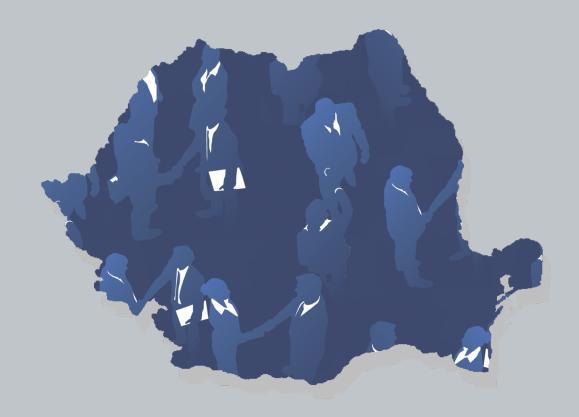


State of University-Business Cooperation **ROMANIA**

Business Perspective

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







The State of Romanian University-Business Cooperation: the business perspective

Partners



Authors: Mihai Melonari, Adina Fodor, Marina Ranga, Todd Davey, Arno Meerman, Balzhan Orazbayeva and Victoria Galán-Muros.

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



Executive summary

Summary

This report seeks to contribute to our understanding of the business perspective on university-business cooperation (UBC) in Romania. Examining the perceptions of a wide range of businesses provides positive signs for the future, with 100% of businesses that cooperate with universities planning to maintain or increase their cooperation in the future. Yet, more still can be done, for example in supporting businesses with the development of initiatives and activities that can support their cooperation efforts, as well as in developing capabilities, in particular of those businesses that do not currently engage in cooperation with universities.

About the study

The results presented in this report reflect the perceptions of businesspeople in Romania with respect to cooperation between universities and business. Data was collected by means of an online survey sent out via email to a European business database that was developed from publicly available information for 33 countries during October-November 2016, leading to a total of 47 Romanian business responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

University-Business Cooperation

Romanian businesses engage mainly in education and research related UBC activities. While 79% of

respondents cooperate with universities in student mobility (5.0 on a 10-point scale) and 66% in dual education programmes (4.3), much fewer companies are involved in the curriculum co-design and co-delivery. As for UBC research activities, Romanian business engage mostly in joint R&D (5.3) and consulting (4.4). The UBC in the areas of valorisation and management lag behind. Nevertheless, the latter is more developed in Romania compared to the European average-

Just like academics who perceive themselves as the main actors reaching out for collaboration, Romanian businesses also see themselves as the most proactive initiators of UBC. On the contrary, Romanian business representatives perceive external intermediaries and the government as those stakeholders that less often initiate collaborative activities.

It is them, not us

Romanian business are considerably hindered by the bureaucracy related to UBC followed by a cultural issue related to differing time horizons between universities and business. Further primary barriers identified by business respondents relate to a lack of funding external and internal funding. Moreover, when it comes to barriers, Romanian businesses point towards the universities' missing awareness of the benefits of the collaboration. NOTE: This report provides a perspective business on university-business cooperation UBC, drawing on a survey of European higher education institutions, academics and businesses. While acknowledging limitations relating to the generalisability of the results due to the non-random nature of the sample, the results provide positive signs both of the present and for the future. while also providing an indication as to areas that require future development.

Executive summary

Relationships matter

While funding to undertake cooperation emerges as one of the top five facilitators, relationship related factors are likely to be of even higher importance in advance of UBC in the Romanian context. It is the existence of a shared goal, the mutual commitment and mutual trust alongside prior relations with a university partner that facilitate cooperation for Romanian businesses. These results indicate that any effort towards enabling cooperation between businesses and universities should focus on relationship development as a basis for successful collaboration.

It is not just for us

Although Romanian businesses perceive themselves as UBC beneficiaries, they see for themselves less benefits than for students. But what motivates Romanian businesses to cooperate with universities? As a result from collaboration with universities, they expect following outcomes such as an access to academic knowledge, customised solutions, as well as well as an enhanced innovation capacity and reputation. Thus it shows that they are primarily driven by the willingness to improve their own business and innovation capacity.

Need for more supporting mechanisms

Strong emphasis has been placed on the development of UBC supporting mechanisms by

universities. Yet little is known about such mechanisms in the Romanian business realm. Overall, companies can adopt a range of supporting mechanisms in their interaction with universities, but most of them are present in less than a third of the businesses.

This study indicates that the practise of recruiting PhD students or scientists into the business is one of the most developed mechanisms existent in Romanian business context. Networking sessions for employees to interact with academics as well as delivery of the student projects, presentations, lectures or mentoring within the university are further mechanisms present.

Positive attitude towards UBC

Romanian businesses cooperating with universities have more positive perceptions regarding their UBC capabilities, compared to their European counterparts. In particular, they state that they know what universities generally want from the collaboration. Furthermore, they identified their strengths in the ability to absorb the knowledge and technology coming from HEIs. Yet, Romanian businesses lack the general skills and knowledge in relation to UBC procedures and processes.

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

Why care about university-business cooperation?

- UBC is 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.



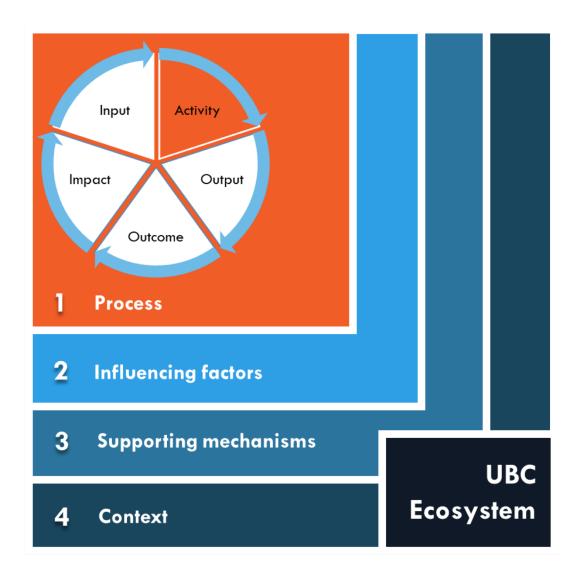
UBC Ecosystem Framework [™]

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.

UBC activities



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, commonly categorised into the areas of education, research, valorisation and management.

| Area | Activities | |
|--------------|---|----|
| Education | I. curriculum co- <u>design</u> | |
| Education | 2. curriculum co- <u>delivery</u> (e.g. guest lectures) | |
| | 3. mobility of students (<i>i.e. student internships/placements</i>) | |
| | 4. dual education programmes (<i>i.e. part theory, part practical</i>) | |
| | lifelong learning for people from business (e.g. executive education, industry training and professional courses) | |
| Dessearch | 5. collaboration in R&D (incl. joint funded research) | |
| Research | 7. consulting to business (incl. contract research) | |
| | mobility of professionals (i.e. temporary mobility of academics to busines and vice versa) | 55 |
| Valorisation | O. commercialisation of R&D results (e.g. licencing/patenting) | |
| valorisation | 10. academic entrepreneurship (e.g. spin offs) | |
| | 1. student entrepreneurship (e.g. start-ups) | |
| Management | 12. governance (e.g. participation of academics on business boards and businesspeople participation in university board) | |
| | 13. shared resources (e.g. infrastructure, personnel, equipment) | |
| | 14. industry support (e.g. endowments, sponsorship and scholarships) | |
| | | |

Romanian businesses engage mainly in education and research UBC activities such as collaboration in R&D (5.3), mobility of students (5.0), consulting (4.4) and dual education programmes (4.3).

However, more than 50% of the businesses do not undertake any curriculum co-design and co-delivery activities at all.

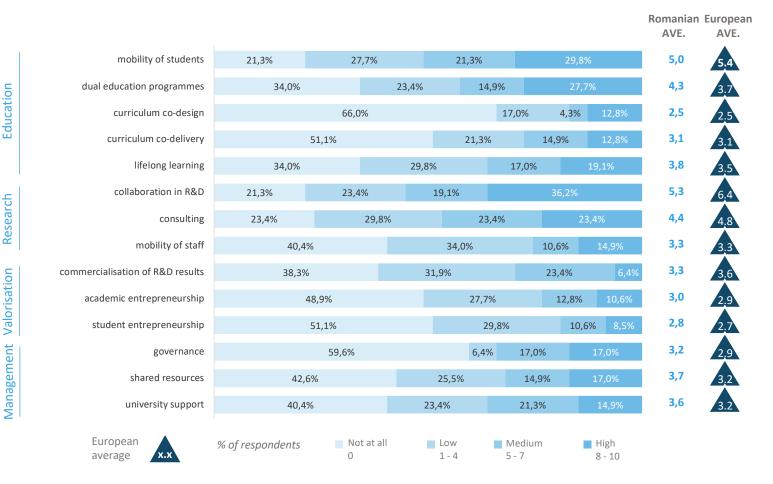
Management activities are significantly more developed in Romania than they are in Europe and the development of valorisation activities is very similar in both groups.

In comparison with the development of collaborative activities for European business, the extent of Romanian UBC emerges to be similar.

Development of UBC activities

UBC activities development

'Which UBC activities do you collaborate with universities in?'



Initiation of UBC

How UBC is initiated

'How often various stakeholders initiate UBC activities'

| Your organisation (we take the initiative) | 3% 9 | % | 34% | | 29% | | 269 | % | |
|--|------|-------|-----|-----|-----|-----|-----|--------|----|
| University alumni now working with our organisation | 9% | 21% | | 41% | | 18 | 3% | 12 | % |
| Individual academics | 11% | 5 17% | | 43% | | | 26% | | 3% |
| Current university students | | 23% | 20% | 3 | 1% | | 20% | | 6% |
| University management / leadership | 11% | 20% | | 40% | | 1 | 7% | 11 | L% |
| Internal intermediaries within the university (e.g. TTO staff) | | 24% | 33 | % | 18% | | 18% | | 6% |
| External intermediaries (e.g. regional development agencies or networks) | | 42% | | 21% | | 24% | | 6% | 6% |
| Government (e.g. publicly funded programmes) | | 33% | | 24% | 21% | | 15% | , D | 6% |

Never Seldom Sometimes Usually Always

Romanian businesses clearly see themselves as the major initiators of cooperation with universities. 55% of businesses state that their organisation always or usually initiates UBC.

Romanian businesses perceive university alumni now working with their organisation and university management also to be active in initiating cooperation.

External intermediaries are perceived as passive in UBC initiation with 63% of the businesses reporting that they never or seldom undertake any first actions towards UBC initiation.

Similarly, 57% of Romanian businesses state that government and internal intermediaries within the university never or seldom initiate UBC.

% of *respondents*

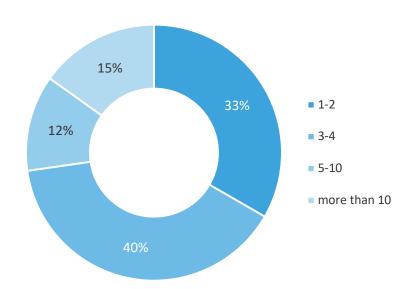
Geographical location still matters

Location of university partners

| Percentage of cooperating businesses with | | | | |
|---|-----|--|--|--|
| universities in their region | 97% | | | |
| universities in their country | 82% | | | |
| universities outside their country | 70% | | | |

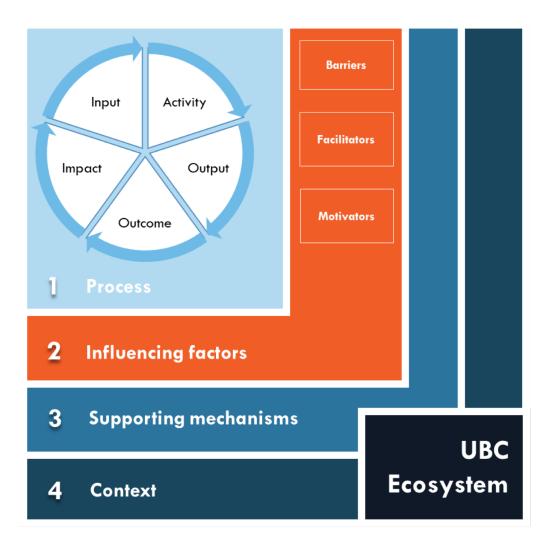
While most Romanian businesses cooperate with universities from the region (97%), the results also report a high percentage for national universities (82%). 70% of Romanian businesses cooperate with international universities.

Number of university partners



More than 70% of the Romanian businesses cooperate with less than 4 university partners. 12% have established relations with 5-10 partners and 15% cooperate with over 10 universities.

Factors influencing UBC



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

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

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

For example, even when a lack of funds is often named as a major barrier to cooperation, the presence of funds may not be enough for cooperation to happen if the perceived facilitators or motivators are not sufficient. The main five factors inhibiting Romanian businesses to cooperate with universities are diverse.

Bureaucracy related to UBC in universities is the main barrier hindering business cooperation with universities, followed by differing time horizons between universities and business.

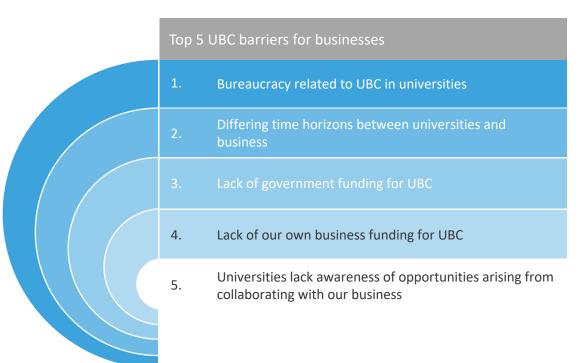
Funding issues such as the lack of government and their own business funding are also seen as important barriers for businesses.

Romanian businesses also report the universities' lack of awareness of opportunities arising from collaboration as a further obstacle for UBC.

Barriers hindering UBC

Barriers

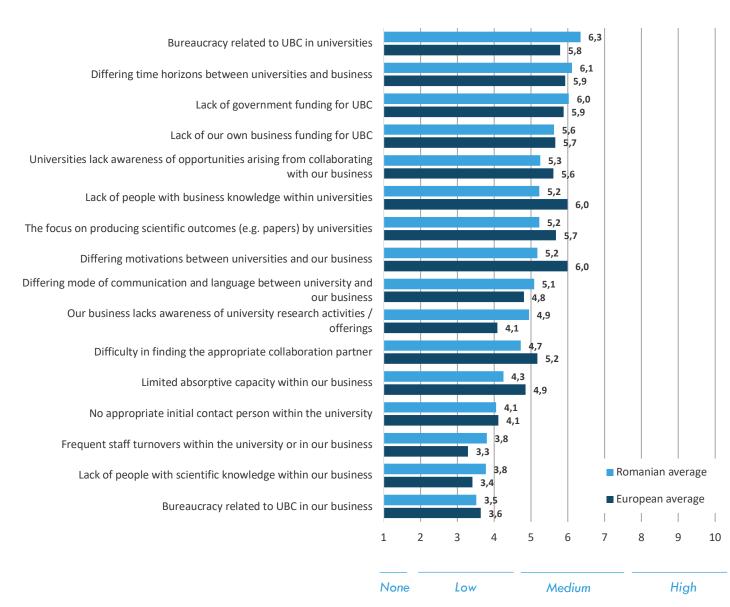
'What is inhibiting your cooperation with universities?'



Barriers hindering UBC

Barriers

'What is inhibiting your cooperation with universities?'



The majority of barriers perceived by cooperating Romanian businesses and their European counterparts are similar.

The lack of people with business knowledge within universities and the differing motivations between business and university are higher barriers for European businesses than they are for in Romania.

Conversely, business lack of awareness of university research activities is more inhibiting for UBC in Romania than in Europe.

Bureaucracy related to UBC within the business is the weakest barrier for Romanian businesses.

The main factors that facilitate Romanian business cooperation with universities are related to their relationship and funding.

The existence of a prior relation with the university partner plays an essential role in facilitating UBC in the Romanian context.

A relationship based on a shared goal, trust and commitment highly facilitates cooperation for Romanian businesses, resulting in smoother and more successful collaboration with universities.

The existence of funding to undertake UBC also facilitates UBC for Romanian businesses.

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:

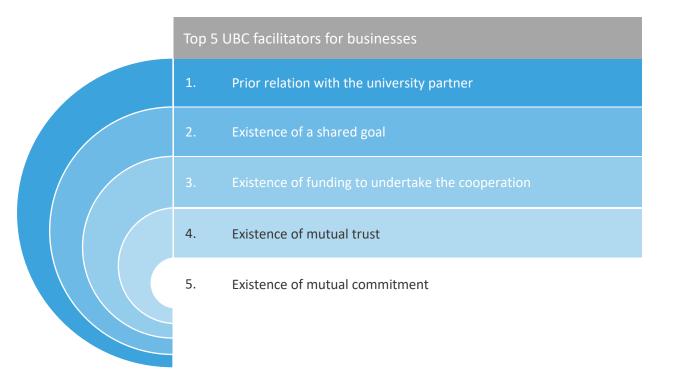
- 1. <u>Facilitators</u> factors that enable or ease cooperation
- <u>Motivators</u> incentives or benefits that the respective stakeholders would like from the cooperation

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

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

Facilitators enabling UBC

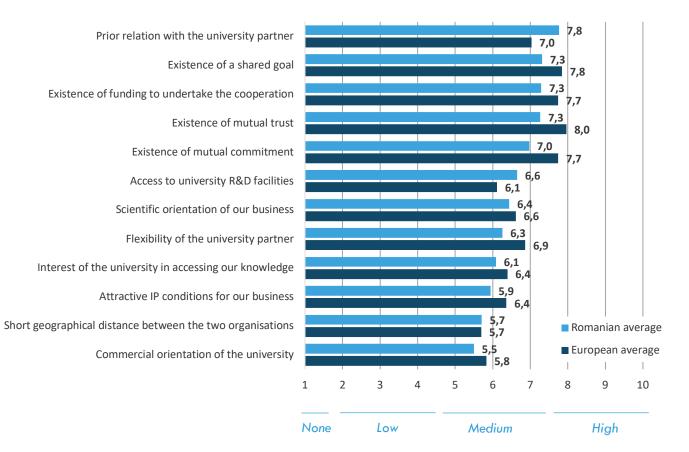
'What is facilitating your cooperation with universities?'



Drivers stimulating UBC

Facilitators

'What is facilitating your cooperation with universities?'



Most facilitators are perceived lower by Romanian businesses than by their European counterparts, with the exception of the prior relation with the university partner and access to university R&D facilities, which are higher in Romania than in Europe.

The existence of mutual trust and commitment, which are personal relationship facilitators, are significantly lower for Romanian businesses than for their European counterparts.

The short geographical distance between the two organisations and the commercial orientation of the university are the least important facilitators for both groups. The main motivators for Romanian businesses to undertake UBC are related to competitiveness, innovation profile and funding.

Romanian businesses cooperate with universities primarily to positively impact society.

They are also motivated to get access to better qualified graduates, new technologies and knowledge as well as to improve their innovation capacity.

A less important but still relevant motivation is to obtain funding and financial resources.

Drivers stimulating UBC

Motivations for UBC are the reasons why businesses collaborate with university.

They provide key information about the outcomes that the businesses seek from their collaborative activities relating to education, research, valorisation and management.

Motivators

'What motivates you to cooperate with universities?'



The ability of the collaboration to achieve these

outcomes will have a substantial influence on

the businesses' assessment of the success of

their collaboration.

Drivers stimulating UBC

Motivators

'What motivates you to cooperate with universities?'



Overall, Romanian businesses perceive most motivations to cooperate with universities higher than European businesses.

The motivation to positively impact society is considerably higher for Romanian businesses compared to the European average.

Significant difference can further be seen in the motivations to access better graduates and to improve the skills of the current employees through training.

On the other end, the least relevant motivation for both groups is obtaining access to university facilities. Yet, Romanian score (6.6) is reasonably higher than the European one (5.4). Romanian and European businesses have a rather dissimilar perception in respect to which stakeholder group benefits more or less from UBC.

Both groups see students as the primary beneficiaries of UBC. Romanian businesses see for themselves more benefits that they expect to get from the collaboration with universities, than European businesses do.

Society is also perceived by Romanian businesses as a UBC beneficiary but to a lesser extent, whereas the benefits for universities and academics are perceived to be rather low. The lowest benefits are perceived by both groups to be for government.

Benefits of UBC

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

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

Benefits of UBC

'Who receives the benefits of UBC?'

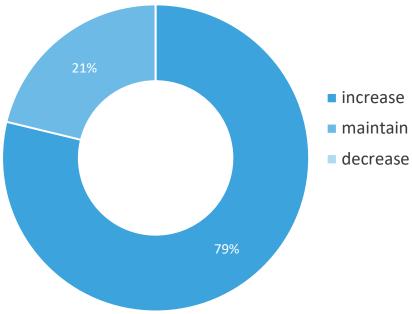
the involvement of other groups. For example, if academics perceive their own benefits to be low, they may refrain from engaging in UBC. Yet, if they perceive benefits for students to be high, they might undertake actions that contribute to students' involvement in UBC.

| Romanian businesses | | European businesses |
|---------------------|-------------------------------|-------------------------------|
| 1. | Students | Students |
| 2. | Businesses | Universities |
| 3. | Society | Businesses |
| 4. | Universities | Academics |
| 5. | Academics | Society |
| 6. | Government/public authorities | Government/public authorities |

Future intentions

Future UBC intentions – Romania

As answered by Romanian businesses



Future UBC intentions – EUROPE As answered by European businesses

100% of Romanian businesses that currently cooperate with universities plan to maintain or increase their cooperation. This shows an important momentum for UBC in Romanian industry.

European businesses also seem to be confident in their future intentions towards UBC as over half (51%) of them plan to increase their cooperation activities and only 2% to reduce them. The willingness of Romanian cooperating businesses to recommend to a colleague to engage in UBC does not vary much depending on whether this cooperation is in research or in education.

Yet, Romanian businesses are more satisfied with UBC in research than in teaching. While 44% of them will promote UBC in research positively, 19% would do it negatively.

Furthermore, when it comes to cooperation in education, Romanian businesses are seen to be more satisfied than their European counterparts (NPS=15). While 46% would act as promoters and 31% would be detractors.

Willingness to recommend UBC

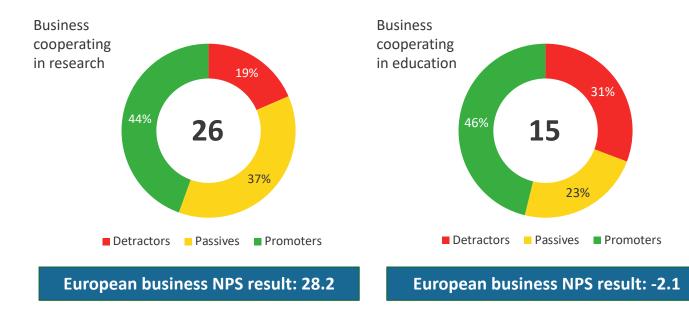
Respondents were asked how likely it would be that they recommend to a business colleague to engage in UBC in the areas of R&D and education and training (E&T). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

Willingness to recommend cooperation with universities in R&D or E&T

| | Detractors | Passives | Promoters |
|---|------------|----------|-----------|
| Business cooperating with universities in R&D | 19% | 37% | 44% |
| Business cooperating with universities in E&T | 31% | 23% | 46% |

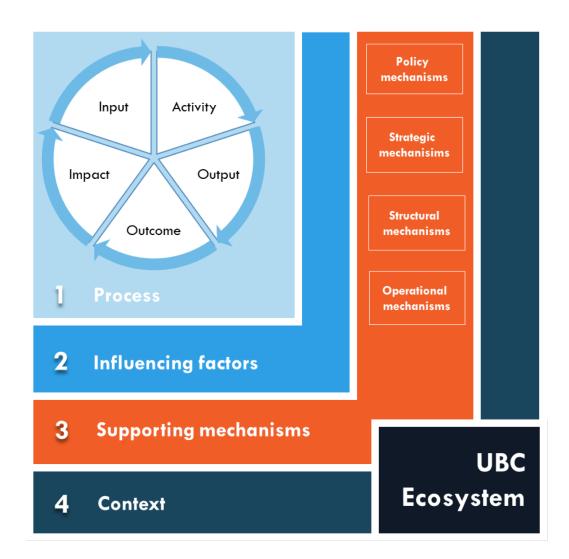
| | Net promotor score | | | | |
|---|--------------------|--|--|--|--|
| ſ | 26 | | | | |
| | 15 | | | | |

Satisfaction with cooperation with universities (net promoter score)



21

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.

Romanian businesses can adopt a range of supporting mechanisms in their interaction with universities, but most of them are present in under a third of the businesses.

The most developed one is the practise of recruiting PhD students or scientists into the business (38%).

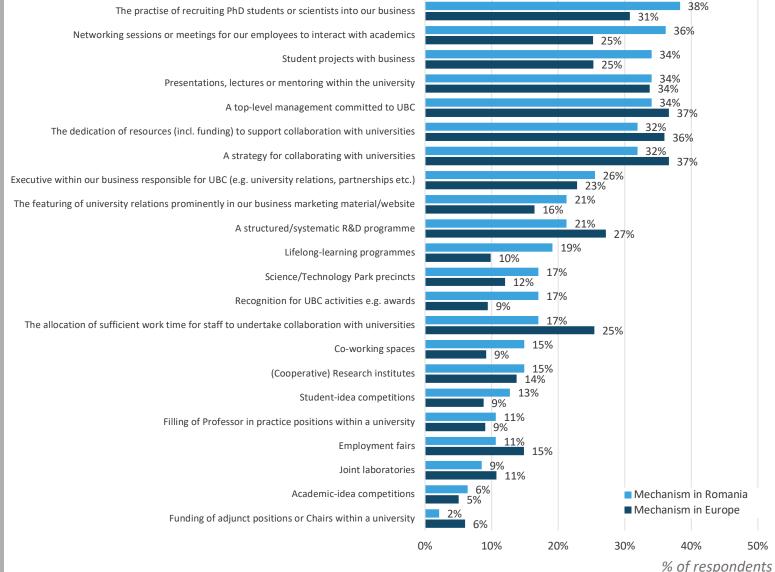
Networking sessions for employees to interact with academics (36%) as well as student projects with business, presentations, lectures or mentoring within the university and a top-level management committed to UBC (all with 34%) are further mechanisms present.

Compared to the European average, most UBC supporting mechanisms are more common in Romania. However, the existence of a structured R&D programme and the allocation of sufficient work time for staff to undertake UBC are considerably less present in Romania than in Europe.

Supporting mechanisms for UBC

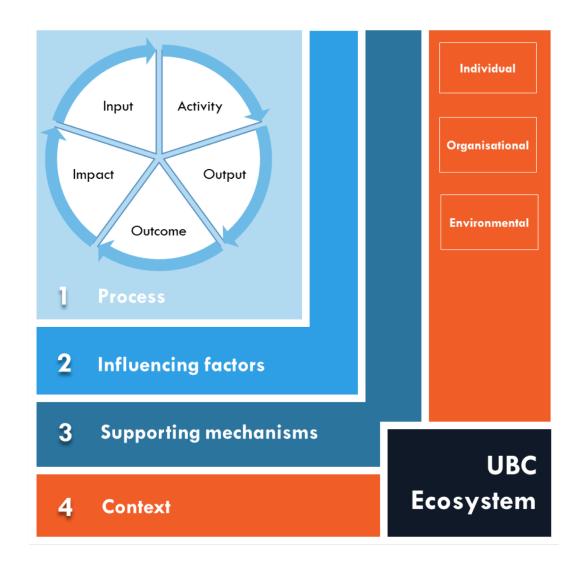
Mechanisms supporting UBC

'Do these supporting mechanisms for UBC exist in your business?'



espondents

Context



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

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

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

Romanian and European businesses cooperating with universities perceive their context differently.

Both groups however agree that human resources are essential for their competitiveness.

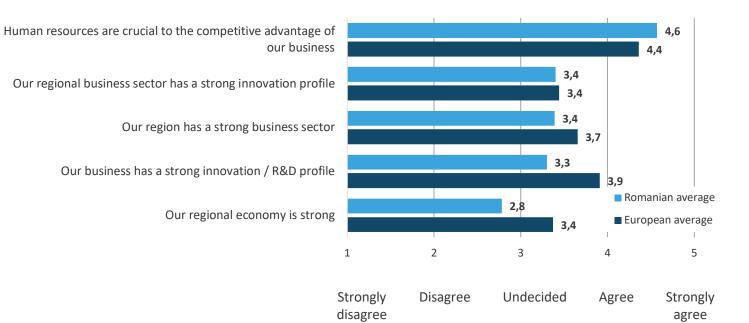
Thus Romanian businesses have a lower and more negative perception regarding the characteristics of the economy and innovation profile of the regional business sector.

The strength of the regional business sector and its innovation profile are perceived similarly by both groups.

Context

Contextual factors affecting UBC

'To what extent do you agree with the following statements?'



UBC capabilities and beliefs

Supportive UBC environment

How supportive are your organisation and environment for UBC?'

7.6 6.3 7.5 7,3 7.2 7,0 7.2 UBC 6.5 6.9 5.8 6,6 6.5 6,6 6,4 6,2 6.7 6,1 6,2 Romanian average European average 5.9 6.1 1 2 3 5 6 7 10

None Low Medium High

Our business has a lot to offer to universities in developing and delivering education and training

Our business has the capability to absorb the knowledge and technology coming from universities

Our business believes that universities can play a very important role in our innovation efforts

There is sufficient support within our business to undertake UBC

Our business believes it is our responsibility to collaborate with universities in education

Our business has a lot to offer to universities in research

Our business believes it is our responsibility to collaborate with universities in research

Our business has sufficient university contacts and relations that we could approach for collaboration

Our business has sufficient knowledge of what universities want from collaboration

Our business has sufficient skills and knowledge of UBC (including the procedures and processes)

Businesses in Romania perceive themselves as supportive towards cooperation with universities.

In particular they consider they have a lot to offer to universities in education and training. They perceive themselves to be capable of absorbing knowledge and technology from universities.

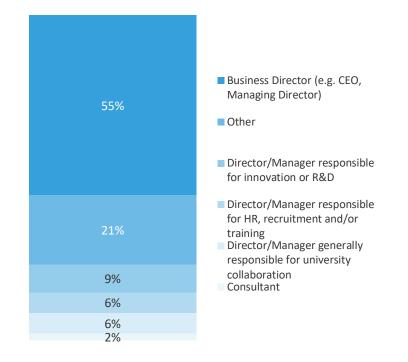
Compared to European average, Romanian businesses are considerably more supportive towards UBC in education and training.

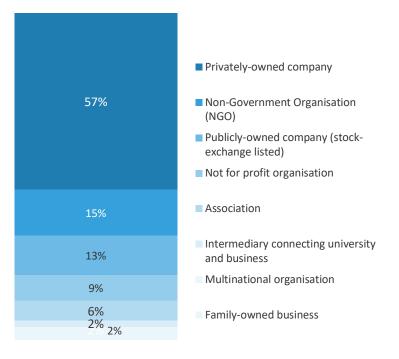
However, at the same time they consider they lack university contacts and relations to undertake UBC.

Respondents profile

Position of respondent

Type of business



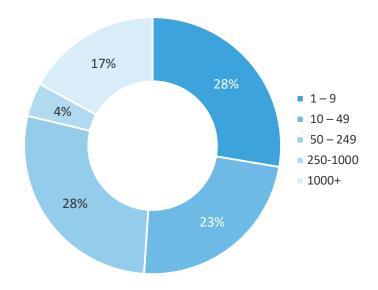


Business directors represent the largest group in the Romanian sample (55%). The remaining businesses identified themselves as directors responsible for innovation or R&D (9%), directors of HR, recruitment and training, directors responsible for university collaboration (both with 6%), consultants (2%). 21% of Romanian business respondents hold 'other' positions.

Over half of Romanian businesses are privately-owned companies (57%), followed by NGOs (15%) and publicly owned companies (13%). The types of business with less than 10% representation included not for profit organisations, associations, intermediaries connecting university and businesses and multinational organisations.

Respondents profile

Business size



| Sample Size | |
|-----------------------------------|-----------|
| Romanian business representatives | n = 47 |
| European business representatives | n = 3.113 |

Half of the Romanian business sample (51%) is comprised by firms with less than 49 employees. Medium-sized companies are represented by 28% and large companies (250 to 1000+ employees) are represented by 21% of the business respondents in the sample.



Contact us

Todd Davey - davey@uiin.org Arno Meerman - meerman@uiin.org

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

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





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