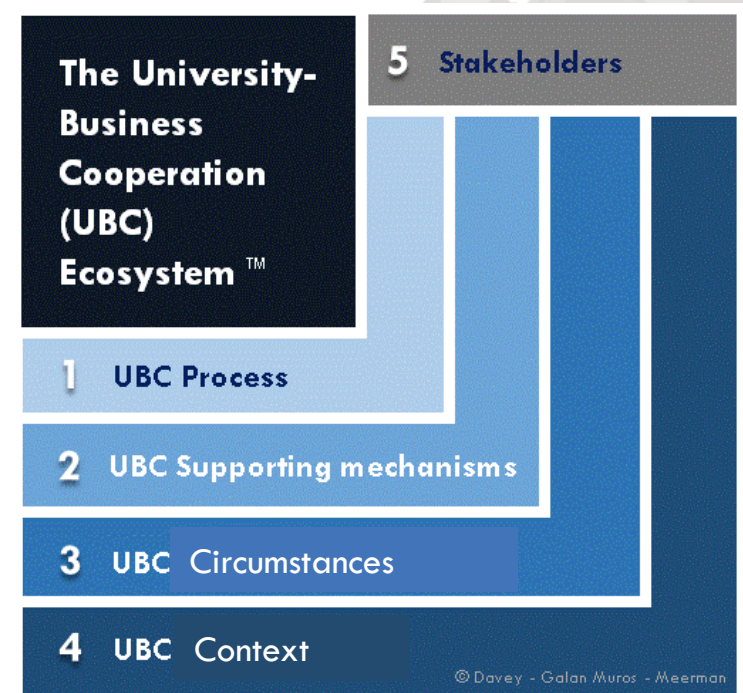


If you are involved
in any form of
university-business cooperation (UBC)
you need to understand the
'big picture'

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

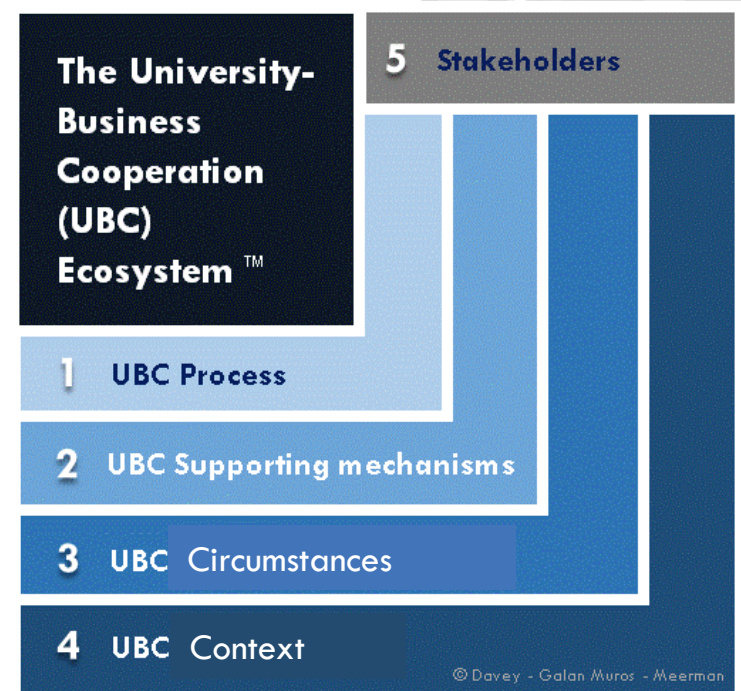
Dr. Todd Davey and Dr. Victoria Galan Muros

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.



ORIGIN OF THE FRAMEWORK

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 practise cases from across Europe.

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

www.ub-cooperation.eu/



WHY THIS FRAMEWORK?

Currently UBC:

- Is a complex topic
- Is an abstract topic
- lacks common definitions/concepts
- lacks evidence

... the UBC Ecosystem Framework provides:

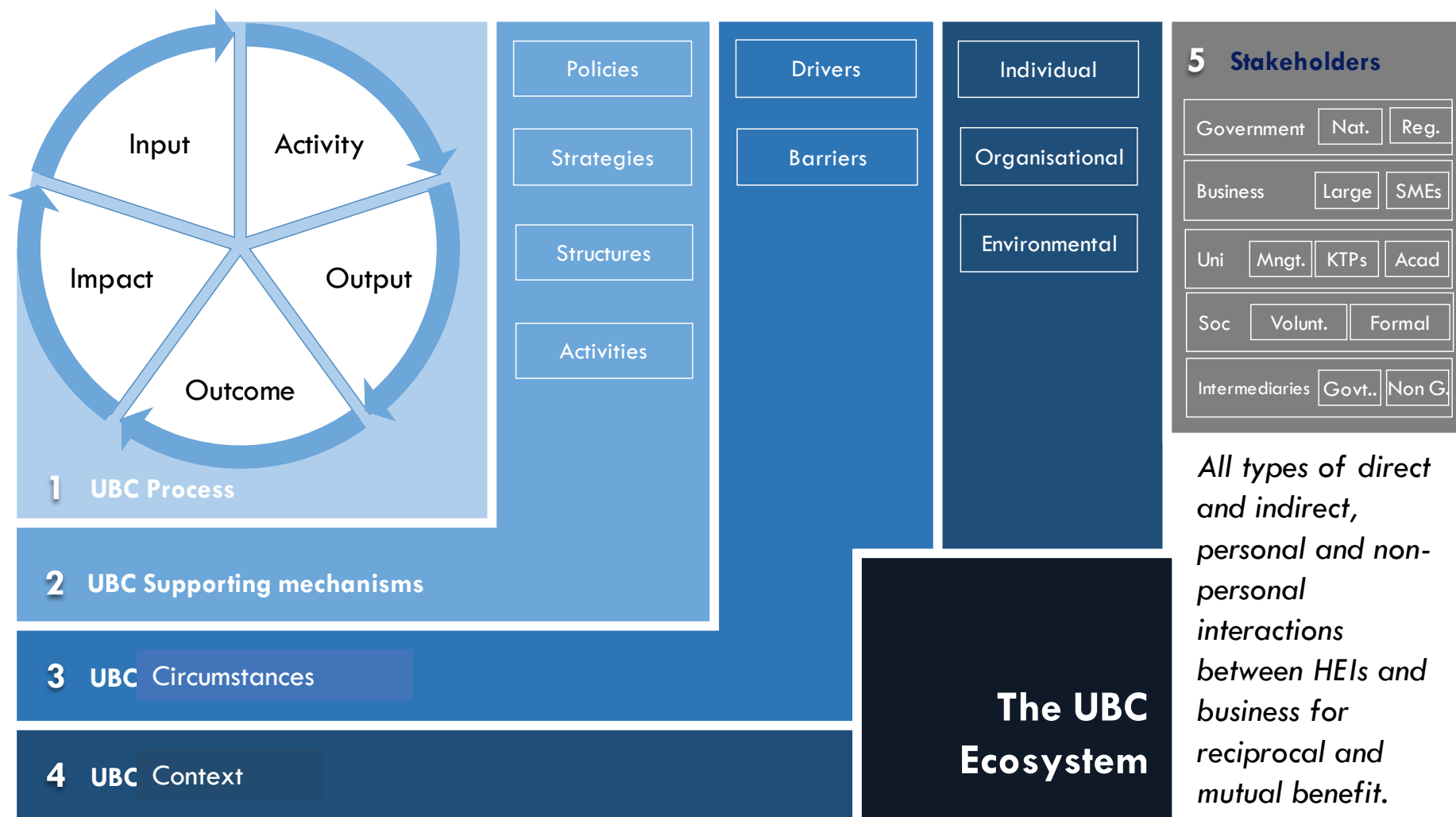
- Simplification of the reality
- Concrete elements and their relationships
- Common definitions/concepts
- Structure to analyse your environment

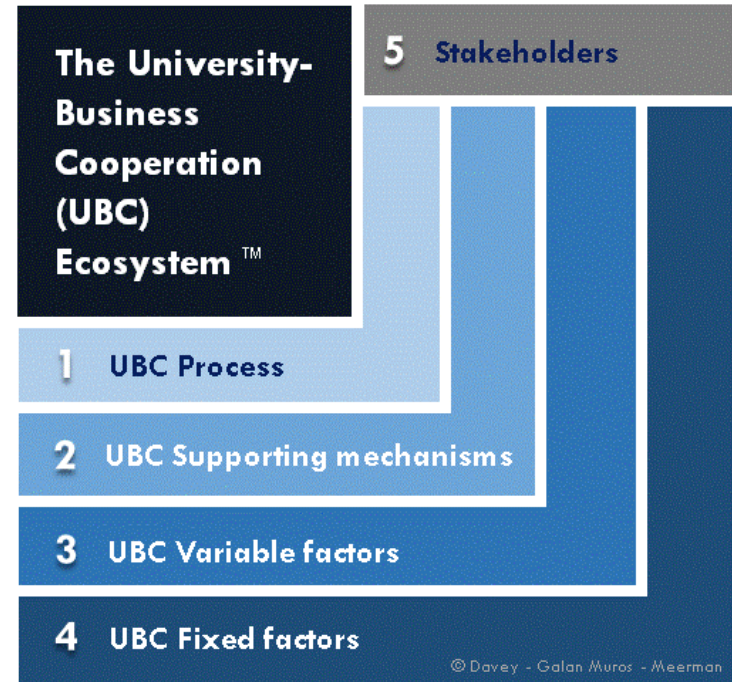
...in order to support strategic decision making process and undertake evidence-based management and policy



UBC ECOSYSTEM FRAMEWORK

There is an entire *UBC ecosystem* to consider





Let's go through the
elements

of the UBC Ecosystem

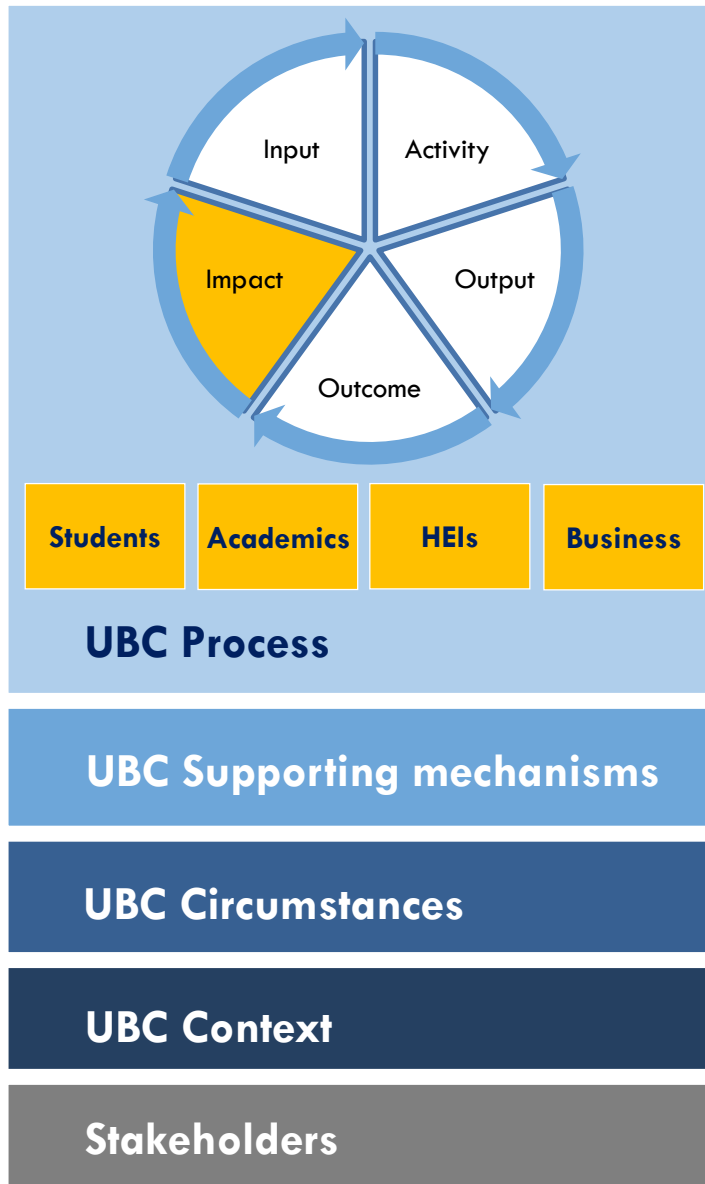


**Why is cooperation
between universities
and business (UBC)
important for society
and stakeholders?**

Results from UBC

1

IMPACT



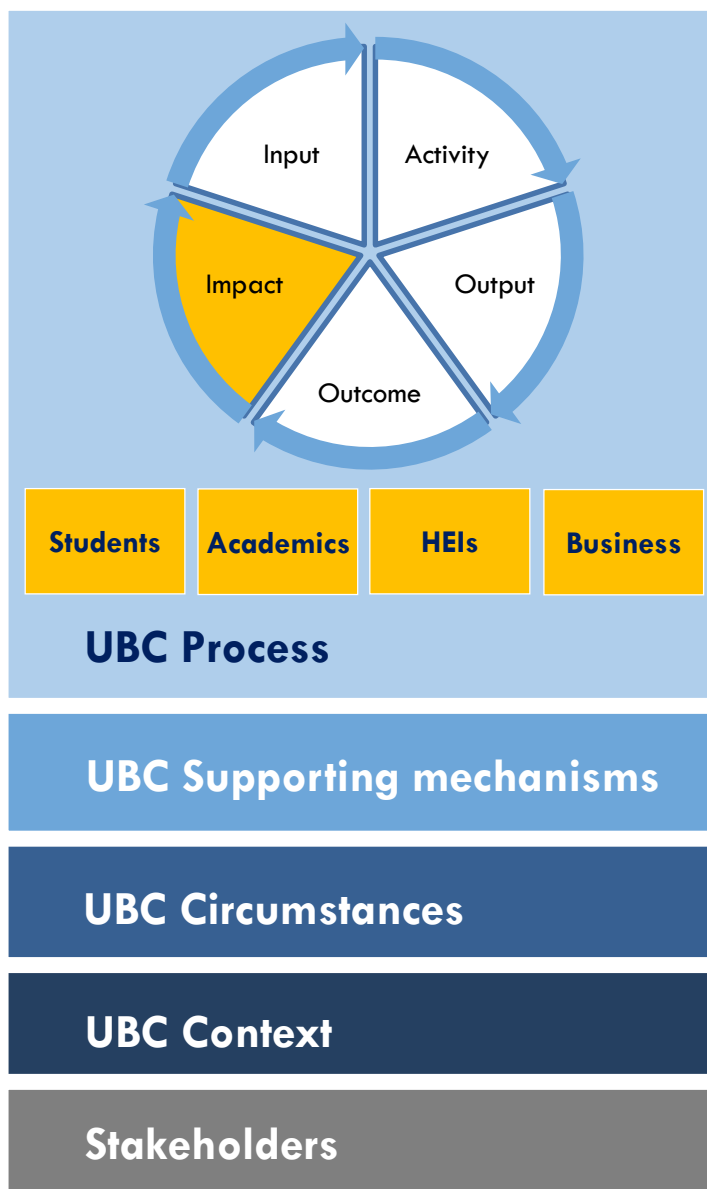
It has been found in practise as well as literature that UBC is crucial for contributing to the creation of a knowledge society

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

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

Measurement?

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

Self-evaluation

Results

1

Name the primary outcomes of UBC for stakeholders

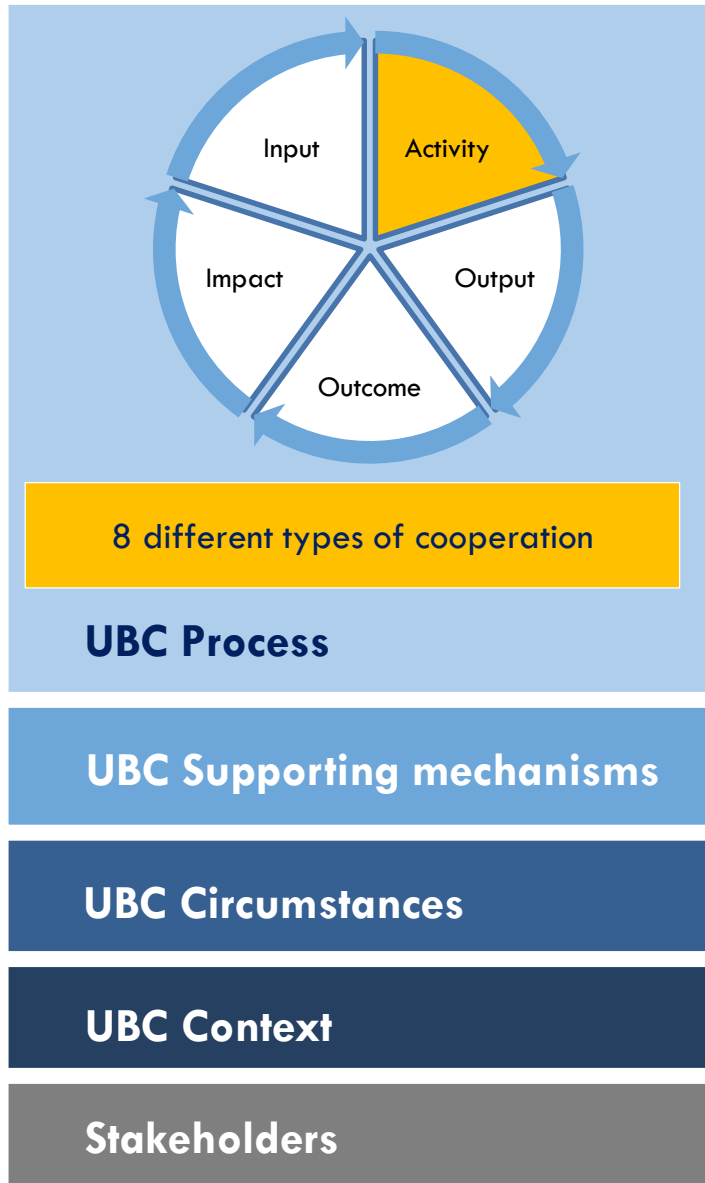
Name the primary objectives you have in your job



**In which ways can
universities and
business
cooperate?**

UBC Activities

2



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

UBC Activities

2

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

...and the person/unit/office in charge (right)



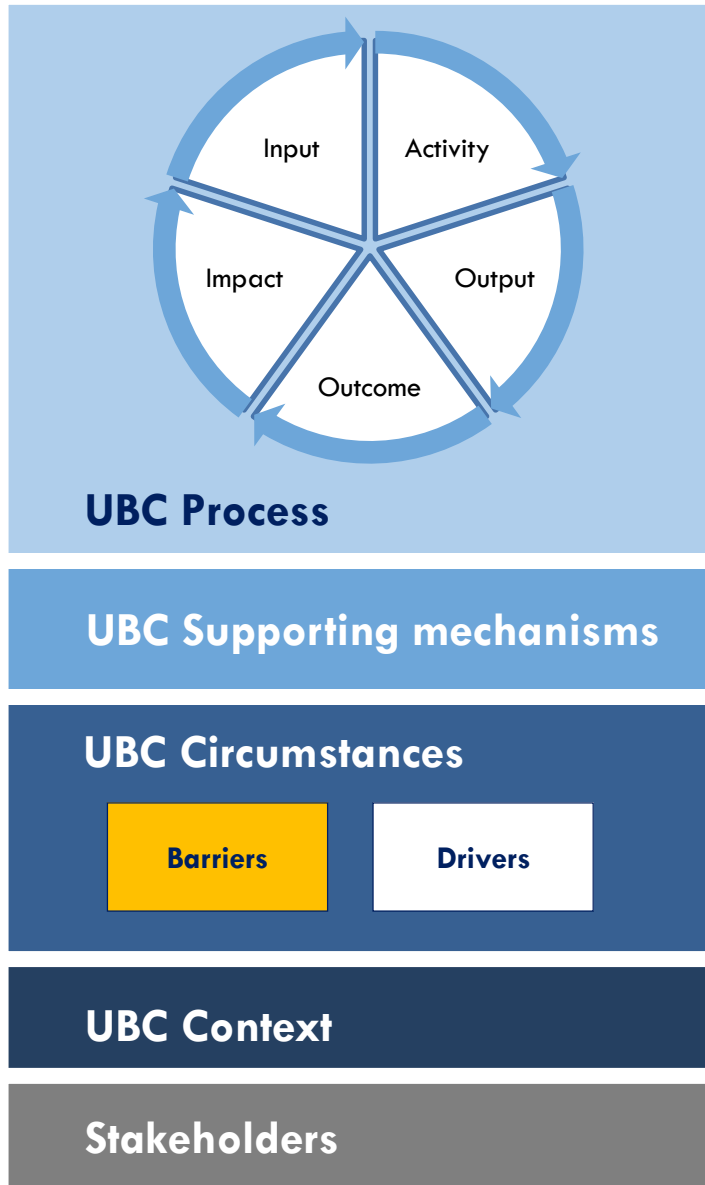
Which factors inhibit and promote engagement in UBC activities?

Circumstances that help to explain this:

- a) Barriers
- b) Drivers

3a

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'.

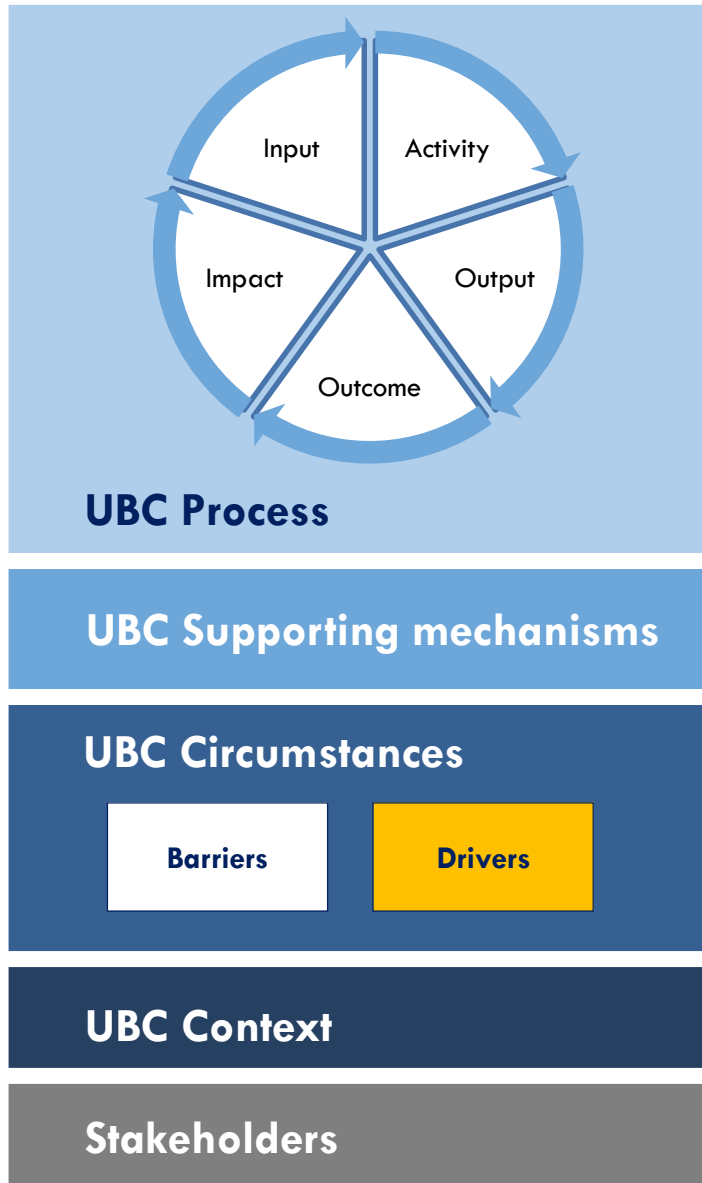


Which factors inhibit and promote engagement in UBC activities?

Circumstances that help to explain this:

- a) Barriers
- b) Drivers

3b



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. Accesibility 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'.

UBC Barriers and Drivers

3

Identify the top 3 drivers
and drivers

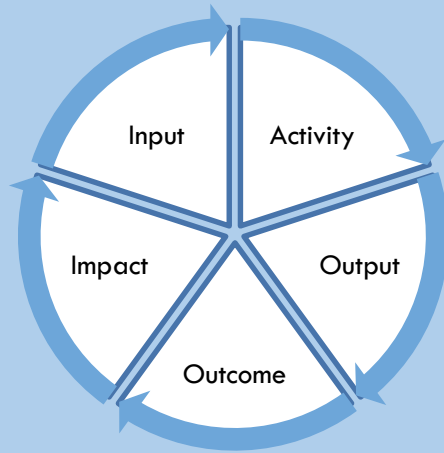
Identify 3 actions to
address them

How can UBC be supported?

Supporting mechanisms for UBC

1. Strategies
2. Structures
3. Activities, and
4. Policies

4



UBC Process

UBC Supporting mechanisms

Policies

Structures

Strategies

Activities

UBC Circumstances

UBC Context

Stakeholders

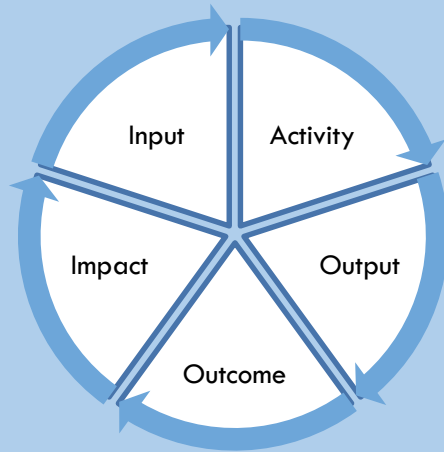
Documented (Paper) strategies

- 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 Process

UBC Supporting mechanisms

Policies

Structures

Strategies

Activities

UBC Circumstances

UBC Context

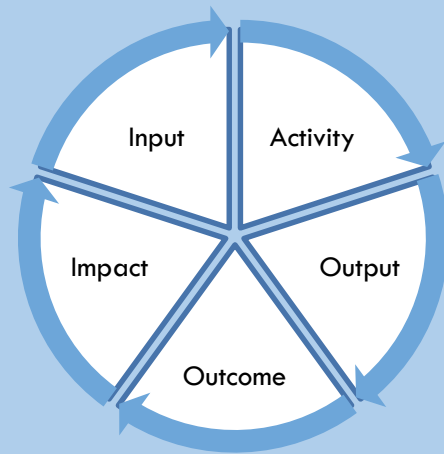
Stakeholders

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 Process

UBC Supporting mechanisms

Policies

Structures

Strategies

Activities

UBC Circumstances

UBC Context

Stakeholders

Internally focused education and workshops focused on academics

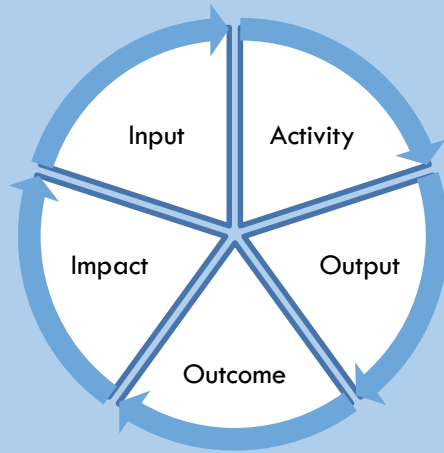
- Workshops, information sessions and forums for University-Business collaboration targeting academics,
- Entrepreneurship education offered to academics.

Internally focused education and workshops focused on students

- Entrepreneurship education offered to students.

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,
- Collaboration activities facilitating academics interaction with business.



UBC Process

UBC Supporting mechanisms

Policies

Structures

Strategies

Activities

UBC Circumstances

UBC Context

Stakeholders

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

Supporting Mechanisms

4

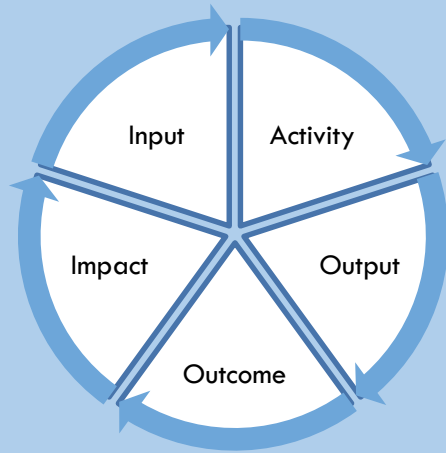
State the main three supporting mechanisms of each type in place in your organisation and those that you think you could/should develop in the future



How does the context in which UBC take place affect the UBC engagement?

UBC Context

5



UBC Process

UBC Supporting mechanisms

UBC Circumstances

UBC Context

Individual

Organisational

Environmental

Stakeholders

Context plays a role in influencing the extent of UBC

Years working in the HEI

Age

Gender

Country

Years working in

business

The type of HEI they work for

Faculty

HEI Size

HEI Type

Presence of Industry

Type of Industry

Political, Economic, Social, Technological and Legal Environment

UBC Context

5

Which are the contextual factors that have a greatest influence in the your UBC engagement?

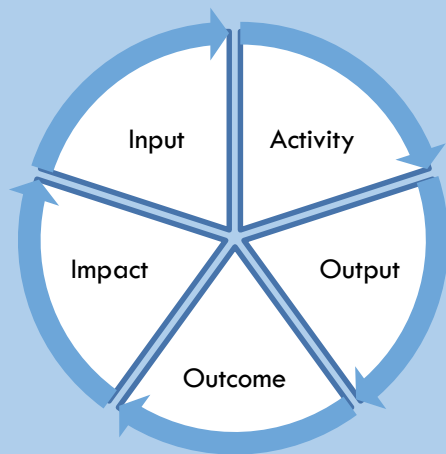


Which stakeholder groups participate in UBC and how?

UBC Stakeholders

6

STAKEHOLDERS



UBC Process

UBC Supporting mechanisms

UBC Circumstances

UBC Context

Stakeholders

University

Government

Society

Business

Intermediaries

Stakeholder	Explanation
Governments	Includes all levels of governments ranging from regional or national to international involved in supporting and developing UBC
HEIs	HEI representatives include: <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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.

The development of a well-connected, proactive and supporting UBC stakeholder community is crucial for developing UBC

UBC Stakeholders

6

Which are main UBC stakeholders for you?

Which are their interest and how much influence they have?

SUMMARY OF ECOSYSTEM ELEMENTS

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

Actions for stakeholders

HEIs Management	Academics	Business	Policy makers
<ol style="list-style-type: none">1. <u>Create 'implementation strategies'</u>2. <u>Reduce bureaucracy</u>3. More <u>focus on relationship development</u>4. Bonus: <u>Promote the benefits of UBC</u> (monetary and non-monetary)	<ol style="list-style-type: none">1. <u>Seek opportunities to meet relevant contacts within business</u>2. <u>Partner with business in research projects</u>3. Invite <u>business to collaborate in curriculum development and delivery</u>	<ol style="list-style-type: none">1. <u>Identify and meet relevant contacts within academia</u>2. Seek to <u>better understand the motivations of academics</u> and HEIs3. <u>Emply those who have worked within academia</u> to liasie with academics	<ol style="list-style-type: none">1. <u>Funding is working in removing barriers to UBC</u> (keep doing it!).2. Programmes funded that <u>provide opportunities for relationship development</u> between academics and business3. Programmes funded that support a <u>dedicated programme, contact person or agency</u> for UBC (structure) with HEIs

UBC ECOSYSTEM > Benchmarking

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?

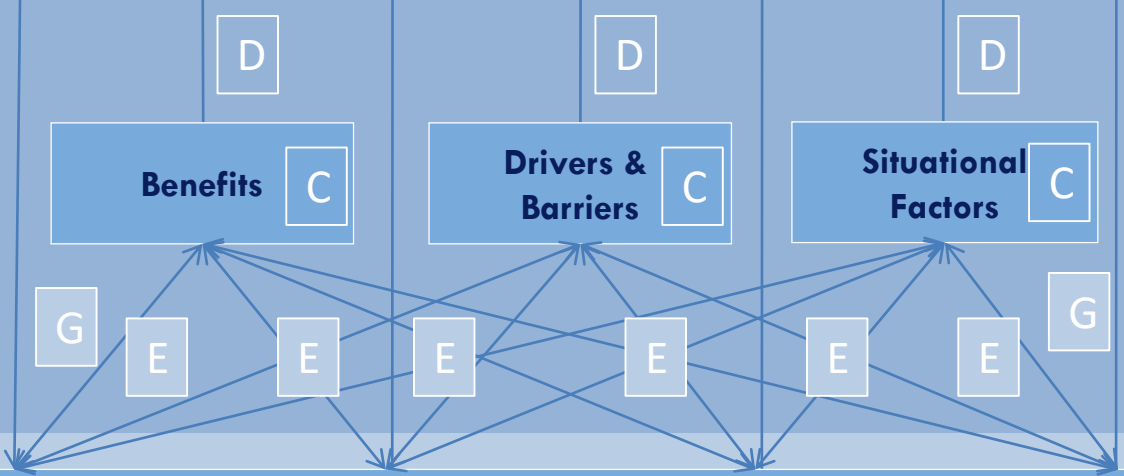


Influencing factors

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?



Analysis takes place in this direction

UBC ECOSYSTEM > Relationships explained

3 University-Business Cooperation types

University-Business Cooperation



4 Influencing factors

NB. Relationships scientifically tested using the hippo data are marked in green (a factors relationship with the extent of UBC is proven) and red (a factor relationship on the extent of UBC is not proven)



5 Supporting mechanisms

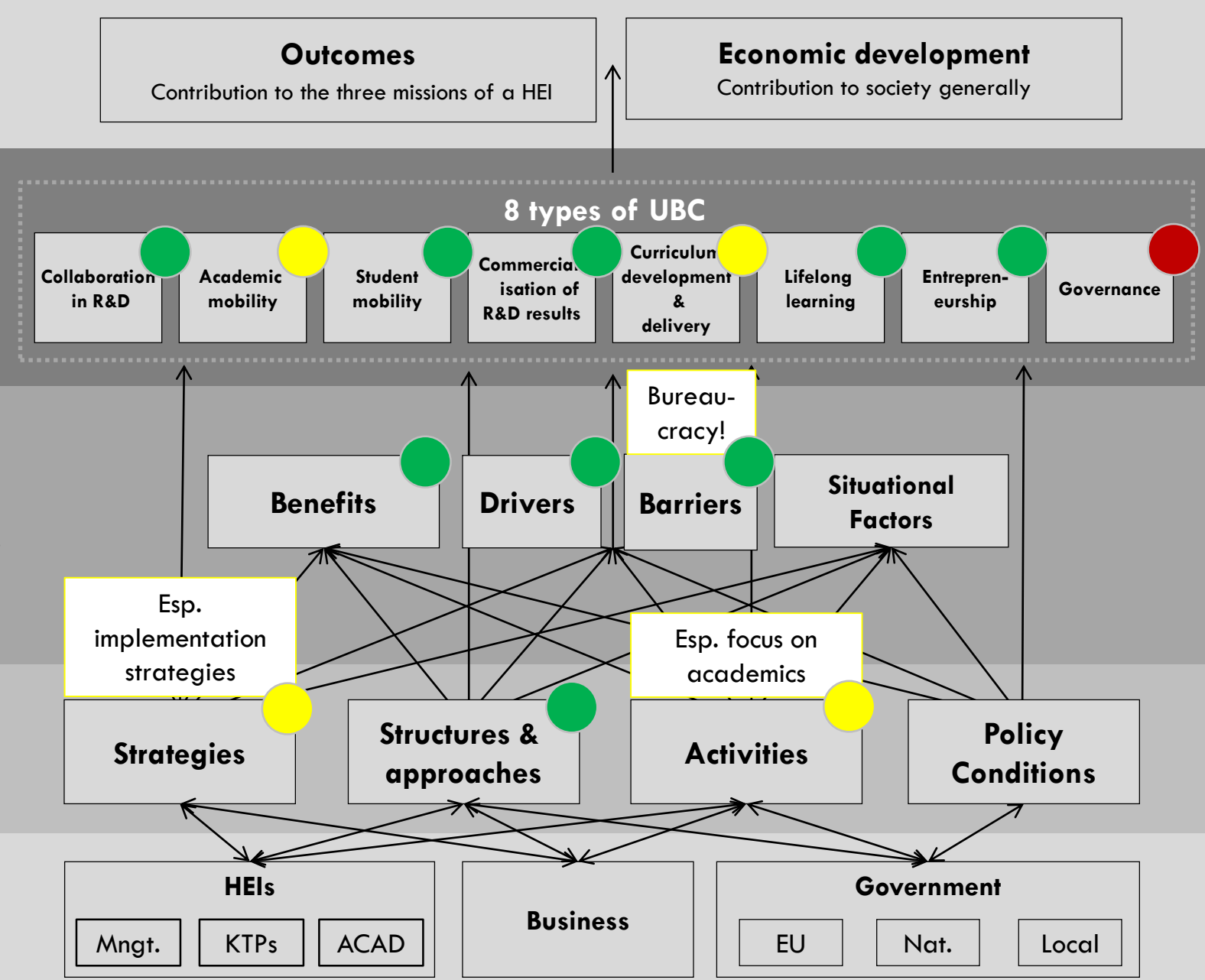


UBC ECOSYSTEM > "Heat Map" for Finland

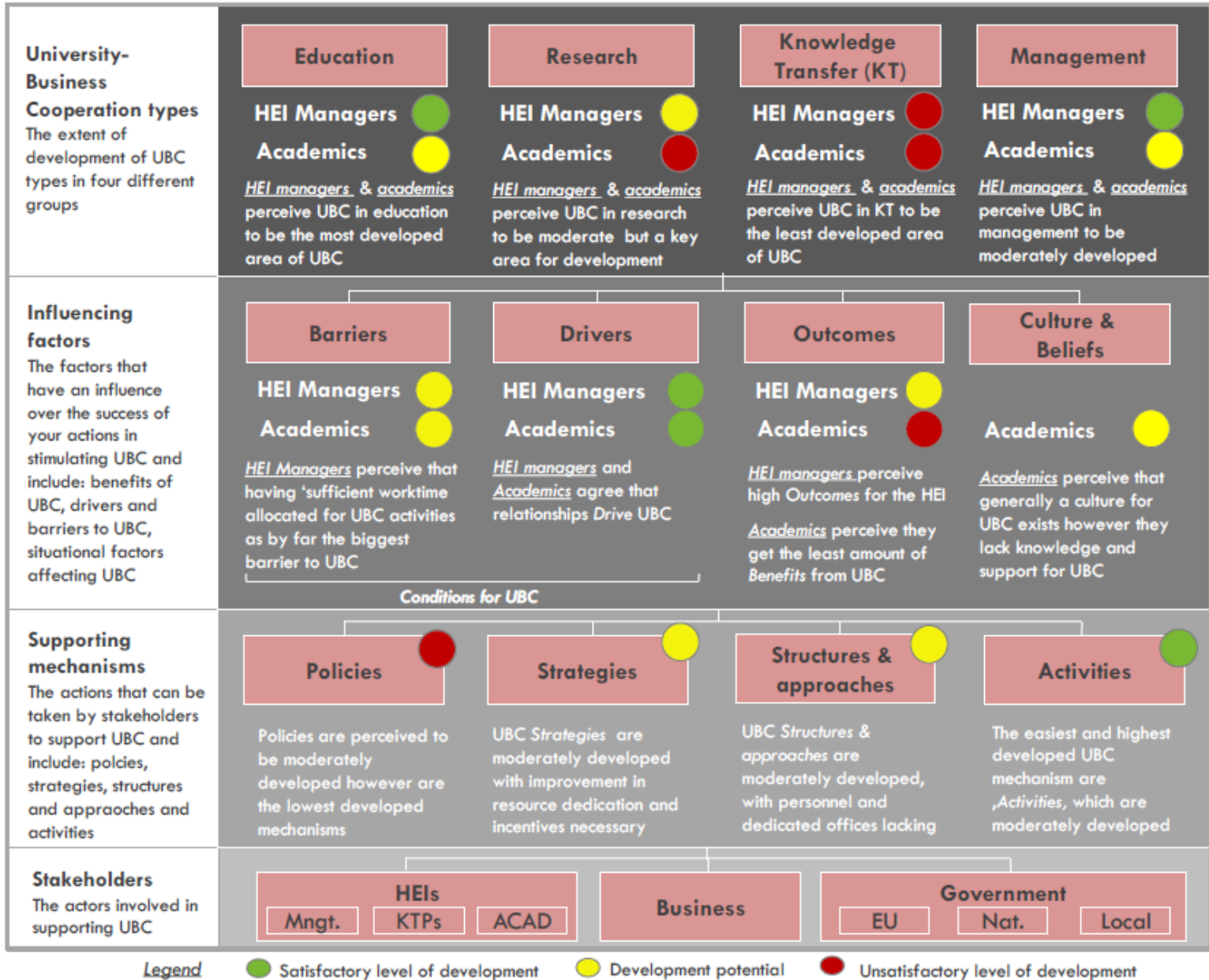
● **Negative factor / result** that can hinder the process. Needs immediate attention to develop UBC

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

● **Positive results/ factor** that can facilitate the process



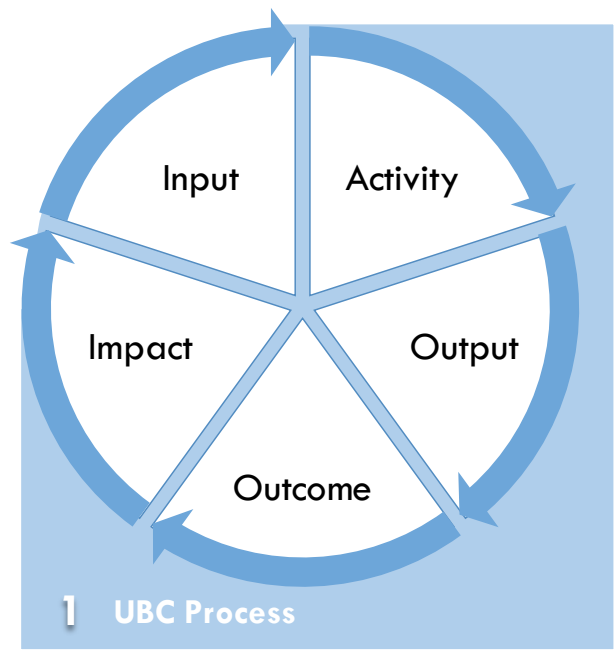
UBC ECOSYSTEM ASSESSMENT > VIETNAM



Source: Davey & Galan Muros (2014) UBC Development in Vietnam

UBC ECOSYSTEM FRAMEWORK

UBC ecosystem



1 UBC Process

- Policies
- Strategies
- Structures
- Activities

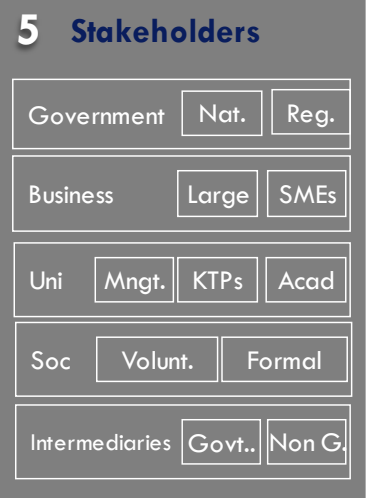
- Drivers
- Barriers

- Individual
- Organisational
- Environmental

2 UBC Supporting mechanisms

3 UBC Circumstances

4 UBC Context



The UBC Ecosystem

All types of direct and indirect, personal and non-personal interactions between HEIs and business for reciprocal and mutual benefit.

UBC ECOSYSTEM CREATORS

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Co-creators Thomas Baaken, Thorsten Kliewe, Rebecca Allinson, Mikko Korpela, Mikko Korpela, Tony Boccanfuso, Keith Marmer, Eugenio J. Reyes-Guzmán, Toni Pienonen, Kathryn Anderson

Validator community

John Murphy, Guido Giebens, Richard Deiss, Peter Baur, Juliet Edwards, Patricia De Smet, Marie-Anne Persons, Ricardo Ferreira, Kamila Partyka, Lisa Wears, Gillian McFazean, Suzanne Emmett, Pat Frain, Tim Creedon, Niels Olesen, Iván Rodríguez Roselló, Marja-Liisa Neuvonen-Rauhala, John Murphy, Lidia Borrell-Damian, Cédric Höllmüller, Diane Filip, Sabine Ohse, Wojciech Wodo, Jørgen Staunstrup, Jorge Quesada Araya, Ainurul Rosli, Maria Swartz, Dorothee Zerwas, Carlos Ignacio, Alvarado Ulloa, Marco Antonio Anderson Espinoza, José Luis Antón de la Concha, Edward Araya Rodríguez, Ana Cecilia Barrantes Ramírez, Luis Agustín Cárdenas Franco, Omar Castillo, Marcelino Antonio Castro Baltodano, Marianela Cortés, Ricardo Alberto Gómez Flores, Rogelio González Quirós, Jesús Alberto Hernández Gómez, Maricela Hidalgo Montaña, Maribel Jiménez Montero, Sergio Madrigal Carballo, Karla Miranda Benavides, David Leslie Rabling Conde, Eugenio J. Reyes-Guzmán, Rosario Valencia Castillo, Gerardo Javier Vilet Espinosa, Frans Jonkman, Maija Harkonen, David Romero, Ardalan Haghighi Talab, Conny Hökfors, Heikki Malinen, David Allen, Javier Quintana, Byeong-Kyu Lee, Won-Joon Choi, Diane Filip, Sabine Ohse, Wojciech Wodo, Jørgen Staunstrup, Jorge Quesada Araya, Ainurul Rosli, Maria Swartz, Dorothee Zerwas, Frans Jonkman, Maija Harkonen, David Romero, Ardalan Haghighi Talab, Conny Hökfors, Heikki Malinen, David Allen, Javier Quintana, Byeong-Kyu Lee, Won-Joon Choi, Daniela Tyson, Dr Don McMaster, Dr Wayne Harvey, Steven Clarke, Craig Fowler, Glen Wheatley, Rod Nankivell, Masako Amemiya, Stephanie Agius, Philipp Dautel, Michael Diletto, Philip Taylor, David Viola, Marylene Vilorio-Viola, Roxanne Jansen, James Hutchin, Lisa McDonald, Allan O'Connor, James Andrew, Lisa Barrie, Carolin Plewa, Clive Winters, Peter van der Sijde, Tomasz Kusio, Silvia Rodríguez Sedano, Friederike von Hagen, Nisha Korff, David Serbin.

BENCHMARK

...universities in your region

...your university!



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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