“The university-business cooperation of Portugal is driven by people with strong focus on their students”
The university-business cooperation of Portugal is driven by people with strong focus on their students.

Portugal has a focus of university-business cooperation (UBC) in Mobility of students and Lifelong Learning (LLL); however, has much less development relatively of Collaboration in Research and Development (R&D) and Commercialisation of R&D compared to colleagues in Europe. The Portuguese assess the Barriers to UBC in their country to be some of the highest in Europe, with the greatest Barriers being ‘funding barriers’ and bureaucracy. With UBC Drivers perceived to be above the European average, it seems that reducing the perceived Barriers of UBC, particularly funding and bureaucracy, could result in a notable increase in UBC. Furthermore, the development of mechanisms that support UBC, particularly ‘implementation strategies’ and ‘providing incentives to academics for UBC’ could further develop Portuguese UBC as well.

In Portugal, there is considerable percentage of the academics that are still not aware of the possibilities of the different types of UBC or not actively involved. Most academics involved in UBC do it in an informal or personal approach, which is prevalent in most Portuguese HEIs over the formal UBC.
The State of University-Business Cooperation (UBC) in PORTUGAL

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2. About the study – 4
3. Extent of University Business Cooperation (UBC)
4. Influencing factors – 7
5. Supporting mechanism development – 17
6. The UBC ecosystem – 30

The UBC ecosystem

1. Indirect outcome (society)
2. Direct outcome (stakeholder)
3. University-Business Cooperation (UBC) types
4. Influencing factors
5. Supporting mechanisms
6. Key stakeholders
About the study

The results presented in this report were from a study commissioned by the European Commission (EC). Surveys were sent out to all registered European HEIs in 33 countries in 2011. In total, 6,280 responses were received from European academics and HEI management (HEI managers and HEI professionals working with industry) whilst from Spain, 596 responses from academics (471) and HEI management (125) were received. The study measured the perceptions of these two groups in respect to their

Methodology

The survey was created during a project completed with the EC in a fifteen and a half month study on the cooperation between HEIs and public and private organisations in Europe. The main components of the project were in-depth qualitative interviews with 10 recognised industry experts as well as a major quantitative survey. The survey was translated into 22 languages and sent to all registered European HEIs (numbering over 3,000) in 33 countries during March 2011. Through this, a final sample population of 6,280 academics and HEI management was achieved making the study the largest study into cooperation between HEIs and business yet completed in Europe.

Objective

The objective of this report is to evaluate the current status of UBC in Spain and benchmark these outcomes against European HEIs. As a result of this analysis, the reader will have a clearer understanding of the extent of cooperation with business. Furthermore, the report aims to highlight the Barriers and Drivers preventing or motivating cooperation as well as the extent of development of mechanisms supporting UBC, in comparison with the European average.

Questions were posed to two groups within HEIs. These groups were asked about their perception of UBC:

1. Individual academics were asked to respond on behalf of themselves.
2. HEI management (HEI managers and university professionals working with industry) were asked to respond on behalf of their HEI.

<table>
<thead>
<tr>
<th>Focus</th>
<th>Responded on behalf of</th>
<th>Colour code for results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Academics</td>
<td>Indv. academics</td>
</tr>
<tr>
<td>2</td>
<td>HEIs</td>
<td>HEI management and university professionals working with industry</td>
</tr>
</tbody>
</table>

Colour codes have been used throughout the report to identify those results received from the academic (green) and those results received from the HEI (orange).
Extent of UBC

Eight types of cooperation between university and business have been recognised in the State of European UBC Report with the following descriptions:

1. **Collaboration in R&D**
   - Includes joint R&D activities, contract research, R&D consulting, cooperation in innovation, joint publications with firm scientists/researchers, joint supervision of theses (Bachelor, Master or PhD) or projects in cooperation with business.

2. **Mobility of academics**
   - Consists of temporary movement of professors, researchers from HEIs to business; and employees, managers and researchers from business to HEIs.

3. **Mobility of students**
   - Consists of temporary movement of students from HEIs to business.

4. **Commercialisation of R&D results**
   - Includes the commercialisation of scientific R&D results through disclosures of inventions, patenting and licenses.

5. **Curriculum development & delivery**
   - Consists of the joint development of a programme of courses, modules, majors or minors, planned experiences as well as guest lectures by delegates from external private and public organisations within undergraduate, graduate or PhD programmes.

6. **Lifelong learning**
   - Includes the provision of adult education, permanent education and/or continuing education involving the acquisition of skills, knowledge, attitudes and behaviours by HEIs to people working in external organisations.

7. **Entrepreneurship**
   - Consists of actions involving HEIs towards the creation of new ventures or developing entrepreneurial mind-sets in cooperation with business.

8. **Governance**
   - Includes academics involved in firm decision-making or sitting on the boards of firms and also having business leaders involved in HEI decision-making or sitting on the boards of HEIs or at a faculty management level.

**Relationship among cooperation types**

The study identified that HEIs tend to cooperate at a similar level in all UBC types e.g. if they cooperate to a high extent with business in **Collaboration in R&D**, they cooperated to a similar extent for all the types of UBC.
Extent of University-Business Cooperation in Portugal

As answered by HEI representatives

- Mobility of students: 6.8 (Portugal), 6.3 (Europe)
- Lifelong learning: 6.4 (Portugal), 5.8 (Europe)
- Entrepreneurship: 6.1 (Portugal), 5.7 (Europe)
- Curriculum development and delivery: 6.0 (Portugal), 5.8 (Europe)
- Collaboration in research and development: 6.4 (Portugal), 6.0 (Europe)
- Governance: 5.1 (Portugal), 5.2 (Europe)
- Commercialisation of research and development results: 4.8 (Portugal), 5.4 (Europe)
- Mobility of academics: 4.8 (Portugal), 4.7 (Europe)

ACAD

HEIs
Factors influencing the extent of UBC

The coming section will outline the extent to which a number of factors affect cooperation within business in Spain. These factors have been found to significantly influence cooperation within the European context.

Benefits for students, the HEI, business, society and academics.

Drivers relating to:
- Commercial, practical and logistical drivers,
- Relationship drivers.

Barriers relating to:
- Usability of results,
- Organisational and relational barriers,
- Funding barriers.
### Barriers (grouped) to cooperation – Portugal vs Europe

*As answered by academics and HEI representatives*

<table>
<thead>
<tr>
<th></th>
<th>Extent of relevance (1-10)</th>
<th>Extent of relevance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Usability of results</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The focus on producing practical results by business,</td>
<td>Portugal 6.3</td>
<td>Europe 6.1</td>
</tr>
<tr>
<td>• The need for business to have confidentiality of research results,</td>
<td>HEI 6.1</td>
<td>HEI 6.0</td>
</tr>
<tr>
<td>• Business fear that their knowledge will be disclosed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Funding barriers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of external funding for University-Business cooperation,</td>
<td>Portugal 7.4</td>
<td>Europe 6.5</td>
</tr>
<tr>
<td>• Lack of financial resources of the business,</td>
<td>HEI 7.7</td>
<td>HEI 6.8</td>
</tr>
<tr>
<td>• Lack of HEI funding for UBC,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The current financial crises.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relational barriers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Business lack awareness of HEI research activities / offerings,</td>
<td>Portugal 7.0</td>
<td>Europe 6.4</td>
</tr>
<tr>
<td>• The limited absorption capacity of SMEs to take on internships or projects,</td>
<td>HEI 6.9</td>
<td>HEI 6.2</td>
</tr>
<tr>
<td>• Differing time horizons between HEI and business,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Differing motivation / values between HEI and business,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Universities lack awareness of opportunities arising from UB-cooperation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bureaucracy within or external to the HEI,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Limited ability of business to absorb research findings,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Differing mode of communication and language between HEI and business,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A lack of contact people with scientific knowledge within business,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Difficulty in finding the appropriate collaboration partner,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No appropriate initial contact person within either the HEI or business.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Main barriers to cooperation – Portugal vs Europe
As answered by HEI representatives

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Portugal</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of external funding for UBC</td>
<td>7,8</td>
<td>7,8</td>
</tr>
<tr>
<td>Lack of university funding for UBC</td>
<td>7,8</td>
<td>7,8</td>
</tr>
<tr>
<td>Lack of financial resources of the business</td>
<td>6,9</td>
<td>6,7</td>
</tr>
<tr>
<td>Business lack awareness of university research activities / offerings</td>
<td>6,7</td>
<td>6,1</td>
</tr>
<tr>
<td>The current financial crises</td>
<td>7,7</td>
<td>7,5</td>
</tr>
<tr>
<td>Limited ability of business to absorb research findings</td>
<td>7,2</td>
<td>7,4</td>
</tr>
<tr>
<td>Bureaucracy within or external to the university</td>
<td>6,2</td>
<td>6,4</td>
</tr>
<tr>
<td>Universities lack awareness of opportunities arising from UBC</td>
<td>7,2</td>
<td>7,1</td>
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<td>A lack of contact people with scientific knowledge within business</td>
<td>6,9</td>
<td>6,1</td>
</tr>
<tr>
<td>No appropriate initial contact person within either the university or</td>
<td>6,8</td>
<td>5,9</td>
</tr>
<tr>
<td>business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The limited absorption capacity of SMEs to take on internships or</td>
<td>6,7</td>
<td>5,4</td>
</tr>
<tr>
<td>projects</td>
<td></td>
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</tr>
<tr>
<td>Difficulty in finding the appropriate collaboration partner</td>
<td>6,7</td>
<td>5,9</td>
</tr>
<tr>
<td>Differing time horizons between university and business</td>
<td>6,6</td>
<td>6,6</td>
</tr>
<tr>
<td>Differing mode of communication and language between university</td>
<td>6,6</td>
<td>6,6</td>
</tr>
<tr>
<td>and business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differing motivation / values between university and business</td>
<td>6,4</td>
<td>6,0</td>
</tr>
<tr>
<td>The focus on producing practical results by business</td>
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<td>6,2</td>
</tr>
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</tr>
<tr>
<td>Business fear that their knowledge will be disclosed</td>
<td>5,8</td>
<td>5,8</td>
</tr>
</tbody>
</table>

For further information, go to www.ub-cooperation.eu/index/portugal
Drivers (grouped) of cooperation – Portugal vs Europe

As answered by academics and HEI representatives

### Relationship drivers

- Existence of mutual trust,
- Existence of mutual commitment,
- Having a shared goal,
- Understanding of common interest by different stakeholders (e.g. universities; business; individuals; students),
- Prior relation with the business partner,
- Cooperation as effective means to address societal challenges and issues.

<table>
<thead>
<tr>
<th></th>
<th>Extent of facilitation (1-10) Portugal</th>
<th>Extent of facilitation (1-10) Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEI</td>
<td>7.3</td>
<td>7.0</td>
</tr>
<tr>
<td>ACAD</td>
<td>6.7</td>
<td>5.6</td>
</tr>
</tbody>
</table>

### Business drivers

- Employment by business of HEI staff and students,
- Interest of business in accessing scientific knowledge,
- Possibility to access funding / financial resources for working with business,
- Short geographical distance of the HEI from the business partner,
- Flexibility of business partner,
- Access to business-sector research and development facilities
- Commercial orientation of the HEI.

<table>
<thead>
<tr>
<th></th>
<th>Extent of facilitation (1-10) Portugal</th>
<th>Extent of facilitation (1-10) Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEI</td>
<td>6.2</td>
<td>6.7</td>
</tr>
<tr>
<td>ACAD</td>
<td>6.0</td>
<td>5.6</td>
</tr>
</tbody>
</table>
Main drivers of cooperation – Portugal vs Europe

As answered by HEI representatives

- Existence of mutual trust
  - Portugal: 7.5
  - Europe: 7.6

- Existence of mutual commitment
  - Portugal: 7.5
  - Europe: 7.1

- Understanding of common interest by different stakeholders
  - Portugal: 7.4
  - Europe: 7.1

- Having a shared goal
  - Portugal: 7.3
  - Europe: 7.1

- Employment by business of university staff and students
  - Portugal: 7.2
  - Europe: 6.4

- Cooperation as effective means to address societal challenges and issues
  - Portugal: 6.8
  - Europe: 7.2

- Prior relation with the business partner
  - Portugal: 7.0
  - Europe: 6.8

- Interest of business in accessing scientific knowledge
  - Portugal: 6.6
  - Europe: 6.3

- Short geographical distance of the university from the business partner
  - Portugal: 6.1
  - Europe: 6.3

- Access to business-sector research and development facilities
  - Portugal: 5.8
  - Europe: 6.2

- Possibility to access funding / financial resources for working with business
  - Portugal: 6.2
  - Europe: 6.2

- Flexibility of business partner
  - Portugal: 6.0
  - Europe: 6.0

- Commercial orientation of the university
  - Portugal: 5.3
  - Europe: 5.2

For further information, go to www.ub-cooperation.eu/index/portugal
Benefits (grouped) from cooperation – Portugal vs Europe

As answered by academics

<table>
<thead>
<tr>
<th>Benefits for students</th>
<th>Extent of importance (1-10)</th>
<th>Extent of importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portugal</td>
<td>Europe</td>
</tr>
<tr>
<td>• UB activities improve employability of future graduates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• UB activities improve the learning experience of students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACAD</td>
<td>8.4</td>
<td>7.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for business</th>
<th>Extent of importance (1-10)</th>
<th>Extent of importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portugal</td>
<td>Europe</td>
</tr>
<tr>
<td>• UB activities improve the performance of business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACAD</td>
<td>8.3</td>
<td>7.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for HEIs</th>
<th>Extent of importance (1-10)</th>
<th>Extent of importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Successful UBC is vital to achieving the mission of the HEI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACAD</td>
<td>7.8</td>
<td>6.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for academics</th>
<th>Extent of importance (1-10)</th>
<th>Extent of importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Successful UBC is an excellent way of getting funding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Successful UBC increases my reputation in my field of research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Successful UBC is vital to my research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• UB activities improve my standing within the university</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• UBC activities increase my chances of promotion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACAD</td>
<td>6.2</td>
<td>5.9</td>
</tr>
</tbody>
</table>
## Benefits from cooperation – Portugal vs Europe

*As answered by academics*

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Portugal</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>UB activities improve the learning experience of students</td>
<td>8.5</td>
<td>7.8</td>
</tr>
<tr>
<td>UB activities improve employability of future graduates (transition to labour market)</td>
<td>8.4</td>
<td>8.0</td>
</tr>
<tr>
<td>UB activities improve the performance of business</td>
<td>8.3</td>
<td>7.6</td>
</tr>
<tr>
<td>Successful UBC is vital to achieving the mission of the university</td>
<td>7.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Successful UBC is an excellent way of getting funding</td>
<td>7.6</td>
<td>7.3</td>
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<tr>
<td>Successful UBC increase reputation in my field of research</td>
<td>7.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Successful UBC is vital to my research</td>
<td>6.2</td>
<td>5.9</td>
</tr>
<tr>
<td>UB activities improve my standing within the university</td>
<td>5.2</td>
<td>4.8</td>
</tr>
<tr>
<td>UB activities increase my chances of promotion</td>
<td>4.4</td>
<td>4.6</td>
</tr>
</tbody>
</table>
Benefits (grouped) from cooperation – Portugal vs Europe

As answered by HEI representatives

<table>
<thead>
<tr>
<th>Benefits for the HEI</th>
<th>Extent of importance (1-10)</th>
<th>Extent of importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portugal</td>
<td>Europe</td>
</tr>
<tr>
<td>UBC is vital to achieving the mission of the HEI.</td>
<td>HEI 8.4</td>
<td>HEI 7.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for students</th>
<th>Extent of importance (1-10)</th>
<th>Extent of importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portugal</td>
<td>Europe</td>
</tr>
<tr>
<td>UBC increases skills and graduate development</td>
<td>HEI 8.8</td>
<td>HEI 8.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for business and society</th>
<th>Extent of importance (1-10)</th>
<th>Extent of importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portugal</td>
<td>Europe</td>
</tr>
<tr>
<td>UBC has beneficial effects on the local industry</td>
<td>HEI 7.9</td>
<td>HEI 7.3</td>
</tr>
<tr>
<td>UBC improves regional productivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBC creates local employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBC increases local GDP and disposable income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBC creates a range of beneficial social and recreational benefits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Benefits from cooperation – Portugal vs Europe

As answered by HEI representatives

- **UBC increases skills and graduate development**: Portugal 8.8, Europe 8.5
- **UBC is vital to achieving the mission of the university**: Portugal 8.4, Europe 7.7
- **UBC improves regional productivity**: Portugal 8.2, Europe 7.6
- **UBC creates local employment**: Portugal 8.1, Europe 7.3
- **UBC increases local GDP and disposable income**: Portugal 8.0, Europe 7.3
- **UBC has beneficial effects on the local industry**: Portugal 7.7, Europe 7.7
- **UBC creates a range of beneficial social and recreational benefits**: Portugal 7.5, Europe 6.7

**Not at all** 1  **Low** 2  **Medium** 4  **High** 8
Using the State of European University-Business Cooperation (HIPPO) study results, decision makers, managers and practitioners involved in UBC can benefit from receiving:

1. a benchmark in terms of UBC of your organisation, institution, sector, region or country against others.
2. a clear picture of progress in efforts to increase UBC,
3. proactive areas of focus for increasing UBC,
4. the required information to advance UBC within their region or institution

A state of the UBC report dedicated to your organisation can assist with developing greater financial and non financial benefits from UBC. It will be provided to your organisation in the form of a report and/or presentation.

Please contact davey@apprimo.com for more information.
Supporting mechanisms for UBC

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

The coming section will outline the extent to which UBC supporting mechanisms are developed in Spain. The development of these mechanisms has been found to significantly influence cooperation within the European context.

- Documented (Paper) strategies
- Implementation strategies

- Role-based approach in UBC
- Internal/External agencies focused on UBC

- Internally focussed education and workshops focused on academics and/or students
- Externally focussed networking, promotional and project activities
Supporting mechanisms explained

The UBC Supporting mechanisms constitute the ‘action-level’, where all stakeholders need to focus their efforts when they want to influence the extent of UBC.

The specific role and importance of Supporting mechanisms at HEIs has long been recognised in both practice and literature. They are often recognised in multiple ways including (i) in a variety of different names (e.g. interventions, enablers), (ii) captured in a model (e.g. ecosystem, regional innovation system) or (iii) known as individual elements (e.g. activities, infrastructure).

A key finding of the State of European UBC Report was that the extent of development of the Supporting mechanisms was found to significantly affect the extent of general activity between HEIs and business. The nature of the Supporting mechanisms in terms of (i) responsibility, (ii) expense and (iii) time to impact are summarised in the table below.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Primary responsibility for the mechanism</th>
<th>Secondary responsibility</th>
<th>Expense</th>
<th>Time to impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI management</td>
<td>HEI management</td>
<td>All UBC stakeholders</td>
<td>Low</td>
<td>Long term</td>
</tr>
<tr>
<td>Structures and approaches</td>
<td>HEI / regional Govt. and agencies</td>
<td>Regional UBC stakeholders</td>
<td>Agencies: High Personnel: Med-high</td>
<td>Agencies: Long Personnel: Medium</td>
</tr>
<tr>
<td>Operational activities</td>
<td>Knowledge transfer Professionals</td>
<td>Regional UBC stakeholders</td>
<td>Medium</td>
<td>Short-medium term</td>
</tr>
</tbody>
</table>
# Development of UBC Strategies (grouped) – Portugal vs Europe

*As answered by HEI representatives*

<table>
<thead>
<tr>
<th>Documented (Paper) strategies</th>
<th>Extent of development (1-10)</th>
<th>Extent of development (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A top-level management committed to University-Business cooperation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A documented mission / vision embracing University-Business cooperation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A strategy for University-Business cooperation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The internal promotion of University-Business cooperation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The external promotion of University-Business cooperation.</td>
<td>Portugal: 6.7</td>
<td>Europe: 6.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implementation and motivation strategies</th>
<th>Extent of development (1-10)</th>
<th>Extent of development (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The dedication of resources (inc. funding) to support University-Business cooperation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The provision of incentives for academics to encourage University-Business cooperation,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The inclusion of ‘cooperation with business’ as part of the assessment of work performance for academics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Portugal: 4.9</td>
<td>Europe: 5.4</td>
</tr>
</tbody>
</table>
UBC Strategies / supporting mechanisms

Development of UBC strategies – Portugal vs Europe

As answered by HEI representatives

- A top-level management committed to UBC: Portugal 7.3, Europe 7.3
- A documented mission / vision embracing UBC: Portugal 6.9, Europe 6.9
- The internal promotion of UBC: Portugal 6.5, Europe 6.6
- A strategy for UBC: Portugal 6.3, Europe 6.8
- The external promotion of UBC: Portugal 6.2, Europe 6.3
- The inclusion of ‘cooperation with business’ as part of the assessment of work performance for academics: Portugal 5.1, Europe 5.0
- The provision of incentives for academics to encourage UBC: Portugal 4.8, Europe 5.4
- The dedication of resources (inc. funding) to support UBC: Portugal 4.7, Europe 5.7

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For further information, go to www.ub-cooperation.eu/index/portugal
### Development of UBC structures and approaches (grouped) – Portugal vs Europe

As answered by HEI representatives

#### Roles-based approaches in UBC

<table>
<thead>
<tr>
<th>Roles-based approaches in UBC</th>
<th>Extent of development (1-10)</th>
<th>Portugal</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The presence of academics on company boards,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The presence of business people on the HEI board,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Board member or vice rector positions for UBC.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The practise of recruiting industry professionals into the knowledge transfer area.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• An alumni network.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Internal/External agencies focused on UBC

<table>
<thead>
<tr>
<th>Internal/External agencies focused on UBC</th>
<th>Extent of development (1-10)</th>
<th>Portugal</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Career offices within the HEI,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Agencies external to the HEI dedicated to UBC</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Agencies (internal) within the HEI dedicated to UBC,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Incubators for the development of new business.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HEIs

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For further information, go to [www.ub-cooperation.eu/index/portugal](http://www.ub-cooperation.eu/index/portugal)
Development of UBC structures and approaches – Portugal vs Europe

As answered by HEI representatives

- An alumni network
  - Portugal: 6.2
  - Europe: 6.0

- The presence of business people on the university board
  - Portugal: 5.9
  - Europe: 6.0

- Career offices within the university
  - Portugal: 5.8
  - Europe: 6.2

- Agencies (internal) within the university dedicated to UBC
  - Portugal: 5.3
  - Europe: 5.4

- The practice of recruiting industry professionals into the knowledge transfer area
  - Portugal: 5.2
  - Europe: 5.4

- Incubators for the development of new business
  - Portugal: 4.8
  - Europe: 5.2

- Board member or vice rector positions for UBC
  - Portugal: 4.7
  - Europe: 5.6

- The presence of academics on company boards
  - Portugal: 3.6
  - Europe: 4.1

- Agencies external to the university dedicated to UBC
  - Portugal: 3.3
  - Europe: 4.1

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For further information, go to www.ub-cooperation.eu/index/portugal
## Development of UBC operational activities (grouped) – Portugal vs Europe

As answered by HEI representatives

<table>
<thead>
<tr>
<th>Internally focused education and workshops focused on academics</th>
<th>Extent of development (1-10)</th>
<th>Extent of development (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Workshops, information sessions and forums for University-Business collaboration targeting academics,</td>
<td>Portugal</td>
<td>Europe</td>
</tr>
<tr>
<td>• Entrepreneurship education offered to academics.</td>
<td>HEI 4.8</td>
<td>HEI 5.3</td>
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</table>

<table>
<thead>
<tr>
<th>Internally focused education and workshops focused on students</th>
<th>Extent of development (1-10)</th>
<th>Extent of development (1-10)</th>
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<tr>
<td>• Entrepreneurship education offered to students.</td>
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<td>Europe</td>
</tr>
<tr>
<td></td>
<td>HEI 6.7</td>
<td>HEI 6.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Externally focused networking, promotional and project activities</th>
<th>Extent of development (1-10)</th>
<th>Extent of development (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Networking sessions or meetings for academics to meet people from business,</td>
<td>Portugal</td>
<td>Europe</td>
</tr>
<tr>
<td>• The featuring of University-Business cooperation prominently on the HEI’s website,</td>
<td>HEI 5.0</td>
<td>HEI 5.7</td>
</tr>
<tr>
<td>• Collaboration activities facilitating student interaction with business,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Collaboration activities facilitating academics interaction with business.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
UBC Activities / supporting mechanisms

Development of UBC operational activities – Portugal vs Europe

As answered by HEI representatives

- Entrepreneurship education offered to students
  - Portugal: 6.7
  - Europe: 6.3

- Collaboration activities facilitating student interaction with business
  - Portugal: 6.5
  - Europe: 6.5

- Workshops, information sessions and forums for UB collaboration targeting academics
  - Portugal: 5.7
  - Europe: 5.7

- The featuring of UBC prominently on the university’s website
  - Portugal: 5.4
  - Europe: 5.4

- Networking sessions or meetings for academics to meet people from business
  - Portugal: 5.5
  - Europe: 5.5

- Entrepreneurship education offered to academics
  - Portugal: 4.8
  - Europe: 4.8

- Collaboration activities facilitating academics interaction with business
  - Portugal: 5.4
  - Europe: 5.4

HEIs

For further information, go to www.ub-cooperation.eu/index/portugal
The number of academic respondents per country reflects the size of the HEI system in the respective country. Those countries over-represented included Lithuania, Portugal, Cyprus, Latvia, Bulgaria, and Romania. Countries underrepresented included Denmark, Norway, Sweden, Germany, and United Kingdom.

To correct the over- and under-representation, a weighting system was applied.

With a few exceptions, the number of HEI respondents per country reflects the size of the HEI system in the respective country. Those countries over-represented included Latvia, Cyprus, Estonia, Lithuania, Luxembourg, and Hungary. Countries underrepresented included Italy, Spain, Greece, and Turkey.

To correct any slight over- or under-representation, a weighting system was applied.
Partners:

Science Marketing
Science-to-Business Marketing Research Centre

Authors: Victoria Galán-Muros, Todd Davey, Arno Meerman, Sue Rossano Rivero and Pedro Silva.

ISBN: 978-94-91901-01-0

For more information about the University-Business Cooperation reports please contact Todd Davey (davey@apprimo.com) and Victoria Galán Muros (galammuros@fh-muenster.de)

This document has been prepared by the authors using data that had been collected in the framework of a study prepared for the European Commission. It reflects the views only of the authors, and the Commission cannot be held responsible for any use that may be made of the information contained therein.

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References


Red OTRI, Red UGI (2012). Informe de la encuesta de investigación y transferencia de conocimiento 2011 de las universidades españolas. Conferencia de Rectores Universidades Españolas (CRUE), Madrid, Spain

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UIIN

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Victoria Galan-Muros
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If you are involved in any form of university-business collaboration (UBC) you need to understand the ‘big picture’
Describing University-Business Cooperation (UBC)

The UBC Ecosystem

A model for understanding the important elements affecting University-Business Cooperation (UBC)

Model created by
Todd Davey, Victoria Galan Muros, Arno Meerman

Model validation partners
Science-to-Business Marketing Research Centre, UIIN, apprimo UG

Co-created by
105 practitioners validating the model in their work.

The model relationships have been scientifically validated by the Science-to-Business Marketing Research Centre

1. Indirect outcome (society)
2. Direct outcome (actors)
3. University-Business Cooperation (UBC) types
4. Influencing factors
5. Supporting mechanisms
6. Key stakeholders
• attempting to develop UBC within your organisation?
• repetitively thinking about the factors affecting cooperation between university and business as well as their how they relate to each other?
• trying to foster open innovation involving universities?
• continually confronted with the challenge of creating better relationships between HEIs and business?
• a revolutionary trying to match researchers with business partners?

... if you answered ‘yes’ to any of these questions, you are not alone: this model was developed by people like you for these reasons
<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Level</th>
<th>How it impacts society</th>
<th>How it affects stakeholders</th>
<th>What occurs</th>
<th>What you have to consider</th>
<th>What you can do</th>
<th>Who is involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indirect Impact</td>
<td>Impact level</td>
<td>How it impacts society</td>
<td>How it affects stakeholders</td>
<td>What occurs</td>
<td>What you have to consider</td>
<td>What you can do</td>
<td>Who is involved</td>
</tr>
<tr>
<td>2</td>
<td>Direct outcomes</td>
<td>Outcome level</td>
<td>How it impacts society</td>
<td>How it affects stakeholders</td>
<td>What occurs</td>
<td>What you have to consider</td>
<td>What you can do</td>
<td>Who is involved</td>
</tr>
<tr>
<td>3</td>
<td>University-Business Cooperation types</td>
<td>Result level</td>
<td>What occurs</td>
<td>What you have to consider</td>
<td>What you can do</td>
<td>Who is involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Influencing factors</td>
<td>Factor level</td>
<td>What occurs</td>
<td>What you have to consider</td>
<td>What you can do</td>
<td>Who is involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Supporting mechanisms</td>
<td>Action level</td>
<td>What occurs</td>
<td>What you have to consider</td>
<td>What you can do</td>
<td>Who is involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Key stakeholders</td>
<td>Stakeholder level</td>
<td>What occurs</td>
<td>What you have to consider</td>
<td>What you can do</td>
<td>Who is involved</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**DEF** Refers to the indirect outcomes experienced by society generally from UBC

The indirect social contribution of UBC includes:

- creates jobs and stimulates economic growth,
- increases living standards, productivity and social cohesion.

**UBC is vital in building the knowledge society**

As societies develop from farming, industrial to knowledge societies, governments are embracing the need to create a more connected relationship between government, business and HEIs with focus on UBC. A knowledge society consists of: (i) innovation, (ii) education, (iii) ICT and (iv) science & technology, to which UBC is vital.

**Validation:** Literature, expert interviews and 30 case studies show that UBC is crucial for creating a knowledge society

**ACTION:** Promote ways of measuring and recognising this contribution
1. INDIRECT IMPACTS

UBC is an engine for the development of a knowledge society

> Farming (land)
> Industrial age (labour)
> Knowledge society

Consisting of:
(1) Innovation
(2) Education,
(3) ICT
(4) Science & Technology

The indirect social contribution of UBC includes:
- creates jobs and stimulates economic growth,
- increases living standards, productivity and social cohesion.

### GP FOR GOVERNMENTS/HEIs
- Elevate UBC onto an equal footing as teaching and research
- Manage the process of turning UBC activity and outcomes into impact
- Evaluate impact for each stakeholder group involved

### GP FOR BUSINESS
Recognise that business are also part of the process of delivering benefit to society
2. DIRECT OUTCOMES

UBC reports direct positive outcomes for each of the stakeholders groups involved

Direct benefits (most highly recognised)

<table>
<thead>
<tr>
<th>HEIs</th>
<th>Academics</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving/increasing • future job prospects of students, • the relevance of research conducted within the HEI, • transfer of knowledge and technology to society • increasing third-party money</td>
<td>• Funding • Informing their teaching • Increasing scientific productivity measured in quality and quantity of articles • Accessing equipment and resources</td>
<td>• Accessing new discoveries and accessing problem-solving capabilities • Provision of future income through product and service development • Reducing R&amp;D risk and expense</td>
</tr>
</tbody>
</table>

**GP for HEIs / TTOs**
- Strategise win-win situations prior to UBC commencement
- Promote potential benefits to get people involved and committed
- Manage the process to ensure that positive outcomes are delivered for all UBC stakeholders

**GP for business**
- Be clear of your desired outcomes
- Identify the most-important outcomes for your collaboration partners
There are eight different types of UBC but are all interrelated

- Collaboration in R&D: 6.4
- Mobility of students: 6.3
- Commercialisation of R&D results: 6.0
- Lifelong learning: 5.8
- Curriculum development and delivery: 5.8
- Entrepreneurship: 5.7
- Governance: 5.2
- Mobility of academics: 4.7

**Finding:** Those types of UBC offering: (1) more direct, (2) measurable, and (3) promotable benefits are the most developed ones.

**GP for governments HEIs & TTOs**
- Recognise this broader form of UBC
- Have a general strategy for UBC combined with more specific strategies for each of the types
- Find ways to make all UBC types more direct, measurable and promotable

**GP for academics**
- To explore the different types of cooperation with your partners

**GP for business**
- Approach collaboration with HEIs more holistically (instead of in a ‘siloed’ manner)
3. UBC TYPES

Approximately 2 of every 5 academics are responsible for most of the UBC activity.

Academic UBC in Europe

- Med-high UBC: 37%
- Low UBC: 26%
- No UBC: 37%

n=6280

1 of every 3 HEIs undertake no or a low amount of UBC activity.

HEI UBC in Europe

- Med-high UBC: 66%
- Low UBC: 26%
- No UBC: 8%

n=2136
A 2-step cluster analysis shows that ‘trailblazers’ academics (high UBC) are likely to cooperate with business in all the 8 Types to a similar extent, which range from medium to high. This finding is reflected through all 3 clusters which allows us to conclude the following:

The eight types of UBC are all interrelated (they do not work in isolation)
**Influencing factors** explain the aspects that effect the extent of UBC for academics and HEIs.

**Influencing factors are:**

a) Situational factors (e.g. age, faculty, years in business, etc.)

b) Barriers
c) Drivers
d) Perceived benefits

**Validation:** Literature, expert interviews, 30 case studies, a survey pre-test and then quantitative analysis of the major study provided the validation of the importance of each of the influencing factors. Furthermore Kruskal-Wallis tests confirmed their significant influence on the extent of UBC.

**ACTION:** Consider the four different factors and their effects on UBC.
4. INFLUENCING FACTORS > Situational factors

All situational factors help to explain UBC

<table>
<thead>
<tr>
<th>Years in business</th>
<th>Extent of UBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>3.4</td>
</tr>
<tr>
<td>&gt; 0 - 2</td>
<td>3.9</td>
</tr>
<tr>
<td>&gt; 2 - 5</td>
<td>4.2</td>
</tr>
<tr>
<td>&gt; 5 - 9</td>
<td>4.4</td>
</tr>
<tr>
<td>&gt; 9 - 19</td>
<td>4.5</td>
</tr>
<tr>
<td>&gt; 19 years</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Finding: The extent of UBC is significantly higher with those academics with some experience in business.
## 4. INFLUENCING FACTORS

### Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Collaboration in R&amp;D</th>
<th>Mobility of academics</th>
<th>Mobility of students</th>
<th>Commercialisation of R&amp;D Findings</th>
<th>Curriculum development and delivery</th>
<th>Lifelong learning</th>
<th>Entrepreneurship</th>
<th>Governance</th>
<th>Total UBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>6.7</td>
<td>3.8</td>
<td>5.1</td>
<td>5.5</td>
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<td>5.4</td>
<td>4.5</td>
<td>4.4</td>
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<td>4.8</td>
<td>5.1</td>
<td>5.6</td>
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<tr>
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</tr>
<tr>
<td>Norway</td>
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### GERMANY

**Above average in**
1. Collaboration in R&D
2. Commercialisation of R&D

**Below average in**
1. Curriculum development & Delivery
2. Lifelong learning
3. Governance

**HEIs**

*Scale: 1 = No UBC; >1 - 4 = low; >4 - 7 = medium; >7 - 10 = high*
Barriers are those obstacles that restrict or inhibit the ability of the academic or HEI to engage in UBC.

Three groups of UBC barriers
Resulting from an analysis of the results, barriers can be categorised in the following groups:
I. usability of results,
II. funding barriers and
III. relationship barriers.

Barriers to UBC measured included:
‘Lack of external funding for University-Business cooperation’, ‘Lack of financial resources of the business’, ‘Business lack awareness of university research activities / offerings’, ‘The current financial crises’, ‘Lack of university funding for University-Business cooperation’, ‘Differing time horizons between university and business’, ‘The limited absorption capacity of SMEs to take on internships or projects’, ‘The need for business to have confidentiality of research results’, ‘Bureaucracy within or external to the university’, ‘Differing motivation / values between university and business’, ‘The focus on producing practical results by business’, ‘Universities lack awareness of opportunities arising from University-Business cooperation’, ‘Business fear that their knowledge will be disclosed’, ‘Limited ability of business to absorb research findings’, ‘Differing mode of communication and language between university and business’, ‘Difficulty in finding the appropriate collaboration partner’, ‘A lack of contact people with scientific knowledge within business’, and ‘No appropriate initial contact person within either the university or business’.
4. INFLUENCING FACTORS > Barriers to UBC

Lack of funding and excess of bureaucracy are the highest barriers to UBC

Most important barriers for academics

1. Bureaucracy within or external to the HEI (7.3)
2. Lack of HEI funding for UBC (6.9)
3. Lack of external funding for UBC (6.9)

Scale: 1 = No importance, -10 = high importance

Most important barriers for HEIs

1. Lack of external funding for UBC (7.0)
2. Lack of financial resources of the business (6.9)
3. Business lack awareness of HEI activities (6.9)

Finding: All European academics and HEI representatives see the same barriers to UBC no matter their extent of cooperation

GP for government and HEIs:
• Reduce (ideally remove) the main barriers related to funding (HEI) and bureaucracy (ACAD)
• TTOs to support academics with bureaucracy

GP for business
• Don’t expect something for nothing > expect to pay
• Support the university to reduce bureaucracy

… but removal of barriers does not necessarily create UBC!
Drivers are those factors that facilitate the academic or the HEI to engage in UBC.

Two groups of UBC drivers
Resulting from an analysis of the results, drivers can be categorised in the following groups:
I. Relationship drivers and
II. Outcome drivers

Drivers of UBC measured included:
4. INFLUENCING FACTORS > Drivers of UBC

Personal relationships drive UBC. It’s a people game!

Most important drivers for academics

1. Existence of mutual trust (7.4)
2. Existence of mutual commitment (7.0)
3. Having a shared goal (7.0)

Scale: 1 = No importance, - 10 = high importance

Most important drivers for HEIs

1. Existence of mutual trust (7.5)
2. Existence of mutual commitment (7.1)
3. Having a shared goal (7.1)

Finding: Those academics or HEIs perceiving higher drivers for UBC are more engaged in UBC than those perceiving low drivers for UBC

GP for governments

- Funding opportunities aimed at encouraging and supporting the commencement of relationships
- Legal changes to allow freer mobility between government and business

GP for HEIs / TTOs / business

- Support the creation and development of long-term personal relationship (partnerships)

© Davey / Galán Muros / Meerman
Benefits are the advantages that are received by the stakeholders from undertaking UBC.

**Four groups of UBC benefits for academics**

Resulting from an analysis of the results, benefits for academics can be categorised in the following groups:

(I) benefits for students,

(II) benefits for business,

(III) benefits for HEIs and

(IV) personal benefits for academics.

Benefits from UBC measured included:

Benefits for students (improving the learning experience of students, increasing skills and graduate development, improving the employability of future graduates), benefits for business (improves the performance of business), benefits for society (increasing local employment, benefitting the local industry, increasing local GDP and disposable income, creating a variety of range of social and recreational benefits, and improving regional productivity), benefits for HEIs (achieving the mission of the HEI), and personal benefits for academics (increasing the academics reputation in the field, being vital for personal research, increasing chances of promotion and employability, and improving the standing within the HEI).
4. INFLUENCING FACTORS > Perceived benefits

**Perceptions of high benefits & incentives drive UBC.**

**GP for HEIs**
- In order to encourage UBC, the right incentives for academics need to be in place
- The incentives need to be recognised by the academics

**GP for business**
- Create the right incentives for academics
- Also your own employees need benefits

**Finding:** The higher the perceived personal benefits of UBC, the higher the extent of UBC carried out
5. SUPPORTING MECHANISMS

The creation and development of supporting mechanisms are critical for UBC. These include:

1. Strategic instruments
   a. Documented e.g. vision / mission,
   b. Implementation e.g. incentives
2. Structural instruments or approaches
   a. Positions i.e. personnel
   b. Agencies i.e. units of focus
3. Operational activities
   a. Academic focused
   b. Student focused
4. Framework conditions

**Finding:** It was found that having a dedicated:
1. strategy,
2. program,
3. agency, and/or
4. responsible person
has a substantial effect on stimulating European UBC.

**Finding:** The UBC supporting mechanisms that are easier to implement (e.g. activities) are more developed than those (e.g. structures) that are more difficult (costly, time-consuming) to implement.
5. SUPPORTING MECHANISMS

The creation and development of supporting mechanisms are critical for UBC

DEVELOPMENT
The development of the mechanisms supporting UBC in Europe from the most developed to least are:
1. Operational activities (5.4),
2. Structures and approaches (5.1),
3. Strategies (4.9), and
4. Framework conditions (4.5).

Scale: 1 - 4 = low; >4 - 7 = medium; >7 - 10 = high

IMPACT
It was found that the impact of the Supporting Mechanisms on European UBC is (from the highest to lowest):
1. Strategies (58%) (especially implementation strategies)
2. Operational activities (53%),
3. Structures and approaches (52%), and
4. Framework conditions (40%).

GP for government
- Support the creation of high impact supporting mechanisms to support UBC

GP for HEIs
- A greater focus on implementation strategies is required

GP for business
- Support the creation of high impact supporting mechanisms to support UBC
## 6. STAKEHOLDERS

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<th>Stakeholder</th>
<th>Explanation</th>
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<tr>
<td>Governments</td>
<td>Includes all levels of governments ranging from regional or national to international involved in supporting and developing UBC.</td>
</tr>
</tbody>
</table>
| HEIs         | HEI representatives include:  
1. University management  
2. University professional working with business  
3. Academics (incl. professors, researchers and lecturers) |
| Business     | Business is considered in a broad sense in the study to include:  
1. Privately and publicly owned organisations,  
2. Non-government organisations,  
3. Not-for-profit organisations |
| Intermediaries | Intermediaries in UBC can be understood as those organisations not necessarily owned or managed by either the Government or HEI that facilitate UBC. These include: chambers of commerce, business associations, investor groups and regional development agencies. |

### ACTION

The development of a well-connected, proactive and supporting UBC stakeholder community is crucial for developing UBC.
6 Ecosystem Elements (and their key findings)

1. UBC is vital in creating a knowledge society
2. UBC provides direct outcomes for students, HEIs, academics and businesses
3. Those UBC types with more direct, measurable, and promotable benefits are the most developed (e.g. collaboration in R&D, mobility of students)
4a. Situational factors (e.g. age, faculty) help to explain UBC but there is little that can be implemented from these results
4b. Lack of funding and excess of bureaucracy at all levels (HEI, national, European) are the highest barriers to UBC
4c. Personal relationships drive UBC. It’s a people game!
4d. Perceptions of high personal benefits & incentives are motivators of UBC
5. The creation and development of supporting mechanisms (especially those with the highest impact) are critical for UBC
6. In the UBC ecosystem, the multiple actors need to work cooperatively and in a coordinated manner
UBC ECOSYSTEM MODEL > Detailed

1. Indirect outcomes
   - Indirect outcomes for society
     - Economic and social contribution to society generally

2. Direct outcomes
   - Direct outcomes for actors
     - Contribution to students, academics, HEIs and business

3. University-Business Cooperation types
   - Collaboration in R&D
   - Academic mobility
   - Student mobility
   - Commercialisation of R&D results
   - Curriculum development & delivery
   - Lifelong learning
   - Entrepreneurship
   - Governance

4. Influencing factors
   - Benefits
   - Drivers & Barriers
   - Situational Factors

5. Supporting mechanisms
   - Strategies
   - Structures & approaches
   - Activities
   - Framework Conditions

6. Key stakeholders
   - HEIs
     - Mngt.
     - KTPs
     - ACAD
   - Business
   - Government
     - EU
     - Nat.
     - Local
Total U-B Cooperation
A. What is the extend of Total U-B cooperation including the 8 types of cooperation?
B. What is the nature of EU U-B cooperation?

Total University-Business Cooperation

- Collaboration in R&D
- Academic mobility
- Student mobility
- Commercialisation of R&D results
- Curriculum development & delivery
- Lifelong learning
- Entrepreneurship
- Governance

Influencing factors
C. Which benefits, drivers, barriers and situational factors exist and how relevant are they?
D. What sort of influence do benefits, drivers, barriers and situational factors have on the extent of UBC (8 Types of UBC)?
E. What sort of influence do benefits, drivers, barriers and situational factors have on the mechanisms that support UBC (supporting mechanisms)?

Supporting mechanisms
F. What is the extent of development of the mechanisms that support UBC (supporting mechanisms) ?
G. What sort of influence do the UBC supporting mechanisms have on the extent of UBC?

Supporting mechanisms
Strategies, Structures & Approaches, Activities and Framework Conditions

Key Stakeholders

Analysis takes place in this direction

Benchmarking questions to allow benchmarking versus country ave. (hippo results)
UBC ECOSYSTEM > “Heat Map”

Outcomes and impacts
A. How aware are key regional, business and HEI stakeholders of the potential outcomes and impacts of UBC?

Economic development
Contribution to society generally

Extents of UBC
B. How developed are the 8 types within your HEI & where can more focus be given? Nominate strengths and weaknesses.

8 types of UBC
Collaboration in R&D
Academic mobility
Student mobility
Commercialisation of R&D results
Curriculum development & delivery
Lifelong learning
Entrepreneurship
Governance

Benefits, drivers, barriers & situational factors
C. Of these influencing factors, where do you think your university has strengths and weaknesses?
D. Which of the factors are having the biggest affect on your efforts in increase UBC?

Supporting mechanisms
E. Are there particular types of supporting mechanisms that are more developed than others?
G. In terms of your UBC efforts, are there particular strengths or weaknesses of stakeholders that need consideration?

Analysis takes place in this direction

Outcomes
Contribution to the three missions of a HEI

Benefits
Drivers
Barriers
Situational Factors

Analysis takes place in this direction

1. Strategies
2. Structures & approaches
3. Activities
4. Framework Conditions

HEIs
Mngt. KTPs ACAD

Business
EU Nat. Local

Government

Print and analyse your UBC ecosystem
UBC ECOSYSTEM CREATORS

Creators
Todd Davey, Victoria Galan Muros, Arno Meerman, Thomas Baaken, Thorsten Kliewe

Co-creators
30 good practice case studies – 6 key insights

1. The type and method of cooperation needs to fit to regional characteristics to maximise its success:
   - Fitting to the region’s strengths
   - Fitting to the region’s environmental framework and regional limitations

2. Multiple UBC actors need to come together in order to truly deliver new and sustainable value to a region

3. The extent of UBC development differs among the different regions in Europe, between HEI types and HEI sizes

4. Good practice can be transferred

5. A longer-term commitment to UBC is required

6. There is a movement to longer-term, sustainable funding models

http://www.ub-cooperation.eu/index/casestudy
Using the State of European University-Business Cooperation (HIPPO) study results, decision makers, managers and practitioners involved in UBC can benefit from receiving:

1. a benchmark in terms of UBC of your organisation, institution, sector, region or country against others.
2. a clear picture of progress in efforts to increase UBC,
3. proactive areas of focus for increasing UBC,
4. the required information to advance UBC within their region or institution

Provided to your organisation in the form of a report and/or presentation.

A state of the UBC report dedicated to your organisation can assist with developing greater financial and non financial benefits from UBC.

Please contact davey@apprimo.com for more information.