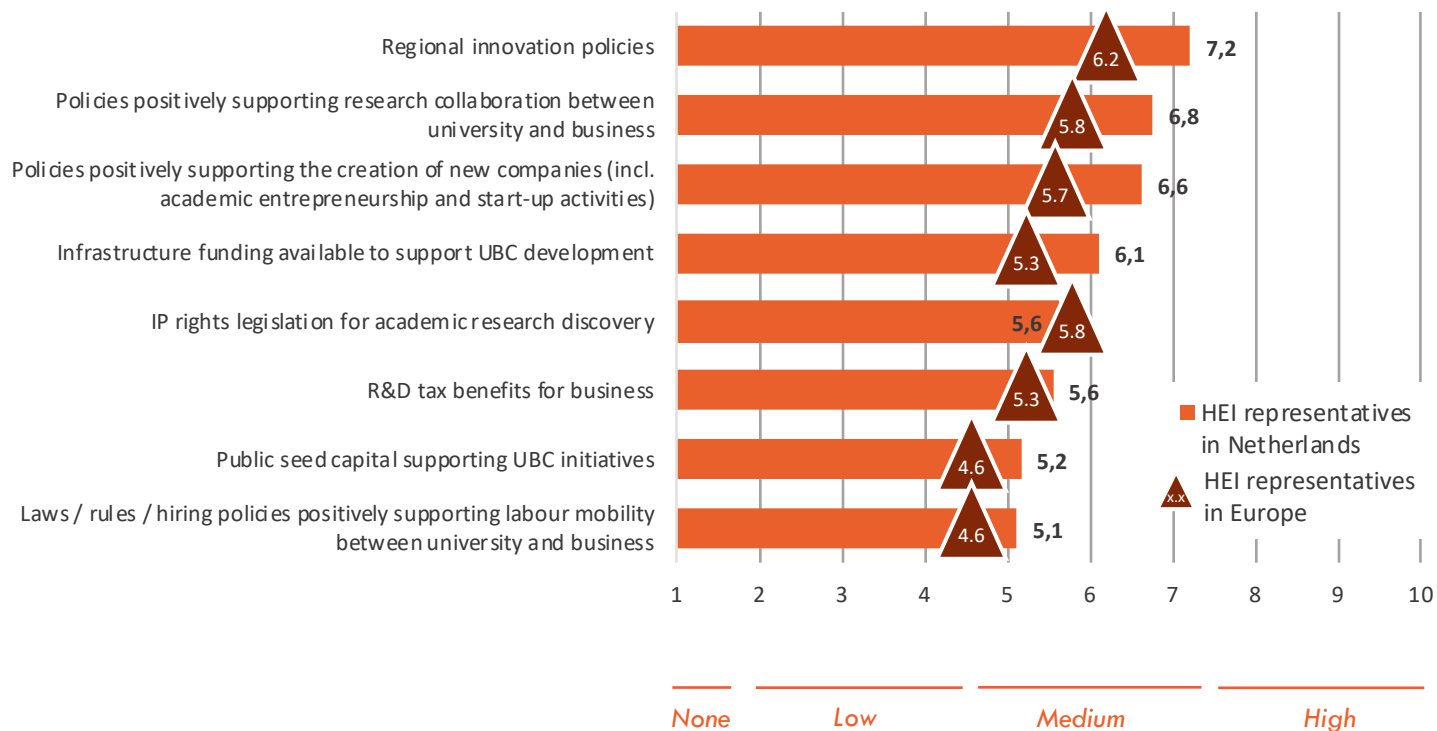
Dutch HEI representatives perceive the level of the development of policy mechanisms as a medium, which nonetheless exceeds the European average.

The most well-developed mechanisms that supports UBC are policy related: 'regional innovation policies' (7.2) along with 'policies positively supporting research collaboration between universities and businesses' (6.8) and 'policies supporting research collaboration and new companies creation' (6.6).

The least developed mechanism, which level of development nonetheless exceeds the European average, is the policy support to labour mobility between universities and business (5.1).

Policy mechanisms

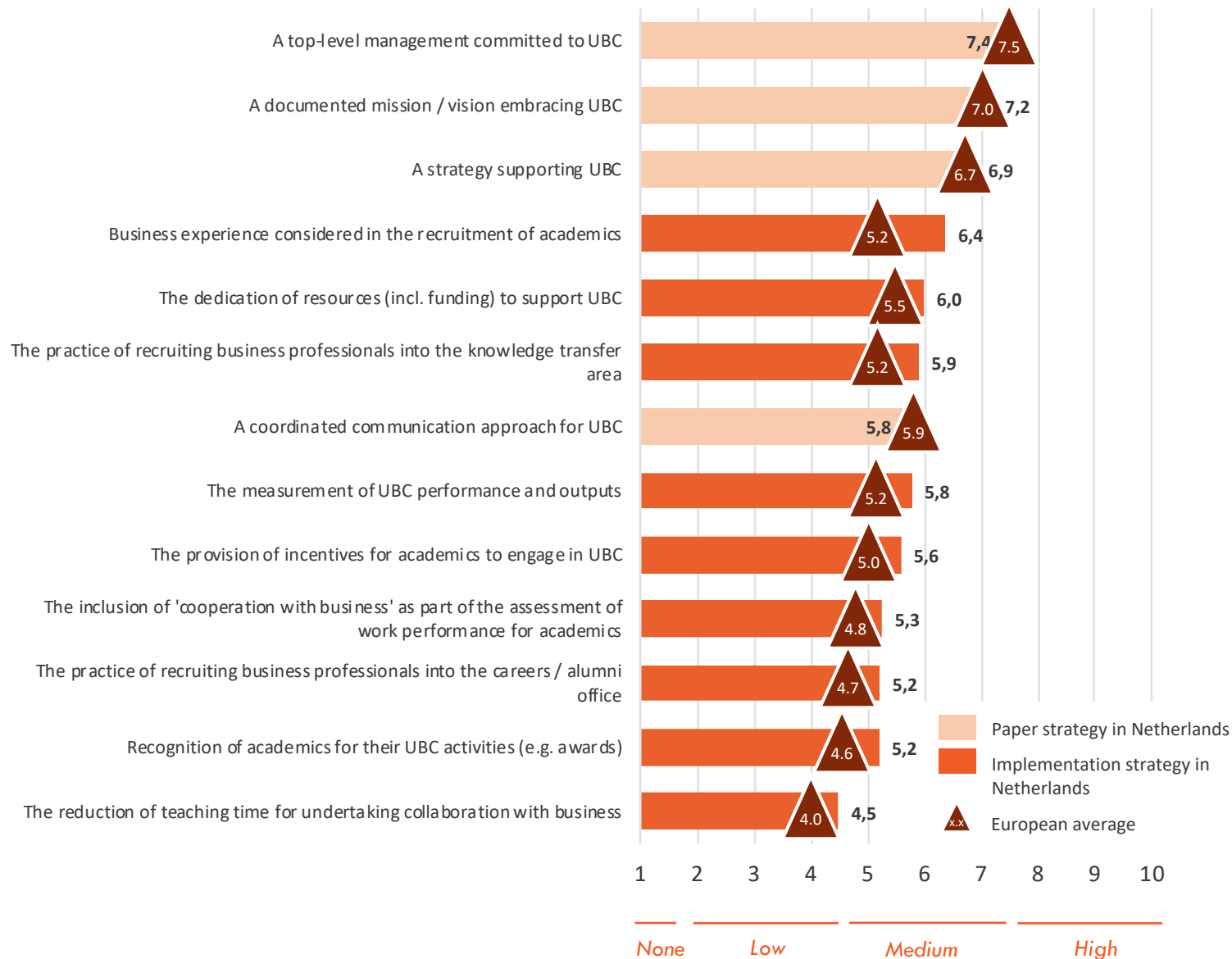
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



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 UBC supporting mechanisms in Dutch and European HEIs is very similar.

The most developed mechanisms are related to a committed top-level management, a paper strategy (documented mission/vision embracing UBC and a strategy supporting UBC).

The least developed mechanisms include the recognition of academics for their UBC activities and the reduction of teaching time.

Generally, the paper strategies (except the coordinated communication approach) are substantially more developed than implementation strategies, showing the formal commitment of Dutch HEIs to UBC.

Supporting mechanisms for UBC

The development of most structural mechanisms in Dutch HEIs resembles the European average.

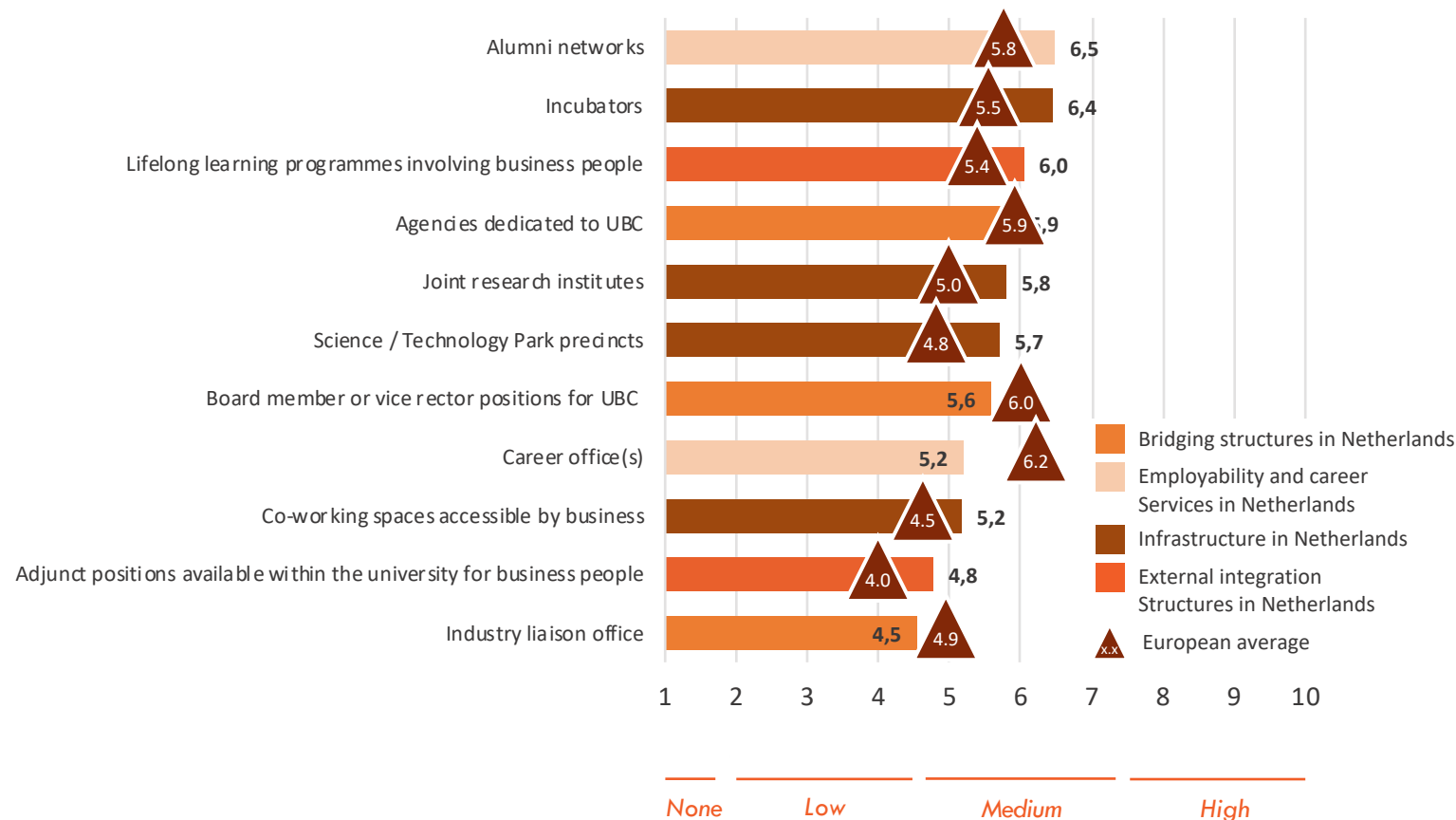
Alumni networks and incubators are the most developed structural mechanisms in Dutch HEIs (6.5 and 6.4 respectively).

All infrastructure related mechanisms are more developed in the Netherlands than in Europe.

The mechanisms related to bridging structures (board member or vice rector positions for UBC, career offices and industry liaison offices) are less developed in the Dutch HEIs.

Structural mechanisms

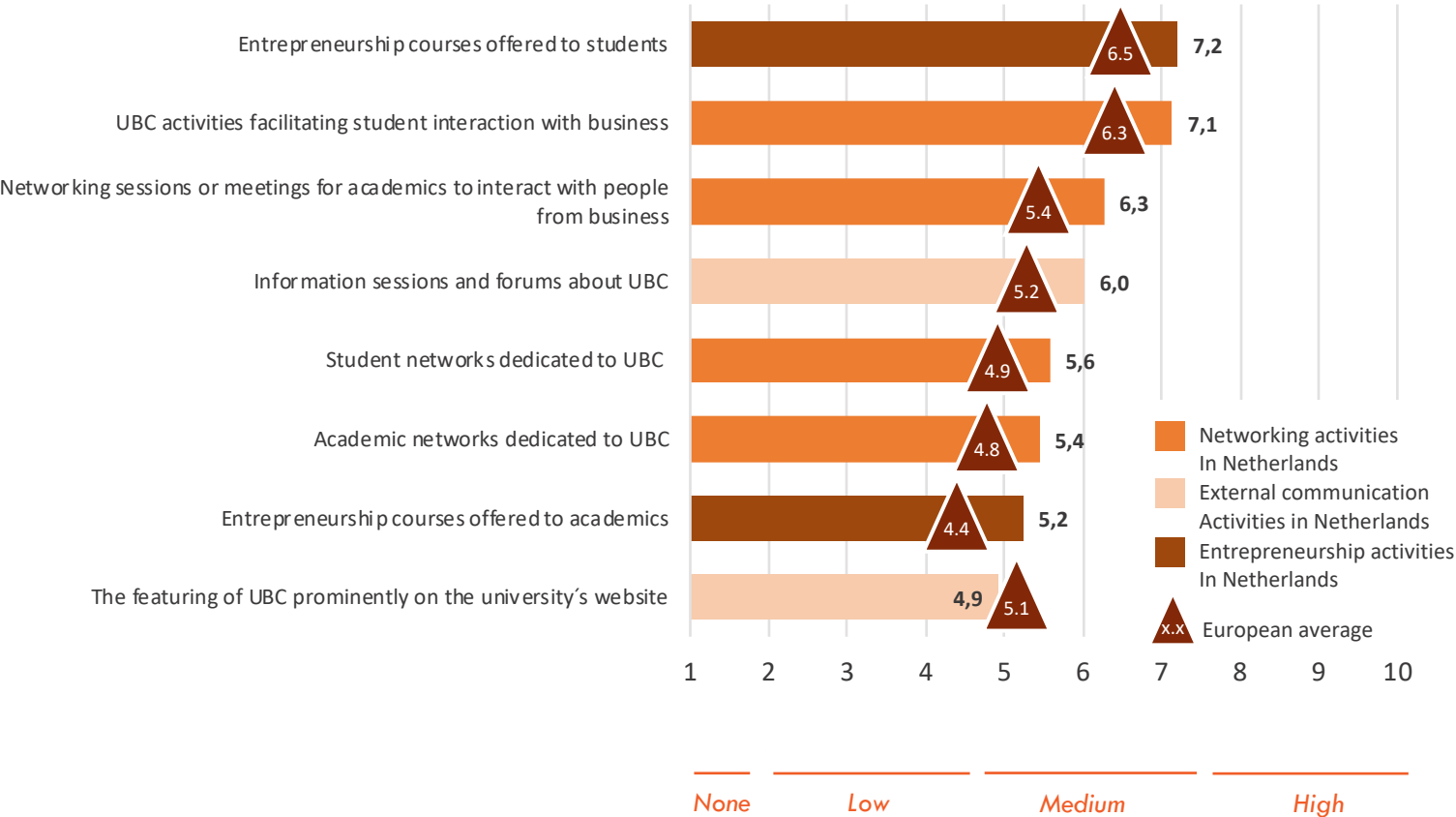
'To what extent do these mechanisms support UBC in your HEI?' - as answered by HEI representatives



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 Dutch and European HEI representatives align in respect to the level of the development of UBC supporting operational mechanisms in their institutions.

Student-centred activities are the most developed operational mechanisms, with 'entrepreneurship courses offered to students' (7.2) and 'UBC activities facilitating student interaction with businesses' (7.1) ranked the highest.

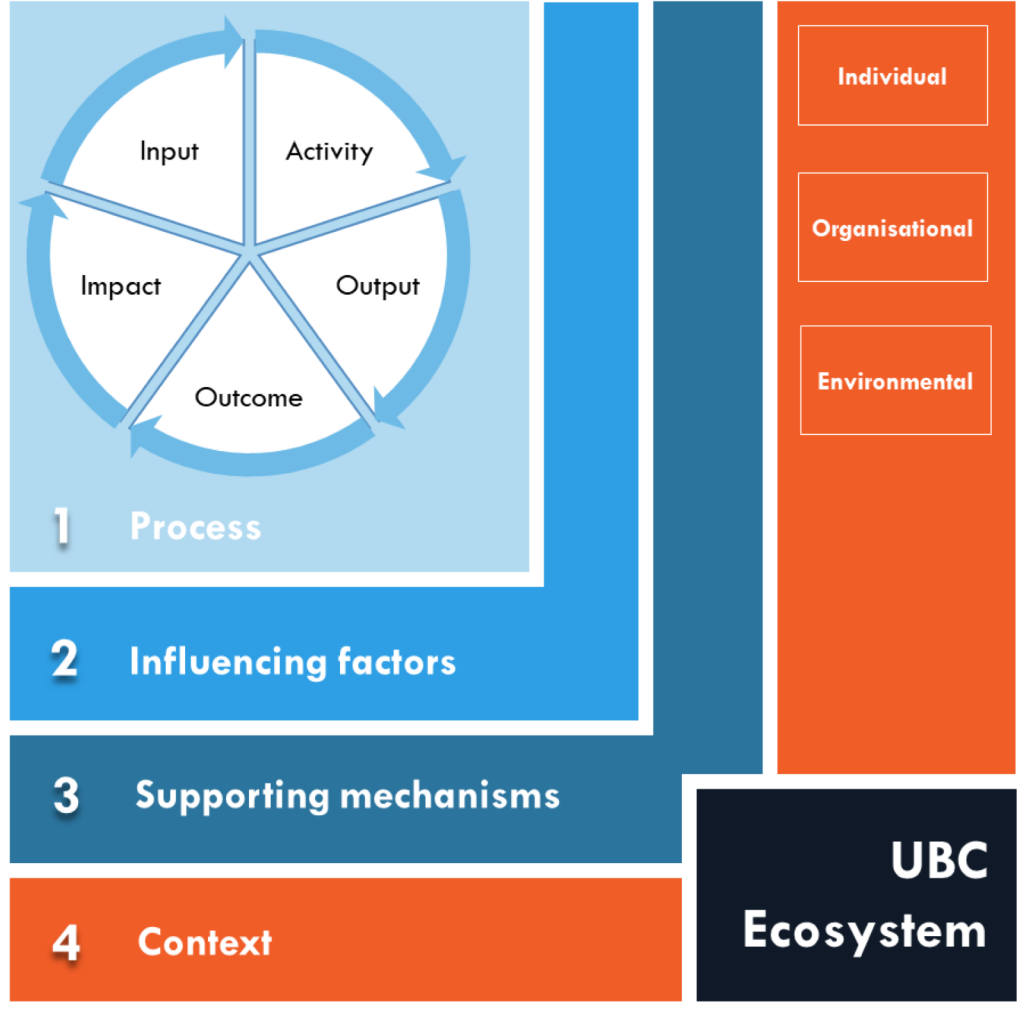
The least developed mechanism and the only one not reaching European average, (5.1), is 'the featuring of UBC prominently on the university's website' (4.9).

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.).

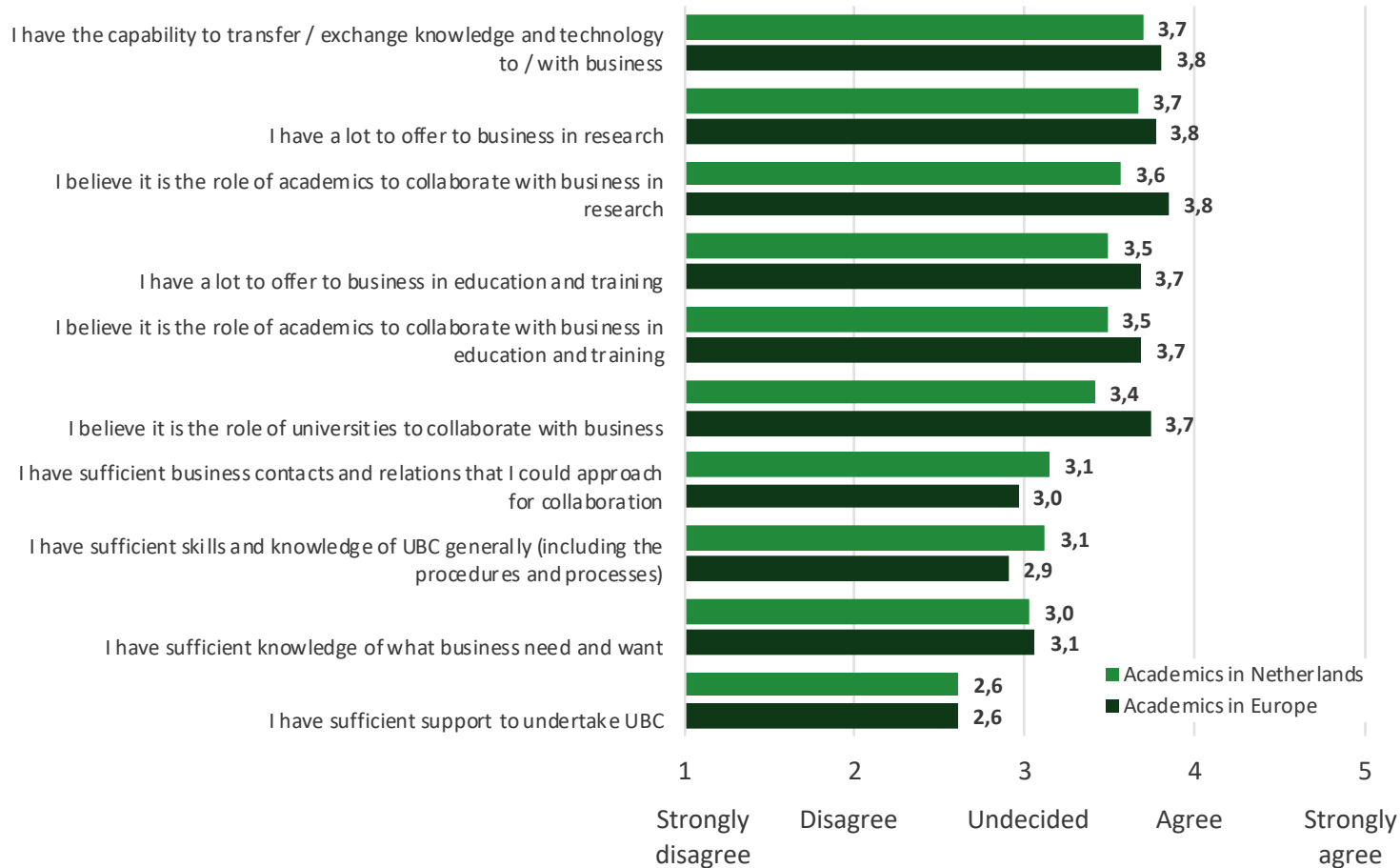
This section outlines how some contextual factors influence UBC in the country.



UBC capabilities

Capabilities for UBC

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



Dutch academics identified their own capabilities to engage in UBC as moderate. Their perception is similar to the perception of their European counterparts.

Dutch academics identified their strengths in the ability to exchange knowledge (3.7) and conduct research for/with companies (3.7).

They also perceive that they are capable of providing companies with training (3.5), and furthermore believe that it is their role to collaborate with them in education (3.5).

Dutch academics, however, report that they have insufficient knowledge of business' needs (3.0) and general support (2.6) to undertake UBC.

Context

Although Dutch and European academics perceive their contextual factors similarly, the view on some contextual factors is more positive in the Netherlands.

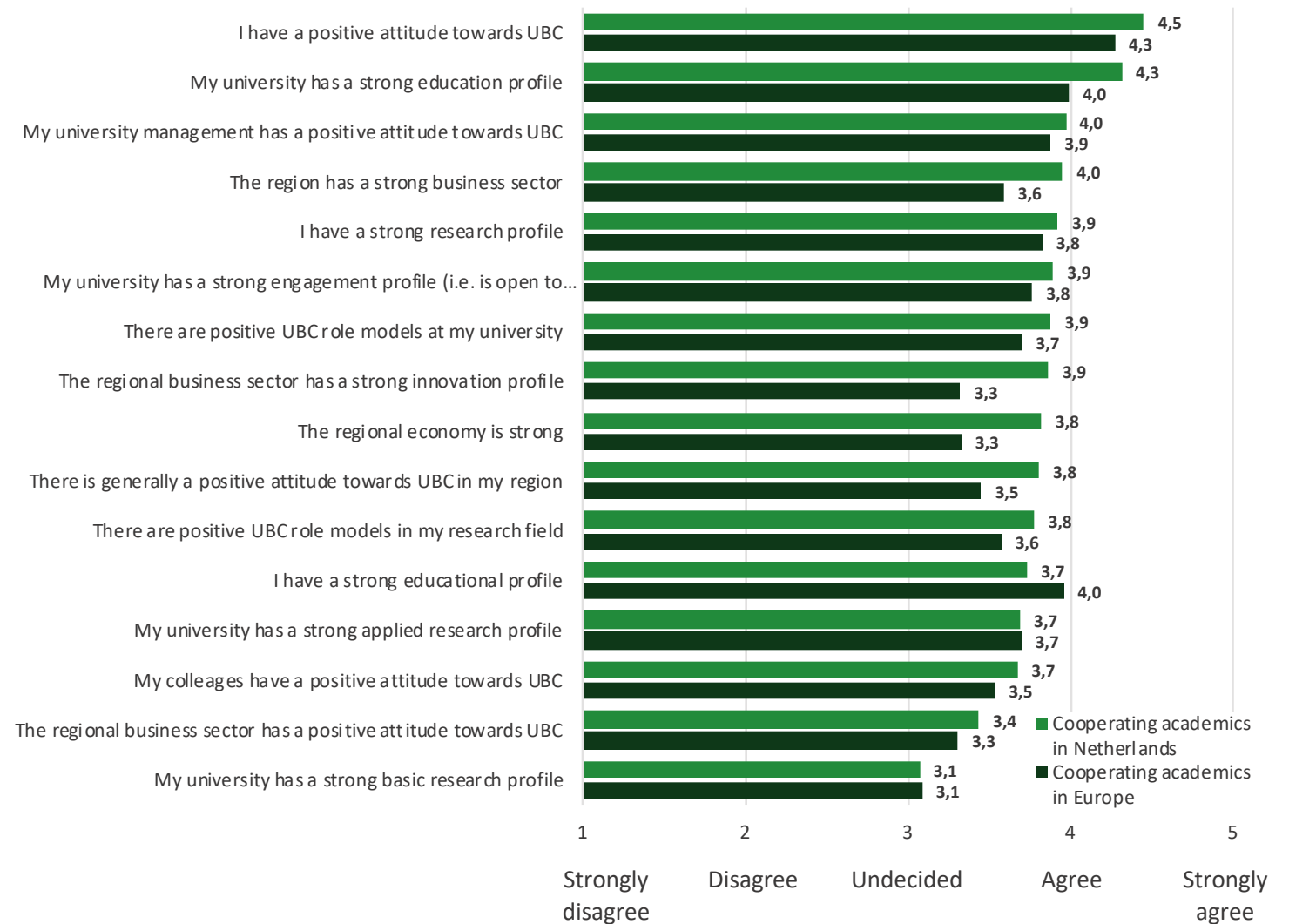
Both Dutch and European academics have a positive attitude towards UBC (4.5 and 4.3 respectively).

Yet, Dutch academics believe in a more positive attitude of their colleagues, HEIs and regions towards UBC.

While European academics perceive that they have a stronger educational profile, Dutch academics perceive their HEIs to have a stronger educational profile.

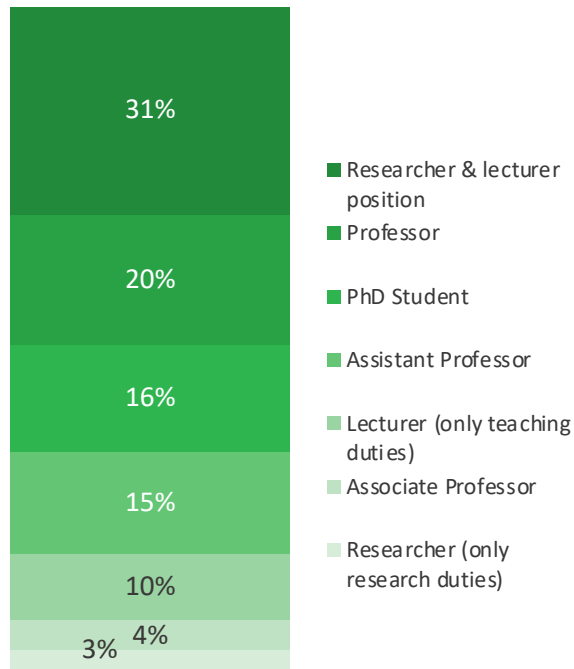
Contextual factors affecting UBC

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



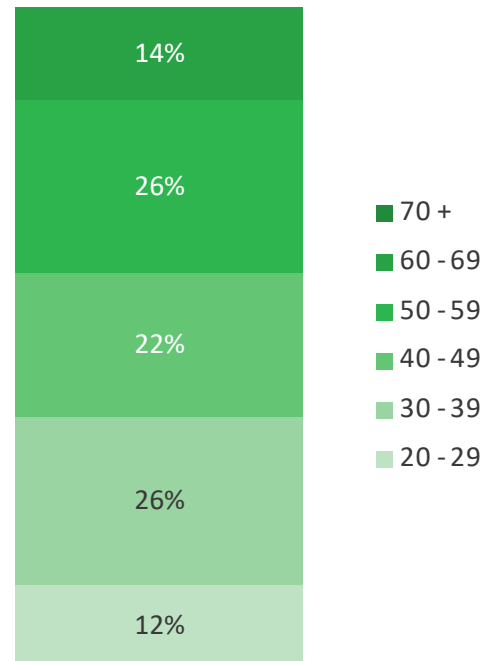
Respondent profile – academics

Position of respondent



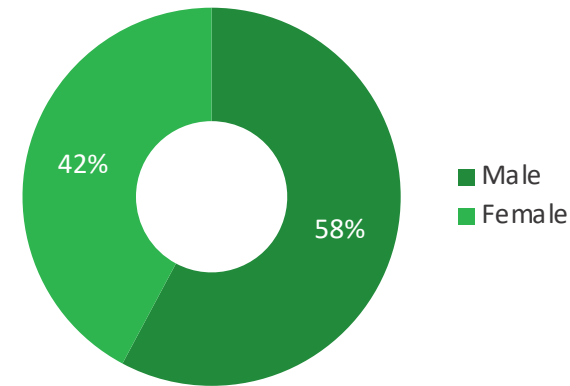
Researchers and lecturers (31%), followed by professors (20%) comprise the largest groups. PhD students are represented by the 16% of academics. The remaining academics identified themselves as assistant professors, lecturers, associate professors and researchers.

Age of respondents



48% of Dutch academics in the sample are 30 to 49 years old and 26% are aged 50-59. Academics older than 60 are 14% and those younger than 29 are only 12%.

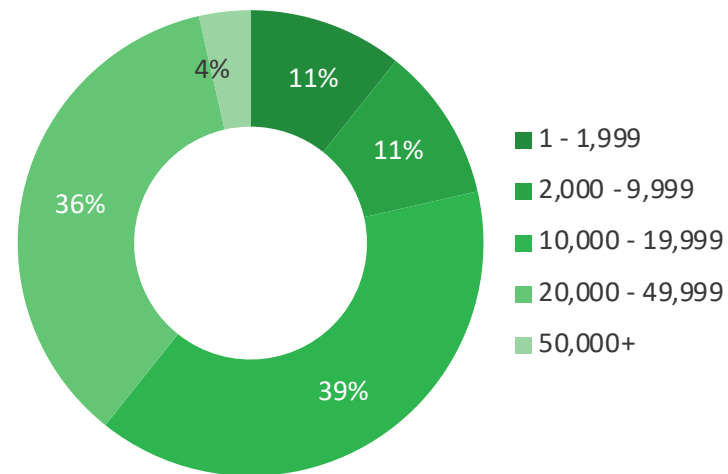
Gender of respondents



The gender distribution in the academic sample in Netherlands is skewed towards male respondents, with 58% of representation.

Respondent profile – academics

Number of students of the HEI

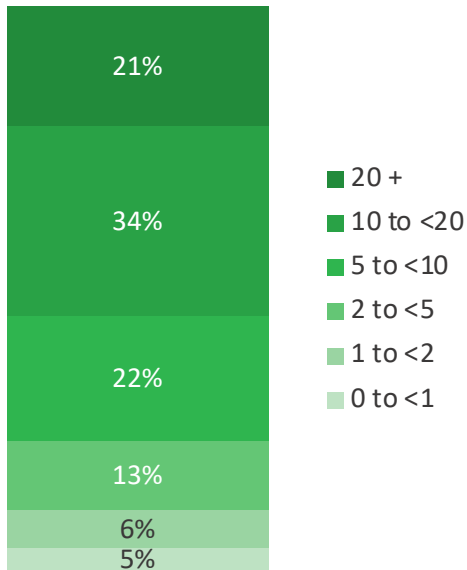


Sample Size	
Dutch Academics	n=180
European Academics	n=10.836
Dutch HEI representatives	n=97
European HEI representatives	n=3.482

39% of the Dutch academics in the sample work at medium-sized HEIs (10,000 – 19,999 students), followed by medium-large HEIs (20,000 – 49,999 students) with 36%. 22% of them work for small HEIs (under 9,999 students). Very large HEIs with over 50,000 students are represented by only 4%.

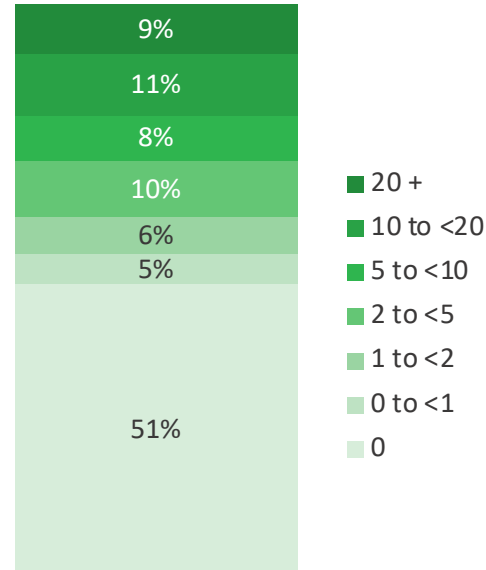
Respondent profile – academics

Years working in university



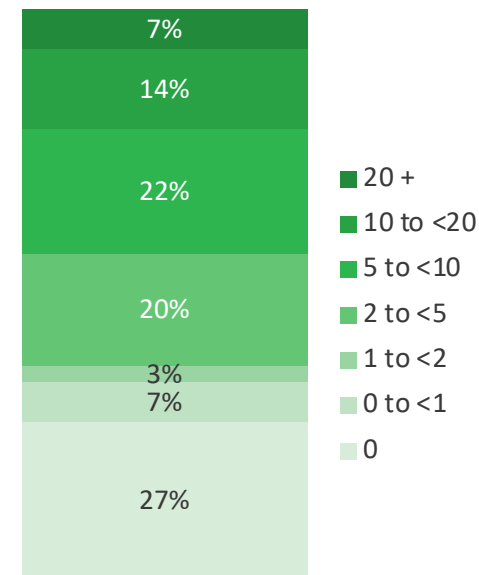
Most academic respondents have worked in academia for several years. 53% have worked in academia for over 10 years. 22% have 5-10 years of experience and 24% have less than 5 years of experience.

Years working in business



Half of the Dutch academic respondents have never worked in industry before. 20% of them have worked in industry for over 10 years. 18% have 2 to 10 years of experience whereas 11% have less than 2 years of experience.

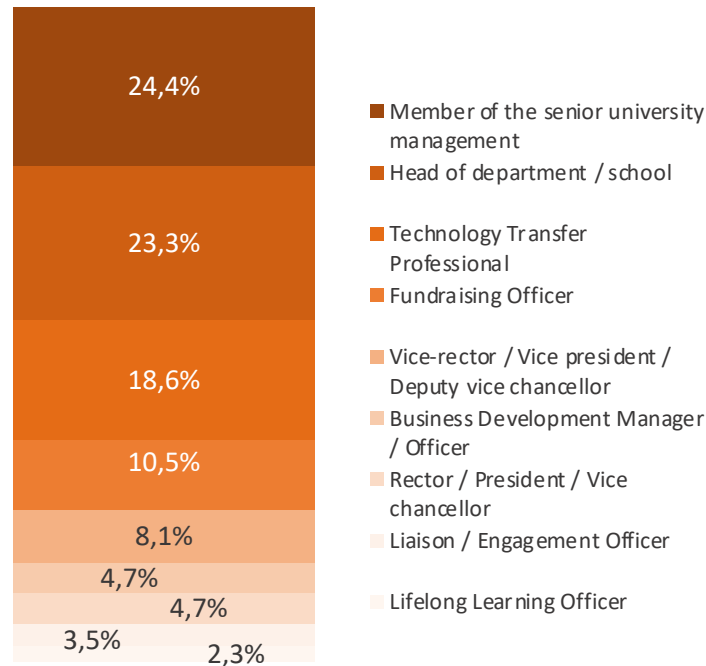
Years involved in UBC whilst working at a university or business



Most academic respondents in Netherlands have UBC experience. While 30% of them have less than 5 years of experience, 22% have engaged in UBC for 5-10 years. 21% have been involved in collaboration for over 20 years. 27% of the respondents have no experience in UBC.

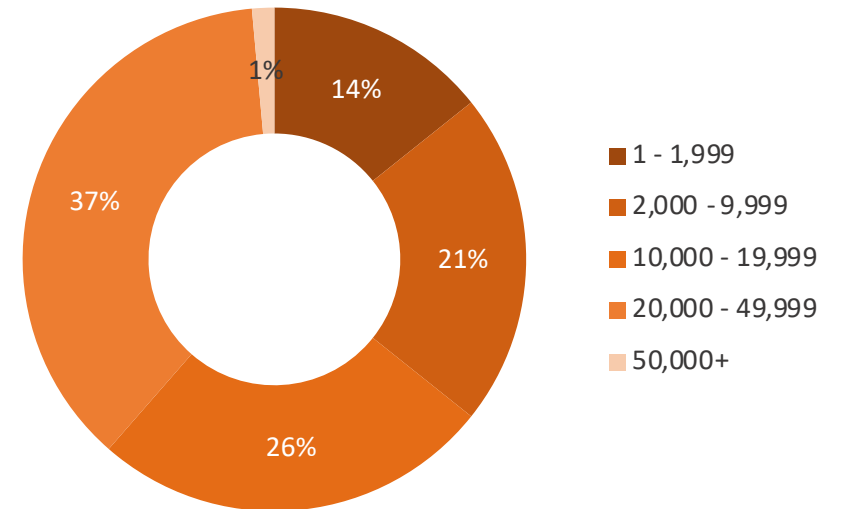
Respondent profile – HEI representatives

Position of respondent



Dutch HEI representatives hold a variety of roles. 24.4% of them are members of the senior university management, followed by heads of department/school rectors (23.3%). Technology transfer professionals represent 18.6% of the sample, followed by fundraising officers (10.5%). The remaining respondents identified themselves as vice-rectors or vice-presidents, business development managers, rectors or presidents, liaison officers and lifelong learning officers.

Number of students of the HEI



Overall, 35% of HEI representatives in the Dutch sample work for small HEIs (under 9,999 students), 37% for large HEIs (20,000-49,999 students) and 26% for medium-sized HEIs (10,000-19,999 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