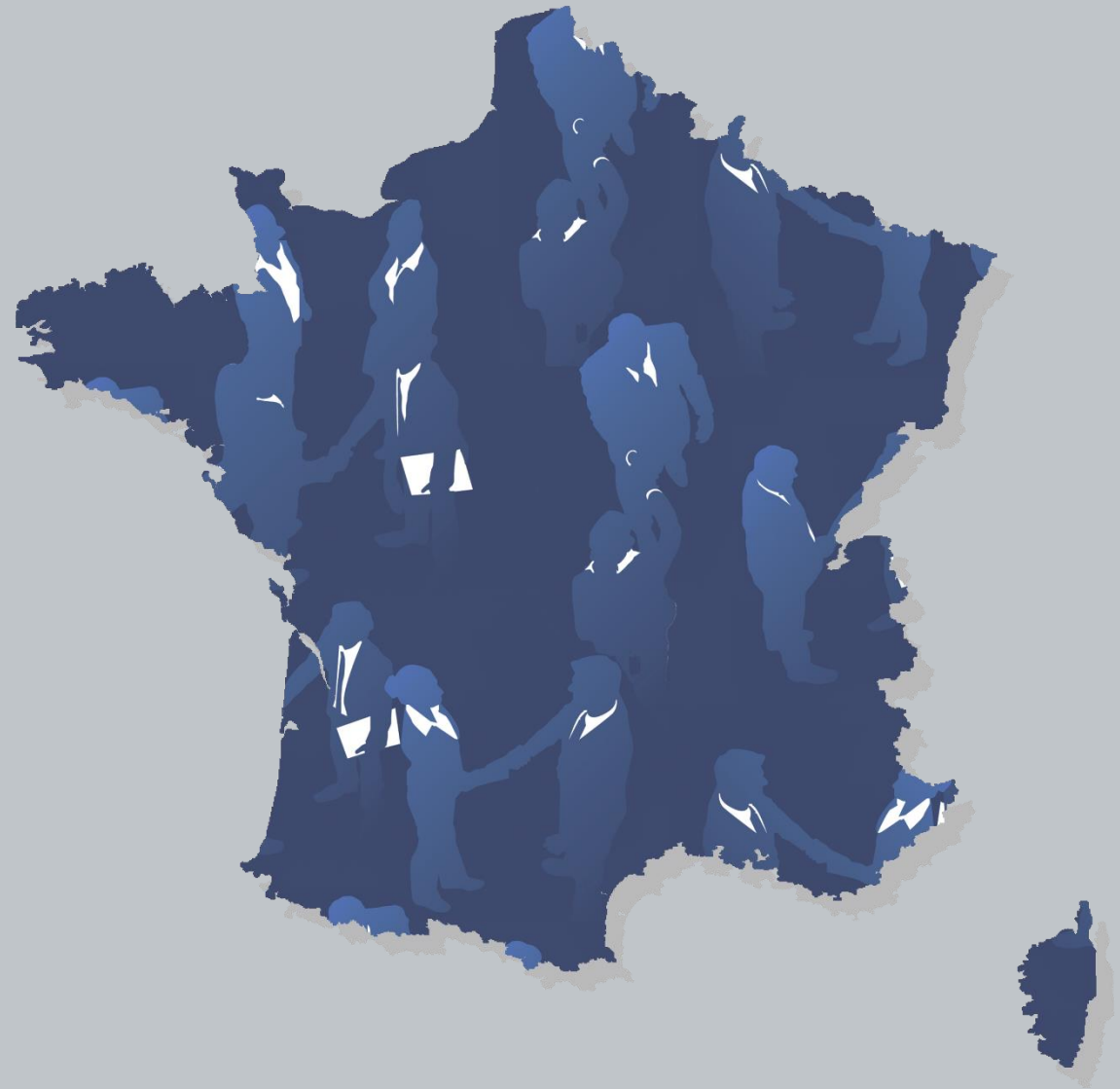# UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

State of University-Business Cooperation

FRANCE

Business Perspective

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

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

Partners

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Executive summary

Summary

This report aims at contributing to our understanding of the business perspective on university-business cooperation (UBC) in France. Examining the perceptions of a wide range of businesses provides positive signs for the future, as 99% of French businesses that already have established relationships with universities are planning to maintain or increase their cooperation in the future. Yet, more can be done, for example in supporting businesses with the development of activities and strategies to support their cooperation efforts beyond research initiatives and mobility of students.

About the study

The results presented in this report reflect the perceptions of business representatives in France 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 307 French business responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

University-Business Cooperation

French businesses engage mostly in research related cooperation, with joint R&D and consulting being the most developed UBC activities. As for cooperation in education, mobility of students emerges as the most developed activity. The remaining activities are considerably less developed with over 50% of businesses in France not undertaking any valorisation and management activities at all. Particularly low are the activities related to the mobility of staff, academic entrepreneurship and student entrepreneurship.

French businesses perceive themselves as the main actors reaching out for collaboration with business. In the same way, they also see government as well as university alumni as proactive initiators of UBC. On the contrary, French business representatives identify internal and external intermediaries as those stakeholders that less often initiate UBC.

It is them, not us

With respect to barriers for UBC, French business respondents point towards the universities, reporting their lack of people with business knowledge along with their lack of awareness regarding the opportunities arising from cooperation with business as the major barriers.

The cultural differences between businesses and universities, such as differing time horizons and differing motivations also represent significant barriers. Moreover, a high level of bureaucracy within universities is a further hindering factor negatively affecting collaboration efforts.

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

Relationships matter

While funding to undertake cooperation emerges as one of the top five facilitators for French businesses, relationship related factors play an even more prominent role. It is the existence of trust, a shared goal, and mutual commitment alongside prior relations with a partner that facilitate cooperation. These results indicate that any effort towards enabling cooperation between businesses and universities should focus on relationship development as the basis for successful UBC.

Driven by innovation and competitiveness

Although French businesses indicate the willingness to positively impact society as a motivator to engage in UBC, innovation and competitiveness related factors are seen as the main stimulators. These motivators include the improvement of innovation capacity, access to new technologies, knowledge and discoveries at an early stage and obtaining a customised solution for the business.

Low resources allocation

While strong emphasis has been placed on the development of UBC supporting mechanisms by universities, little is known about such mechanisms in the business realm. This study indicates that strategic mechanisms are the ones that are already well developed, with a third of the respondents indicating that their business possesses a structured/systematic R&D programme and a defined strategy for collaborating with universities. Additionally, the practise of recruiting PhD students or scientists into business is also well developed, also given that the R&D Tax Credit system supports the recruitment of PhD holders. However, compared to the European average, a lower percentage of French companies dedicate resources specifically for UBC.

Structural and operational supporting mechanisms lag considerably behind with student and academic-idea competitions and co-working spaces being the most underdeveloped.

Positive attitude towards UBC

French businesses have a positive view of their abilities to undertake cooperation. In particular, they state they have the capability to absorb knowledge and technology from universities. Additionally, they believe that HEIs play a very important role in their innovation efforts and they consider collaboration in research as their responsibility. Over a third of French businesses identify themselves as UBC promoters.

However, French businesses perceive a general lack of knowledge about both universities' needs and expectations from collaboration as well as UBC procedures and processes.

Introduction

About the study

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

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

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

Main activities

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

Why care about university-business cooperation?

- UBC is 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.

French Business Landscape

France is a leading country in high technology, with a long tradition of innovation. Its entrepreneurial activity is facilitated by such institutional strengths as strong protection of property rights and a fairly efficient regulatory framework. Various reform measures have been developed in order to increase competitiveness, but overall progress has been marginal.

The French GDP expenditure on R&D has grown at an average annual rate of 1.6% over the past 15 years[1]. This growth was driven mainly by the dynamism of R&D spending by enterprises, although it is not far above the EU average. Companies carry out 65% of the R&D work in the national territory and finance 61% of the national R&D expenditure[2].

In 2014, SMEs represented 17% of business enterprise R&D expenditure, over half of which was invested in the service sector. On the other hand, large enterprises accounted for 58% and focused most of their R&D efforts in the high and medium-high technology industries[3].

Many innovative small firms, but they have difficulties growing

The innovative landscape is dynamic, as demonstrated by the high employment in fast-growing firms in the innovative sectors. However, it might be too scattered in small entities to have a huge economic impact: although Paris counted more start-ups than London or Berlin in 2015[4]. While France has put in place many measures targeted at small innovative businesses, the external business environment may still hinder the growth of small firms.

Tax incentives

Many countries now use tax incentives to stimulate more spending on R&D. In France, 15,245 firms received research tax credit (CIR), which has extensively expanded since 2008. More than 22,800 firms declared around €21 billion in eligible expenditure. The total credit paid out in 2013 was €5.7 billion[5].

Since 2013, the R&D tax credit (CIR) has included three components according to the type of eligible expenditure: research expenditure, innovation expenditure and collection expenditure for the textile-clothing-leather sectors. Usually, manufacturing industries are the main beneficiaries of the tax credit, followed by the service industry.

'Young innovative company' (YIC) scheme

Introduced in 2004, it aims at supporting R&D and innovation activities of new SMEs through tax cuts and, above all, exemptions from social contributions for highly skilled employees. According to the Central Agency for Social Security Funds (ACOSS), in 2015, 3,500 enterprises benefited from €139 million in exemptions under this scheme. YICs spent €916 million on R&D in 2014 and employed 12,272 full-time equivalent R&D personnel.

YICs are small businesses: nine out of ten YICs employ fewer than 20 people[6]. Naturally, they devote a larger share of their turnover to their internal R&D expenditure and are much more intensive in R&D than the average. YICs were more likely to collaborate with other institutions involved in R&D: 40% of them outsourced R&D to dedicated State research institutions or other businesses[7].

Almost 220,000 researchers were involved in R&D activity in business enterprises in France. This is a young population, with a low proportion of women (20%), the majority with an engineering degree. In business enterprises, only 12% of researchers have a PhD and 17% have a Master's degree. Four out of five researchers in business enterprises work in 'Engineering sciences' or 'Mathematics-Software-Physics'. In contrast, fewer than 3% work in the 'Social sciences', 'Earth Sciences' or 'Humanities.

[1] Ministry of Higher Education, Research and Innovation (2017), Higher Education & Research in France, facts and figures

[2] IBID

[3] European Commission (2017), Research and Innovation analysis in the European Semester Country Reports 2017

[4] Villard N. (2015), La France, ce pays qui crée des start-up à la chaîne!, Available at: http://www.capital.fr/enquetes/dossiers/la-france-ce-pays-qui-cree-des-start-up-a-la-chaine-1046517

[5] European Commission (2017), Research and Innovation analysis in the European Semester Country Reports 2017

[6] IBID

[7] Ministère de l'Economie et des Finances (2016), Le 4 pages de la DGE

UBC activities

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.

Input   Activity

Impact   Output

Outcome

1   Process

2   Influencing factors

3   Supporting mechanisms

4   Context
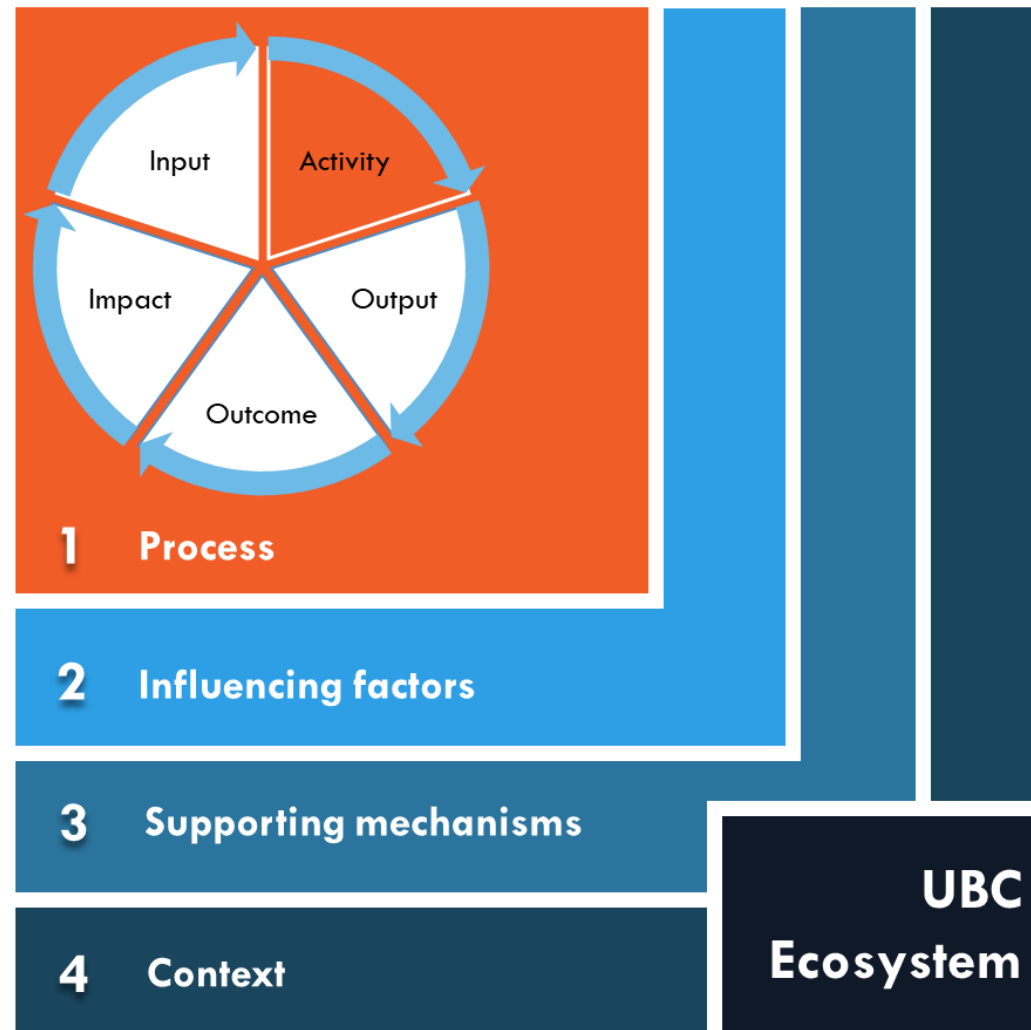
UBC Ecosystem

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	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	6. joint R&D *(incl. joint funded research)* 7. consulting to business *(incl. contract research)* 8. mobility of professionals *(i.e. temporary mobility of academics to business and vice versa)*
Valorisation	9. commercialisation of R&D results *(e.g. licencing/patenting)* 10. academic entrepreneurship *(e.g. spin offs)* 11. student entrepreneurship *(e.g. start-ups)*
Management	12. governance *(e.g. participation of academics on business boards and businesspeople participation in university board)* 13. shared resources *(e.g. infrastructure, personnel, equipment)* 14. industry support *(e.g. endowments, sponsorship and scholarships)*

Development of UBC activities

French businesses engage mostly in research UBC activities, like joint R&D (5.1) and consulting (3.4). This cooperation mostly takes place with engineering schools. In the French context, there are several measures in place to support public/private R&D cooperation (e.g. competitiveness clusters).
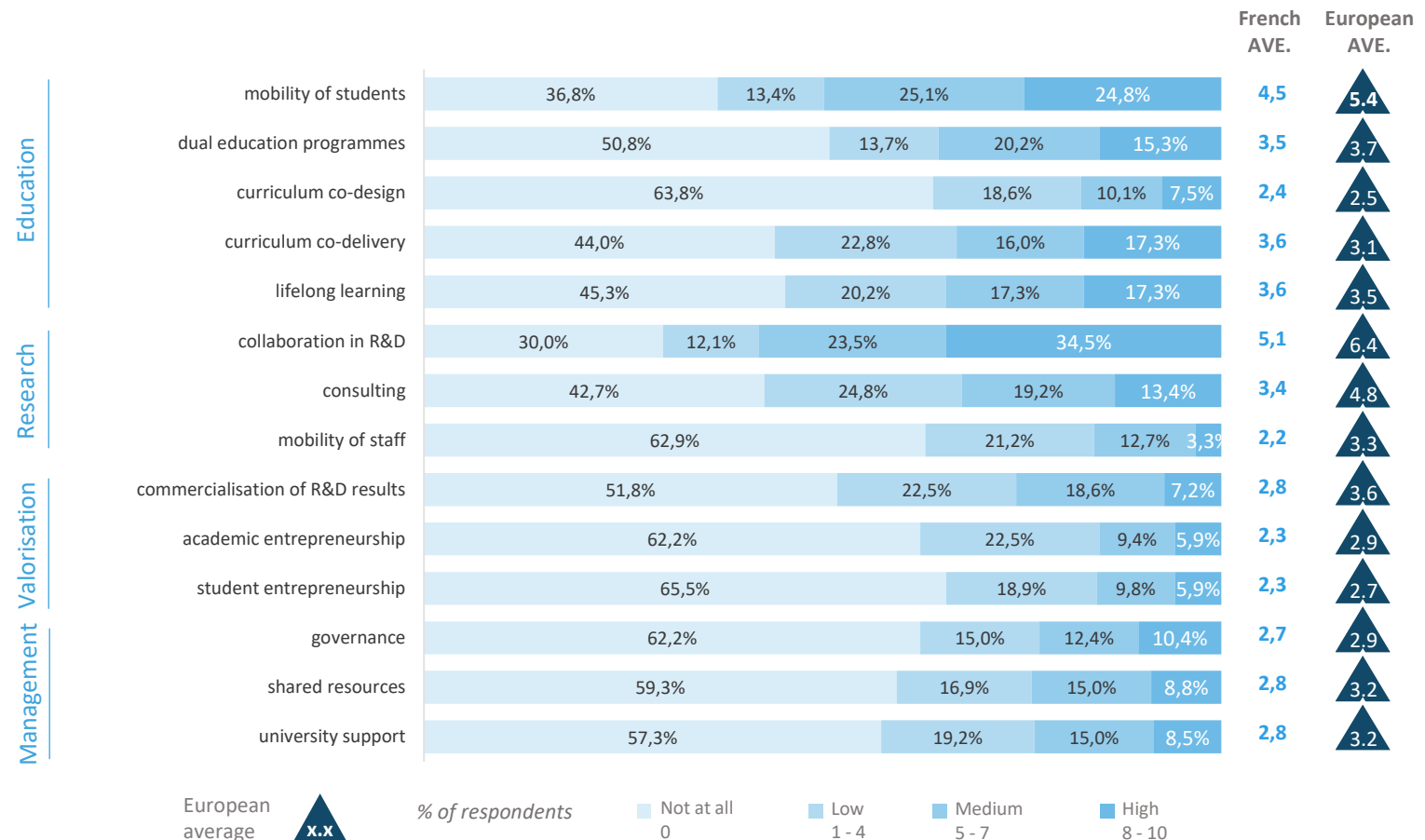
In general, French business managers are not always able to translate technical problems into potential R&D collaboration but rather into the need for a technical solution or technical consultancy.

As for education-related UBC, mobility of students (4.5) is the most developed UBC activity, followed by curriculum co-delivery and lifelong learning (3.6 each).

Over 50% of businesses do not undertake any management or valorisation related collaboration. Particularly low are the activities of mobility of staff, academic and student entrepreneurship.

UBC activities development

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

		French AVE.	European AVE.
Education	mobility of students — 36,8% / 13,4% / 25,1% / 24,8%	4,5	5.4
	dual education programmes — 50,8% / 13,7% / 20,2% / 15,3%	3,5	3.7
	curriculum co-design — 63,8% / 18,6% / 10,1% / 7,5%	2,4	2.5
	curriculum co-delivery — 44,0% / 22,8% / 16,0% / 17,3%	3,6	3.1
	lifelong learning — 45,3% / 20,2% / 17,3% / 17,3%	3,6	3.5
Research	collaboration in R&D — 30,0% / 12,1% / 23,5% / 34,5%	5,1	6.4
	consulting — 42,7% / 24,8% / 19,2% / 13,4%	3,4	4.8
	mobility of staff — 62,9% / 21,2% / 12,7% / 3,3%	2,2	3.3
Valorisation	commercialisation of R&D results — 51,8% / 22,5% / 18,6% / 7,2%	2,8	3.6
	academic entrepreneurship — 62,2% / 22,5% / 9,4% / 5,9%	2,3	2.9
	student entrepreneurship — 65,5% / 18,9% / 9,8% / 5,9%	2,3	2.7
Management	governance — 62,2% / 15,0% / 12,4% / 10,4%	2,7	2.9
	shared resources — 59,3% / 16,9% / 15,0% / 8,8%	2,8	3.2
	university support — 57,3% / 19,2% / 15,0% / 8,5%	2,8	3.2

European average — x.x   % of respondents   Not at all 0 | Low 1 - 4 | Medium 5 - 7 | High 8 - 10

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Initiation of UBC

How UBC is initiated

'How often various stakeholders initiate UBC activities'

	Never	Seldom	Sometimes	Usually	Always
Your organisation (we take the initiative)	5%	10%	23%	54%	8%
University alumni now working with our organisation	23%	24%	32%	18%	2%
Individual academics	24%	26%	36%	12%	1%
Current university students	33%	29%	27%	9%	2%
University management / leadership	31%	23%	28%	17%	1%
Internal intermediaries within the university (e.g. TTO staff)	41%	31%	18%	10%	1%
External intermediaries (e.g. regional development agencies or networks)	37%	25%	25%	12%	1%
Government (e.g. publicly funded programmes)	25%	18%	30%	23%	3%

% of respondents

French businesses clearly see themselves as the main initiators of cooperation with universities. 62% of business state that their organisation always or usually initiate UBC. Generally, French universities do not have a long tradition of cooperating with businesses. However, this has dramatically changed during the last 5 years with the creation of new French model for TTO, so called SATT[1].

French businesses see government, university alumni as well as university management also to some extent active in initiating cooperation. French businesses often collaborate with engineering schools, which they build connections with through their own networks of alumni.

Internal and external intermediaries are perceived as passive in UBC initiation. 72% and 62% of the businesses report that they never or seldom undertake any first actions towards UBC initiation respectively.

Similarly, 62% and 54% of business state that current university students and university managers do never or seldom initiate UBC. This is expected to change with the recent introduction of the SATT.

Geographical location still matters

Location of university partners

| Percentage of cooperating businesses with…	
universities in their region	94%
universities in their country	92%
universities outside their country	79%

While most French businesses cooperate with national and regional universities (92% and 94% respectively), they also cooperate with international university partners, mainly due to the projects funded by the European Commission.

Number of university partners

- 1-2
- 3-4
- 5-10
- more than 10

23%
36%
19%
22%
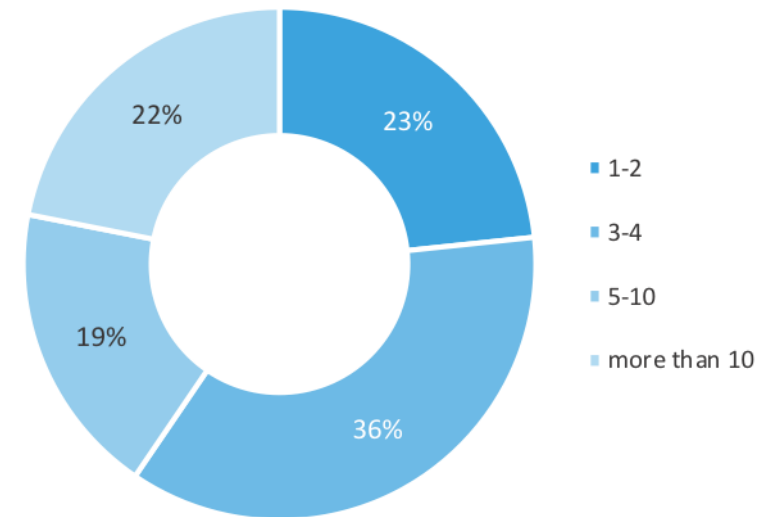
More than half (59%) of the French businesses cooperates with less than 4 university partners. Only 19% have established relations with 5-10 partners, and 22% cooperate with over 10 universities.

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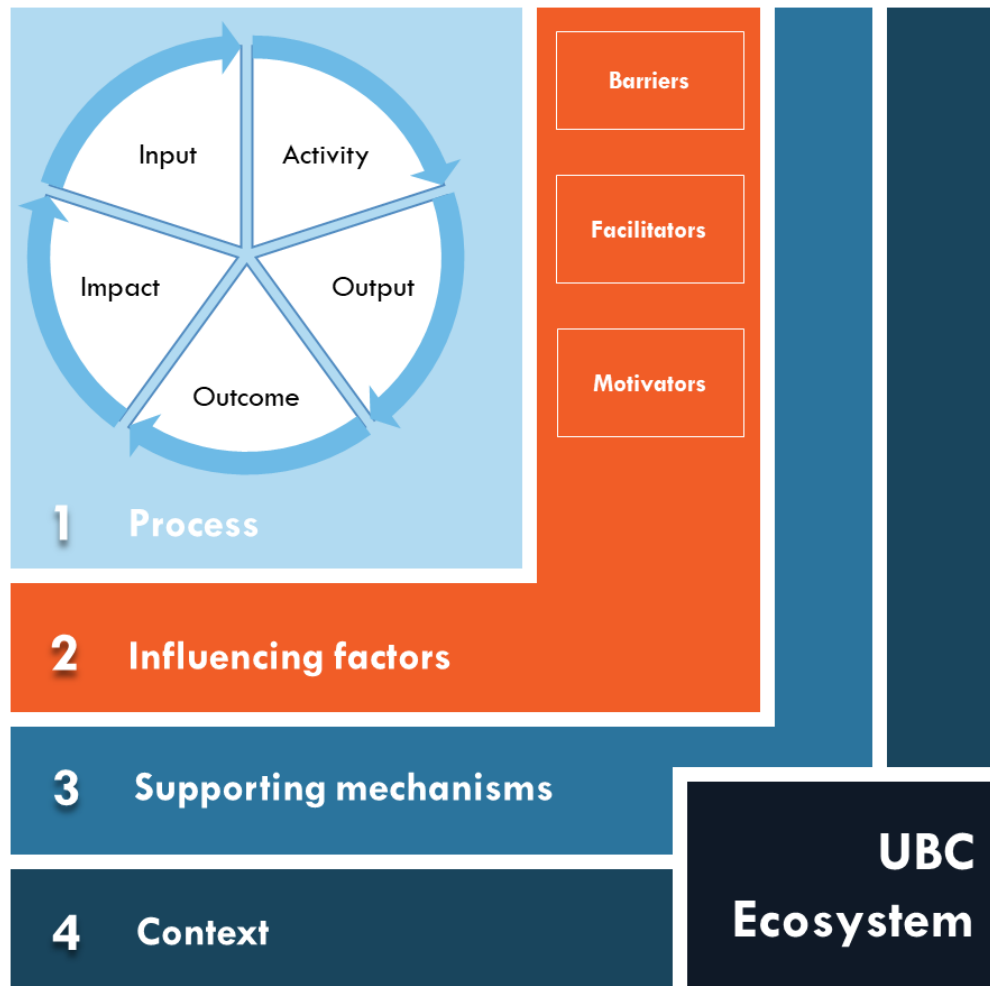
This section outlines the extent to which various factors affect UBC.

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.

Barriers hindering UBC

The main five factors inhibiting French businesses to cooperate with universities are diverse.
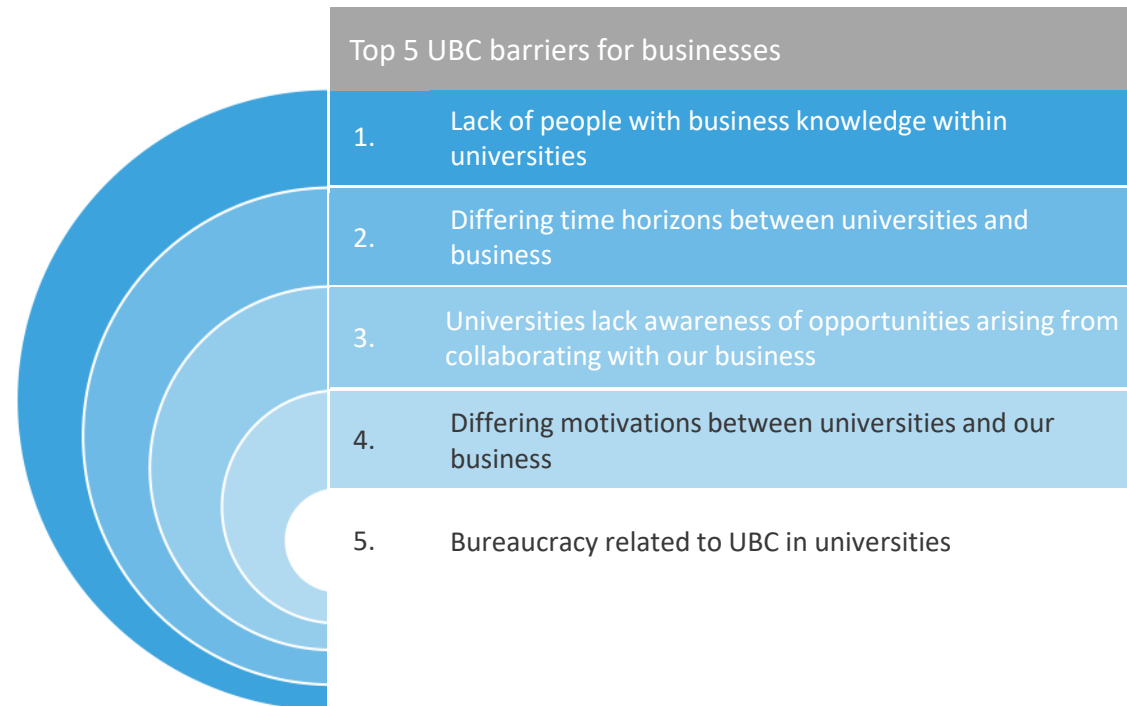
The main ones are related to knowledge and cultural differences, such as the lack of people with business knowledge within universities and the differing time horizons between two organisations.

The problem that universities lack awareness of opportunities arising from collaborating with business is also an important barrier for businesses, as well as the differing motivations between the two organisations.

Bureaucracy related to UBC in universities is another barrier inhibiting businesses from cooperation with universities.

Barriers

'What is inhibiting your cooperation with universities?'

Top 5 UBC barriers for businesses	
1.	Lack of people with business knowledge within universities
2.	Differing time horizons between universities and business
3.	Universities lack awareness of opportunities arising from collaborating with our business
4.	Differing motivations between universities and our business
5.	Bureaucracy related to UBC in universities

Barriers hindering UBC

Barriers

'What is inhibiting your cooperation with universities?'

Barrier	French average	European average
Lack of people with business knowledge within universities	6,8	6,0
Differing time horizons between universities and business	6,7	5,9
Universities lack awareness of opportunities arising from collaborating with our business	6,3	5,6
Differing motivations between universities and our business	6,2	6,0
Bureaucracy related to UBC in universities	5,7	5,8
Lack of government funding for UBC	5,6	5,9
The focus on producing scientific outcomes (e.g. papers) by universities	5,5	5,7
Lack of our own business funding for UBC	5,5	5,7
Difficulty in finding the appropriate collaboration partner	5,5	5,2
Differing mode of communication and language between university and our business	5,4	4,8
Limited absorptive capacity within our business	5,4	4,9
Our business lacks awareness of university research activities / offerings	4,3	4,1
No appropriate initial contact person within the university	4,0	4,1
Bureaucracy related to UBC in our business	3,7	3,6
Lack of people with scientific knowledge within our business	3,2	3,4
Frequent staff turnovers within the university or in our business	3,0	3,3

Scale: 1 2 3 4 5 6 7 8 9 10 — None | Low | Medium | High

The majority of barriers perceived by cooperating French businesses and their European counterparts are to some extent similar. However, French businesses perceive most barriers slightly higher.

The lack of people with business knowledge within universities and the differing time horizons between two organisations are significantly higher barriers for French business than they are for European business. Another strong barrier emerged for both groups is related to cultural issues, namely differing motivations between universities and business.

French businesses are less hindered by funding issues than businesses in Europe. In the French context, there are plenty of programmes and measures providing funding for UBC, such as for example, the Competitiveness Clusters Programme[1] that provides funding for collaborative R&D projects between research units and enterprises.

Frequent staff turnovers within the university or business is the weakest barrier as French researchers and teachers have normally permanent contracts.

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Drivers stimulating UBC

The main factors that facilitate French business cooperation with universities are related to their personal relationships.

A relationship based on trust, a shared goal and commitment highly facilitate cooperation for French businesses, resulting in smoother and more successful collaboration with universities. A prior relation with the university partner also stimulates a good cooperation.

The existence of funding to undertake UBC is also likely to play an important role in facilitating UBC.

Drivers are those factors that encourage businesses, academics or HEIs to engage in UBC. Drivers of UBC are divided into two factors:
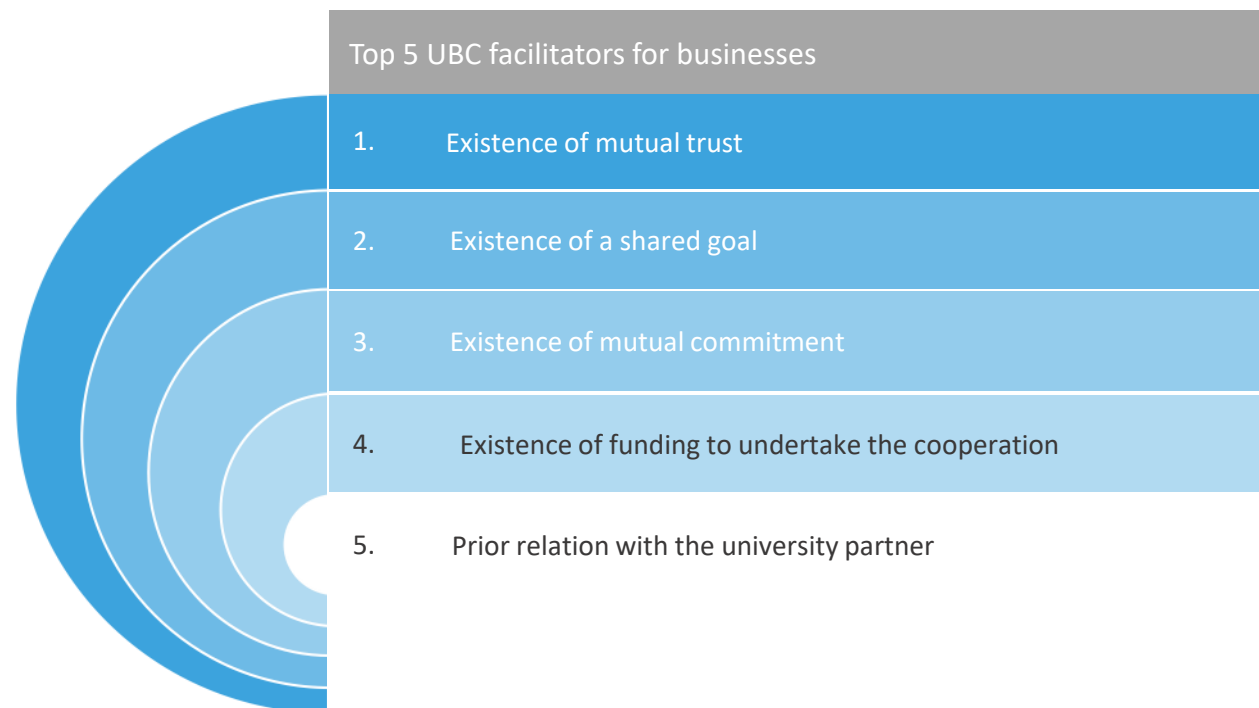
1. *Facilitators* – factors that enable or ease cooperation
2. *Motivators* – incentives or benefits that the respective stakeholders would like from the cooperation

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

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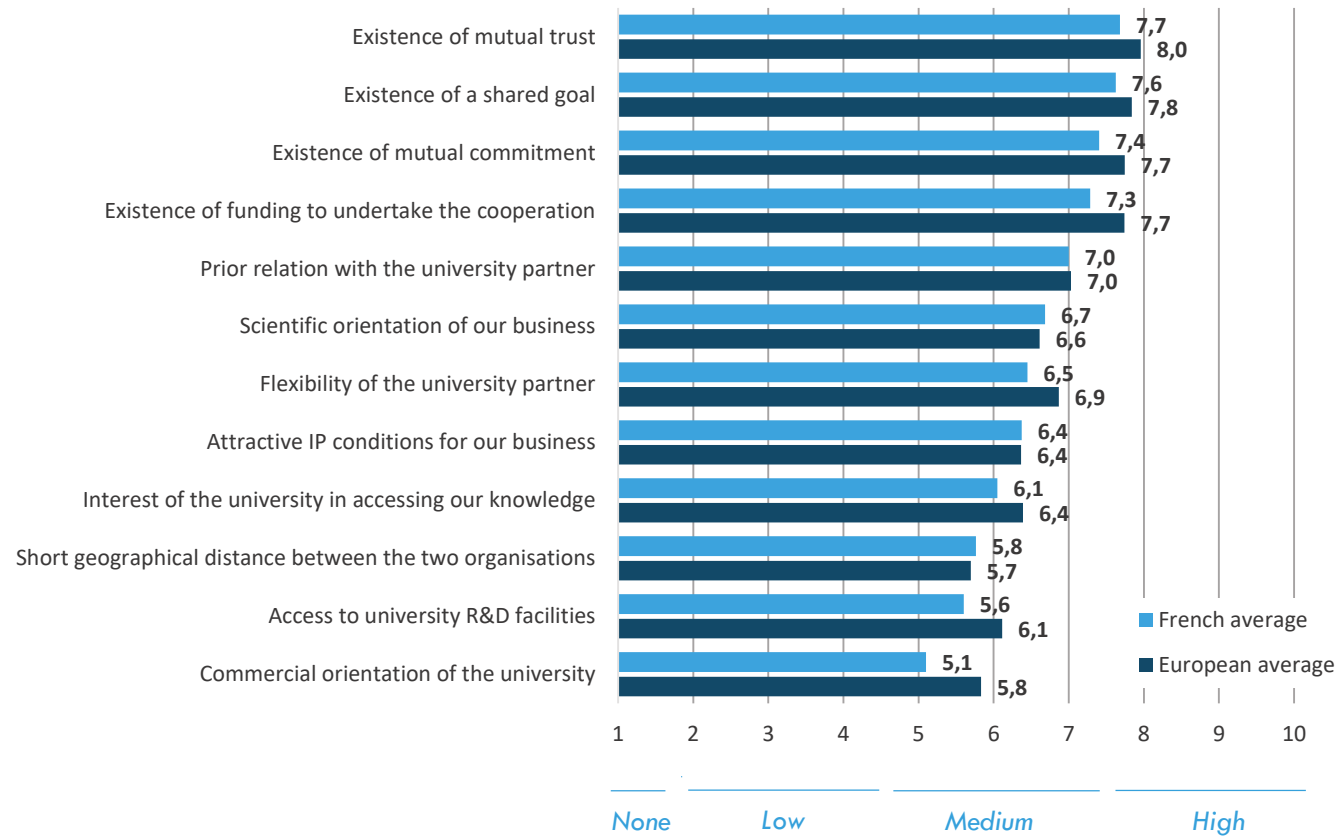
Facilitators enabling UBC

'What is facilitating your cooperation with universities?'

Top 5 UBC facilitators for businesses
1. Existence of mutual trust
2. Existence of a shared goal
3. Existence of mutual commitment
4. Existence of funding to undertake the cooperation
5. Prior relation with the university partner

Drivers stimulating UBC

Facilitators

'What is facilitating your cooperation with universities?'

Facilitator	French average	European average
Existence of mutual trust	7,7	8,0
Existence of a shared goal	7,6	7,8
Existence of mutual commitment	7,4	7,7
Existence of funding to undertake the cooperation	7,3	7,7
Prior relation with the university partner	7,0	7,0
Scientific orientation of our business	6,7	6,6
Flexibility of the university partner	6,5	6,9
Attractive IP conditions for our business	6,4	6,4
Interest of the university in accessing our knowledge	6,1	6,4
Short geographical distance between the two organisations	5,8	5,7
Access to university R&D facilities	5,6	6,1
Commercial orientation of the university	5,1	5,8

- French average
- European average

Scale: 1 2 3 4 5 6 7 8 9 10

None   *Low*   *Medium*   *High*

Most facilitators are perceived lower by French businesses, compared to European average. This is the case for the personal relationship facilitators, which bear great importance in enhancing UBC in France, whereby personal contacts are seen as one of the most used channels for UBC initiation.

The access to university R&D facilities and the commercial orientation of the university are the weakest barriers in France, and also perceived lower than in Europe.

There is a number of technological platforms or centres (e.g. CRITT[1]) hosted by universities or engineering schools, accessible for SMEs to do testing and prototyping. These platforms are supported by different sources of funding, and in particular by the regional government, also with the support of structural European funds.

[1] CRITT – Regional Centres for Innovation and Technology Transfer. URL: http://www.critt.net/en/

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Drivers stimulating UBC

The main motivators for French businesses to undertake UBC are related to innovation and competitiveness.

Businesses cooperate with universities primarily to improve their own innovation capacity and to access new technologies, knowledge and discoveries at an early stage.

French businesses are also motivated to positively impact society by cooperating with universities.

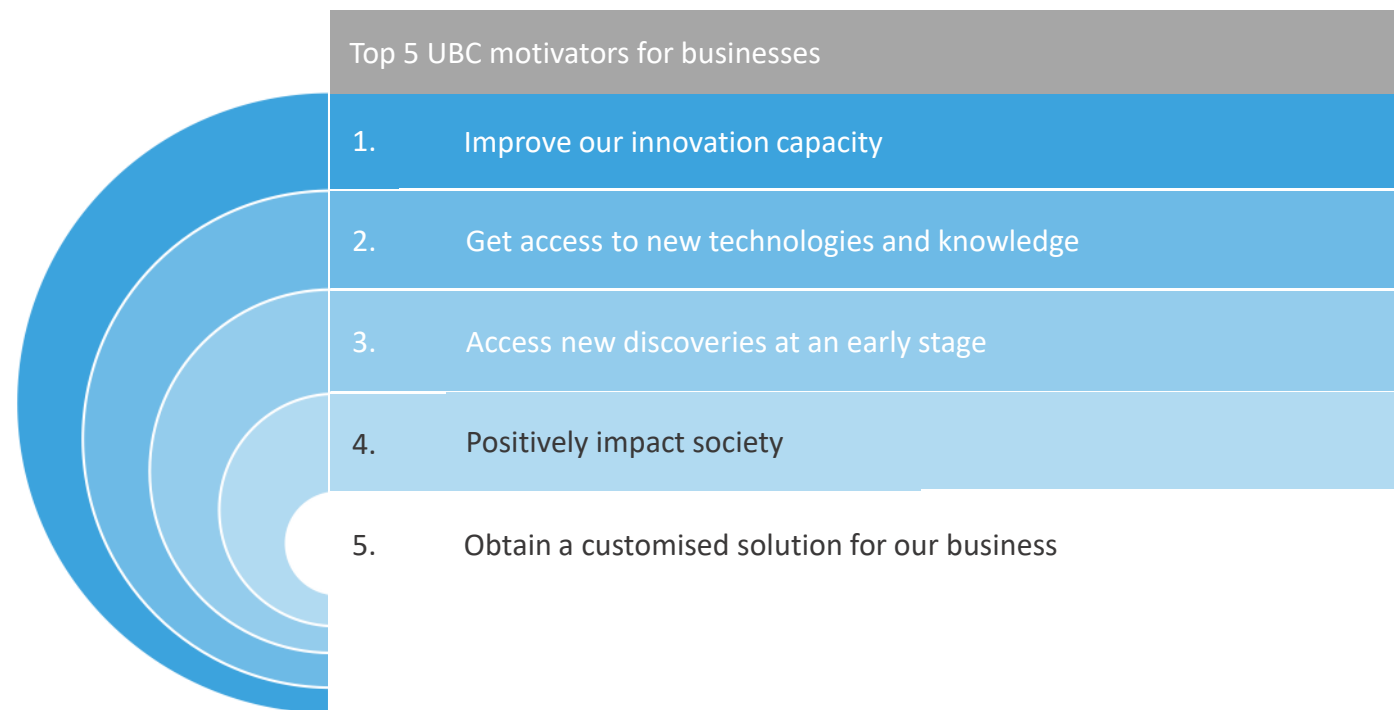A less important but still relevant motivation is to obtain a customised solution for the business.

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.

The ability of the collaboration to achieve these outcomes will have a substantial influence on the businesses' assessment of the success of their collaboration.

Motivators

'What motivates you to cooperate with universities?'

Top 5 UBC motivators for businesses	
1.	Improve our innovation capacity
2.	Get access to new technologies and knowledge
3.	Access new discoveries at an early stage
4.	Positively impact society
5.	Obtain a customised solution for our business

Drivers stimulating UBC

Motivators

'What motivates you to cooperate with universities?'
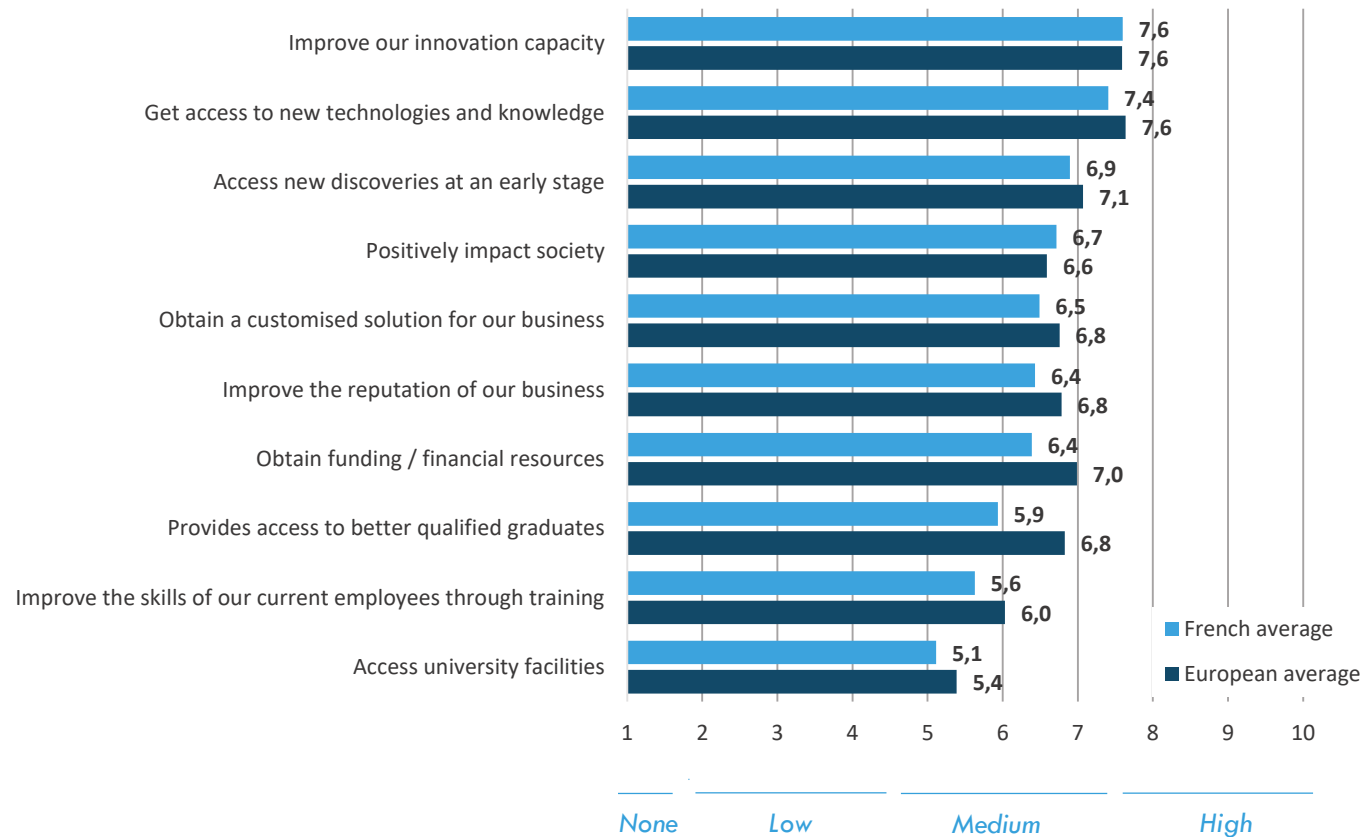
Overall, the importance of the motivations is perceived in most of the cases lower by French businesses compared to European average.

Like their European counterparts, French businesses are not highly motivated to collaborate in training opportunities with HEIs. In the French context, universities are mostly focused on initial training programmes and to a very low extent on vocational education. This issue results today in a public debate about the role of the university: is it only about giving basic education or also addressing employers' needs.

Notably, French businesses are significantly less motivated than their European counterparts to obtain funding/financial resources and to access to better qualified graduates.

Benefits of UBC

French and European businesses have almost the same perceptions in respect to which stakeholders groups benefit more or less from UBC.

Both groups see students as the primary beneficiaries of UBC, followed by universities and academics.

Notably, although French businesses see themselves also as an important UBC beneficiary, they still perceive more benefits for university stakeholders.

The lowest benefits are perceived to be for society and government.

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 of UBC

'Who receives the benefits of UBC?'

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

Future intentions

Future UBC intentions – FRANCE

As answered by French businesses

- increase
- maintain
- decrease
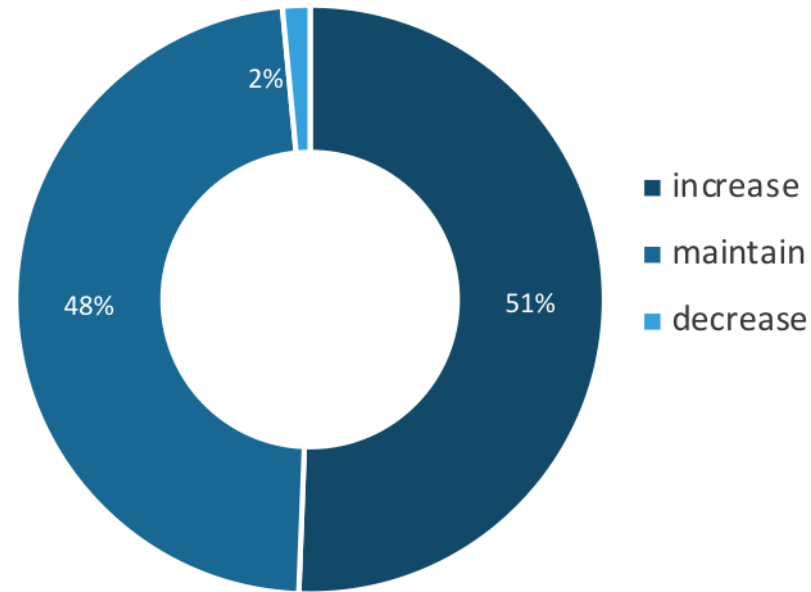
1%
45%
54%
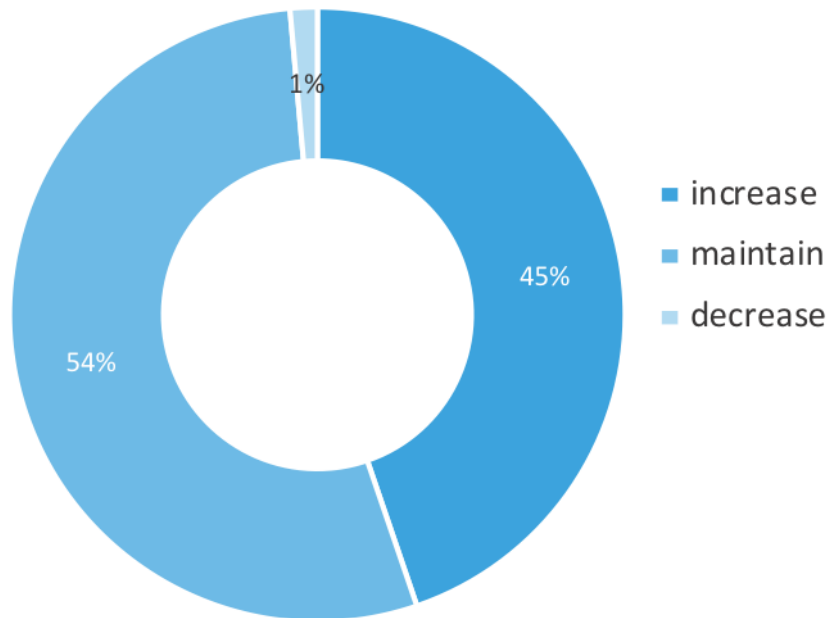
99% of French businesses that currently cooperate with universities plan to maintain or increase their cooperation, with only 1% intending to reduce it. This shows an important momentum for UBC in the French industry.

Future UBC intentions – EUROPE

As answered by European businesses

- increase
- maintain
- decrease

2%
48%
51%

European businesses seem to be even more 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.

Willingness to recommend UBC

The willingness of French businesspeople already cooperating with universities to recommend to a colleague to engage in UBC is in general lower than in Europe and highly varies depending on whether this cooperation is in research or in education.

While 35% of French businesses will promote UBC in research positively, 22% would do it negatively (NPS=13). French businesses are also considerably less satisfied with their cooperation in education (NPS= -15). Only 26% of respondents would recommend it and as much as 40% would not do it at all.

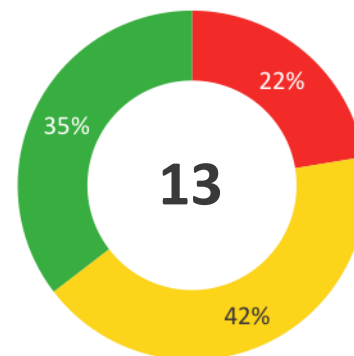Respondents were asked how likely it would be that they recommend to a business colleague to engage in UBC in the areas of R&D and education and training (E&T). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

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

	Detractors	Passives	Promoters
Business cooperating with universities in R&D	22%	42%	35%
Business cooperating with universities in E&T	40%	34%	26%

Net promotor score
13
-15

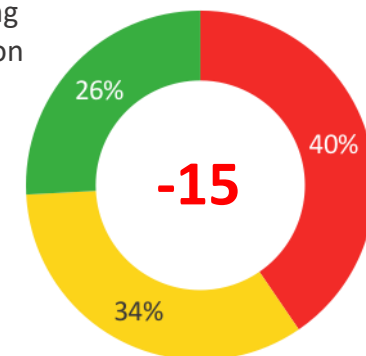**Satisfaction with cooperation with universities (net promoter score)**

Business cooperating in research

Business cooperating in education

European business NPS result: 28.2
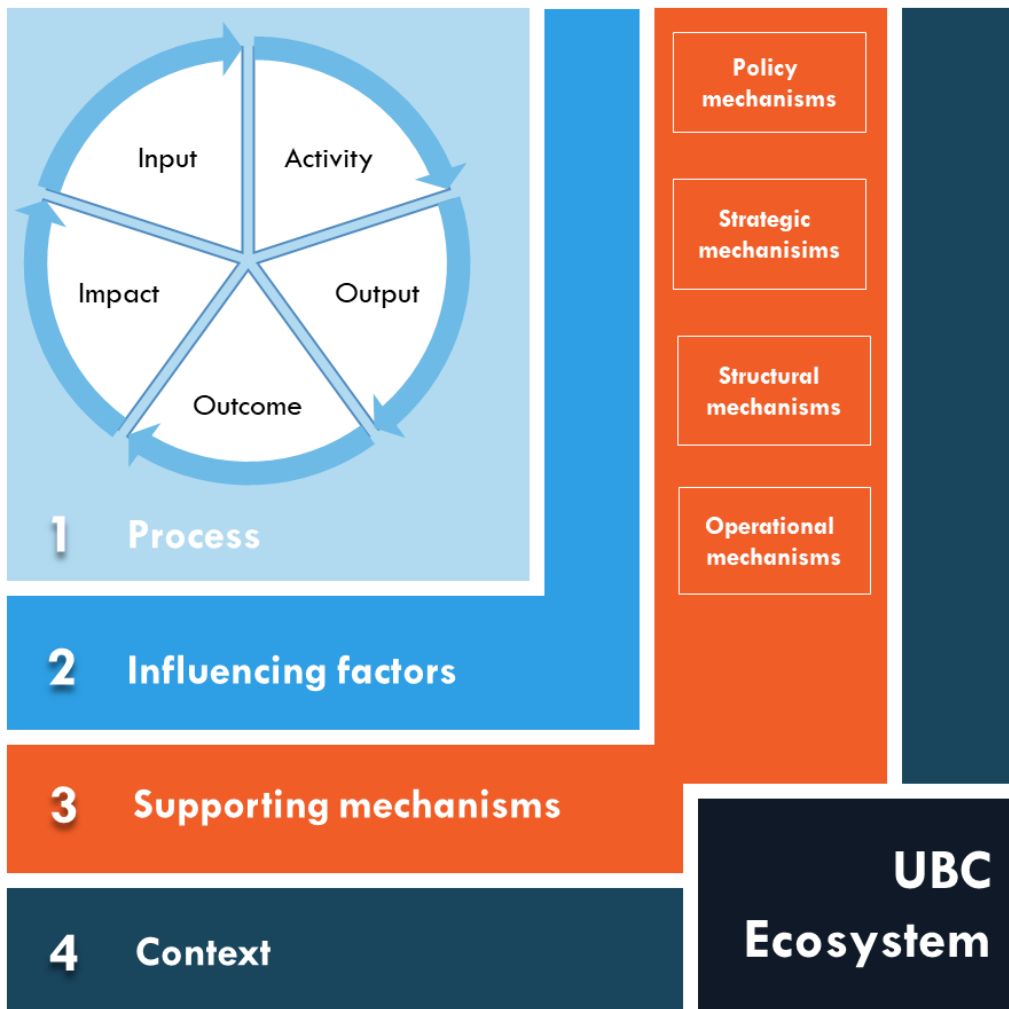
European business NPS result: -2.1

23

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

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

The most developed mechanism supporting UBC is a structured/systematic R&D programme, a mandatory component for projects funded through the competitiveness cluster[1] scheme.

A strategy for collaborating with universities and the practise of recruiting PhD students or scientists into business (35% both) are also well developed, also given that the R&D Tax Credit[2] system supports the recruitment of PhD holders.

Compared to the European average, UBC supporting mechanisms in France are generally less common. Particularly, the French business managers are significantly less devoted to UBC, as French managers are generally not familiar with the research carried out in universities.

Compared to the European average, lower percentage of French companies allocate resources specifically for UBC. They also propose less presentations, lectures or mentoring services within the university and less networking sessions or meetings for the employees for interaction with academics.

[1] Pole de compétitivité. URL: https://www.eurofound.europa.eu/observatories/emcc/erm/support-instrument/poles-of-competitiveness
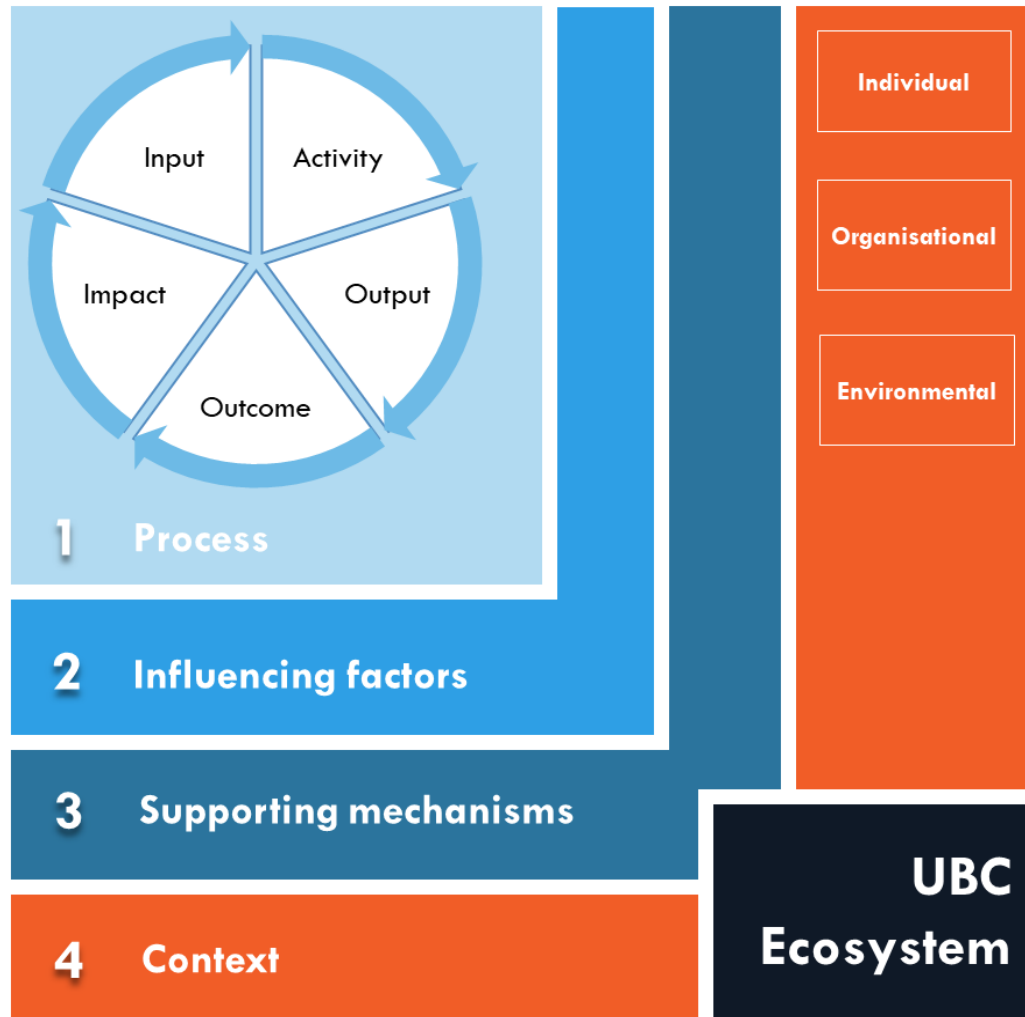
[2] OECD (2016). R&D tax incentive country profiles 2015: France. Measuring R&D tax incentives. Directorate for Science, Technology and Innovation, February 2016. URL: http://www.oecd.org/sti/RDTax%20Country%20Profiles%20-%20FRA.pdf

Mechanisms supporting UBC

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

% of respondents
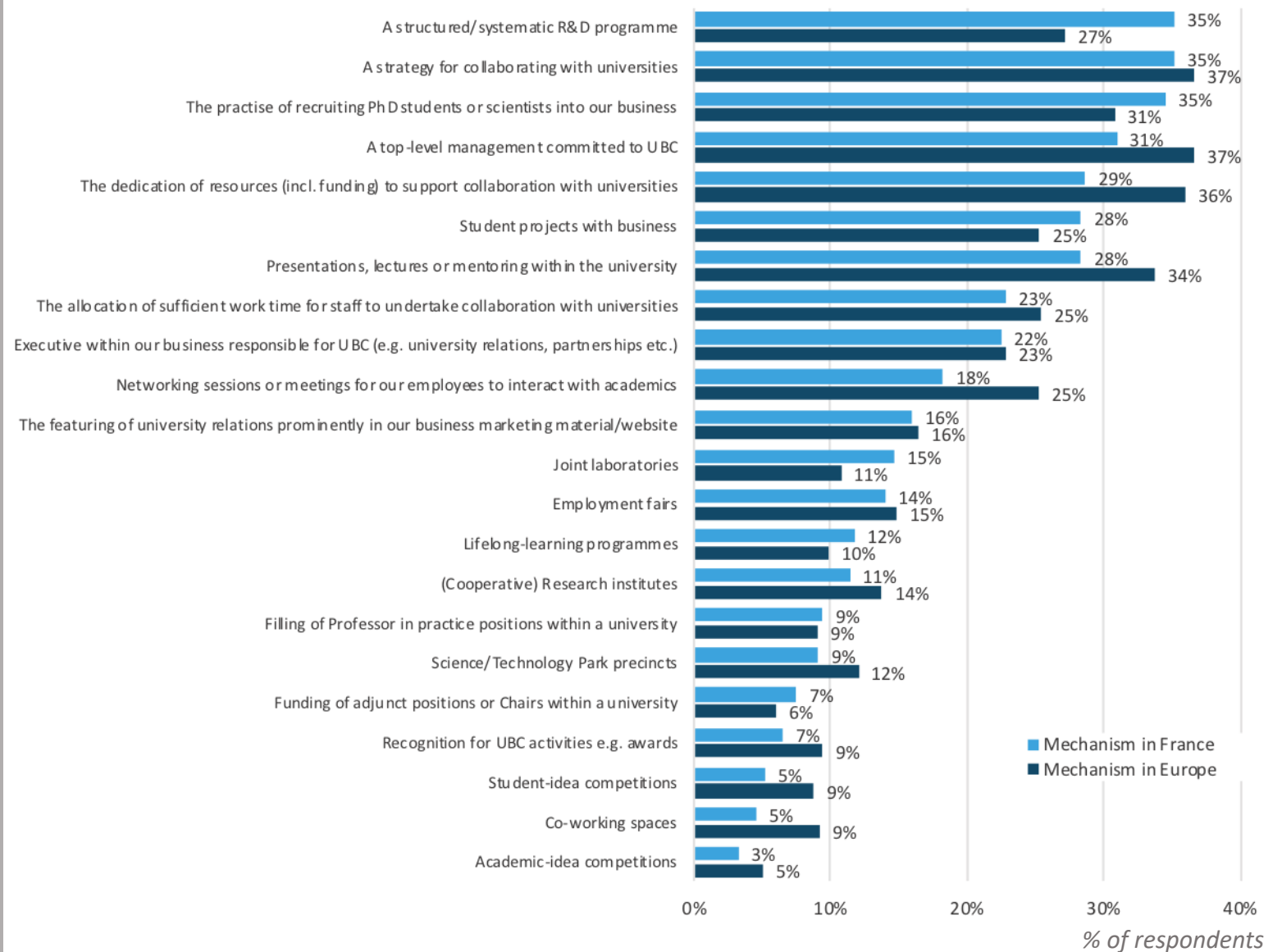
Context

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.

Context

French business cooperating with universities perceive their context differently compared to European cooperating businesses.
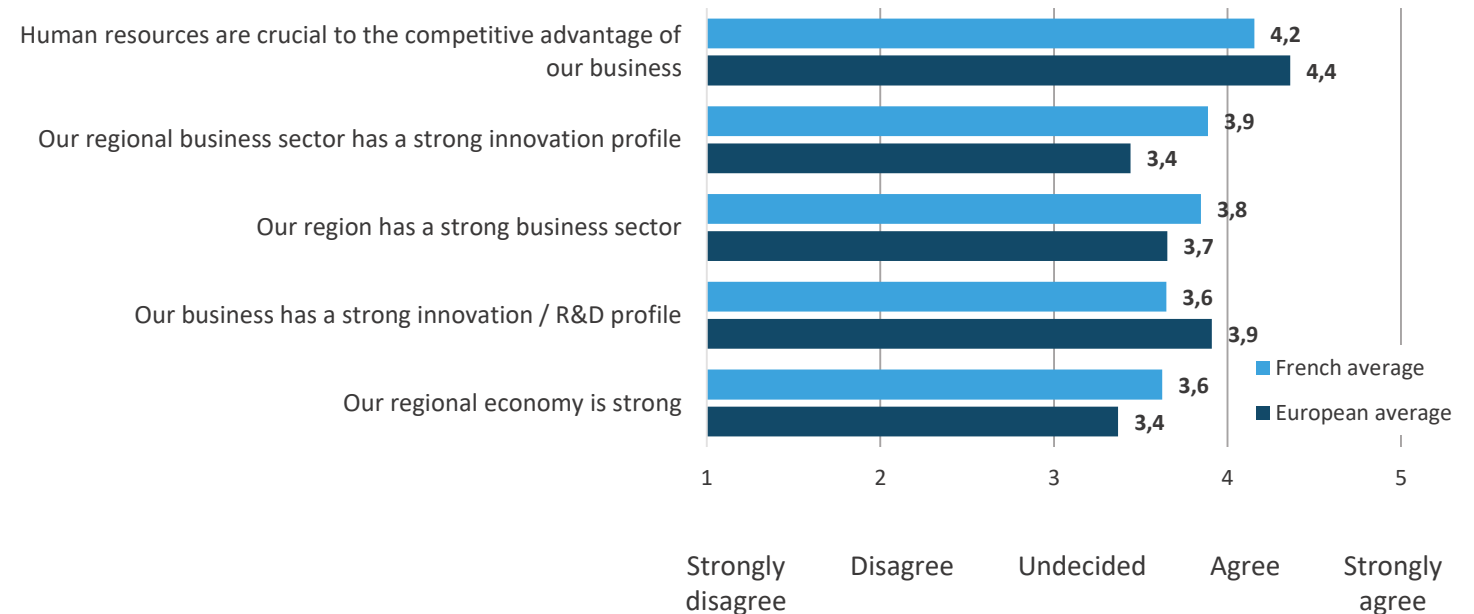
Yet, for both groups, human resources are essential for their competitiveness.

French businesses consider their regional business sector to be generally stronger and to have stronger innovation profile compared to the European average.

A slightly lower perception emerges regarding the characteristics of the French companies' innovation and R&D profile.

Contextual factors affecting UBC

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

Statement	French average	European average
Human resources are crucial to the competitive advantage of our business	4,2	4,4
Our regional business sector has a strong innovation profile	3,9	3,4
Our region has a strong business sector	3,8	3,7
Our business has a strong innovation / R&D profile	3,6	3,9
Our regional economy is strong	3,6	3,4

Scale: 1 Strongly disagree — 2 Disagree — 3 Undecided — 4 Agree — 5 Strongly agree

UBC capabilities and beliefs

Supportive UBC environment

How supportive are your organisation and environment for UBC?'

Statement	French average	European average
Our business has the capability to absorb the knowledge and technology coming from universities	6,9	7,3
Our business believes that universities can play a very important role in our innovation efforts	6,6	7,0
Our business believes it is our responsibility to collaborate with universities in research	6,3	6,4
Our business has sufficient university contacts and relations that we could approach for collaboration	6,0	6,7
Our business believes it is our responsibility to collaborate with universities in education	5,8	5,8
Our business has a lot to offer to universities in research	5,8	6,5
Our business has a lot to offer to universities in developing and delivering education and training	5,7	6,3
There is sufficient support within our business to undertake UBC	5,5	6,5
Our business has sufficient knowledge of what universities want from collaboration	5,2	6,2
Our business has sufficient skills and knowledge of UBC (including the procedures and processes)	5,0	6,1

Scale: 1 — 10: None / Low / Medium / High

Overall, compared to the European average, French businesses perceive themselves in all categories in a more negative way and less supportive towards cooperation with universities.

They have the capability to absorb knowledge and technology from universities, whereas universities in turn are perceived to play an important role in their innovation efforts.

Yet, French businesses state that they have less sufficient knowledge of what universities want and lack sufficient skills and knowledge of UBC.

Nonetheless, French businesses are just as supportive towards UBC in education as their European counterparts.

Respondents profile

Position of respondent
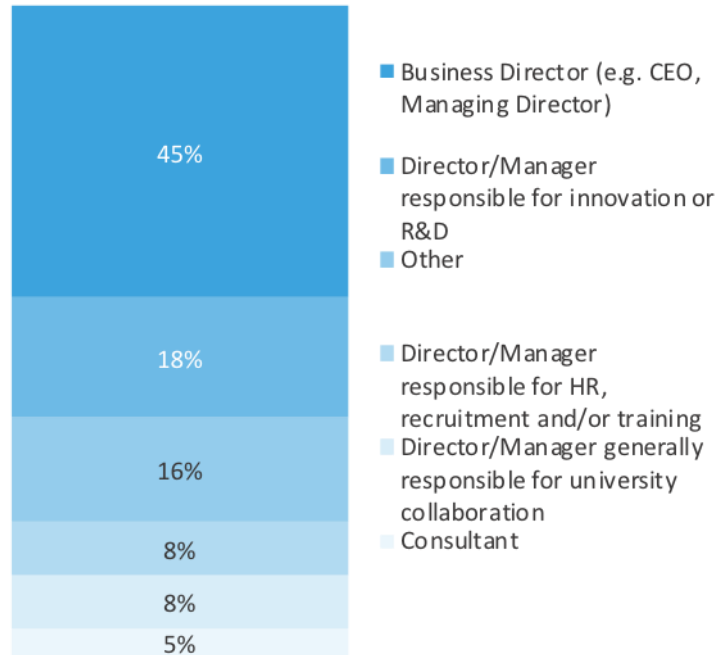
Almost half of the French business sample (45%) are business directors, which represent the largest group. It is followed by directors responsible for innovation or R&D (18%). The remaining business identified themselves as HR directors responsible for recruitment and trainings (8%), university managers (8%) and consultants (5%). 16% of the French respondents hold 'other' positions.

Type of business
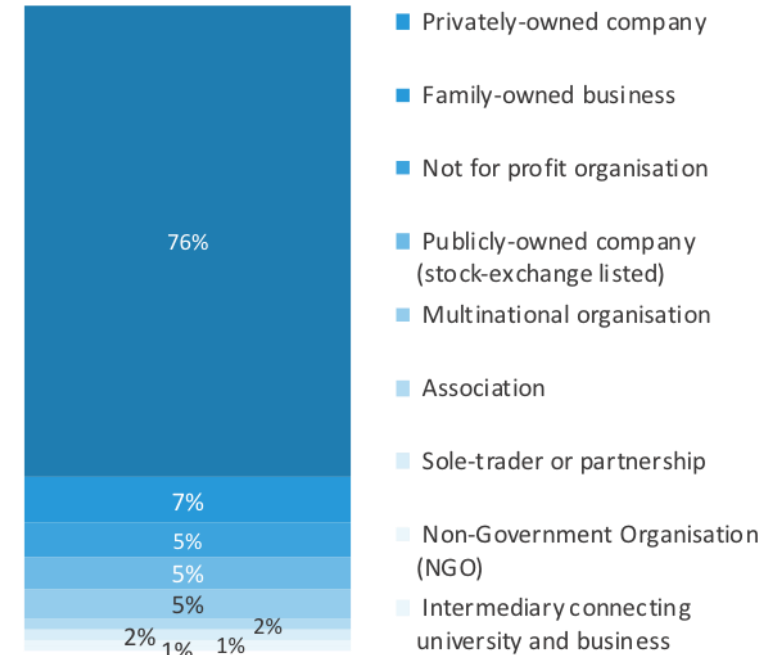
A wide variety of businesses were represented in the French sample, but over three quarters of them (76%) are privately-owned companies. The type of businesses with less than 10% of representation include: family-owned businesses, not for profit organisations, publicly-owned companies, multinational organisations, associations, sole-trader or partnerships, NGOs and intermediaries connecting universities and businesses.

Respondents profile

Business size
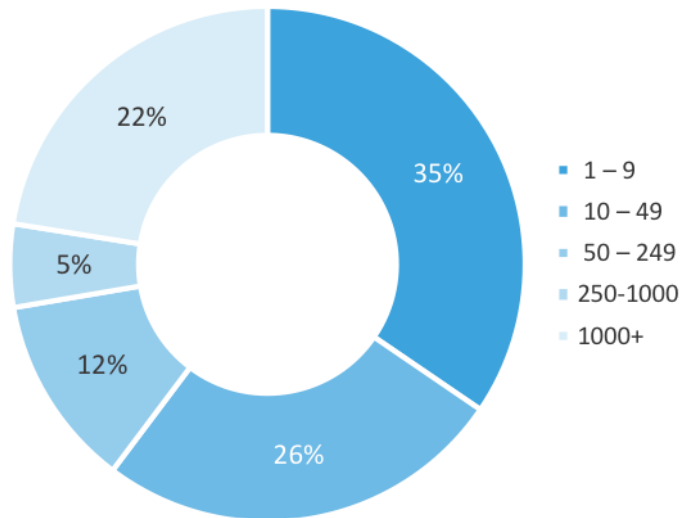
Sample Size	
French business representatives	n = 307
European business representatives	n = 3.113

One third (35%) of the French business sample is comprised by micro-companies (1 to 9 employees), followed by small firms (26%) and large companies with more than 1,000 employees (22%). 12% of business representatives work for medium-sized companies. Large companies (250 to 1,000 employees) are represented by 5% of the business representatives in the sample.

UNIVERSITY-BUSINESS
COOPERATION IN EUROPE

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

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

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