If you are involved

in any form of university-business cooperation (UBC) you need to understand the

‘big picture’
Managing University-Business Cooperation

The UBC Ecosystem Framework

A framework for understanding and managing the elements affecting University-Business Cooperation (UBC)
Managing University-Business Cooperation (UBC)

The UBC Ecosystem Framework

Framework created by
Dr. Todd Davey and Dr. Victoria Galan Muros

Framework validation partners
Science-to-Business Marketing Research Centre, UIIN, apprimo UG, State of European UBC

Co-created by
118 practitioners validating the framework in their work.
Based upon the **State of European University-Business Cooperation (UBC) study** for the European Commission in 2010-11

The largest European study into UBC completed with over 6,250 responses and 30 good practice cases from across Europe.

New study currently undertaken (2016-2017). More information in:

[www.ub-cooperation.eu/](http://www.ub-cooperation.eu/)
Currently UBC:
• Is a complex topic
• Is an abstract topic
• lacks common definitions/concepts
• lacks evidence

... the UBC Ecosystem Framework provides:
• Simplification of the reality
• Concrete elements and their relationships
• Common definitions/concepts
• Structure to analyse your environment

...in order to support strategic decision making process and undertake evidence-based management and policy
There is an entire **UBC ecosystem** to consider

All types of direct and indirect, personal and non-personal interactions between HEIs and business for reciprocal and mutual benefit.
Let’s go through the elements of the UBC Ecosystem
Why is cooperation between universities and business (UBC) important for society and stakeholders?

Results from UBC
It has been found in practice as well as literature that UBC is crucial for contributing to the creation of a knowledge society.

UBC impact society in the medium and long terms, with increase of:

- Jobs,
- Human capital,
- Productivity,
- Competitiveness,
- Economic growth,
- Living standards,
- Social cohesion.
OUTPUTS/OUTCOMES

HEIs

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

Academics

• Source of funding
• Informing their teaching
• Increasing scientific productivity measured in quality / quantity of articles
• Accessing equipment and resources

Business

• Accessing new discoveries
• Accessing problem-solving capabilities
• Provision of future income through product and service development
• Reducing R&D risk and expense

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Self-evaluation

Results

1

Name the primary outcomes of UBC for stakeholders

Name the primary objectives you have in your job
In which ways can universities and business cooperate?

UBC Activities
UBC ACTIVITIES

UBC is more than the creation of patents, licences and contract research.

There are eight different ways in which HEIs and business cooperate

1. Research
   • Collaboration in research and development (R&D)
   • Mobility of academics

2. Education
   • Mobility of students
   • Curriculum development and delivery
   • Lifelong learning (LLL)

3. Valorisation
   • Commercialisation of R&D findings
   • Entrepreneurship

4. Management
   • Governance
Self-evaluation

UBC Activities

State the level of development of each of these UBC activities: none, low, medium, high (left)

...and the person/unit/office in charge (right)
Which factors inhibit and promote engagement in UBC activities?

Circumstances that help to explain this:

a) Barriers
b) Drivers
**UBC BARRIERS**

*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’.
Which factors inhibit and promote engagement in UBC activities?

Circumstances that help to explain this:

a) Barriers
b) Drivers
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. Accessibility drivers

Drivers of UBC measured included:
'Commercial orientation of the university', 'Possibility to access funding/financial resources for working with business', 'Flexibility of business partners', 'Interest of business in accessing scientific knowledge', 'Access to business-sector research and development facilities', 'Employment by business of university staff and students', 'Short geographical distance of the university from the business partner', 'Existence of mutual trust', 'Existence of mutual commitment', 'Having a shared goal', 'Understanding common interest by different stakeholders (e.g. universities, business, individuals, students)', 'Prior relation with the business partner', and 'Cooperation as effective means to address societal challenges and issues'.
Self-evaluation & discussion

UBC Barriers and Drivers

3

Identify the top 3 drivers and drivers

Identify 3 actions to address them
How can UBC be supported?

Supporting mechanisms for UBC
1. Strategies
2. Structures
3. Activities, and
4. Policies
UBC STRATEGIES

UBC Process

UBC Supporting mechanisms
- Policies
- Structures
- Strategies
- Activities

UBC Circumstances

UBC Context

Stakeholders

Documented (Paper) strategies
- A top-level management committed to University-Business cooperation,
- A documented mission / vision embracing University-Business cooperation,
- A strategy for University-Business cooperation,
- The internal promotion of University-Business cooperation,
- The external promotion of University-Business cooperation.

Implementation and motivation strategies
- The dedication of resources (inc. funding) to support University-Business cooperation,
- The provision of incentives for academics to encourage University-Business cooperation,
- The inclusion of ‘cooperation with business’ as part of the assessment of work performance for academics.

Have the highest impact
UBC STRUCTURES

Roles-based approaches in UBC

- The presence of academics on company boards,
- The presence of business people on the HEI board,
- Board member or vice rector positions for UBC,
- The practise of recruiting industry professionals into the knowledge transfer area,
- An alumni network.

Internal/External agencies focused on UBC

- Career offices within the HEI,
- Agencies external to the HEI dedicated to UBC,
- Agencies (internal) within the HEI dedicated to UBC,
- Incubators for the development of new business.
UBC ACTIVITIES

UBC Process

Internally focused education and workshops focused on academics
- Workshops, information sessions and forums for University-Business collaboration targeting academics,
- Entrepreneurship education offered to academics.

Internally focused education and workshops focused on students
- Entrepreneurship education offered to students.

UBC Supporting mechanisms
- Policies
- Structures
- Strategies
- Activities

UBC Circumstances

UBC Context

Stakeholders

Externally focused networking, promotional and project activities
- Networking sessions or meetings for academics to meet people from business,
- The featuring of University-Business cooperation prominently on the HEI's website,
- Collaboration activities facilitating student interaction with business
Economic policies

Includes:
- Funding
- Grants
- Subsidies
- Stimulus packages
- Infrastructure
- Taxation concessions
- Public seed capital

Regulative policies

Includes:
- Laws
- Regulations

Other policy mechanisms

Includes:
- Governance
- government programs
- education and training programs
- public promotion programmes
- hiring policies
State the main three supporting mechanisms of each type in place in your organisation and those that you think you could/should develop in the future.
How does the context in which UBC take place affect the UBC engagement?
Context plays a role in influencing the extent of UBC Age

Years working in the HEI Gender

Country

Years working in business

Faculty

HEI Size

HEI Type

Presence of Industry

Type of Industry

Political, Economic, Social, Technological and Legal Environment

UBC Process

Input Activity Impact Outcome

UBC Supporting mechanisms

UBC Circumstances

UBC Context

Individual Organisational Environmental

STRIATIONAL FACTORS

www.ub-cooperation.eu
Which are the contextual factors that have a greatest influence in the your UBC engagement?
Which stakeholder groups participate in UBC and how?
STAKEHOLDERS

### Stakeholder Explanation

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governments</strong></td>
<td>Includes all levels of governments ranging from regional or national to international involved in supporting and developing UBC.</td>
</tr>
<tr>
<td><strong>HEIs</strong></td>
<td>HEI representatives include: 1. University management 2. University professional working with business 3. Academics (incl. professors, researchers and lecturers)</td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Intermediaries</strong></td>
<td>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. The development of a well-connected, proactive and supporting UBC stakeholder community is crucial for developing UBC.</td>
</tr>
</tbody>
</table>
Which are main UBC stakeholders for you?

Which are their interest and how much influence they have?
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. Perceptions of high personal **benefits & incentives** are motivators of UBC
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. Lack of funding and excess of bureaucracy at all levels (HEI, national, European) are the highest **barriers to UBC**
4b. Personal relationships **drive** UBC. It’s a people game!
5. **Situational factors** (e.g. age, faculty) help to explain UBC but there is little that can be implemented from these results
6. The creation and development of **supporting mechanisms** (especially those with the highest impact) are critical for UBC
7. In the UBC ecosystem, the **multiple actors need to work cooperatively** and in a coordinated manner
## Actions for stakeholders

<table>
<thead>
<tr>
<th>HEIs Management</th>
<th>Academics</th>
<th>Business</th>
<th>Policy makers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create ‘implementation strategies’</td>
<td>1. Seek opportunities to meet relevant contacts within business</td>
<td>1. Identify and meet relevant contacts within academia</td>
<td>1. Funding is working in removing <em>barriers</em> to UBC (keep doing it!).</td>
</tr>
<tr>
<td>2. Reduce bureaucracy</td>
<td>2. Partner with business in research projects</td>
<td>2. Seek to better understand the motivations of academics and HEIs</td>
<td>2. Programmes funded that provide opportunities for relationship development between academics and business</td>
</tr>
<tr>
<td>3. More focus on relationship development</td>
<td>3. Invite business to collaborate in curriculum development and delivery</td>
<td>3. Emply those who have worked within academia to liaise with academics</td>
<td>3. Programmes funded that support a dedicated programme, contact person or agency for UBC (<em>structure</em>) with HEIs</td>
</tr>
<tr>
<td>4. Bonus: Promote the benefits of UBC (monetary and non-monetary)</td>
<td></td>
<td></td>
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</tbody>
</table>
Total U-B Cooperation
A. What is the extent 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
Influencing factors

NB. Relationships scientifically tested using the hippo data are marked in green (a factor's relationship with the extent of UBC is proven) and red (a factor relationship on the extent of UBC is not proven).
UBC ECOSYSTEM > “Heat Map” for Finland

Outcomes
Contribution to the three missions of a HEI

Economic development
Contribution to society generally

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
Esp. implementation strategies

Drivers
Esp. focus on academics

Barriers
Bureaucracy!

Situational Factors

Strategies

Structures & approaches

Activities

Policy Conditions

HEIs
HEs Mngt. KTPs ACAD

Business
EU Nat. Local

Government

Note: Negative factor / result that can hinder the process. Needs immediate attention to develop UBC.

Factor / result that could hinder or drive the process. Needs consideration to develop UBC.

Positive results/ factor that can facilitate the process.

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## UBC ECOSYSTEM ASSESSMENT > VIETNAM

### University-Business Cooperation types
The extent of development of UBC types in four different groups

<table>
<thead>
<tr>
<th>University</th>
<th>Business</th>
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<tbody>
<tr>
<td>HEI Managers</td>
<td>Academics</td>
</tr>
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</table>

**HEI managers** & **academics** perceive UBC in education to be the most developed area of UBC.

**HEI managers** & **academics** perceive UBC in research to be moderate but a key area for development.

**HEI managers** & **academics** perceive UBC in KT to be the least developed area of UBC.

**HEI managers** & **academics** perceive UBC in management to be moderately developed.

### Influencing factors
The factors that have an influence over the success of your actions in stimulating UBC and include: benefits of UBC, drivers and barriers to UBC, situational factors affecting UBC

<table>
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**HEI Managers** perceive that having sufficient worktime allocated for UBC activities as by far the biggest barrier to UBC.

**HEI managers** and **academics** agree that relationships drive UBC.

### Outcomes
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**HEI managers** perceive high outcomes for the HEI.

**Academics** perceive they get the least amount of benefits from UBC.

### Conditions for UBC

### Supporting mechanisms
The actions that can be taken by stakeholders to support UBC and include: policies, strategies, structures and approaches and activities

<table>
<thead>
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<td>Strategies</td>
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<td>Structures &amp; approaches</td>
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<tr>
<td>Activities</td>
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**Policies** are perceived to be moderately developed however are the lowest developed mechanisms.

**UBC Strategies** are moderately developed with improvement in resource dedication and incentives necessary.

**UBC Structures & approaches** are moderately developed, with personnel and dedicated offices lacking.

The easiest and highest developed UBC mechanism are **Activities**, which are moderately developed.

### Stakeholders
The actors involved in supporting UBC

<table>
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<th>HEIs Mngt.</th>
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<th>EU</th>
<th>Nat.</th>
<th>Local</th>
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Source: Davey & Galan Muros (2014) UBC Development in Vietnam
There is an entire UBC ecosystem to consider. All types of direct and indirect, personal and non-personal interactions between HEIs and business for reciprocal and mutual benefit.
Creators | Todd Davey, Victoria Galan Muros, Arno Meerman
---|---
Co-creators | Thomas Baaken, Thorsten Kliewe, Rebecca Allinson, Mikko Korpela, Mikko Korpela, Tony Boccanfuso, Keith Marmer, Eugenio J. Reyes-Guzmán, Toni Pienonen, Kathryn Anderson
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 us for more information.
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