



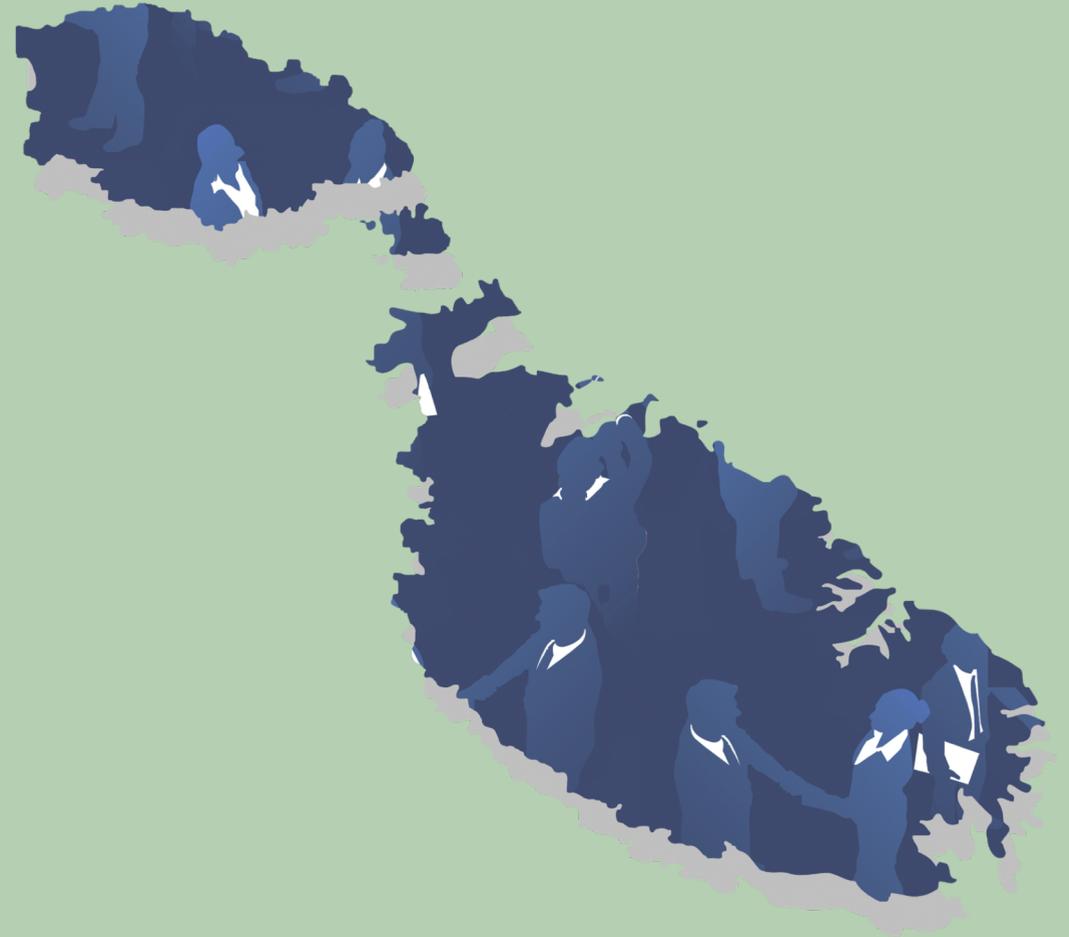
UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

State of University- Business Cooperation

MALTA

University Perspective

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



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

Partners



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Executive summary

Summary

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

Yet, currently the Maltese UBC is considerably less developed compared to the European average. There is a significant potential for improvement, specifically in supporting academics in their cooperation efforts, including the development of incentive and performance measurement systems, as well as providing additional financial resources and reducing bureaucracy related to UBC.

About the study

The results presented in this report reflect the perceptions of academics, HEI managers and KTP in Malta 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 121 Maltese responses. The study measured the perceptions of HEI representatives and academics with respect to their cooperation efforts, barriers, drivers, support mechanisms and perceived capabilities.

University-Business Cooperation

4 Academics responding to this survey are involved in

a variety of different cooperation types, with educational activities such as mobility of students and curriculum co-delivery emerging as the most prevalent ones. As for research UBC activities, consulting has the highest extent with 21,9% indicating it to be of medium to high development. On the other hand, more than 70% of academics do not undertake any valorisation or management activities at all. Particularly low is the commercialisation of R&D results, with only 17,1% of respondents being active in this area.

Over half of the academic respondents see themselves or their colleagues as proactive initiators of UBC. They also perceive the university management and alumni as those stakeholders who often initiate UBC. In contrast, both internal and external intermediaries are those UBC actors that less often initiate collaborative activities.

Funding is a barrier

All Maltese HEI respondents, including collaborating and non-collaborating academics as well as HEI representatives, are considerably hindered by financial barriers, including lack of university and business funding. Collaborating academics are also hindered by the bureaucracy related to UBC, whereas for their non-collaborating counterparts differing motivations between university and business represent a crucial barrier.

Barriers most strongly perceived by the HEI management, apart from monetary resources, relate to the limited absorption capacity of businesses.

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.

Funding is facilitator

While relationship related factors emerge as prominent facilitators for both academics and HEI representatives, including the existence of a shared goal, mutual commitment and trust alongside prior relations with a partner, it is funding to undertake cooperation which facilitates cooperation the most. These results confirm that any effort dedicated to enable and increase cooperation between businesses and universities in Malta should not only focus on relationship development, but on funding as well. While for academics the university interest in accessing business R&D facilities also facilitates cooperation, HEI representatives recognise an important role of the business' interest in accessing scientific knowledge.

Society matters for HEIs

What motivates Maltese HEI respondents and academics to engage in university-business cooperation? While cooperating academics highlight research motivations and willingness to improve teaching, non-cooperating academics are more driven by the motivation to improve graduate employability and contribute to the university's mission.

HEI representatives are, on the contrary, mainly driven to cooperate with business by the willingness to positively impact society and address societal challenges and issues.

Strategy first

Universities in Malta are seen to place a strong emphasis on developing supporting mechanisms for

UBC. As evident in the data, paper strategies such as top-level management commitment for UBC, documented mission and coordinated communication approach for UBC are the most developed mechanisms. Business experience considered in the recruitment of academics is perceived to be well developed as well. Yet, specific incentive, recognition and assessment systems for academics emerge as less advanced.

Most highly developed structural mechanisms in the given sample include incubators for UBC as well as board member or vice-rector positions in this context. When examining the development of specific activities, there is a strong focus being placed on students, with the highest development reported in relation to student entrepreneurship courses and UBC activities facilitating student interaction with business. Academic entrepreneurship courses and networks, on the other hand, are perceived as least developed.

Cooperating with conviction

Maltese academic respondents already collaborating with business have a positive view of their abilities and roles in undertaking UBC. They believe it is their and also the universities' role to collaborate with businesses in both education and research. They believe that they are capable of exchanging knowledge and technology with business. Overall, they have a positive attitude towards UBC and their educational profile. Yet, Maltese academics are seen to have a less positive attitude towards the regional business sector.

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.



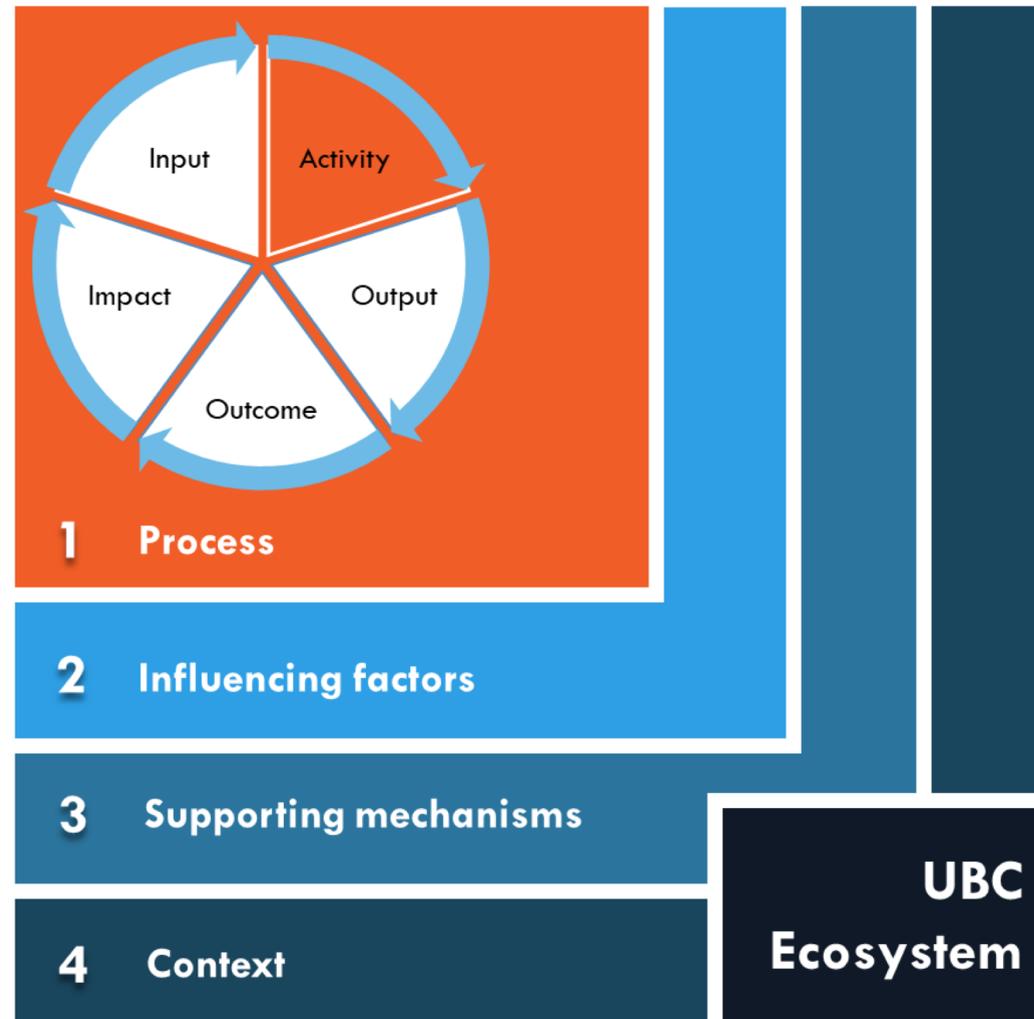
UBC activities

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-<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 business people 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

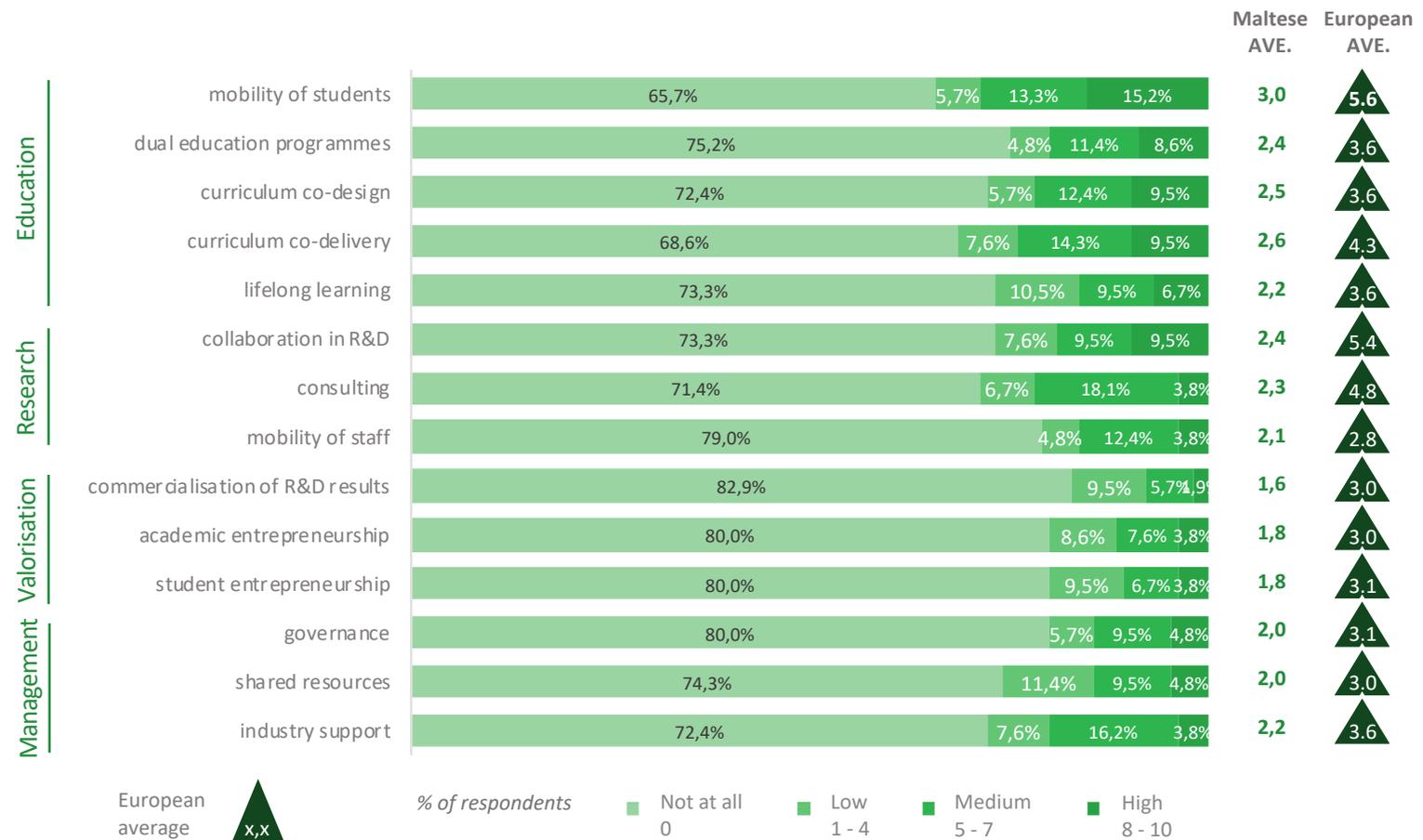
Overall, UBC activities are significantly less developed for Maltese academics than for their European counterparts.

Maltese academics most commonly engage with business in activities related to education, including mobility of students (3.0), curriculum co-design (2.5) and co-delivery (2.6), although two thirds of academics do not undertake these activities at all.

All the UBC research, management and valorisation activities are not developed at all for over 75% of Maltese academics. This can reflect the fact that UBC activities are not perceived by academics as important for their career development in universities, even though UBC-related performance is usually considered for promotion of senior lecturers, associate and full professors (University of Malta)¹.

The extent of development of UBC activities

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

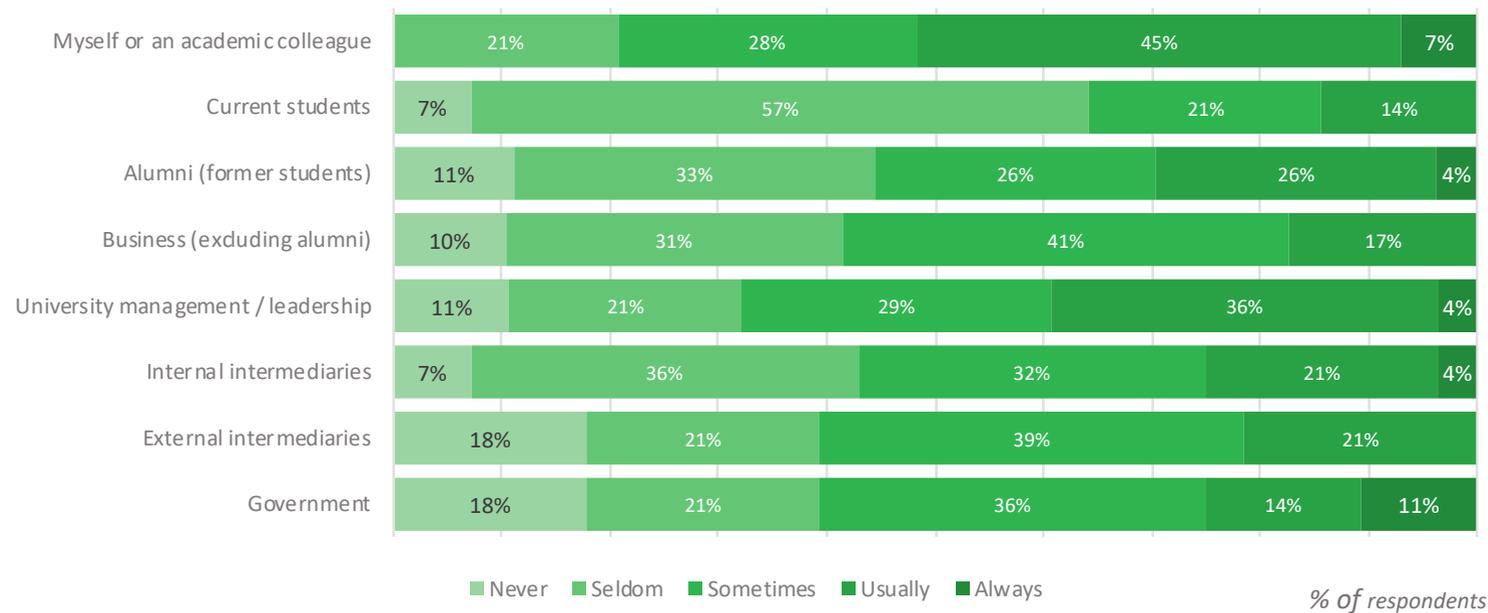


¹University of Malta (2014). Collective agreement for Academic Staff of the University of Malta and academic staff of the Junior College. Retrieved from URL: <http://www.um.edu.mt/society/umasa/CollectiveAgreement2014-2018.pdf>

Initiation of UBC

How UBC is initiated

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

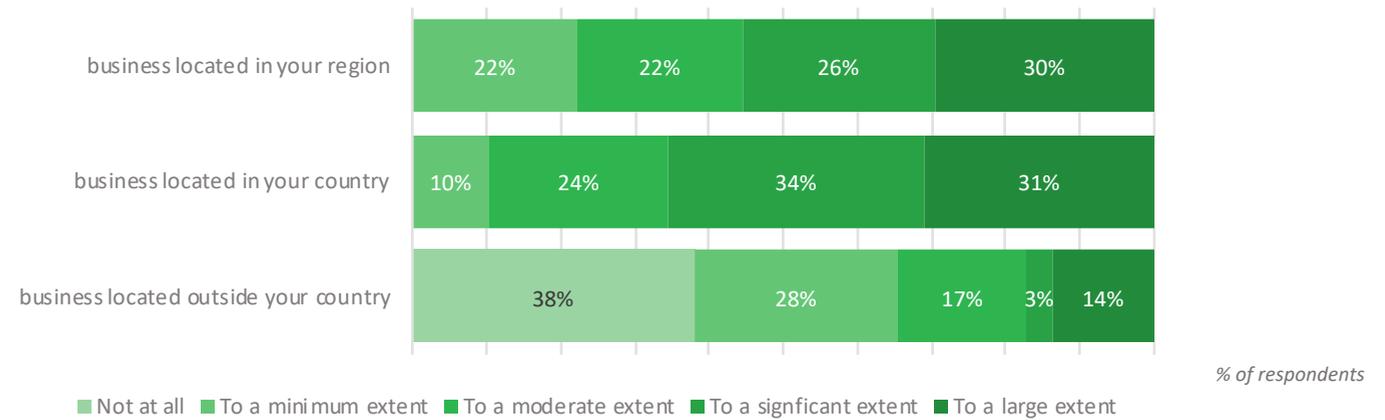


Over half of Maltese academics (52%) consider that they themselves or their colleagues always or usually initiate UBC.

University management (40%) and alumni (30%) are also considered as initiators. Contrary, academics perceive that government and both internal and external intermediaries are those stakeholders that less often initiate UBC. This reflects the need for more concrete actions between the HE sector and government agencies.

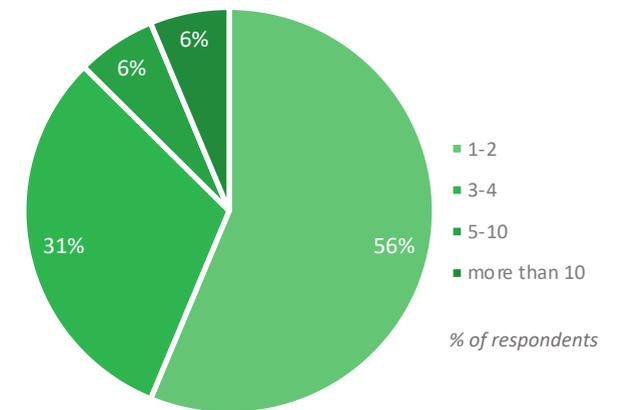
Location of cooperating partners

Location of business partners



Maltese academics mostly cooperate to a 'significant' or 'large extent' with Maltese businesses and businesses from the region (65% and 56% respectively). The cooperation with international business partners lags considerably behind.

Number of business partners

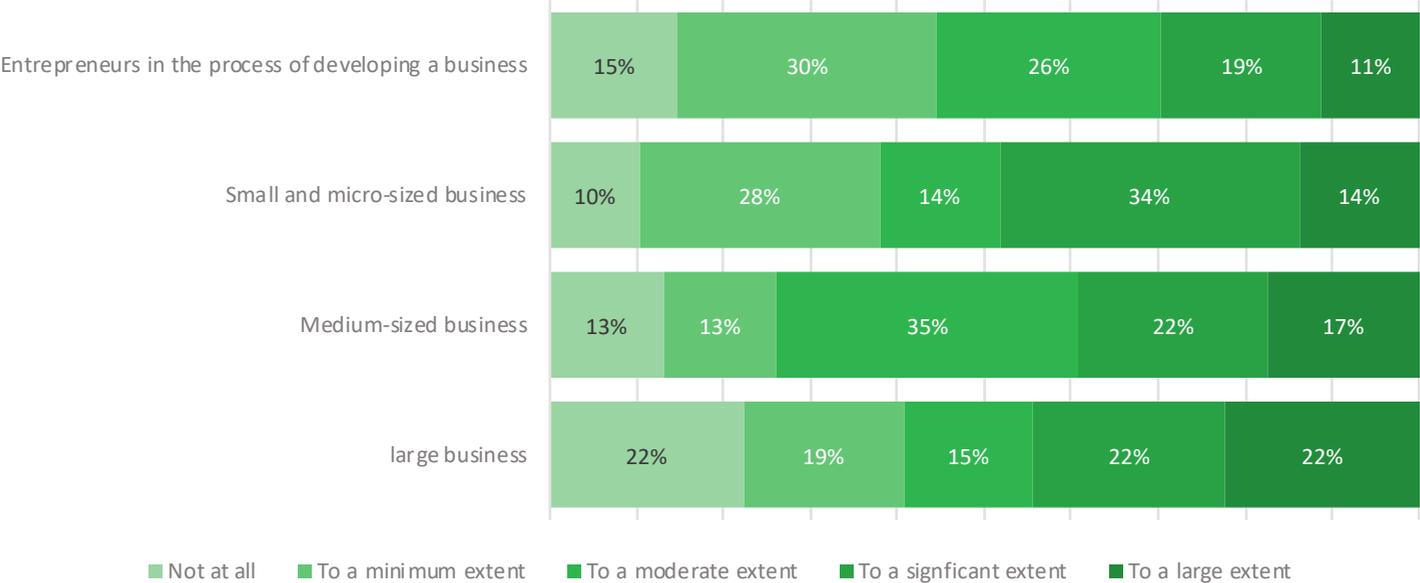


Over 80% of Maltese academics cooperate with 1 to 4 businesses. The remaining 12% have partner relations with 5 or more businesses.

Size of cooperating partners

Size of cooperating partner

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



Almost a half of cooperating academics in Malta engage to a significant or large extent with small and micro-sized businesses (48%). Indeed the prevalence of micro and small enterprises is more common in Malta than in Europe, not least because of the small size of the population.

The cooperation of academics is reduced to 44% for large businesses and to 39% for medium-sized businesses.

As for entrepreneurs in the process of developing a business, only 11% of Maltese academics cooperate with them to a large extent, as knowledge-based entrepreneurship is still gathering pace in Malta.

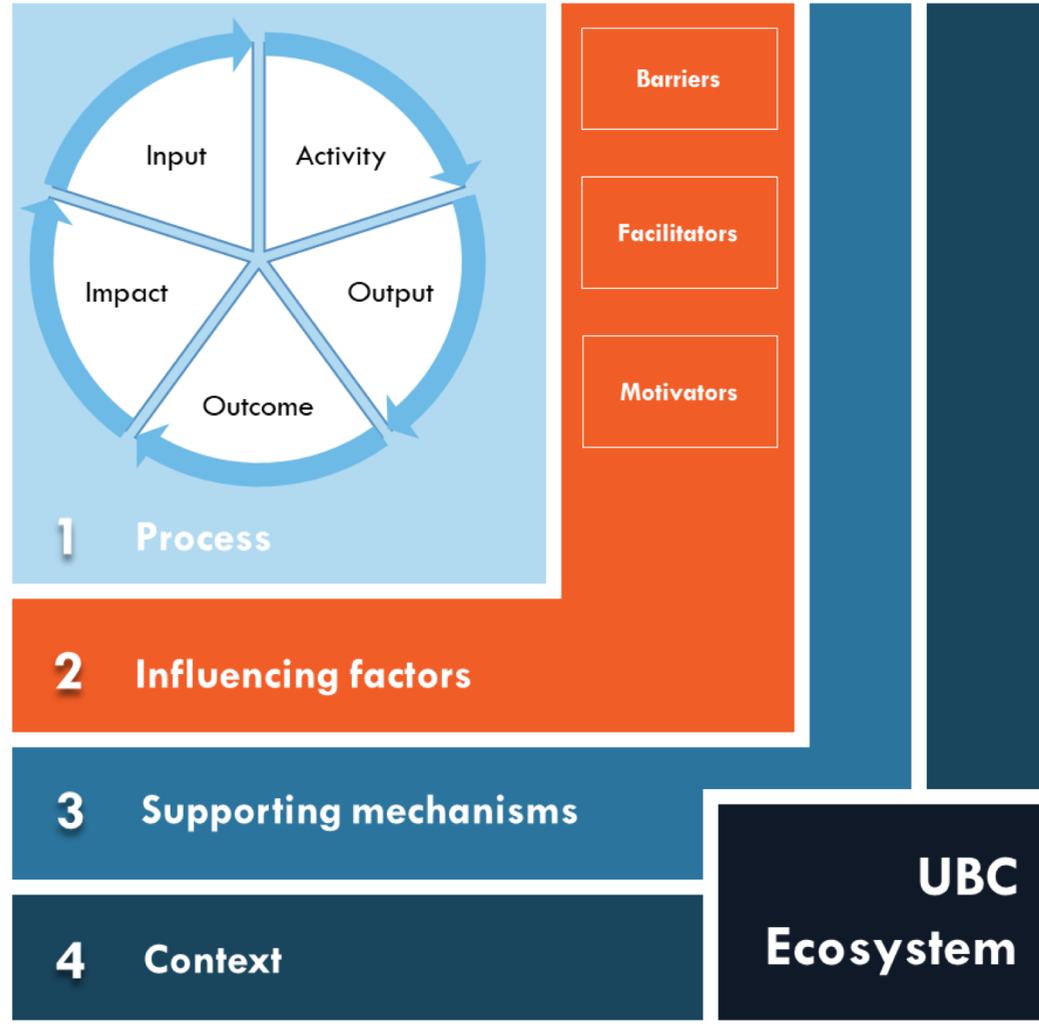
Factors influencing UBC

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

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

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

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



Barriers hindering UBC

Barriers

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



	Academics collaborating with business	Academics not collaborating with business
1.	Lack of business funding for UBC	Lack of business funding for UBC
2.	Bureaucracy related to UBC	Differing motivation / values between university and business
3.	Lack of university funding for UBC	Lack of university funding for UBC
4.	Limited resources of SMEs	Lack of government funding for UBC
5.	Insufficient work time allocated by the university for academics' UBC activities	Insufficient work time allocated by the university for academics' UBC activities
<i>Lowest</i>	Frequent staff turnovers within my university or the business	Frequent staff turnovers within my university or the business

The top five barriers to UBC for Maltese cooperating and non-cooperating academics relate to resources and administrative issues.

The lack of business funding is the most relevant barrier to cooperation for both groups. They are furthermore also hindered by the lack of university funding and insufficient work time allocated by university.

While academics already engaging in UBC also perceive bureaucracy as a primary barrier, non-cooperating academics are hindered by differing motivations between two organisations.

Additionally, the limited resources of SMEs are recognized as barrier by collaborating academics, whereas their non-collaborating colleagues are hindered by the lack of government funding.

Barriers hindering UBC

Maltese academics and their European counterparts perceive most barriers similarly.

In Malta academics are more hindered than their European counterparts by the lack of business and university funding and bureaucracy related to UBC. The limited funding issue generally reflects the low expenditure level in Malta specifically dedicated to R&D¹.

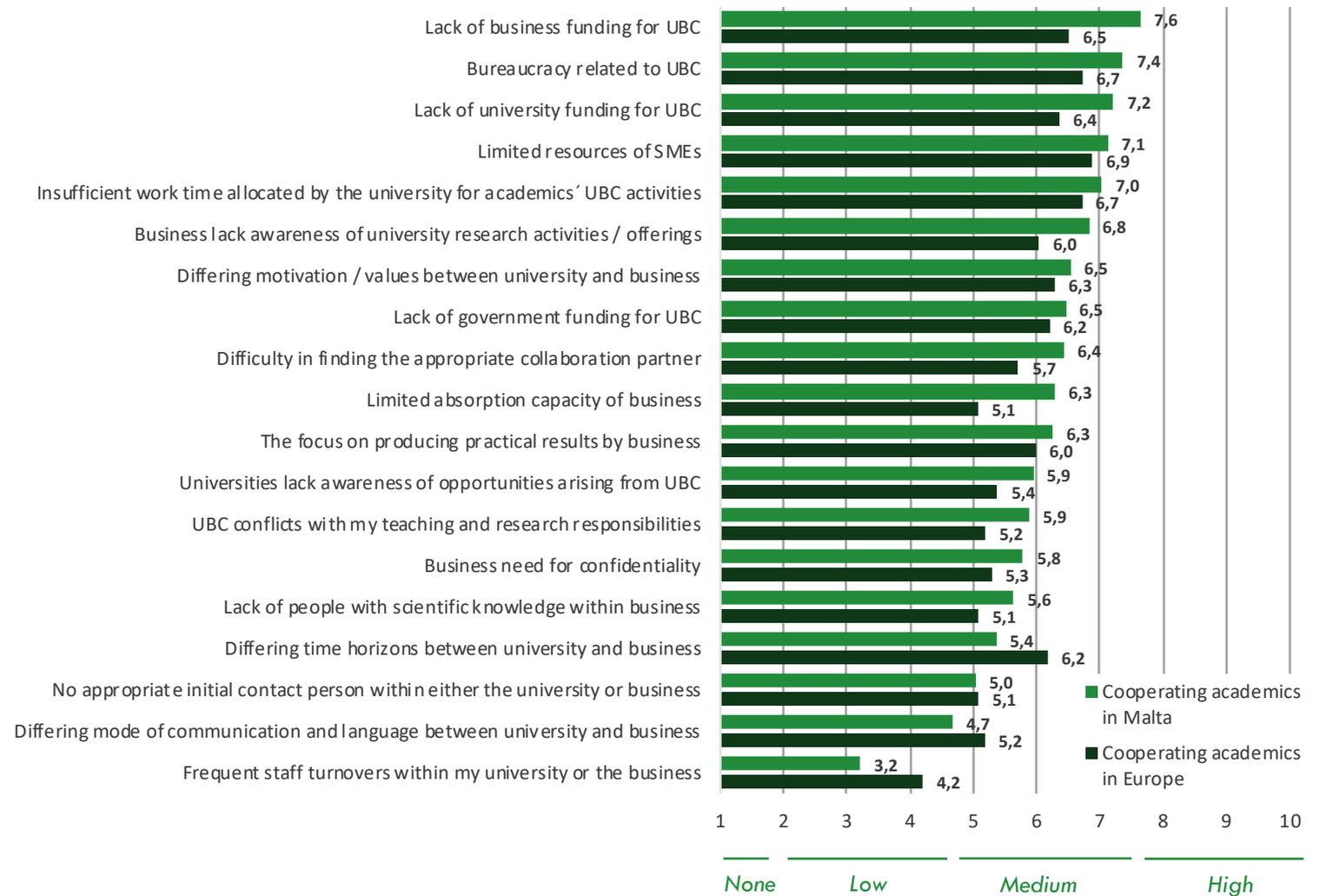
Difficulty in finding partner and limited absorption capacity of business are also perceived stronger by Maltese academics.

However, compared to their European counterparts they are less hindered by the differing time horizons and mode of communication between two organisations.

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

Barriers

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

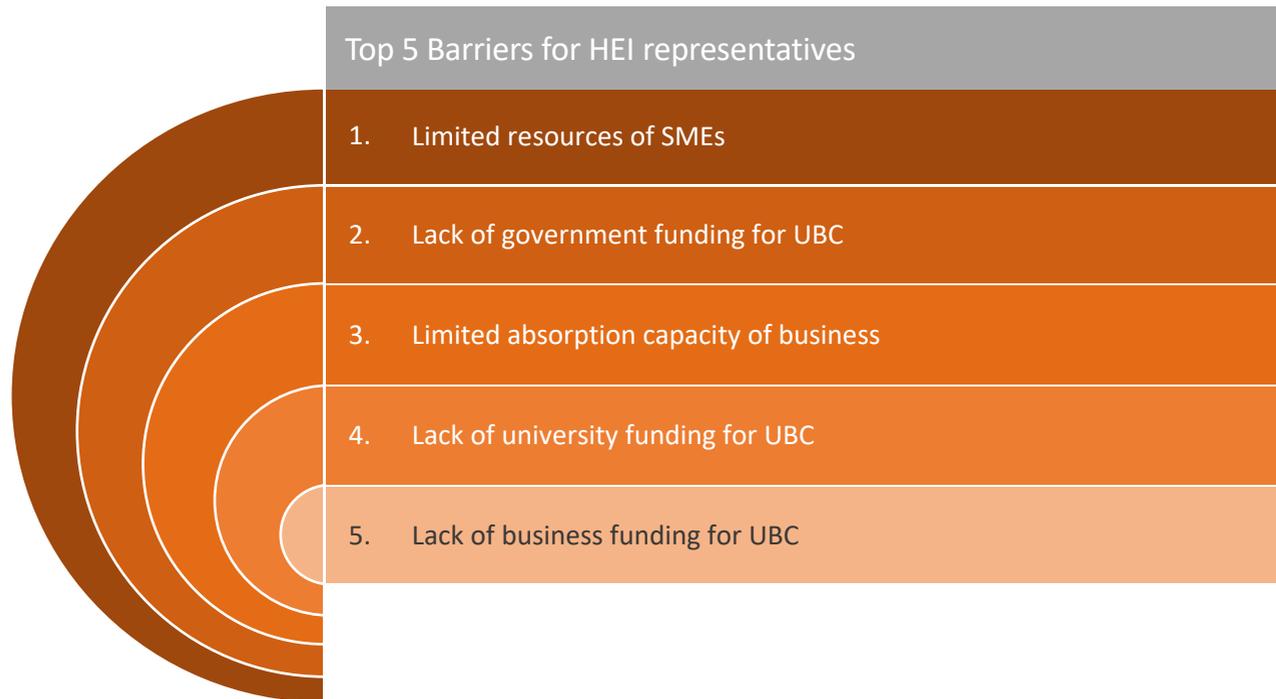


¹National Statistics Office Malta (2017). Research and Development in Malta: 2013-2015. Retrieved from URL: https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_A2/Public_Finance/Documents/2017/News2017_112.pdf

Barriers hindering UBC

Barriers

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



For Maltese HEI representatives the biggest barriers hindering UBC mostly relate to the limited resources.

Thus they are hindered by lack of SMEs resources and lack of funding from government, university and businesses.

Maltese HEI representatives however also recognise that the limited absorption capacity of business is a major barrier hindering UBC.

Barriers hindering UBC

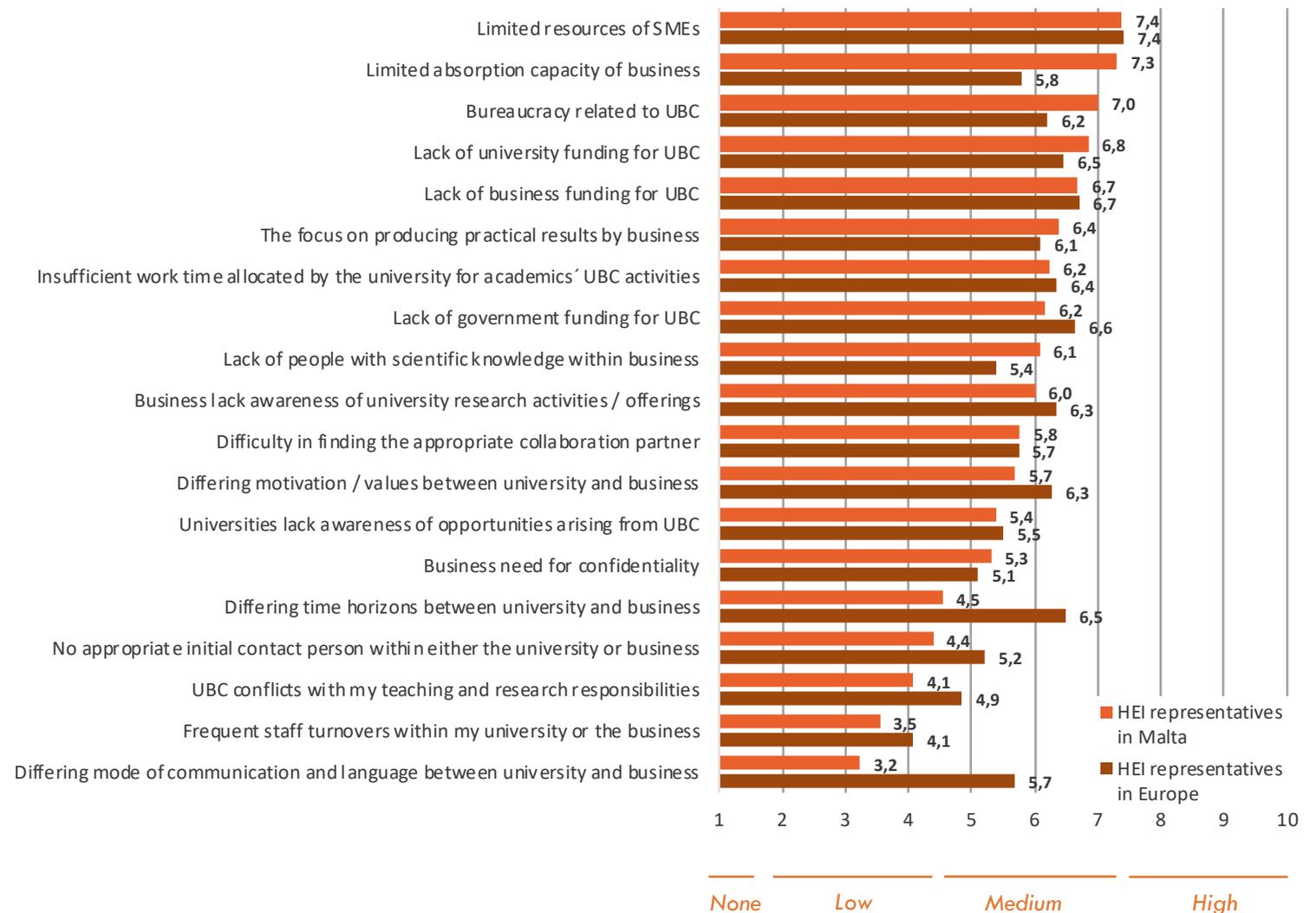
Overall, Maltese and European HEI representatives have different perceptions of barriers hindering UBC.

While both groups agree that resources and funding related barriers hinder the most their collaboration, Maltese businesses are considerably more hindered by limited absorption capacity of businesses than their European counterparts.

They however perceive significantly lower the factors related to differing motivations, time horizons and communication mode compared to the European average.

Barriers

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



Drivers stimulating UBC

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

Drivers of UBC are divided into two factors:

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

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

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

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

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

The existence of funding to undertake UBC is the biggest facilitator for both academics and HEI representatives.

While for academics the university interest in accessing business R&D facilities is also facilitator, HEI representatives recognise an important role of the business' interest in accessing scientific knowledge.

Facilitators

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



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

Drivers stimulating UBC

European and Maltese perceptions of UBC facilitators differ. Notably Maltese academics perceive the drivers less stronger than European academics.

The existence of funding to undertake UBC is the strongest facilitator for Maltese academics.

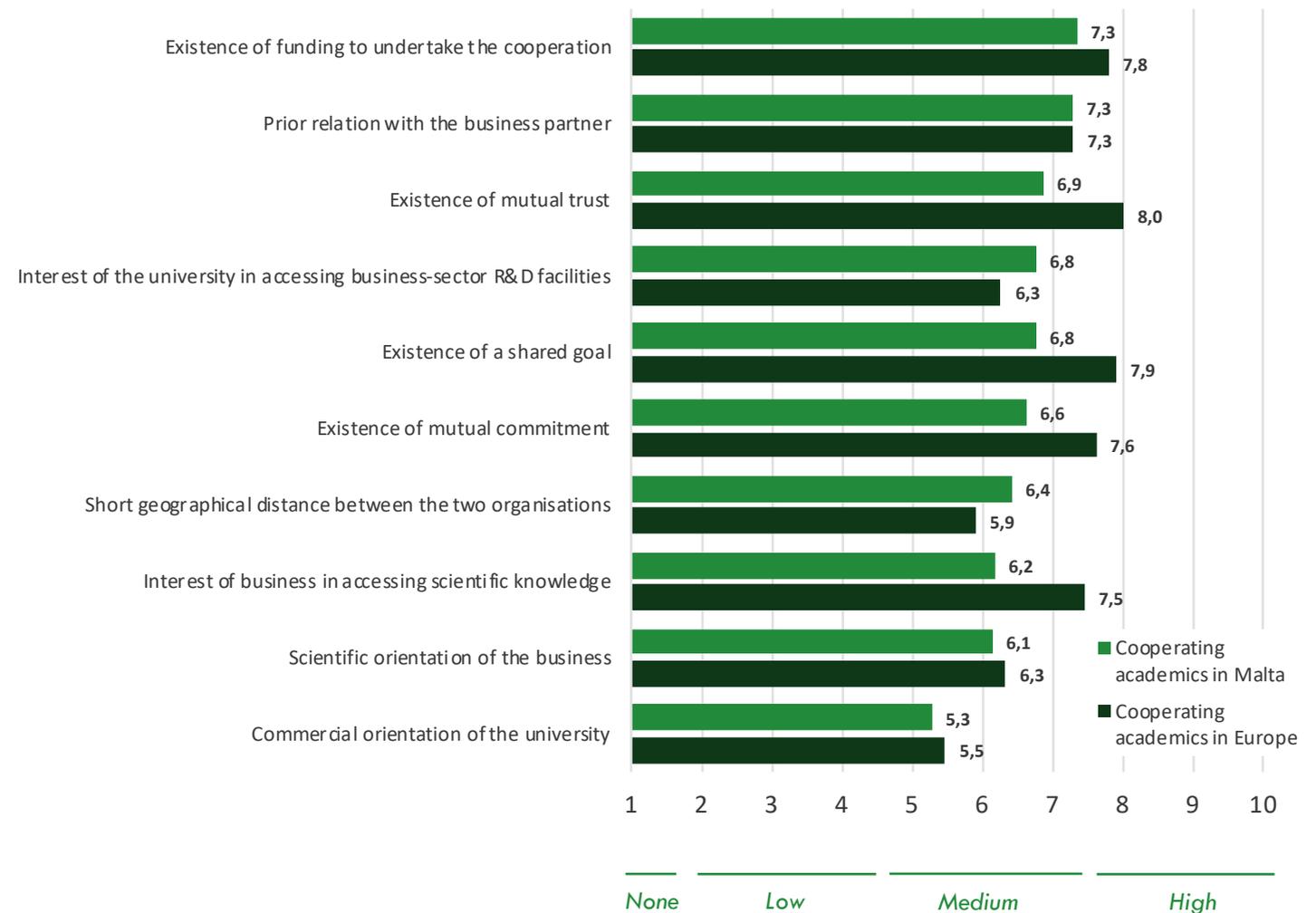
Further important drivers relate to the relationship component of UBC. Both European and Maltese academics highlighted the existence of prior relations, mutual trust and a shared goal among the most important facilitators influencing their cooperation with businesses. These facilitators are perceived lower in Malta.

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

Scientific orientation of business and commercial orientation of university are seen as the weakest barriers.

Facilitators

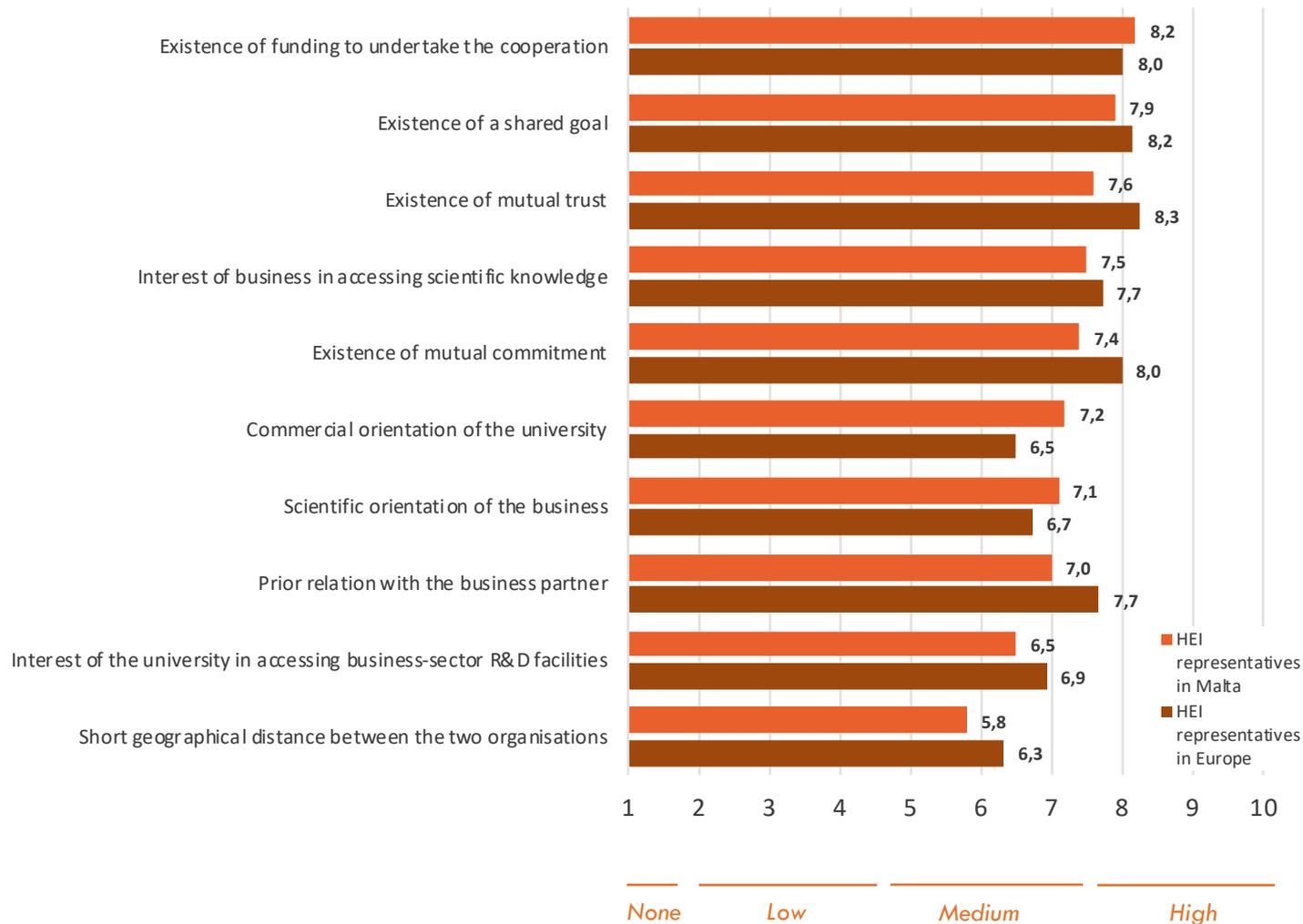
'What is facilitating your cooperation with business?' – as answered by academics



Drivers stimulating UBC

Facilitators

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



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

For both groups, the most important facilitators relate to the funding and relationship aspect of UBC. The existence of a shared goal, mutual trust and mutual commitment are important drivers facilitating their cooperation with businesses.

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

Short geographical distance between two organisations is perceived as the weakest driver by both groups, given the small size of the country.

Drivers stimulating UBC

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

While cooperating academics highlight the research motivations, non-cooperating academics are more driven by the willingness to improve graduate employability and to contribute to the mission of the university.

Interestingly, non-cooperating academics rate motivators related to other university stakeholders (e.g. employability of graduates, mission of the university) more strongly.

Motivators

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

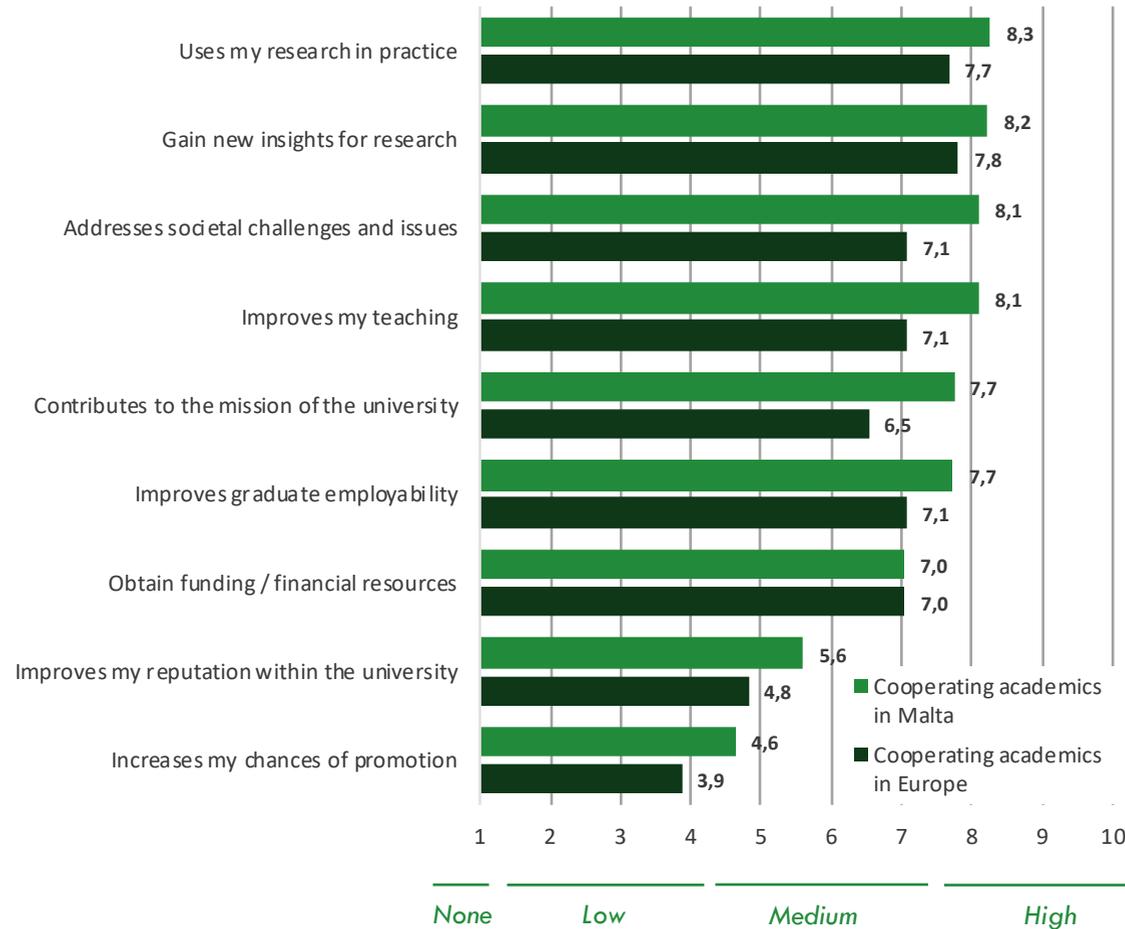


	Academics who cooperate	Academics who <u>do not</u> cooperate
1.	Uses my research in practice	Improves graduate employability
2.	Gain new insights for research	Contributes to the mission of the university
3.	Addresses societal challenges and issues	Improves my teaching
4.	Improves my teaching	Improves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

Drivers stimulating UBC

Motivators

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



Maltese and European academics have similar perceptions of UBC motivations. Yet, Maltese academics perceive them stronger.

The top two motivators for Maltese academics relate to the research.

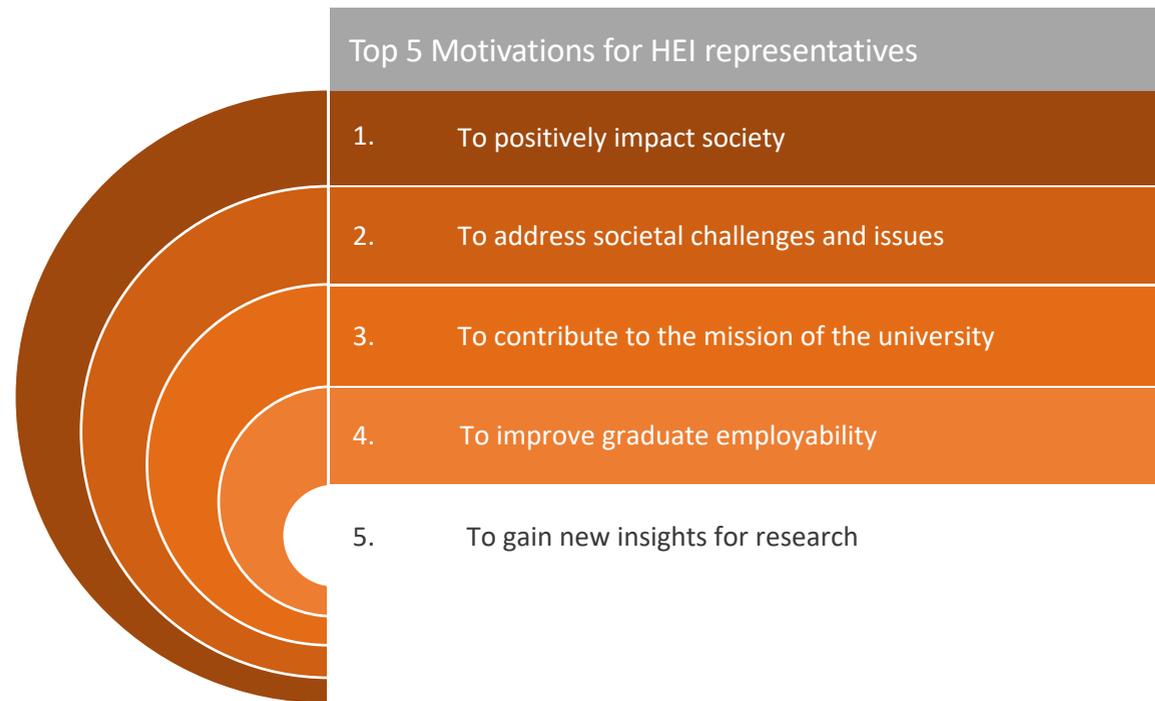
Interestingly compared to European average they are more motivated by the benefits that other stakeholders can get from UBC (society, university and students).

Notably promotion and reputation related motivators are the weakest drivers stimulating UBC for both groups.

Drivers stimulating UBC

Motivators

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



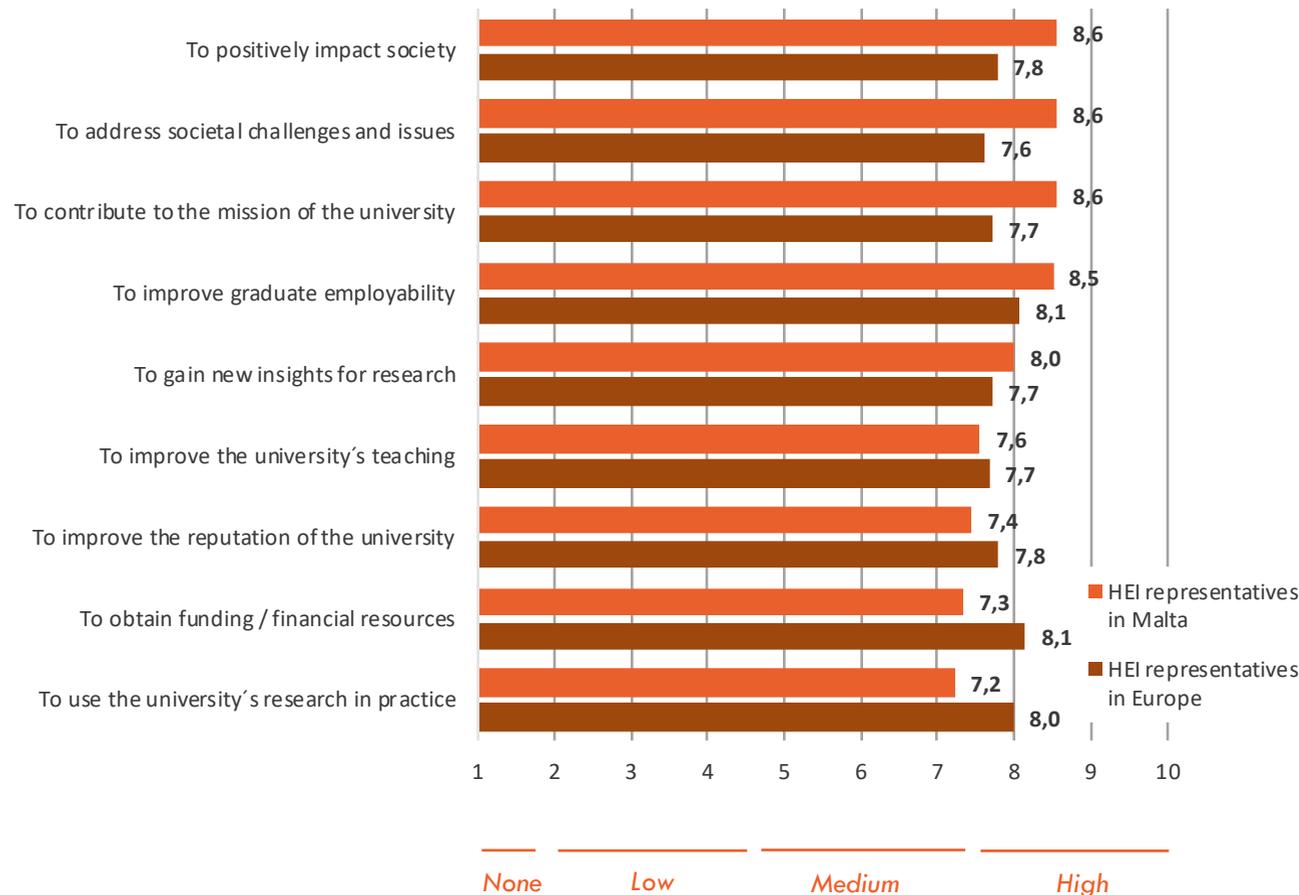
Maltese HEI representatives are mostly driven by the benefits that other stakeholders can get from UBC. Thus they strive to impact society and address social issues. Generally, the motivation of the Maltese HEIs' management to undertake UBC can be explained by their explicit willingness to have a more effective socio-economic impact in Malta.

They are also motivated to contribute to the mission of university and increase graduate employability. This is followed by the motivator related to the future research.

Drivers stimulating UBC

Motivators

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



Maltese and European HEI representatives have different perceptions of UBC motivators. However, both groups agree on the importance of the top five motivators.

Notably Maltese HEI representatives are more motivated by the benefits that other stakeholders can get from UBC. These stakeholders are society, university and graduates.

Furthermore, the funding benefit is perceived by Maltese HEI representatives as one of the lowest motivators.

More crucially, for both European and Maltese HEI representatives all motivators were ranked of nearly equal importance (from 7.2 to 8.6), which ultimately means that all these motives have a potential of stimulating UBC for universities.

Benefits of UBC

Maltese academics and HEI managers have different perceptions about the stakeholders that benefit from UBC.

While students are perceived by Maltese academics as a stakeholder group who benefits the most from UBC, for HEI representatives this is the society, although they also clearly see students as beneficiaries.

Yet, unlike HEI representatives, academics perceive their own benefit higher than the one for government and society. The Maltese government is believed by both groups to gain little benefit from UBC.

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

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

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

Benefits

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

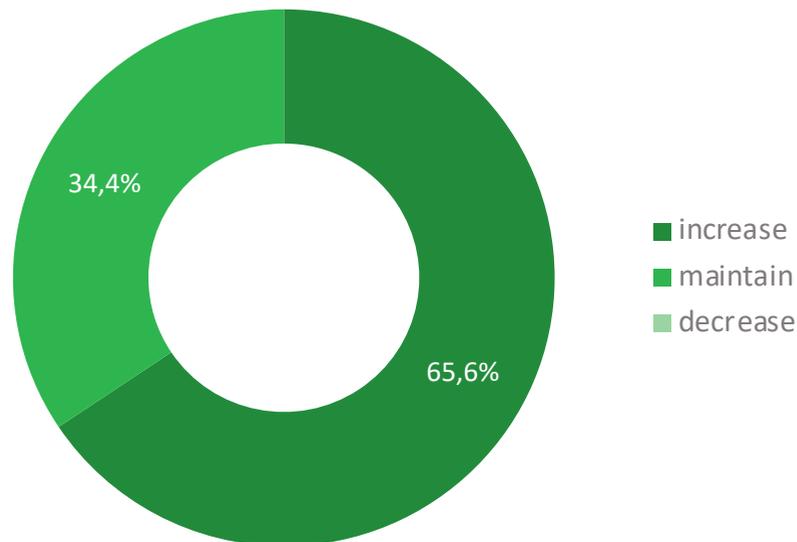


	Academics	HEI representatives
1.	Students	Society
2.	Universities	Students
3.	Businesses	Businesses
4.	Academics	Universities
5.	Society	Government / public authorities
6.	Government / public authorities	Academics

Future intentions

Future UBC intentions – Malta

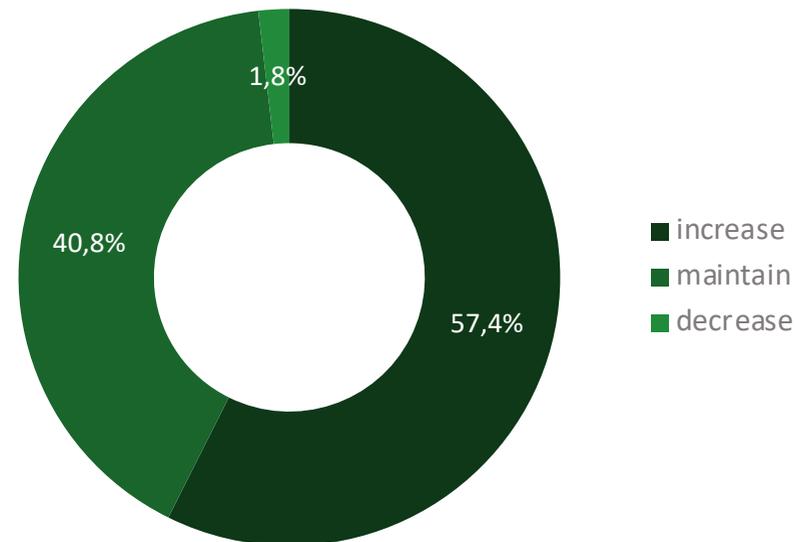
As answered by Maltese academics



Maltese academics show a very strong commitment to UBC. 100% of academics expecting to maintain or increase their UBC activities. In this sense, Malta 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 a 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.

Willingness to recommend UBC

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

Maltese academics are more satisfied with UBC in research than their European counterparts (NPS=33). While 47% of them will promote it positively, only 13% would do it negatively.

They are also slightly more satisfied than their European counterparts in education-related UBC (NPS=6). However only 25% of academics will promote UBC in education.

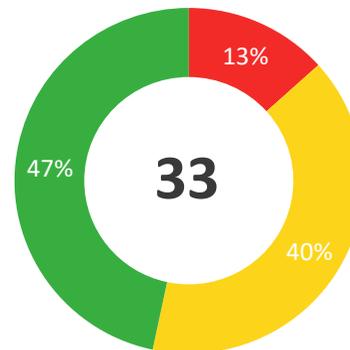
Willingness to recommend to an academic colleague cooperation with business in R&D and education

As answered by academics

	Detractors	Passives	Promoters	Net promotor score
Academics cooperating in E&T	19%	56%	25%	6
Academics cooperating in R&D	13%	40%	47%	33

Satisfaction in cooperation with businesses (net promotor score)

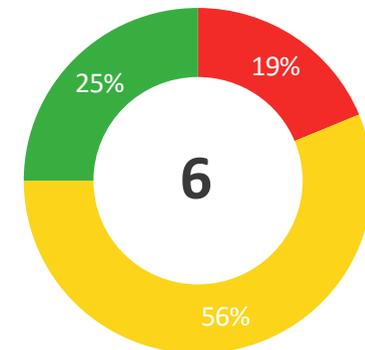
Academics cooperating in research



■ Detractors ■ Passives ■ Promoters

European academics' NPS result: 17

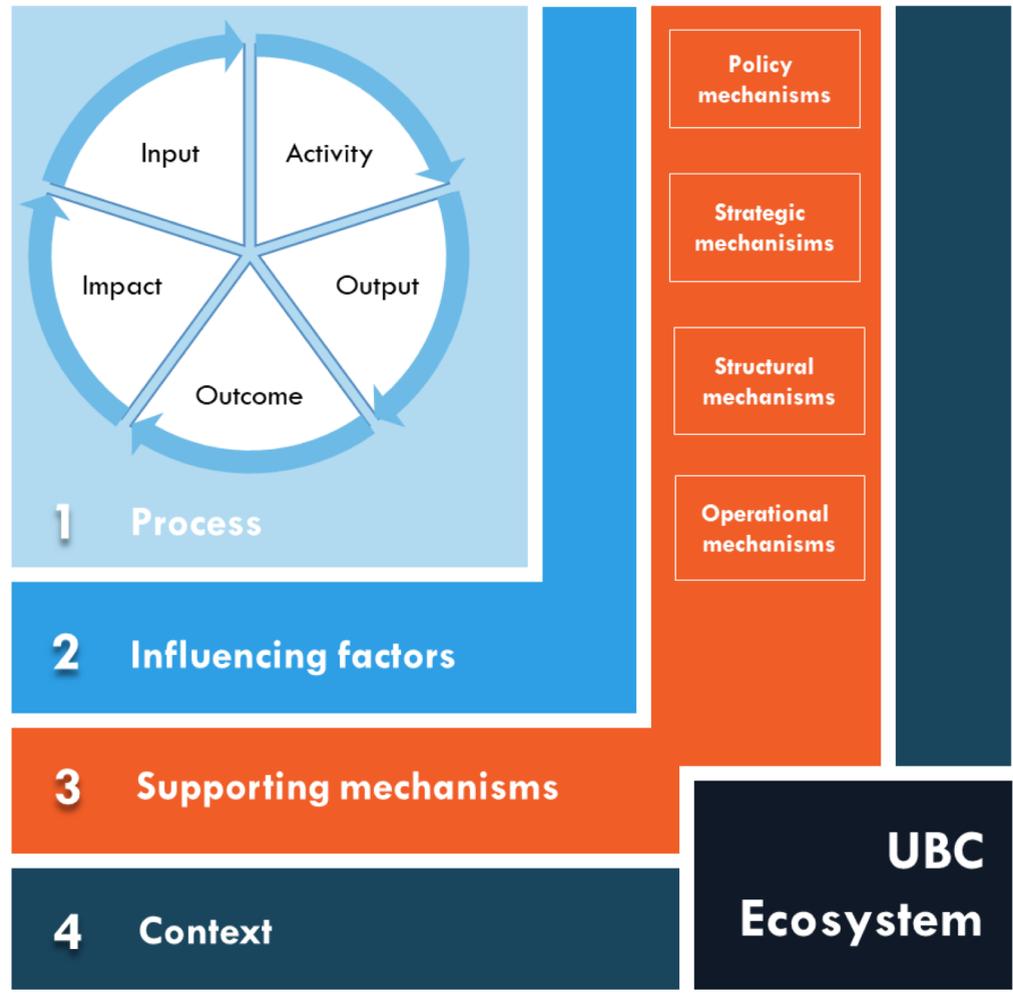
Academics cooperating in education



■ Detractors ■ Passives ■ Promoters

European academics' NPS result: -13.8

Supporting mechanisms for UBC



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

There are four types of supporting mechanisms:

- Policy
- Strategic
- Structural
- Operational

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

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

Supporting mechanisms for UBC

Maltese HEI representatives perceive policy mechanisms to be developed to a medium-low level. These perceptions are lower than perceptions of their European counterparts.

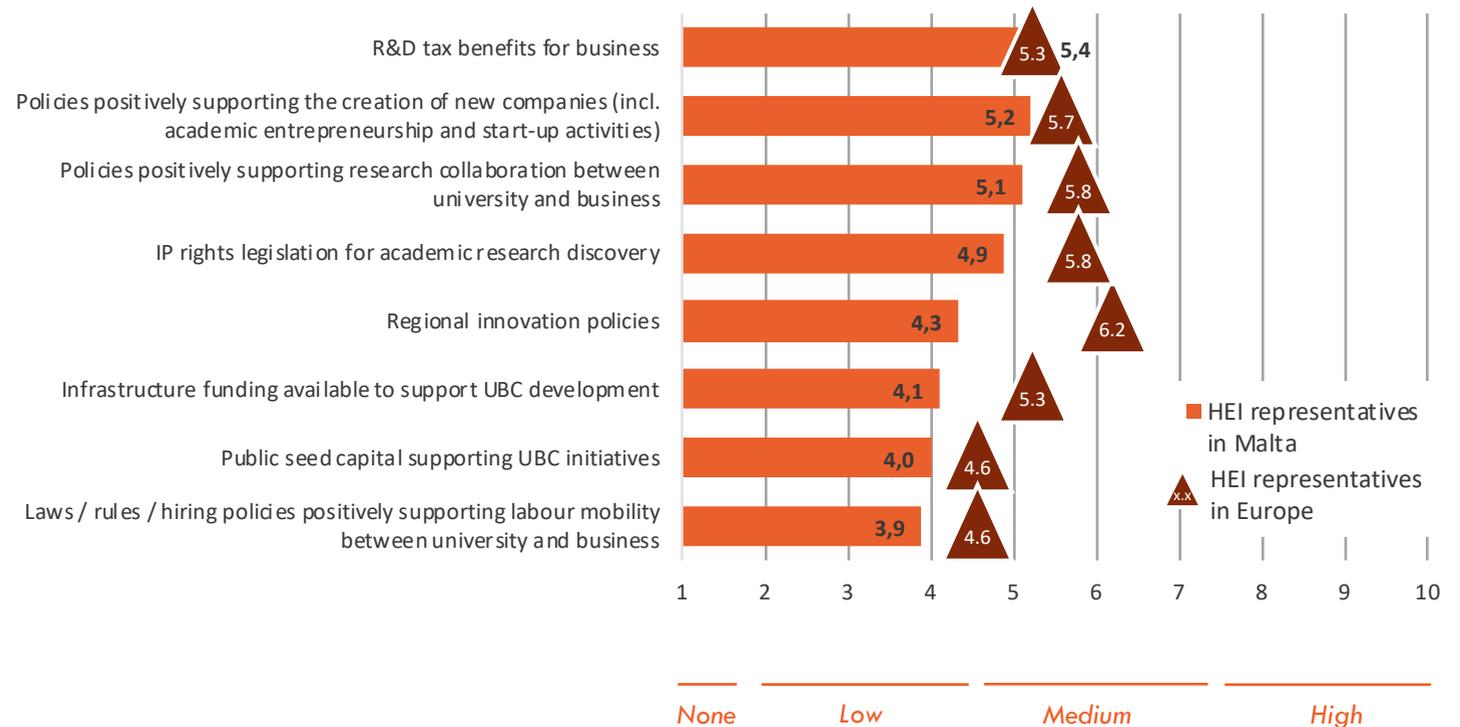
R&D tax benefits for business are the most developed supporting mechanisms in Malta (5.3), driven by Malta Enterprise¹.

They are followed by the policies positively supporting the creation of new companies and research collaboration between university and business (5.2 and 5.1 respectively).

The least developed mechanism, also lower than the EU average, is the policy support to labour mobility between universities and business (3.9).

Policy mechanisms

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

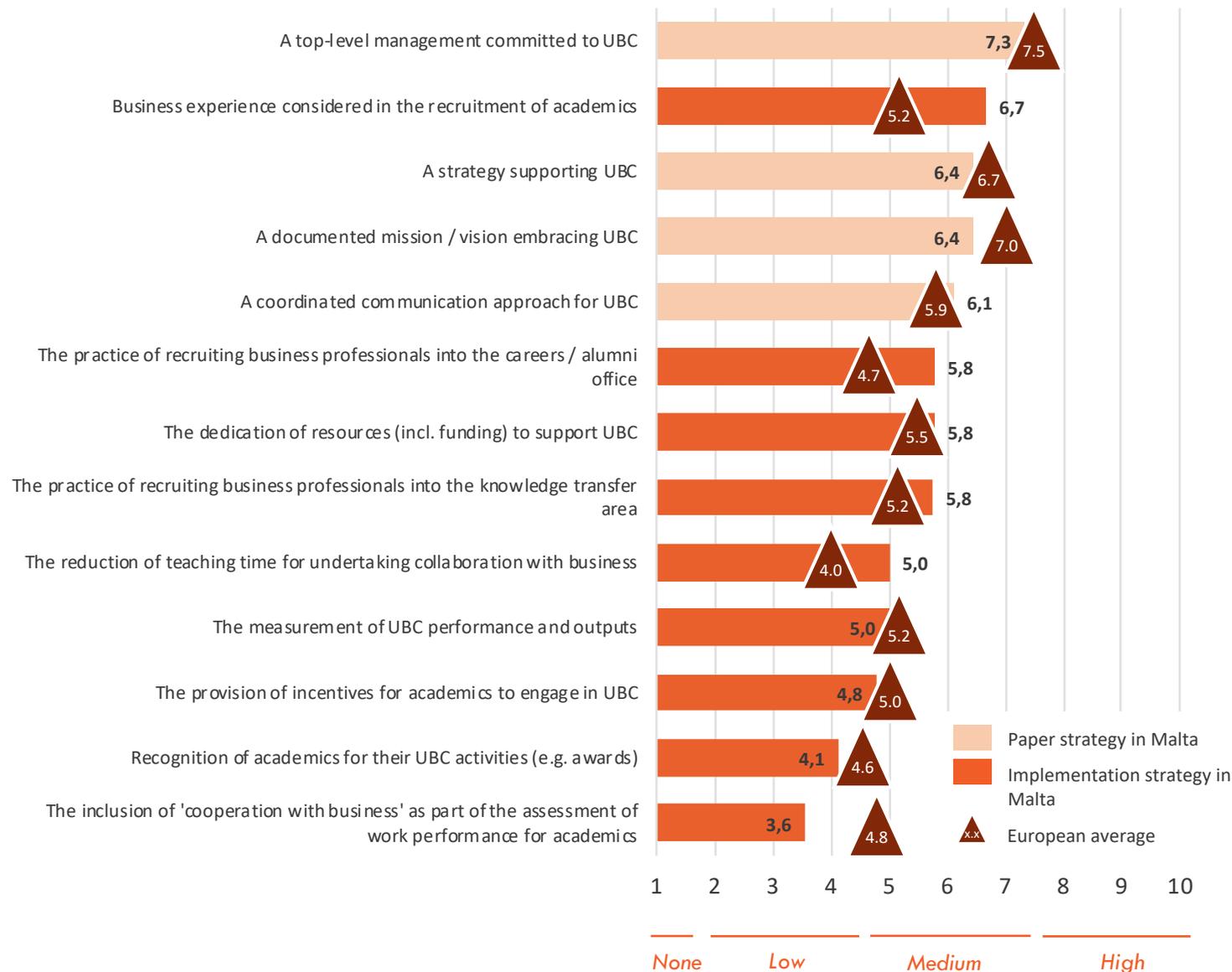


¹Malta Enterprise is the country's economic development agency, tasked with attracting new foreign investment as well as facilitating the growth of existing operations. URL: <https://www.maltaenterprise.com/support>

Supporting mechanisms for UBC

Strategic mechanisms

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



Overall, there are differences in the development of the strategic mechanisms in Maltese and European HEIs.

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

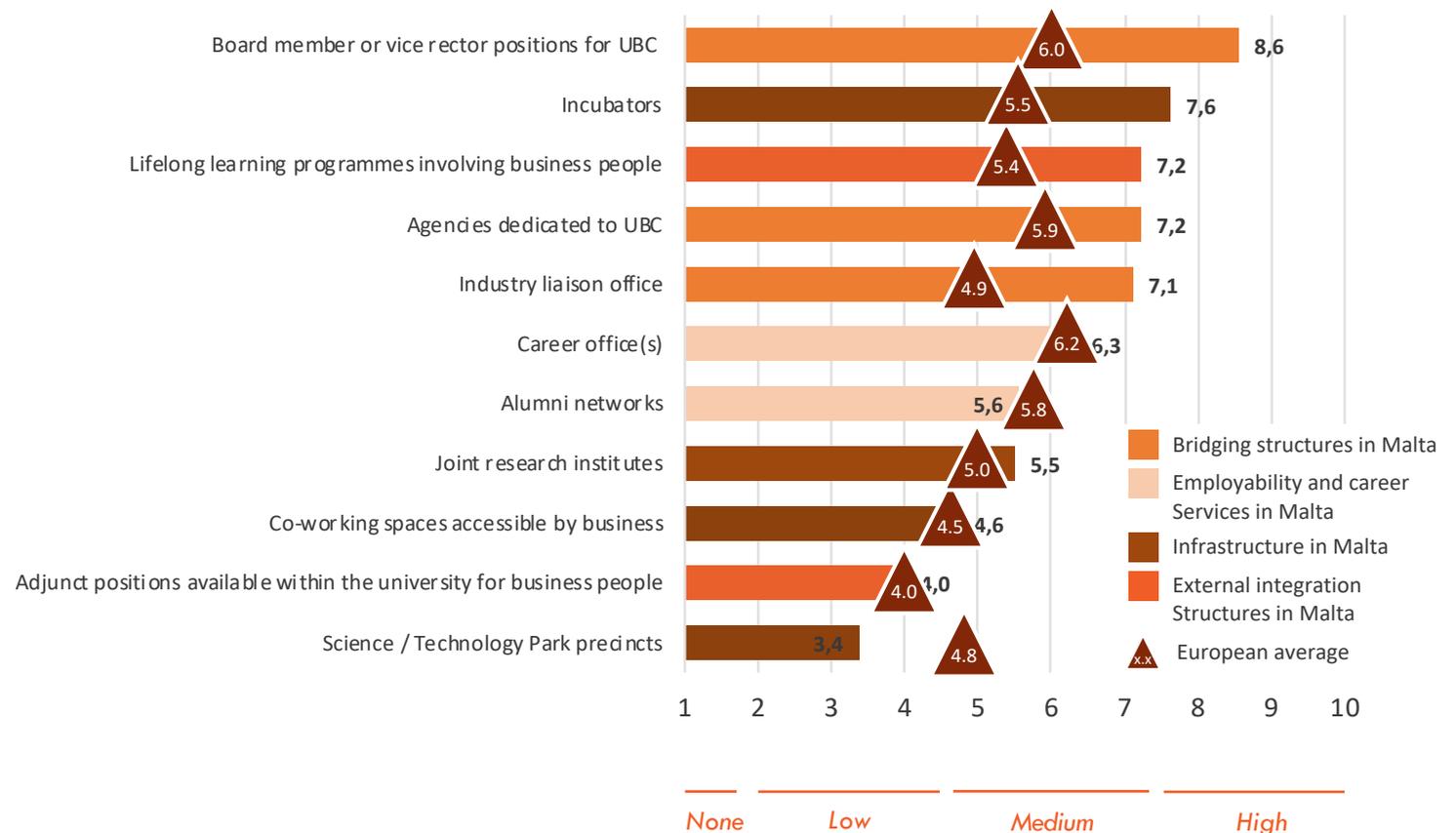
The only exception is the implementation strategy related to the recruitment of academics with business experience (6.7), which is furthermore considerably better developed in Maltese HEIs than in European ones.

The least developed mechanisms are related to the provision of academic incentives to undertake UBC (4.8), including the recognition of their UBC activities (4.1) or the inclusion of 'UBC' as part of the academics assessment (3.6).

Supporting mechanisms for UBC

Structural mechanisms

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



The development of structural mechanisms is either the same or higher in Maltese HEIs than in European HEIs.

Maltese HEI representatives indicated the bridging structure related to board member or vice rector position for UBC to be the most developed mechanism in Maltese HEIs (8.6). This level of development is considerably higher than the European average.

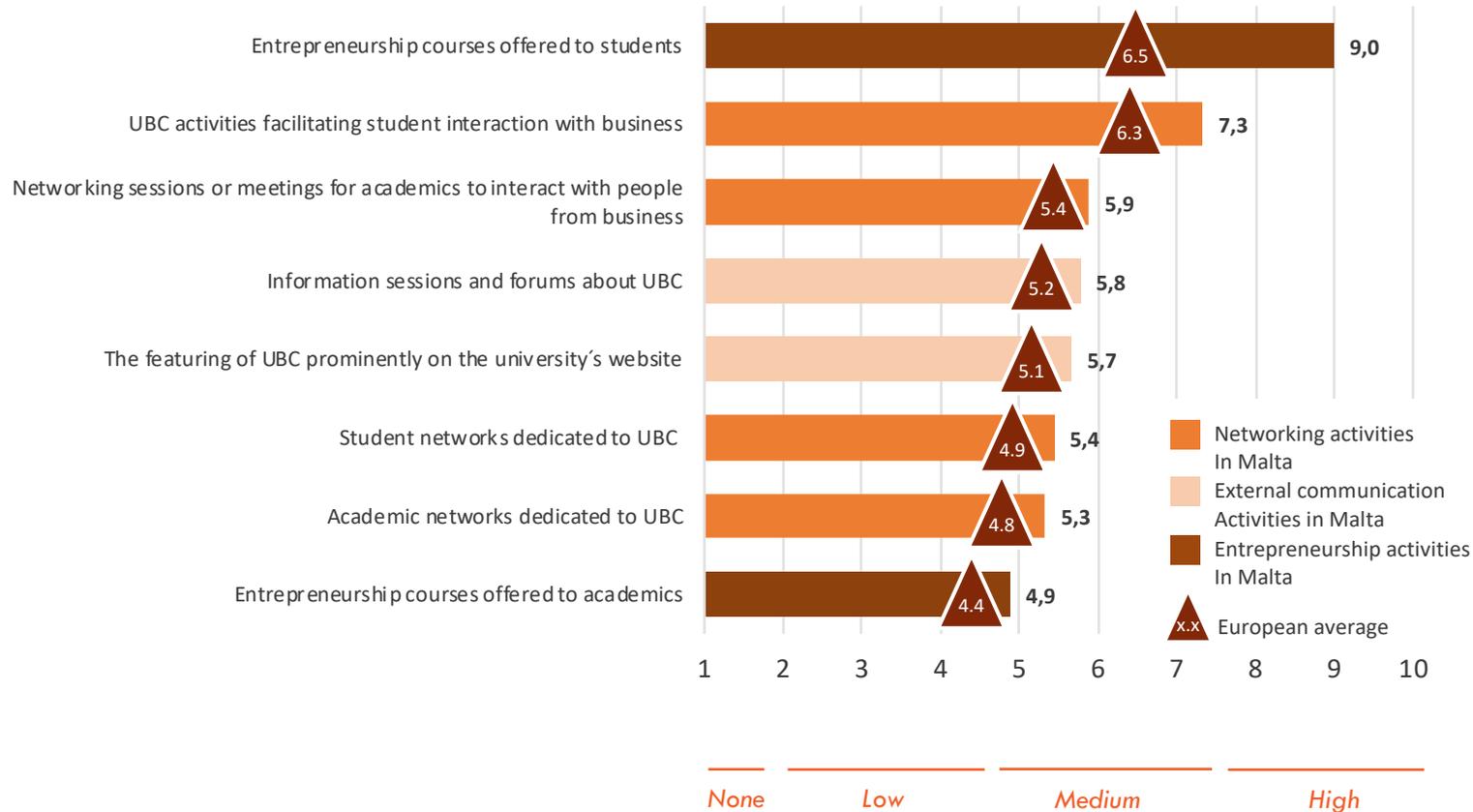
Further most developed structural mechanisms include incubators (7.6), lifelong learning programmes (6.2) and agencies dedicated to UBC (7.2).

Contrary, science or technology park precincts and adjunct positions within the HEI for business people are the least developed mechanisms (3.4 and 4.0 respectively).

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 Maltese and European HEI representatives align in respect to the development of operational mechanisms.

Student-centred activities are the most developed operational mechanisms in Maltese HEIs, with entrepreneurship courses offered to students (9.0) and UBC activities facilitating student interaction with businesses (7.3) ranked also considerably higher than the European average. This specifically reflects the entrepreneurship-related efforts undertaken by the University of Malta in the recent times, especially through its Centre for Entrepreneurship and Business Incubation ¹, the Knowledge Transfer office ² and the TAKEOFF incubator ³.

Among the activities focused on academics, the academic networks (5.3) dedicated to UBC and entrepreneurship courses offered to them (4.9) are perceived as less developed.

¹Centre for Entrepreneurship and Business Incubation. URL: <https://www.um.edu.mt/cebi>

²Knowledge Transfer Office. URL: <https://www.um.edu.mt/knowledgetransfer>

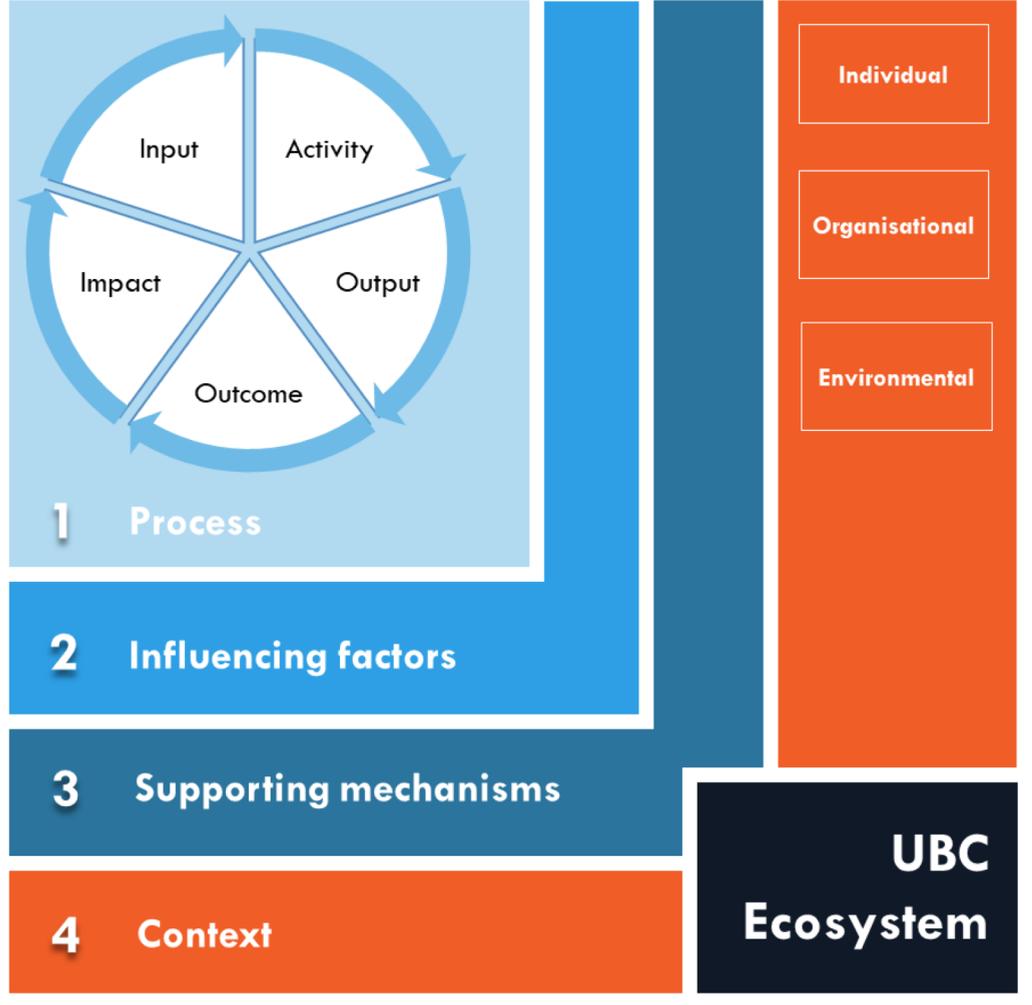
³TAKEOFF incubator. URL: <http://takeoff.org.mt/>

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.).

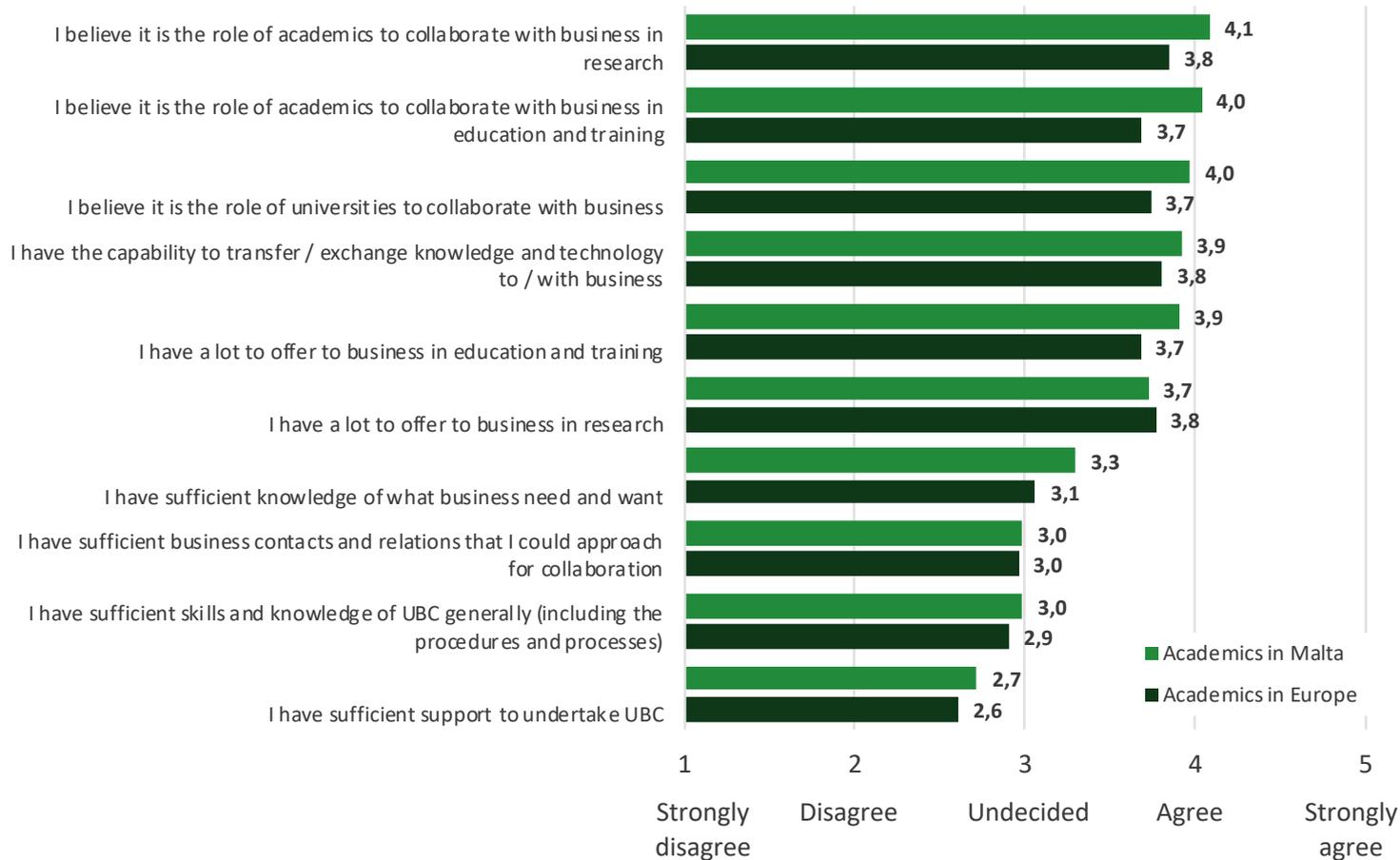
This section outlines how some contextual factors influence UBC in the country.



UBC capabilities

Capabilities for UBC

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



Maltese academics identified moderate capabilities for UBC and beliefs about the role of UBC and for most of them they have a more positive attitude than their European counterparts.

Maltese academics believe that is their role to collaborate with business in both research (4.1) and education (4.0).

They identified their strengths in the ability to exchange knowledge (3.9), providing training (3.9) and doing research for companies (3.7).

They however perceive they have insufficient contacts, relations (3.0), general knowledge (3.0) and support (2.7) to undertake UBC, although still over the European average.

Context

The perception of most contextual factors is slightly less positive in Malta than in Europe.

Overall, both Maltese and European academics and their HEI management have however a positive attitude towards UBC.

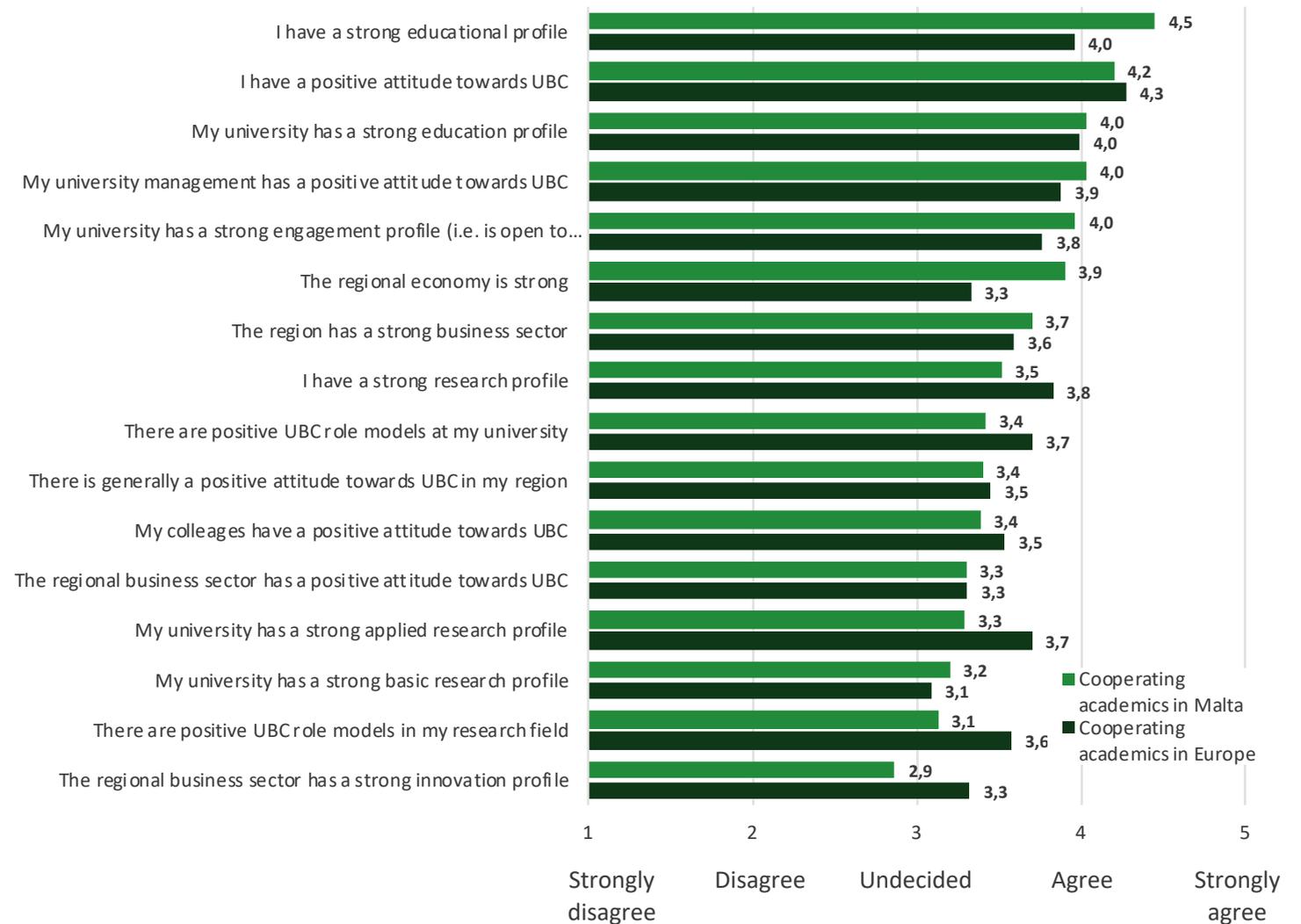
Hence European academics perceive that they and their HEIs have a stronger research profiles.

Maltese academics also perceive they have less positive UBC role models at their HEIs and their fields.

Although they perceive a more positive attitude of their regions in general, but they are not positive about the strength of the regional innovation profile.

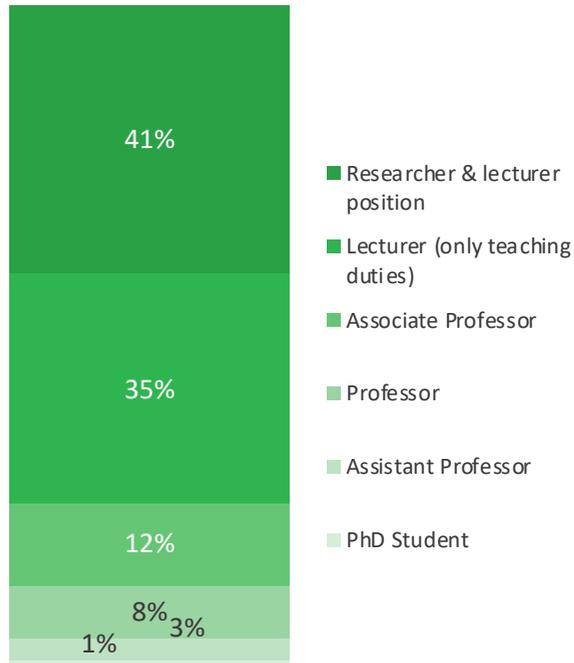
Contextual factors affecting UBC

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



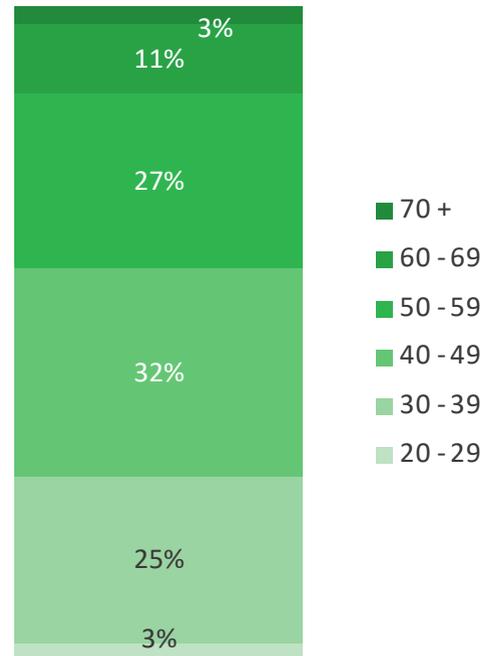
Respondent profile – academics

Position of respondent



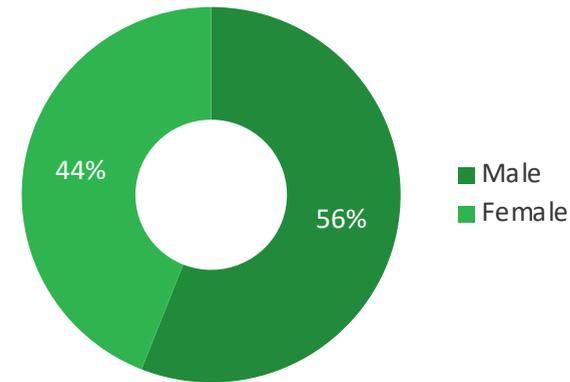
'Researchers and lecturers' comprise the largest group (41%), followed by 'lecturers' (35%). The remaining academics identified themselves as 'associate professors' (12%), 'professors' (8%), 'assistant professors' (3%) and 'PhD students' (1%).

Age of respondents



Most Maltese academics in the sample are in the middle of their working life. A third of the academics (32%) in the sample are between 40 and 49. Other significant groups are those aged 30-39 (25%) and 50-59 (27%), followed by those aged 60-69 (11%). Academics older than 70 are 3%.

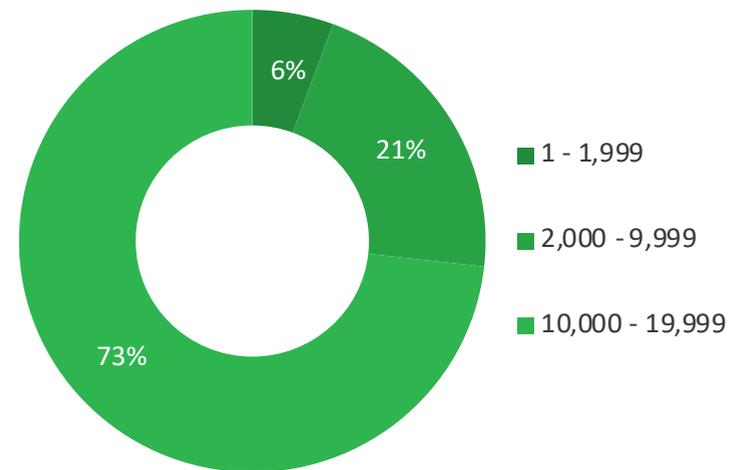
Gender of respondents



The gender distribution in the academic sample in Malta is skewed towards male respondents, with 56% of the total sample.

Respondent profile – academics

Number of students of the HEI

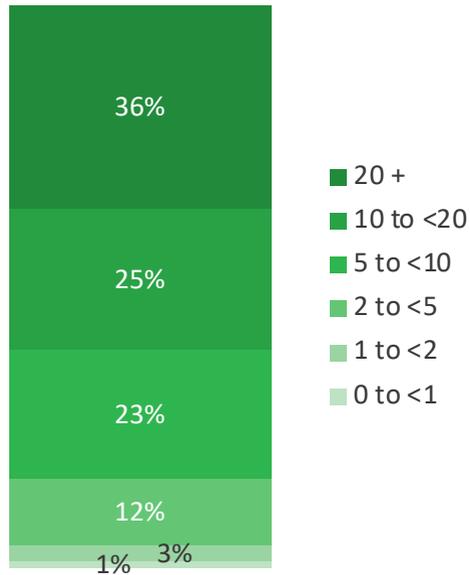


Sample Size	
Maltese Academics	n=105
European Academics	n=10.836
Maltese HEI representatives	n=16
European HEI representatives	n=3.482

The majority of the Maltese academics (73%) in the sample work for medium-sized HEIs (10,000 - 19,999 students). Small HEIs (2,000 - 9,999 students) are represented by 27% of respondents.

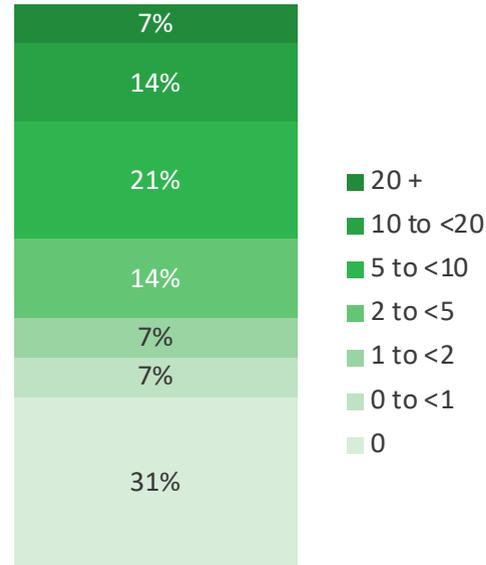
Respondent profile – academics

Years working in university



Most academic respondents have worked in academia for several years. Over a half of them (61%) have worked in academia for over 10 years. 23% have 5-10 years of experience and 12% have worked in academic for 2-5 years.

Years working in business



Academic respondents are experienced in businesses. Over two thirds (69%) of the Maltese academic respondents have worked in industry before. 21% have worked in business for over 10 years. 14% of them have done so for 2 to 5 years. 21% have 5 to 10 years.

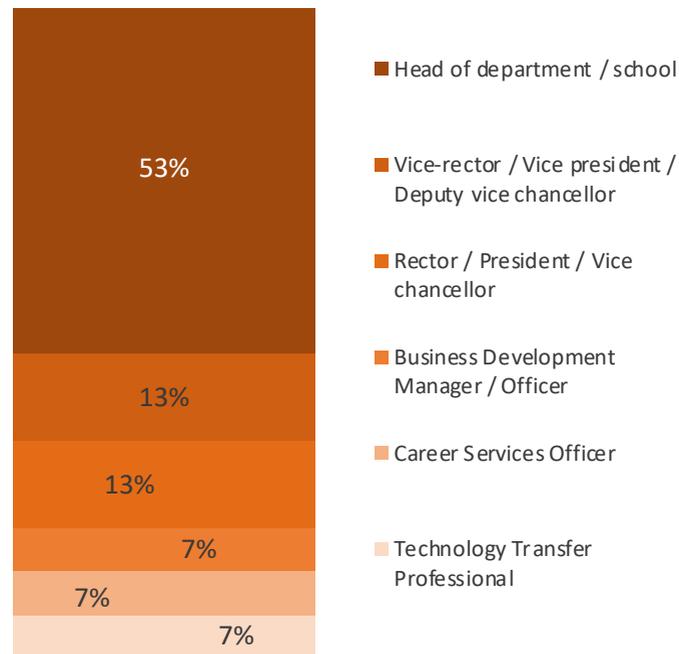
Years involved in UBC whilst working at a university or business



Most academic respondents in Malta have some industry experience. Although only 11% have been involved in UBC for over 10 years, 14% have 5 to 10 years of experience and 28% - 1 to 5 years of experience. 38% of academics in the sample have never engaged in UBC.

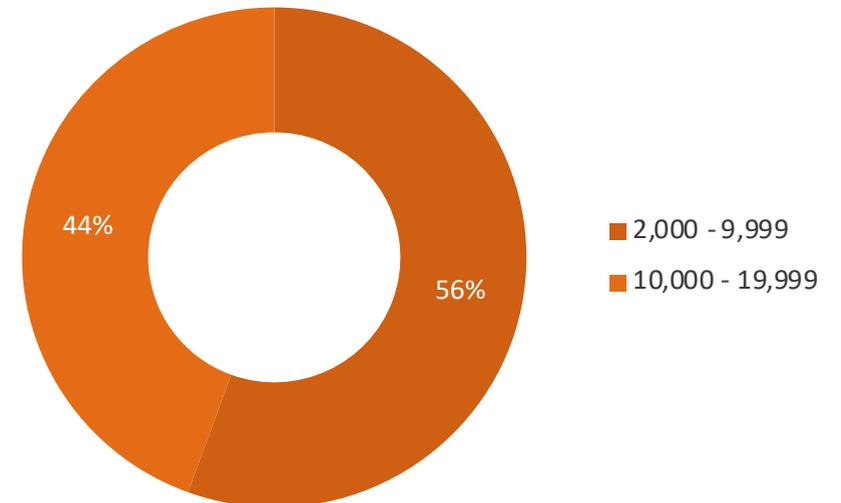
Respondent profile – HEI representatives

Position of respondent



Maltese HEI representatives hold a variety of roles. Over a half of them are heads of department/school. Vice-rectors or vice-presidents and rectors or presidents are the two second largest groups (13% each). The smallest groups are business development managers (7%), career services officers (7%) and technology transfer professionals (7%).

Number of students of the HEI



Overall, half of HEI representatives work for small HEIs (2,000 to 9,999 students). 44% work for medium-sized HEIs (10,000 to 19,999 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